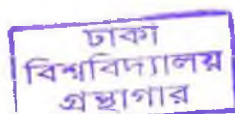


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**AGRICULTURAL SUBSIDIES – IMPACT ANALYSIS AND COMBAT  
TECHNIQUES FOR BANGLADESH IN THE WORLD TRADE ORGANIZATION  
– WITH REFERENCE TO TRADE**

MPHIL THESIS PAPER



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**Professor Dr. Muhammad Ziaulhuq Mamun**

THESIS PREPARED IN PARTIAL FULFILLMENT FOR THE DEGREE OF  
MASTER OF PHILOSOPHY (RESEARCH) BY:

**Syed Muntasir Mamun**

M.Phil. Applicant

Registration No: 441 / 2003-2004

Institute of Business Administration

University of Dhaka

Dhaka 1000

July 2010

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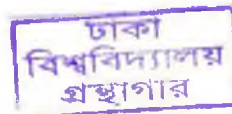
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MPHIL THESIS PAPER  
IBA, DHAKA UNIVERSITY  
2010

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**DECLARATION**

06 July 2010

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

**Professor Dr. Muhammad Ziaulhuq Mamun**  
Supervisor

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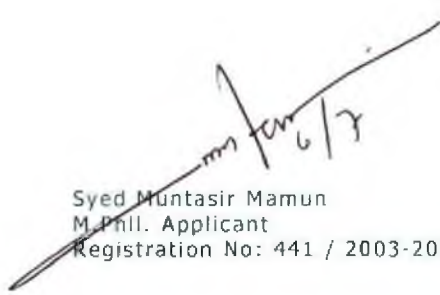
With profound respect, I submit the "Agricultural Subsidies - Impact Analysis and Combat Techniques for Bangladesh in the World Trade Organization - with Reference to Trade" – as the final dissertation paper for the Master of Philosophy (MPHIL) Program.

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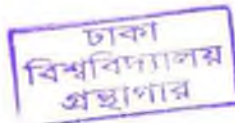
  
Syed Muntasir Mamun  
M.Phil. Applicant  
Registration No: 441 / 2003-2004

Authenticated by:

465027



**Professor Dr. Muhammad Ziaulhuq Mamun**  
Supervisor



**ACKNOWLEDGEMENT**

The author of this paper takes this opportunity to thank his supervisor – Professor Dr. Muhammad Ziaulhuq Mamun – primarily for his immense patience with the author. The author would like to acknowledge the gift of trust that was bestowed on him by the Professor. A strong emphasis on logic and sequencing in research was the single-most important contribution to the intellectual pursuit of the author.

A special note of thanks to Professor Dr. Syed Ferhat Anwar, for his powerful leadership in the course on Research Methodology. Many years back, it was from Professor Anwar that the author learnt how to 'define' a research problem – complete with its parameters: constructs, concepts and objectives. Gratitude to Mr. M A Rashid, MPhil/PhD Coordinator for his endless affection to researchers and helpful attitude at all times.

The author would like to thank his parents, Lieutenant Colonel Syed Ali Imam Al Mamun and Begum Kalpana Mamun ... for the kind support they always kept on providing even in spite of seemingly insurmountable adversities. If one would care to take a moment to look at any of the papers by the author during both the BBA and MBA programs at IBA, s/he would surely find a note of gratitude for the unconditional support he always received from his parents. The author takes a moment of devotion to express and document his conviction especially in his mother – Kalpana Mamun – for her unflinching faith in the author.

The long course of study... BBA and MBA and finally MPhil... and many hours of silent efforts come to an end today, with the submission of the Final Report on the MPhil Project. The author bows in respect to God the Almighty, for making the project and study a success.

## TABLE OF CONTENTS

ACKNOWLEDGEMENT.....	4
TABLE OF CONTENTS.....	5
LIST OF FIGURES.....	7
LIST OF ANNEXES.....	7
LIST OF ACCRONYMS.....	8
Executive Summary.....	10
1.0 Background.....	12
2.0 Literature Review.....	16
2.1 Introduction on Agricultural Trade: Short Primer.....	16
2.1.1 Trade policies prior to the WTO.....	17
2.1.2 Uruguay Round agricultural negotiations.....	18
2.1.3 Introduction to the Agreement on Agriculture.....	18
2.1.4 Relationship with other WTO Agreements.....	18
2.1.5 Product coverage.....	19
2.1.6 Rules and commitments.....	19
2.1.7 Implementation period.....	19
2.1.8 Committee on Agriculture.....	19
2.2 Market access.....	19
2.2.1 Schedule of tariff concessions.....	20
2.2.2 The prohibition of non-tariff border measures.....	20
2.2.3 Special treatment.....	20
2.2.4 The special safeguard provisions.....	21
2.2.5 Notification obligations.....	21
2.3 Domestic support.....	21
2.3.1 The Green Box.....	22
a. Government service programmes.....	22
b. Direct payments to producers.....	22
c. Other exempt measures.....	22
d. Developmental measures.....	22
2.3.2 Blue Box.....	23
2.3.3 De minimis.....	23
2.3.4 Reduction commitments.....	23
a Aggregate Measurement of Support (AMS).....	23
b Equivalent Measurement of Support.....	24
2.3.5 Notification obligations.....	24
2.4 Export competition/subsidies.....	25
2.4.1 Reduction commitments.....	25
a Definition of measures.....	25
b Product categories.....	25
c Rates of cut.....	26
2.4.2 Products with no specific reduction commitment.....	26
2.4.3 Anti-circumvention.....	26
2.4.4 Notification obligations.....	26
2.5 On Agricultural Production Pattern and Distortion.....	26
2.6 A Primer on Doha Development Round.....	29
2.7 Other Issues of Relevance to Agriculture.....	37
2.7.1 Export restrictions.....	37
2.7.2 Peace clause.....	37
2.7.3 Resolving disputes.....	38
2.7.4 Continuation clause.....	38
2.8 Summary of Negotiation Parameters.....	38
2.8.1 Market Access.....	38
2.8.2 Domestic support.....	39
2.8.3 Export subsidies.....	39
2.8.4 Export prohibitions and restrictions.....	40
2.8.5 Other aspects.....	40
2.8.6 Sanitary and Phytosanitary measures.....	40
3.0 Qualitative Study.....	41
3.1 Avenues for WTO Impact into Agricultural Sector of Bangladesh.....	41
3.2 The Suggested Hypotheses.....	54
3.3 Key Informant Interviews.....	55
3.4 Modified Hypothesis.....	59
3.5 Modified Research Pattern.....	59
3.6 Methodology.....	59
3.7 Major Findings.....	60
4.0 Theoretical Model.....	61
4.1 The Problem Statement.....	61
4.2 Constructs and Concepts.....	63
4.3 The Proposition.....	63
4.4 The Conditions.....	63
4.5 The Functional Relationship.....	63
4.6 Objective.....	64
4.7 Specific Objectives.....	64
i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.....	64
ii. To test the viability for selected products for exports in different stages of de-subsidization in the WTO.....	64
iii. To find the avenues for advanced agricultural marketing / financing options.....	64
iv. To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode - 4.....	64
4.8 Scope of Research.....	64
4.9 Sampling Methods.....	65
4.10 Significance of the Study.....	65
4.10.1 Significance to Diplomatic Endeavors.....	65
4.10.2 Significance to Literature.....	65
4.10.3 Significance to Society and Government.....	66
4.11 Limitation.....	68
4.12 Time and Financial Budget.....	68
4.12.1 Financial Involvement.....	68
4.12.2 Time Frame.....	69

4.13	The Survey Instrument	69
5.0	Primary Research Findings	70
5.1	Combined Average Selection Ranking for Products (Data tables appended at Annex 3)	70
5.7	Respondent Type	73
5.3	Comments on if Bangladesh Should Specialize as an Agro-Commodity Exporter	73
5.4	Response Matrix on The biggest threat to agro-commodity export from Bangladesh	73
5.5	On the onus of agricultural sector development	74
5.6	On prioritizing development initiatives	74
5.7	Specific methods to prioritize in agro-commodity development	74
5.8	Bangladesh's biggest competitors in agro-products	74
5.9	Interpretation of Commodities Analysis	74
5.9.1	Tobacco (Data tables appended at Annex 4)	74
a	Bangladesh should specialize as an agro-commodity exporter	74
b	Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	75
c	Preferential Ranking for Developing Production Possibilities under this Category	76
d	Production process improvements should prioritize in (100 points to be divided):	76
5.9.1.d.1	The WTO experts	76
5.9.1.d.2	The Agro Marketing Experts	76
5.9.1.d.3	The Exporters	76
5.9.1.d.4	The Farmers	76
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	76
5.9.2	Jute (Data tables appended at Annex 5)	77
a	Bangladesh should specialize as an agro-commodity exporter	77
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	78
c	Preferential Ranking for Developing Production Possibilities under this Category	78
d	Production process improvements should prioritize in (100 points to be divided):	78
5.9.2.d.1	The WTO experts	78
5.9.2.d.2	The Agro Marketing Experts	79
5.9.2.d.3	The Exporters	79
5.9.2.d.4	The Farmers	79
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	79
5.9.3	Tea (Data tables appended at Annex 6)	79
a	Bangladesh should specialize as an agro-commodity exporter	79
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	80
c	Preferential Ranking for Developing Production Possibilities under this Category	80
d	Production process improvements should prioritize in (100 points to be divided):	81
5.9.3.d.1	The WTO experts	81
5.9.3.d.2	The Agro Marketing Experts	81
5.9.3.d.3	The Exporters	81
5.9.3.d.4	The Farmers	81
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	81
5.9.4	Maize (Data tables appended at Annex 7)	82
a	Bangladesh should specialize as an agro-commodity exporter	82
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	82
c	Preferential Ranking for Developing Production Possibilities under this Category	83
d	Production process improvements should prioritize in (100 points to be divided):	83
5.9.4.d.1	The WTO experts	83
5.9.4.d.2	The Agro Marketing Experts	83
5.9.4.d.3	The Exporters	83
5.9.4.d.4	The Farmers	83
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	84
5.9.5	Tomato (Data tables appended at Annex 8)	84
a	Bangladesh should specialize as an agro-commodity exporter	84
b	Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	85
c	Production process improvements should prioritize in (100 points to be divided):	86
5.9.5.c.1	The WTO experts	86
5.9.5.c.2	The Agro Marketing Experts	86
5.9.5.c.3	The Exporters	86
7.1.1.1.1	The Farmers	86
d	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	86
5.9.6	Okra (Data tables appended at Annex 9)	86
a	Bangladesh should specialize as an agro-commodity exporter	86
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	87
c	Preferential Ranking for Developing Production Possibilities under this Category	87
d	Production process improvements should prioritize in (100 points to be divided):	88
5.9.6.d.1	The WTO experts	88
5.9.6.d.2	The Agro Marketing Experts	88
5.9.6.d.3	The Exporters	88
7.1.1.1.2	The Farmers	88
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	88
5.9.7	Aromatic Rice (Data tables appended at Annex 10)	88
a	Bangladesh should specialize as an agro-commodity exporter	88
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	89
c	Preferential Ranking for Developing Production Possibilities under this Category	89
d	Production process improvements should prioritize in (100 points to be divided):	90
5.9.7.d.1	The WTO experts	90
5.9.7.d.2	The Agro Marketing Experts	90
5.9.7.d.3	The Exporters	90
5.9.7.d.4	The Farmers	90
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	90
5.9.8	Mushroom (Data tables appended at Annex 11)	91
a	Bangladesh should specialize as an agro-commodity exporter	91
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	91
c	Preferential Ranking for Developing Production Possibilities under this Category	91
d	Production process improvements should prioritize in (100 points to be divided):	92
5.9.8.d.1	The WTO experts	92
5.9.8.d.2	The Agro Marketing Experts	92

5.9.8.d.3	The Exporters	92
5.9.8.d.4	The Farmers	92
5.9.8.d.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	92
5.9.9	Potato (Data tables appended at Annex 12)	93
a	Bangladesh should specialize as an agro-commodity exporter	93
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	93
c	Preferential Ranking for Developing Production Possibilities under this Category	94
d	Production process improvements should prioritize in (100 points to be divided):	94
5.9.9.d.1	The WTO experts	94
5.9.9.d.2	The Agro Marketing Experts	94
5.9.9.d.3	The Exporters	94
7.1.1.1.3	The Farmers	94
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	95
5.9.10	Sweet potato (Data tables appended at Annex 13)	95
a	Bangladesh should specialize as an agro-commodity exporter	95
b	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)	95
c	Preferential Ranking for Developing Production Possibilities under this Category	96
d	Production process improvements should prioritize in (100 points to be divided):	96
5.9.10.d.1	The WTO experts	96
5.9.10.d.2	The Agro Marketing Experts	96
5.9.10.d.3	The Exporters	96
5.9.10.d.4	The Farmers	97
e	Attaining competitive efficiency would result from combinations of (ranking in preferential order):	97
6.0	Conclusion	98
7.0	Future Courses of Study	100
8.0	References	101

**LIST OF FIGURES**

Figure 1 : Measurement of Support	24
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**LIST OF ANNEXES**

ANNEX / APPENDIX	TOPIC	SPECIAL NOTE	PAGE
ANNEX 1:	MPHIL PROPOSAL	02 JANUARY 2006	01
ANNEX 2:	MPHIL REVISED PROPOSAL	30 JUNE 2006	10
ANNEX 3:	RESEARCH METHODOLOGY PROBLEM, CONSTRUCTS AND CONCEPTS	13 MARCH 2007	55
ANNEX 4:	SECONDARY SURVEY FINDINGS	03 APRIL 2007	55
ANNEX 5:	PRIMARY QUALITATIVE RESEARCH AND HYPOTHESES VALIDATION	17 APRIL 2007	124
ANNEX 6:	SURVEY RESEARCH – TYPE AND SOURCES OF INFORMATION	22 MAY 2007	134
ANNEX 7:	DRAFT PROPOSAL FOR RESEARCH METHODOLOGY	05 JUNE 2007	147
ANNEX 8:	TERM PAPER FOR RESEARCH METHODOLOGY	10 JULY 2007	215
ANNEX 9:	PRIMARY SURVEY DATA ANALYSIS TABLES	APPENDICES FOLLOW	297
APPENDIX 1:	COMBINED AVERAGE SELECTION RANKINGS FOR PRODUCTS / RESPONDENT TYPE / BANGLADESH SCENARIO / SWOT / DEVELOPMENT AGENDA	COMPLETE WITH ANALYSIS AND SUPPLEMENTARY DATA TABLES	298
APPENDIX 2:	PRODUCT ANALYSIS TABLES: TOBACCO		312
APPENDIX 3:	PRODUCT ANALYSIS TABLES: JUTE		320
APPENDIX 4:	PRODUCT ANALYSIS TABLES: TEA		328
APPENDIX 5:	PRODUCT ANALYSIS TABLES: MAIZE		336
APPENDIX 6:	PRODUCT ANALYSIS TABLES: TOMATO		344
APPENDIX 7:	PRODUCT ANALYSIS TABLES: OKRA		352
APPENDIX 8:	PRODUCT ANALYSIS TABLES: AROMATIC RICE		360
APPENDIX 9:	PRODUCT ANALYSIS TABLES: MUSHROOM		368
APPENDIX 10:	PRODUCT ANALYSIS TABLES: POTATO		376
APPENDIX 11:	PRODUCT ANALYSIS TABLES: SWEET POTATO		384
APPENDIX 12:	INSTRUMENT QUESTIONNAIRE		392



**LIST OF ACRONYMS**

1. ACP: African, Caribbean and Pacific Countries
2. AMS: Aggregate Measure of Support, the preferred calculation of domestic support used for reduction commitments
3. AoA: Agreement on Agriculture
4. ATPSM: Agriculture Trade Policy Simulation Model
5. c.i.f.: cost, insurance, freight (included in the price)
6. CAEMC: Central Africa Economic and Monetary Community
7. CAFOD: Catholic Agency for Overseas Development
8. CAP: Common Agricultural Policy
9. CARLs: Countries with Abundant Rural Labor
10. CEEC: Central and Eastern European Countries
11. CGE: Computable General Equilibrium
12. CGIAR: Consultative Group on International Agricultural Research
13. CIS: Commonwealth of Independent States
14. CME: Coordinated Market Economies
15. CMEA: Common Market of East Asia
16. COMESA: Common Market for Eastern and Southern Africa
17. CPI: Consumer Price Index
18. DFID: Department for International Development (UK)
19. EAC: Commission for East African Cooperation
20. ECOWAS: Economic Community of West African States
21. EMS: Equivalent Measure of Support, used when AMS is not practicable
22. EPR: Effective protection rate
23. EU: European Union
24. f.o.b.: free on board (price, excluding insurance and freight)
25. FAO: Food and Agriculture Organization
26. FDI: Foreign Direct Investment
27. FTA: Free Trade Area
28. GATT 1947: The text of GATT as used until amended by the WTO Agreements which came into force in 1995
29. GATT 1994: The General Agreement on Tariffs and Trade, as revised in 1994, which is part of the WTO Agreements. GATT 1994 includes GATT 1947 together with amendments.
30. GATT: The General Agreement on Tariffs and Trade, established in 1947. The abbreviation is used for both the legal text and the institution
31. GMB: Grain Marketing Board
32. GTAP: Global Trade Analysis Programme
33. H-O: Heckscher-Ohlin
34. IBRD: International Bank for Reconstruction and Development
35. IDA: International Development Agency
36. IFAD: International Fund for Agricultural Development
37. IMF: International Monetary Fund
38. IOC: Indian Ocean Commission
39. LAC: Latin American and Caribbean
40. LDC: Least Developed Country
41. LIC: Low Income Countries
42. LIFDC: Low-Income Food-Deficit Countries
43. LME: Liberal Market Economy
44. LMIC: Lower Middle-Income Countries
45. MERCOSUR: Mercado Común del Sur (common market of Argentina, Brazil, Paraguay, Uruguay)
46. MFN: Most-favoured nation, in the WTO, the principle of treating trading partners equally
47. MNC: Multinational Corporation
48. MTO: Multilateral Trade Organization — the proposed name of the new organization that eventually became the WTO, used during Uruguay Round negotiations (appears in negotiating documents such as "Modalities" for agricultural commitments)
49. NAEX: Net Agricultural Exporting
50. NAFTA: North American Free Trade Agreement
51. NAIM: Net Agricultural Importing
52. NFEX: Net Food Exporting
53. NFIM: Net Food Importing
54. NGO: Non-Governmental Organization
55. NIS: Newly Independent States
56. NPR: Nominal Protection Rate

57. NTB: Non-Tariff Barriers
58. OECD: Organization for Economic Cooperation and Development
59. OPK: Operasi Pasar Khusus (targeted rice subsidy programme)
60. PMB: Paddy Marketing Board
61. PPI: Producer price index
62. PSE: Producer Support Estimate
63. QR: Quantitative Restriction
64. RIFF: Regional Integration Facilitation Forum, formerly the Cross-Border initiative (CBI)
65. RTA: Regional Free Trade Agreement
66. RUNS: Rural-Urban-North-South Model
67. SACU: Southern Africa Customs Union
68. SAL: Structural Adjustment Loan
69. SAM: Social Accounting Matrix
70. SAP: Structural Adjustment Programme
71. SAPRIN: Structural Adjustment Participatory Review International Network.
72. SECAL: Sectoral Adjustment Loan
73. SME: Small and Medium Enterprise
74. SOFI: State of Food Insecurity
75. SPS: Sanitary and phytosanitary (measures)
76. SSA: Sub-Saharan Africa
77. SSG: Special Safeguard
78. STE: State Trading Enterprise
79. TNC: Transnational Corporation
80. TQ: Tariff-quota
81. TRQ: Tariff-rate-quota, same as TQ
82. UMIC: Upper Middle Income Countries
83. UMRs: Usual marketing requirements, a system in FAO principles for food aid
84. UNCTAD: United Nations Conference on Trade and Development
85. UNDP: United Nations Development Programme
86. UR: Uruguay Round
87. USDA: United States Department of Agriculture
88. WB: World Bank
89. WCA: Washington Consensus on Agriculture
90. WFM: World Food Model
91. WFS: World Food Summit
92. WTO: The World Trade Organization, established as the successor to the GATT on 1 January 1995

# **EXECUTIVE SUMMARY**

## Executive Summary

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (export-oriented) ; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions .

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- (i) Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- (ii) Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

The necessary conditions are:

- (i) Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- (ii) WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- (iii) Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- (iv) Production sensitivity to inputs will remain valid for the time period projected.

The objectives of the research are to find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4.

Specific objectives include:

- (i) To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- (ii) To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- (iii) To find the avenues for advanced agricultural marketing / financing options.
- (iv) To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural value network with Mode – 4.
- (v) To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

Primary research work analyzed the scenario for the different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh. The specific scope of the research area includes:

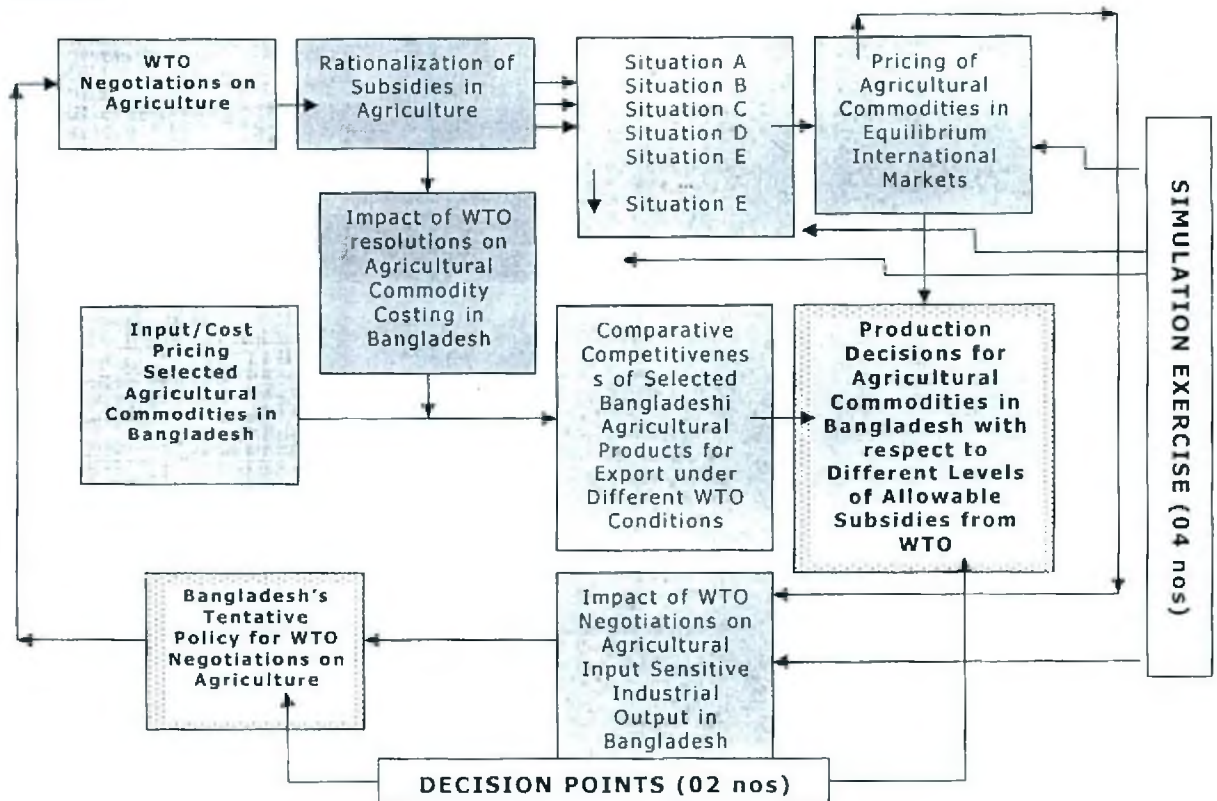
- (i) Current composition of the agricultural produces for export
- (ii) Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- (iii) Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.
- (iv) Specific negotiation strategy for WTO on agricultural subsidies

(v) Specific tactics for implementation of the above strategy (iv)

Scope (i), (ii), and (iii) have been covered with primary data, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) – with their respective marketing strategies have been identified.

Only experts have been consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents have been approached. Therefore, convenience sampling method has been used.

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

The research aims to ascertain a direction for the following end results:

- The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
- Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.

# **BACKGROUND**

**AGRICULTURAL SUBSIDIES  
IMPACT ANALYSIS AND COMBAT TECHNIQUES FOR BANGLADESH  
IN THE WORLD TRADE ORGANIZATION WITH PARTICULAR REFERENCE TO TRADE**

MPHIL DISSERTATION PAPER

**1.0 Background**

A great deal of attention is currently being paid to the discussion of the reform of global agricultural trade. In the year 2000, the WTO initiated a new round of trade negotiations on agriculture and services. According to the Doha mandate adopted on 14 November 2001, the WTO members committed themselves to substantially improve market access, to reduce (with a view to phasing out) all forms of export subsidies and to substantially reduce trade-distorting domestic support. Furthermore, it was also agreed that non-trade concerns and special and differential treatment for developing countries should become an integral feature throughout the negotiations. In February 2003 a first attempt to agree on modalities, the so-called Harbinson Paper, was presented to the WTO members and revised after intensive discussion. Based on the resulting Harbinson 1½ paper<sup>1</sup>, the Doha Ministerial Declaration requested WTO members to agree upon formulas and other modalities by 31 March 2003 at the latest. But negotiators missed this deadline. While the US and the Cairns Group considered the tariff reductions of the Harbinson 1½ paper as too low and preferred the Swiss formula, the EU considered the liberalization proposals as too far reaching. Together with 75 other WTO members (friends of the Uruguay formula) the EU pleaded for a repetition of the Uruguay round of agriculture and especially for the implementation of the Uruguay formula for tariff reduction (Brockmeier & Salamon, 2004). After 31 March 2003, negotiators selected a number of controversial issues and aimed at achieving a framework agreement at the ministerial conference, taking place in Cancún, on 11-14 September 2003. The EU and the US were the first to come forward with a draft. The joint US-EU text suggested a blended formula under which the tariffs were subdivided into three groups. The tariffs of the first group were categorized as duty free, while the tariffs of the second group were to be reduced by an average with a minimum reduction per product (the Uruguay round formula). The third group of tariffs was supposed to be reduced by the Swiss formula.

After the failure of Cancún a new negotiation process started at the beginning of 2004. On 16 July 2004, the chairman of the agricultural committee, Tim Grosser, presented a new proposal on modalities for negotiations on agricultural trade. An amended version of the Grosser text was then presented and adopted in a revised form by the WTO General Council on 31 July 2004 as part of the Doha Work Program or Oshima-text. Although it seemed as if the disputing parties had reached an agreement, the outcome of the negotiations is still highly uncertain. In contrast to the former papers, the content of this recently adopted proposal is very vague. It contains (almost exclusively) qualitative information about tariff cuts, the abolition of exports subsidies, etc., but does not make any concrete statement regarding the time horizon or magnitude of the protection cuts. Nor does the more or less nebulous consistency of the Doha Work Program July package help to resolve the most important issue of market access: What kind of tiered formula will be used to cut down the import tariffs? What effect does a tiered formula, such as the Harbinson formula, have in contrast to a more flexible one, such as the Swiss formula? How will the preferential treatment of the developing countries be achieved?

In all, the Doha Work Program comprised an overall cut of all trade-distorting domestic support according to a tier-ed formula. Under this formula, higher levels of trade-distorting domestic support would be subject to deeper cuts to achieve a harmonized result. For all developed countries a down payment of 20% during the first year of the implementation period would be made. The cut would be based on binding rates. Furthermore, a reduction of the *de minimis* loophole would be negotiated and the criteria for the green box would be reviewed. The blue box support should not exceed 5% of the average total value of agricultural production during a historical reference period that has not yet been specified.

On export competition, the Doha Work Program assured the elimination of all forms of export subsidies. Moreover, all export measures with effects equivalent to export subsidies would be eliminated, such as export credits, export credit guarantees or insurance programs with repayment periods beyond 180 days. Export credits of less than 180 days and trade distorting practices of state trading enterprises (STES) would be subject to strict disciplines. Moreover, concrete disciplines would be imposed on food aid that is used for commercial displacement. A substantial reduction in market access

barriers would be achieved through a tiered approach with deeper cuts in higher tariffs. The reduction commitments would be made from binding tariff rates applicable to all members other than the least developed countries (LDCs). Countries could self-select sensitive products that would be treated in a more flexible way. As compensation, the TRQs of sensitive products have to be expanded. For developing countries, special and differential treatment is provided. They would be accorded longer implementation periods, lower tariff and subsidy cuts and special concessions for their market access. Furthermore, trade with tropical products would be fully liberalized and the erosion of trade preferences would be addressed. LDCs do not have to lower their tariffs or their domestic farm support. Developed countries and capable developing countries should provide duty- and quota-free market access for LDC products

Situations attained heights of complexity during the Sixth Ministerial in Hong Kong in 2005.

In the preparatory phase of the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" focusing on duty-free and quota-free market access for all exports from all LDCs. In spite of protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that the WTO rules have perpetuated an unfair trading system, which favors rich countries and their corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade-talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks – at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries remains yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural



tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promises made by the developed countries to the developing countries that they would reduce their protectionist measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

- i. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
- ii. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
- iii. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies; immediately end cotton export subsidies and eliminate domestic support for cotton.
- iv. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
- v. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
- vi. Agree to genuine development measures, including resolving the Special and Differential (S&D) proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.
- vii. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, supports the major exportable item that the country boasts of, i.e., Readymade Garments – RMG). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in areas such as: industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities.

Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access, shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This depended on outcomes of further negotiations held in Geneva by April 2006 – which, however, failed, if not, miserably failed.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed though. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

It has to be noted that the Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs would be provided duty-free and quota-free market access for cotton exports from the commencement of implementation date (scheduled to be agreed – and was not – by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made, so that there was no loophole for continuing export subsidization. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid was supposed to have been completed (which, it was not) by 30 April 2006 as part of the modalities.

The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

What comes next as an alternative trade-pattern gradually unfolds; it is NAMA (Non-Agricultural Market Access) that we have to look into. That is, we have to look for alternate items in trading. What comes to mind naturally is to develop the indigenous production sector, in which, we may still have some comparative advantage left to fight in a globalized planet (no matter how out-of-place the word 'fight' may sound).

But what do all these mean after all for Bangladesh? The considerations are three fold, i.e.:

- a. The impact of sustained agricultural subsidies by the developed countries on the production and pricing of agricultural commodities in Bangladesh (for exports)
- b. The probable impact of de-subsidized (phase-wise) trade patterns in agricultural commodities on the industrial output of Bangladesh
- c. Avenues for mitigating trade imbalances for Bangladesh by taking advantages of the existing subsidies pattern.

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Unfortunately, Bangladesh does not yet have any coherent WTO policy on agricultural subsidies and trade in agricultural commodities.

# LITERATURE REVIEW

## 2.0 Literature Review

### 2.1 Introduction on Agricultural Trade: Short Primer

The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies.

The first pillar of the AoA is "domestic support". The AoA structures domestic support (subsidies) into three categories or "boxes": a Green Box, an Amber Box and a Blue Box. The Green Box contains fixed payments to producers for environmental programs, so long as the payments are "decoupled" from current production levels. The Amber Box contains domestic subsidies that governments have agreed to reduce but not eliminate. The Blue Box contains subsidies which can be increased without limit, so long as payments are linked to production-limiting programs<sup>1</sup>. The AoA's domestic support system currently allows Europe and the USA to spend \$380 billion every year on agricultural subsidies alone. "It is often still argued that subsidies are needed to protect small farmers but, according to the World Bank, more than half of EU support goes to 1% of producers while in the US 70% of subsidies go to 10% of producers, mainly agri-businesses"<sup>2</sup>. The effect of these subsidies is to flood global markets with below-cost commodities, depressing prices and undercutting producers in poor countries – a practice known as dumping<sup>3</sup>.

"Market access" is the second pillar of the AoA, and refers to the reduction of tariff (or non-tariff) barriers to trade by WTO member-states. The 1995 AoA required tariff reductions of: (i) 36% average reduction by developed countries, with a minimum per tariff line reduction of 15% over five years; and (ii) 24% average reduction by developing countries with a minimum per tariff line reduction of 10% over nine years. Least Developed Countries (LDCs) were exempted from tariff reductions, but either had to convert non-tariff barriers to tariffs—a process called tariffication—or "bind" their tariffs, creating a "ceiling" which could not be increased in future<sup>4</sup>.

"Export subsidies" is the third pillar of the AoA. The 1995 AoA required developed countries to reduce export subsidies by at least 35% (by value) or by at least 21% (by volume) over the five years to 2000.

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. While the volume of world agricultural exports has substantially increased over recent decades, its rate of growth has lagged behind that of manufactures, resulting in a steady decline in agriculture's share in world merchandise trade. In 1998, agricultural trade accounted for 10.5 per cent of total merchandise trade — when trade in services is taken into account, agriculture's share in global exports drops to 8.5 per cent. However, with respect to world

<sup>1</sup> Text of the Agreement on Agriculture

<sup>2</sup> Institute for Agriculture and Trade Policy, Agreement on Agriculture Basics 2003.

<sup>3</sup> Institute for Agriculture and Trade Policy, WTO Agreement on Agriculture: A Decade of Dumping, Feb 2005.

<sup>4</sup> This section of the paper is influenced by the article, "Multinational Enterprises and New Trade Theory: Evidence for the Convergence Hypothesis", by S. Barrios, H. Görg and E. Strobl (Research Paper 2000/19; Centre for Research on Globalization and Labor Markets, School of Economics, University of Nottingham; collected from the net resources of the University). The article denotes that according to the 'convergence hypothesis' multinational companies will tend to displace national firms and trade as total market size increases and as countries converge in relative size, factor endowments, and production costs. Using a recent model developed by Markusen and Venables (1998) as a theoretical framework, the authors explicitly develop empirical measures to proxy bilateral FDI between two countries and address their properties with regard to the convergence hypothesis. Using a panel of data of country pairs over the years 1985-96 the authors econometrically test for the relationship between convergence and bilateral FDI. The results provide some empirical support for the convergence hypothesis. Overall market size tends to increase, while differences in market size tend to reduce bilateral MNE activity. While the role of differences in relative endowments of human or physical capital skilled workers is not clear from the results, R&D intensity, which serves to proxy the importance of firm level scale economies, and a common language in home and host country significantly increase bilateral MNE activity. The authors have also found that for many cases transportation costs, contrary to the convergence hypothesis, are negative determinants, although these findings are in line with similar findings in the literature. Breaking down the sample into EU and non-EU pairs it is found that a large number of results in aggregate still hold, although, given the small sample size, particularly for EU country pairs, these results must be viewed with some caution.

trade, agriculture is still ahead of sectors such as mining products, automotive products, chemicals, textiles and clothing or iron and steel. Among the agricultural goods traded internationally, food products make up almost 80 per cent of the total. The other main category of agricultural products is raw materials. Since the mid-1980s, trade in processed and other high value agricultural products has been expanding much faster than trade in the basic primary products such as cereals. Agricultural trade remains in many countries an important part of overall economic activity and continues to play a major role in domestic agricultural production and employment. The trading system plays also a fundamentally important role in global food security, for example by ensuring that temporary or protracted food deficits arising from adverse climatic and other conditions can be met from world markets<sup>5</sup>.

### **2.1.1 Trade policies prior to the WTO**

Although agriculture has always been covered by the GATT, prior to the WTO there were several important differences with respect to the rules that applied to agricultural primary products as opposed to industrial products. The GATT 1947 allowed countries to use export subsidies on agricultural primary products whereas export subsidies on industrial products were prohibited. The only conditions were that agricultural export subsidies should not be used to capture more than an "equitable share" of world exports of the product concerned (Article XVI:3 of GATT). The GATT rules also allowed countries to resort to import restrictions (e.g. import quotas) under certain conditions, notably when these restrictions were necessary to enforce measures to effectively limit domestic production (Article XI:2(c) of GATT). This exception was also conditional on the maintenance of a minimum proportion of imports relative to domestic production. However, in practice many non-tariff border restrictions were applied to imports without any effective counterpart limitations on domestic production and without maintaining minimum import access. In some cases this was achieved through the use of measures not specifically provided for under Article XI. In other cases it reflected exceptions and country-specific derogations such as grandfather clauses, waivers and protocols of accession. In still other cases non-tariff import restrictions were maintained without any apparent justification. The result of all this was a proliferation of impediments to agricultural trade, including by means of import bans, quotas setting the maximum level of imports, variable import levies, minimum import prices and non-tariff measures maintained by state trading enterprises. Major agricultural products such as cereals, meat, dairy products, sugar and a range of fruits and vegetables have faced barriers to trade on a scale uncommon in other merchandise sectors. In part, this insulation of domestic markets was the result of measures originally introduced following the collapse of commodity prices in the 1930s Depression. Furthermore, in the aftermath of the Second World War many governments were concerned primarily with increasing domestic agricultural production so as to feed their growing populations. With this objective in mind and in order to maintain a certain balance between the development of rural and urban incomes, many countries, particularly in the developed world, resorted to market price support — farm prices were raised using administratively mechanisms. Import access barriers ensured that domestic production could continue to be sold. In response to these measures and as a result of productivity gains, self-sufficiency rates rapidly increased. In a number of cases, expanding domestic production of certain agricultural products not only replaced imports completely but resulted in structural surpluses. Export subsidies were increasingly used to dump surpluses onto the world market, thus depressing world market prices. On the other hand, this factor, plus the effects of overvalued exchange rates, low food price policies in favor of urban consumers and certain other domestic measures, reduced in a number of developing countries the incentive for farmers to increase or even maintain their agricultural production levels<sup>6</sup>.

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<sup>5</sup> Paragraph encouraged by article titled, "Five Simple Principles for World Trade" by Dani Rodrik (November 22, 1999) retrieved from his internet database. Dani Rodrik is professor of international political economy at Harvard's John F. Kennedy School of Government. The article notes that (i) Trade is a means to an end, not an end in itself; (ii) Trade rules have to allow for diversity in national institutions and standards; (iii) Non-democratic countries cannot count on the same trade privileges as democratic ones; (iv) Countries have the right to protect their own social arrangements and institutions; but that ... (v) they do not have the right to impose their institutional preferences on others.

<sup>6</sup> Inspired by the article, "Strategic Trade, Competitive Industries and Agricultural Trade Disputes" by Kyle Bagwell and Robert W. Staiger (February, 2001). The article notes that the primary predictions of strategic-trade theory are not restricted to imperfectly-competitive markets. Indeed, these predictions emerge in a natural three-country extension of the traditional theory of trade policy in competitive markets, once the theory is augmented to allow for politically motivated governments, so that the sign of export policy may be converted from tax to subsidy. This suggests that the ongoing agricultural trade disputes may be best interpreted from the perspective of strategic-trade theory. In fact, these disputes may offer the most important example yet of strategic-trade theory.

### 2.1.2 Uruguay Round agricultural negotiations

In preparing the Uruguay Round negotiations, it became increasingly evident that the causes of disarray in world agriculture went beyond import access problems which had been the traditional focus of GATT negotiations. To get to the roots of the problems, disciplines with regard to all measures affecting trade in agriculture, including domestic agricultural policies and the subsidization of agricultural exports, were considered to be essential. Clearer rules for 'Sanitary and Phytosanitary' (SPS) measures were also considered to be required, both in their own right and to prevent circumvention of stricter rules on import access through unjustified, protectionist use of food safety as well as animal and plant health measures. The agricultural negotiations in the Uruguay Round were by no means easy — the broad scope of the negotiations and their political sensitivity necessarily required much time in order to reach an agreement on the new rules, and much technical work was required in order to establish sound means to formalize commitments in policy areas beyond the scope of prior GATT practice. The Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures were negotiated in parallel, and a Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-developed and Net Food-importing Developing Countries also formed part of the overall outcome.

### 2.1.3 Introduction to the Agreement on Agriculture

The Agreement on Agriculture, (the "Agreement"), came into force on 1 January 1995. The preamble to the Agreement recognizes that the agreed long-term objective of the reform process initiated by the Uruguay Round reform programme is to establish a fair and market-oriented agricultural trading system. The reform programme comprises specific commitments to reduce support and protection in the areas of domestic support, export subsidies and market access, and through the establishment of strengthened and more operationally effective GATT rules and disciplines. The Agreement also takes into account non-trade concerns, including food security and the need to protect the environment, and provides special and differential treatment for developing countries, including an improvement in the opportunities and terms of access for agricultural products of particular export interest to these Members.

### 2.1.4 Relationship with other WTO Agreements

In principle, all WTO agreements and understandings on trade in goods apply to agriculture, including the GATT 1994 and WTO agreements on such matters as customs valuation, import licensing procedures, pre-shipment inspection, emergency safeguard measures, subsidies and technical barriers to trade. However, where there is any conflict between these agreements and the Agreement on Agriculture, the provisions of the Agreement on Agriculture prevail. The WTO Agreements on Trade in Services and on Trade-Related Aspects of Intellectual Property rights are also applicable to agriculture.

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The writers have presented a model of strategic trade (modified from Brander, J. and B. Spencer, 1985, Export Subsidies and Market Share Rivalry; *Journal of International Economics* 18, 83-100.) that applies for markets with competitive characteristics. We have argued as well that the model predicts quite well the broad features of the agricultural trade disputes, which are perhaps the most important trade disputes in recent decades. The writers conclude with some final thoughts as regards the treatment of export subsidies in GATT and now the WTO. The model suggests that exporting countries prefer a limit on export subsidies in order to stem the rivalry in subsidies that otherwise occurs. Importing countries and the world as a whole lose if exporting countries are successful in this endeavor. From this perspective, the perplexing manner in which GATT and the WTO treat export subsidies may represent conflicting consequences that restrictions on export subsidies have for exporting and importing governments.

To the extent that the prohibition of export subsidies has been effective, this policy may correspond to a victory for exporting governments at the expense of importing government - and world - welfare. At a broader level, it is clear that no simple approach toward export subsidization could ever satisfy all goals. Perhaps, as Jackson (Jackson, J., 1997, *The World Trading System: Law and Policy of International Economic Relations*, 2nd edition (The MIT Press, Cambridge), pp. 298-99) emphasizes, if the costs and benefits of a subsidization program are kept within national borders, and thus not shifted onto trading partners, then the program should not be a matter of concern for the WTO. But while this may be a sound principle, cross-border effects are indeed expected when export subsidies are used. And these effects are complicated, too, cutting in different ways in different scenarios: the consumers in importing countries may be inclined to send a "note of thanks;" the import-competing firms in these countries may be harmed; and competing exporters from other countries are also likely to be harmed. The paper's dominant model describes a trading pattern under which overall government welfare increases when the subsidization program is enhanced. But other trading patterns could carry different conclusions. In this perplexing setting, the authors point out that theoretical models, motivated in terms of actual export-subsidy disputes, are of particular value. Such models can clarify the key cost-shifting effects and thereby contribute importantly toward a better understanding of the appropriate manner in which to treat export subsidies within the WTO. This paper is intended as a step in this general direction.

### **2.1.5 Product coverage**

The Agreement defines in its Annex 1 agricultural products by reference to the harmonized system of product classification — the definition covers not only basic agricultural products such as wheat, milk and live animals, but the products derived from them such as bread, butter and meat, as well as all processed agricultural products such as chocolate and sausages. The coverage also includes wines, spirits and tobacco products, fibers such as cotton, wool and silk, and raw animal skins destined for leather production. Fish and fish products are not included, nor are forestry products.

### **2.1.6 Rules and commitments**

The Agreement on Agriculture establishes a number of generally applicable rules with regard to trade-related agricultural measures, primarily in the areas of market access, domestic support and export competition. These rules relate to country-specific commitments to improve market access and reduce trade-distorting subsidies which are contained in the individual country schedules of the WTO Members and constitute an integral part of the GATT.

### **2.1.7 Implementation period**

The implementation period for the country-specific commitments is the six-year period commencing in 1995. However, developing countries have the flexibility to implement their reduction and other specific commitments over a period of up to 10 years. Members had the choice of implementing their concessions and commitments on the basis of calendar, marketing (crop) or fiscal years. A WTO Member's implementation year for tariff reductions may thus differ from the one applied to export subsidy reductions. For the purpose of the peace clause, the implementation period is the nine-year period commencing in 1995.

### **2.1.8 Committee on Agriculture**

The Agreement established a Committee on Agriculture. The Committee oversees the implementation of the Agreement on Agriculture and affords Members the opportunity of consulting on any matter relating to the implementation of commitments, including rule-based commitments. For this purpose, the Committee usually meets four times per year. Special meetings can be convened if necessary.

## **2.2 Market access**

Under the reform programme, members have converted their non-tariff measures to equivalent bound tariffs. Some additional market access is provided through tariff rate quotas, and the tariffs are being reduced. Contingency protection is provided through special safeguards, and transparency works through notifications.

On the market access side, the Uruguay Round resulted in a key systemic change: the switch from a situation where a myriad of non-tariff measures impeded agricultural trade flows to a regime of bound tariff-only protection plus reduction commitments. The key aspects of this fundamental change have been to stimulate investment, production and trade in agriculture by (i) making agricultural market access conditions more transparent, predictable and competitive, (ii) establishing or strengthening the link between national and international agricultural markets, and thus (iii) relying more prominently on the market for guiding scarce resources into their most productive uses both within the agricultural sector and economy-wide.

In many cases, tariffs were the only form of protection for agricultural products before the Uruguay Round — the Round led to the "binding" in the WTO of a maximum level for these tariffs. For many other products, however, market access restrictions involved non-tariff barriers. This was frequently, though not only, the case for major temperate zone agricultural products. The Uruguay Round negotiations aimed to remove such barriers. For this purpose, a "tariffication" package was agreed which, amongst other things, provided for the replacement of agriculture-specific non-tariff measures with a tariff which afforded an equivalent level of protection. The tariffs resulting from the tariffication process account, on average of the developed country Members, for around one fifth of the total number of agricultural tariff lines. For the developing country Members, this share is considerably smaller. Following the entry into force of the Agreement on Agriculture,



there is now a prohibition on agriculture-specific non-tariff measures, and the tariffs on virtually all agricultural products traded internationally are bound in the WTO.

### **2.2.1 Schedule of tariff concessions**

Each WTO Member has a "schedule" of tariff concessions covering all agricultural products. These concessions are an integral part of the results of the Uruguay Round, are formally annexed to the Marrakesh Protocol and have become an integral part of the GATT 1994. The schedule sets out for each individual agricultural product, or, in some cases agricultural products defined more generally, the maximum tariff that can be applied on imports into the territory of the Member concerned. The tariffs in the schedules include those that resulted from the tariffication process, which, in many cases, are considerably higher than industrial tariffs, reflecting the incidence of agriculture-specific non-tariff measures prior to the WTO. Many developing countries have bound their previously unbound tariffs at "ceiling" levels, i.e. at levels higher than the applied rates prior to the WTO. Developed country Members have agreed to reduce, over a six-year period beginning in 1995, their tariffs by 36 per cent on average of all agricultural products, with a minimum cut of 15 per cent for any product. For developing countries, the cuts are 24 and 10 per cent, respectively, to be implemented over ten years. Those developing country Members which bound tariffs at ceiling levels did not, in many cases, undertake reduction commitments. Least-developed country Members were required to bind all agricultural tariffs, but not to undertake tariff reductions.

As part of the tariffication package, WTO Members were required to maintain, for tariffied products, current import access opportunities at levels corresponding to those existing during the 1986-88 base period. Where such "current" access had been less than 5 per cent of domestic consumption of the product in question in the base period, an (additional) minimum access opportunity had to be opened on a Most-Favored-Nation (MFN) basis. This was to ensure that in 1995, current and minimum access opportunities combined represented at least 3 per cent of base-period consumption and are progressively expanded to reach 5 per cent of that consumption in the year 2000 (developed country Members) or 2004 (developing country Members), respectively. The current and minimum access opportunities are generally implemented in the form of tariff quotas. In case of minimum access, the applicable duty was required to be low or minimal, low that is either in absolute terms or, at least, in relation to the "normal" ordinary customs duty that applies to any imports outside the tariff quota. These tariff quotas, including the applicable tariff rates and any other conditions related to the tariff quotas, are specified in the schedules of the WTO Members concerned. While the vast majority of tariff quotas in agriculture have their origin in the Uruguay Round negotiations, a number of such commitments were the result of accessions to the WTO. As on July 1999, 37 Members have tariff quotas specified in their schedules. In total, there are 1374 individual tariff quotas. These tariff quotas constitute binding commitments as opposed to autonomous tariff quotas which Members may establish at any time, for example, in order to stabilize the domestic price after a poor harvest.

### **2.2.2 The prohibition of non-tariff border measures**

Article 4.2 of the Agreement on Agriculture prohibits the use of agriculture-specific non-tariff measures. Such measures include quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing procedures, voluntary export restraint agreements and non-tariff measures maintained through state-trading enterprises. All similar border measures other than "normal customs duties" are also no longer permitted. Although Article XI:2(c) of the GATT continues to permit non-tariff import restrictions on fisheries products, it is now inoperative as regards agricultural products because it is superseded by the Agreement on Agriculture. However, Article 4.2 of the Agreement on Agriculture does not prevent the use of non-tariff import restrictions consistent with the provisions of the GATT or other WTO agreements which are applicable to traded goods generally (industrial or agricultural). Such measures include those maintained under balance-of-payments provisions (Articles XII and XVIII of GATT), general safeguard provisions (Article XIX of GATT and the related WTO agreement), general exceptions (Article XX of GATT), the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Technical Barriers to Trade or other general, non-agriculture-specific WTO provisions.

### **2.2.3 Special treatment**

The Agreement on Agriculture contains a "special treatment" clause (Annex 5), under which four countries were permitted, subject to strictly circumscribed conditions, to

maintain non-tariff border measures on certain products during the period of tariff reductions (with the possibility of extending the special treatment, subject to further negotiations). As one of the conditions, market access in the form of progressively increasing import quotas has to be provided for the products concerned. The products and countries concerned are: rice in the case of Japan, Korea and the Philippines; and cheese and sheep-meat in the case of Israel. As of 1 April 1999, Japan has ceased to apply special treatment.

#### **2.2.4 The special safeguard provisions**

As a third element of the tariffication package, Members have the right to invoke for tariffied products the special safeguard provisions of the Agreement on Agriculture (Article 5), provided that a reservation to this effect ("SSG") appears beside the products concerned in the relevant Member's schedule. The right to make use of the special safeguard provisions has been reserved by 38 Members, and for a limited number of products in each case. The special safeguard provisions allow the imposition of an additional tariff where certain criteria are met. The criteria involve either a specified surge in imports (volume trigger), or, on a shipment by shipment basis, a fall of the import price below a specified reference price (price trigger). In case of the volume trigger, the higher duties only apply until the end of the year in question. In case of the price trigger, any additional duty can only be imposed on the shipment concerned. The additional duties cannot be applied to imports taking place within tariff quotas.

#### **2.2.5 Notification obligations**

The bound agricultural tariffs and the tariff quota commitments are contained in Members' schedules. There is no requirement for Members to notify their tariffs to the Committee on Agriculture. Applied tariffs are, however, to be submitted to other bodies of the WTO, including the Committee on Market Access and in the context of the Trade Policy Review mechanism.

Members with tariff quotas and the right to use the special safeguard provisions are required to make both ad hoc and annual notifications to the Committee on Agriculture. At the beginning of the implementation period, an "up-front" notification was due, setting out how each tariff quota is to be administered. Such notifications disclose, for example, if imports are permitted on a "first-come-first-served" basis or if import licenses are used — and in the latter case, an indication of who is able to obtain a license and how they are allocated. An ad hoc notification is required if the method of allocation under any tariff quota changes. At the end of each year, a notification of the quantity of imports entering under each tariff quota is required (tariff quota fill).

Members with the right to use the special safeguard provisions must notify its first use in order to allow its trading partners to establish the parameters of the special safeguard action, such as the volume or price used to trigger the special safeguard action. In the case of the price trigger, an upfront notification of the relevant reference prices has also been possible. In addition, an annual summary notification of the use of the special safeguard is required.

### **2.3 Domestic support**

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. The agricultural package of the Uruguay Round has fundamentally changed the way domestic support in favor of agricultural producers was treated under the GATT 1947. A key objective has been to discipline and reduce domestic support while at the same time leaving great scope for governments to design domestic agricultural policies in the face of, and in response to, the wide variety of the specific circumstances in individual countries and individual agricultural sectors. The approach agreed upon is also aimed at helping ensure that the specific binding commitments in the areas of market access and export competition are not undermined through domestic support measures. The main conceptual consideration is that there are basically two categories of domestic support — support with no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures). For example, government provided agricultural research or training is considered to be of the former type, while government buying-in at a guaranteed price ("market price support") falls into the latter category. Under the Agreement on Agriculture, all domestic support in favor of agricultural producers is

subject to rules. In addition, the aggregate monetary value of Amber Box measures is, with certain exceptions, subject to reduction commitments as specified in the schedule of each WTO Member providing such support.

### **2.3.1 The Green Box**

The Agreement on Agriculture sets out a number of general and measure-specific criteria which, when met, allow measures to be placed in the Green Box (Annex 2). These measures are exempt from reduction commitments and, indeed, can even be increased without any financial limitation under the WTO. The Green Box applies to both developed and developing country Members but in the case of developing countries special treatment is provided in respect of governmental stockholding programmes for food security purposes and subsidized food prices for urban and rural poor. The general criteria are that the measures must have no, or at most minimal, trade-distorting effects or effects on production. They must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and must not have the effect of providing price support to producers.

#### **a. Government service programmes**

The Green Box covers many government service programmes including general services provided by governments, public stockholding programmes for food security purposes and domestic food aid -as long as the general criteria and some other measure-specific criteria are met by each measure concerned. The Green Box thus provides for the continuation (and enhancement) of programmes such as research, including general research, research in connection with environmental programmes, and research programmes relating to particular products; pest and disease control programmes, including general and product-specific pest and disease control measures; agricultural training services and extension and advisory services; inspection services, including general inspection services and the inspection of particular products for health, safety, grading or standardization purposes; marketing and promotion services; infrastructural services, including electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, etc; expenditures in relation to the accumulation and holding of public stocks for food security purposes; and expenditures in relation to the provision of domestic food aid to sections of the population in need. Many of the regular programmes of governments are thus given the "green light" to continue.

#### **b. Direct payments to producers**

The Green Box also provides for the use of direct payments to producers which are not linked to production decisions, i.e. although the farmer receives a payment from the government, this payment does not influence the type or volume of agricultural production ("decoupling"). The conditions preclude any linkage between the amount of such payments, on the one hand, and production, prices or factors of production in any year after a fixed base period. In addition, no production shall be required in order to receive such payments. Additional criteria to be met depend on the type of measure concerned which may include: decoupled income support measures; income insurance and safety-net programmes; natural disaster relief; a range of structural adjustment assistance programmes; and certain payments under environmental programmes and under regional assistance programmes.

#### **c. Other exempt measures**

In addition to measures covered by the Green Box, two other categories of domestic support measures are exempt from reduction commitments under the Agreement on Agriculture (Article 6). These are certain developmental measures in developing countries and certain direct payments under production-limiting programmes. Furthermore, so-called de minimis levels of support are exempted from reduction.

#### **d. Developmental measures**

The special and differential treatment under the Green Box aside, the type of support that fits into the developmental category are measures of assistance, whether direct or indirect, designed to encourage agricultural and rural development and that are an integral part of the development programmes of developing countries. They include investment subsidies which are generally available to agriculture in developing country Members, agricultural input subsidies generally available to low-income or resource-poor producers in developing country Members, and domestic support to producers in

developing country Members to encourage diversification from growing illicit narcotic crops.

**2.3.2 Blue Box**

Direct payments under production limiting programmes (often referred to as "Blue Box" measures) are exempt from commitments if such payments are made on fixed areas and yield or a fixed number of livestock. Such payments also fit into this category if they are made on 85 per cent or less of production in a defined base period. While the Green Box covers decoupled payments, in the case of the Blue Box measures, production is still required in order to receive the payments, but the actual payments do not relate directly to the current quantity of that production.

**2.3.3 De minimis**

All domestic support measures in favor of agricultural producers that do not fit into any of the above exempt categories are subject to reduction commitments. This domestic support category captures policies, such as market price support measures, direct production subsidies or input subsidies. However, under the de minimis provisions of the Agreement there is no requirement to reduce such trade-distorting domestic support in any year in which the aggregate value of the product-specific support does not exceed 5 per cent of the total value of production of the agricultural product in question. In addition, non-product specific support which is less than 5 per cent of the value of total agricultural production is also exempt from reduction. The 5 per cent threshold applies to developed countries whereas in the case of developing countries the de minimis ceiling is 10 per cent.

**2.3.4 Reduction commitments**

Twenty-eight Members (counting the EC as one) had non-exempt domestic support during the base period and hence reduction commitments specified in their schedules. The reduction commitments are expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which includes all product-specific support and non-product-specific support in one single figure. Members with a Total AMS have to reduce base period support by 20 per cent over 6 years (developed country Members) or 13 per cent over 10 years (developing country Members). In any year of the implementation period, the Current Total AMS value of non-exempt measures must not exceed the scheduled Total AMS limit as specified in the schedule for that year. In other words, the maximum levels of such support are bound in the WTO.

In the case of Members with no scheduled reduction commitments, any domestic support not covered by one or another of the exception categories outlined above, must be maintained within the relevant "product-specific" and "non-product-specific" de minimis levels.

**a Aggregate Measurement of Support (AMS)**

Figure 1 : Measurement of Support

<p><b>Example: Calculation of the current total AMS</b> Member X (developed country), year Y</p> <p><b>Wheat:</b></p> <ul style="list-style-type: none"> <li>&gt; Intervention price for wheat = \$255 per tonne</li> <li>&gt; Fixed external reference price (world market price) = \$110 per tonne</li> <li>&gt; Domestic production of wheat = 2,000,000 tonnes</li> <li>&gt; Value of wheat production = \$510,000,000</li> <li>&gt; Wheat AMS (AMS 1) = (\$255-\$110) x 2,000,000 tonnes = \$290,000,000 (de minimis level=\$25,500,000)</li> </ul> <p><b>Barley</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for barley = \$3,000,000</li> <li>&gt; Value of barley production = \$100,000,000</li> <li>&gt; Barley AMS (AMS 2) = \$3,000,000 (de minimis level=\$5,000,000)</li> </ul> <p><b>Oilseeds:</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for oilseeds = \$13,000,000</li> <li>&gt; Fertilizer subsidy = \$1,000,000</li> <li>&gt; Value of oilseeds production = \$250,000,000</li> <li>&gt; Oilseeds AMS (AMS 3) = \$14,000,000 (de minimis level=\$12,500,000)</li> </ul> <p><b>Support not specific to products</b></p> <ul style="list-style-type: none"> <li>&gt; Generally available interest rate subsidy = \$4,000,000</li> <li>&gt; Value of total agricultural production = \$860,000,000</li> <li>&gt; Non-product-specific AMS (AMS 4) = \$4,000,000 (de minimis level=\$43,000,000)</li> </ul> <p><b>Current total AMS (AMS 1 + AMS 3) = \$304,000,000</b></p>
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Price support measures have been the most important type of policy measure within the non-exempt category. Price support can be provided either through administered prices (involving transfers from consumers) or through certain types of direct payments from governments. For the purpose of Current Total AMS calculations, price support is generally measured by multiplying the gap between the applied administered price and a specified fixed external reference price ("world market price") by the quantity of production eligible to receive the administered price. Calculation details are specified in Annexes 3 and 4 of the Agreement on Agriculture and also incorporated into Members' schedules by way of references to Supporting Material. For each product, the implicit subsidy of price support measures is added to other product-specific subsidies — a product-specific fertilizer subsidy, for example — to arrive at a product-specific AMS which is then evaluated against the applicable de minimis threshold. Non-product-specific subsidies are calculated separately and, as in the former case, are included in the Current Total AMS only if they exceed the relevant de minimis level. The example in the box illustrates the calculation of the Current Total AMS for a developed country (5 per cent de minimis threshold) in year Y.

#### b Equivalent Measurement of Support

Where it is not practicable to calculate a product-specific AMS as set out in the Agreement, provisions are made of an "Equivalent Measurement of Support" (EMS). The EMS is generally calculated on the basis of budgetary outlays — the money spent by governments to support a product, for example, rather than market price support calculated with respect to a fixed external reference price.

#### 2.3.5 Notification obligations

All Members must notify the Committee on Agriculture the extent of their domestic support measures. This requires a listing of all measures that fit into the exempt categories: the Green Box, developmental measures, direct payments under production limiting programmes (Blue Box) and de minimis levels of support. In addition, where the existence of measures requires it, AMS calculations must be undertaken by Members that have scheduled domestic support reduction commitments and the Current Total AMS must be notified. Where a Member without such scheduled commitments has support measures which are not covered by one or other of the exempt categories, a notification must be made showing that such non-exempt support is within the relevant de minimis levels. Special formats have been developed by the Committee on Agriculture in order to facilitate compliance with the notification obligations. The requirement to notify is annual, except in the case of least-developed country Members which are only required to notify every other year. Developing country Members can also request the Committee to set aside the annual notification requirement for measures other than those falling into the Green Box or the developmental or Blue Box categories. In addition to the annual notification obligations, all Members must notify any modifications of existing or any introduction of new measures in the exempt categories. These notifications too are

examined by the Committee on Agriculture on a regular basis. As most Members do not have domestic support measures other than those falling into the exempt categories, the annual notification requirements are in many cases not particularly burdensome. However, they are effective in providing a basis for policy discussions within the Committee on Agriculture and they also serve a useful purpose domestically in enabling governments to maintain an annual overview of support to their agricultural sectors.

## **2.4 Export competition/subsidies**

The core of the reform programme on export subsidies are the commitments to reduce subsidized export quantities, and the amount of money spent subsidizing exports. The Agriculture Agreement also looks at anti-circumvention questions. The proliferation of export subsidies in the years leading to the Uruguay Round was one of the key issues that were addressed in the agricultural negotiations. While under the GATT 1947 export subsidies for industrial products have been prohibited all along, in the case of agricultural primary products such subsidies were only subject to limited disciplines (Article XVI of GATT) which moreover did not prove to be operational.

The right to use export subsidies is now limited to four situations: (i) export subsidies subject to product-specific reduction commitments within the limits specified in the schedule of the WTO Member concerned; (ii) any excess of budgetary outlays for export subsidies or subsidized export volume over the limits specified in the schedule which is covered by the "downstream flexibility" provision of Article 9.2(b) of the Agreement on Agriculture; (iii) export subsidies consistent with the special and differential treatment provision for developing country Members (Article 9.4 of the Agreement); and (iv) export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture. In all other cases, the use of export subsidies for agricultural products is prohibited (Articles 3.3, 8 and 10 of the Agreement).

### **2.4.1 Reduction commitments**

#### **a Definition of measures**

Under the Agreement on Agriculture export subsidies are defined as referring to "subsidies contingent on export performance, including the export subsidies listed in detail in Article 9 of [the] Agreement". As specified in more detail in Article 9.1 of the Agreement, this list covers most of the export subsidy practices which are prevalent in the agricultural sector, notably:

- i. Direct export subsidies contingent on export performance;
- ii. Sales of non-commercial stocks of agricultural products for export at prices lower than comparable prices for such goods on the domestic market;
- iii. Producer financed subsidies such as government programmes which require a levy on all production which is then used to subsidize the export of a certain portion of that production;
- iv. Cost reduction measures such as subsidies to reduce the cost of marketing goods for export: this can include upgrading and handling costs and the costs of international freight, for example;
- v. Internal transport subsidies applying to exports only, such as those designed to bring exportable produce to one central point for shipping; and
- vi. Subsidies on incorporated products, i.e. subsidies on agricultural products such as wheat contingent on their incorporation in export products such as biscuits.

All such export subsidies are subject to reduction commitments, expressed in terms of both the volume of subsidized exports and the budgetary outlays for these subsidies.

#### **b Product categories**

The reduction commitments are shown in the schedules of WTO Members on a product-specific basis. For this purpose, the universe of agricultural products was initially divided into 23 products or product groups, such as wheat, coarse grains, sugar, beef, butter, cheese and oilseeds. Some Members took commitments on a more disaggregated level. The volume and budgetary outlay commitments for each product or group of products specified in a Member's schedule are individually binding. The reduction commitments on "incorporated products" (last item in the Article 9 list) are expressed in terms of budgetary outlays only. The ceilings specified in the schedules must be respected in each

year of the implementation period although limited "over-shooting" in the second to fifth year of implementation is permitted ("downstream flexibility"). By the last year of the implementation period, Members must be within their final export subsidy ceilings.

**c Rates of cut**

Developed country Members are required to reduce, in equal annual steps over a period of 6 years, the base-period volume of subsidized exports by 21 per cent and the corresponding budgetary outlays for export subsidies by 36 per cent. In the case of developing country Members, the required cuts are 14 per cent over 10 years with respect to volumes, and 24 per cent over the same period with respect to budgetary outlays. Developing countries may, during the implementation period, make use of a special and differential treatment provision of the Agreement (Article 9.4) which allows them to grant marketing cost subsidies and internal transport subsidies, provided that these are not applied in a manner that would circumvent export subsidy reduction commitments. All in all, 25 Members (counting the EC as one) have export subsidy reduction commitments specified in their schedules, with a total of 428 individual reduction commitments.

**2.4.2 Products with no specific reduction commitment**

The Agreement on Agriculture prohibits the use of Article 9.1 export subsidies on any agricultural product which is not subject to a reduction commitment as specified in the relevant part of the Member's schedule (with the exception, during the implementation, period of those benefiting from special and differential treatment).

**2.4.3 Anti-circumvention**

In addition to the provisions directly related to the reduction commitments, the Agreement on Agriculture contains provisions which are designed to prevent the use of export subsidies that are not specifically listed in Article 9 of the Agreement in such a way as to circumvent reduction on other export subsidy commitments (Article 10). The anti-circumvention provisions include a definition of food aid in order that transactions claimed to be food aid, but not meeting the criteria in the Agreement, cannot be used to undermine commitments. Food aid that meets the specified criteria is not considered to be subsidized export hence is not limited by the Agreement on Agriculture. The Agreement also calls for the development of internationally agreed disciplines on export credits and similar measures in recognition that such measures could also be used to circumvent commitments. Any Member which claims that any quantity exported in excess of a reduction commitment level is not subsidized must establish that no export subsidy, whether listed in Article 9 or not, has been granted in respect of the quantity of exports in question.

**2.4.4 Notification obligations**

All Members must notify the Committee on Agriculture annually with respect to export subsidies. For the vast majority of Members — those without reduction commitments — this involves only a statement to the effect that export subsidies on agricultural products have not been used (or a listing of those measures that may be used by developing country Members under Article 9.4 of the Agreement if this has been the case). For Members with reduction commitments in their schedules, the annual notification must contain the annual use of subsidies in terms of both volume and budgetary outlays. In addition, as part of the anti-circumvention provisions, Members must notify the use of food aid on an annual basis if such aid is granted. Likewise, total exports of agricultural products must be notified by Members with reduction commitments as well as by a number of other "significant exporters" as defined by the Committee. As in other areas, the export subsidy notifications form part of the basis for reviewing the progress in the implementation of the commitments by the Committee on Agriculture.

**2.5 On Agricultural Production Pattern and Distortion**

President Bush once tried to say, "Fool me once, shame on you. Fool me twice, shame on me." Paul Wolfowitz, as in his new job as president of the World Bank, some experts prefer to think that he is actually baffling the entire intellectual community by pitching the line that a new WTO agreement is the best way to help the world's poor<sup>7</sup> - when he maintains that protectionist barriers and subsidies in rich countries, especially in

<sup>7</sup> Ideas drawn from Global Policy Forum online resource titled, "The WTO and the World's Poor" by Dean Baker on "truthout" on July 12, 2006

agriculture, are hugely harmful to the world's poor. It is to be noted that Mr. Paul Wolfowitz claims that if these barriers were removed, it would provide enormous benefits to the world's poor<sup>8</sup>.

The standard economic models don't provide a basis for great hopes about a new WTO agreement. One recent analysis showed that the worldwide gains would be \$54 billion a year. This might sound impressive, until one starts to realize that it is equal to approximately 0.1 percent of world income. According to this model, approximately 1.9 percent of the gains would go to the world's poor, or close to \$2 billion a year. With 1 billion poor people, this translates into an average gain of \$2 a year. Even this might be too optimistic. Some of the world's poor might end up as losers from a WTO agreement. Cutting back subsidies to rich country farmers could be good news to the farmers who compete with them in the developing world, but it is surely bad news to consumers of these crops. They will have to pay more for their food. Some developing countries are net importers of agricultural products. They will end up as losers because they will be paying higher prices for their imports, with little or no gain on their exports<sup>9</sup>.

The standard models also assume that the work force will remain fully employed. In the real world, workers who lose their jobs in the agricultural sector in developing countries may not be able to simply find new employment elsewhere<sup>10</sup>. The mass displacement in Mexico's agricultural sector that followed in the wake of NAFTA has been one of the factors driving immigration into the United States<sup>11</sup>.

<sup>8</sup> World trade talks collapsed in Geneva (In July 2004) over America's and Europe's refusal to cut the billions of dollars they provide in support to their agricultural sector. As developing countries contemplate the ruin this spells for their farmers, John Madeley looks into the reasons behind the North's tragic intransigence. They employ less than two per cent of the workforce in their industrialised countries and their contribution to the national economies is rapidly declining. Yet, they receive a level of government support which verges on the bizarre and is causing no end of annoyance to the governments and people of the poorest countries of the world. Indeed, some say, it is a protection racket that was chiefly responsible for the recent collapse of the world trade talks. Welcome to the world of Northern 'farming', a phrase used loosely to describe the whole of the agricultural sector – from small farmers to the largest agricultural multinationals – in the world's richest countries. Government support to farmers in the so-called 'rich countries club' – the 30 who belong to the Paris-based Organisation for Economic Co-operation and Development (OECD) – totalled an astounding Eur 225 billion (US\$283 billion) in 2005, some 29 per cent of farm income. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>9</sup> An OECD study on the agricultural policies of member-states shows that the most heavily protected farmers in 2005 were in Switzerland, where 68 per cent of farmers' income came in government support, Norway (64 per cent), Korea (63 per cent), Japan (56 per cent) and European Union (EU) countries (32 per cent). Most of the support – more than half – was in the form of measures to boost the prices of farm products. These include import tariffs, export subsidies and domestic output subsidies, which "badly distort production, markets and trade", says the study. And it's not the small Northern farmer who is the main beneficiary – the support goes mostly to those who have the largest farms. In the European Union, 80 per cent of the money goes to 20 per cent of enterprises, often large agri-businesses. The day the Doha talks broke down the US agriculture secretary admitted 60 per cent of US farmers receive "virtually nothing" from the US Farm Bill. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>10</sup> Why do governments of Northern countries protect agriculture so heavily? And why are they so reluctant to change? Why does the sector, which accounts for a tiny percentage of their national earnings, have such hold over governments? "Agricultural policy reform is difficult to achieve, perhaps in part because those who fear they would lose are able to block or water down reform initiatives," says the OECD study. In Britain groups such as the Countryside Alliance and the National Farmers Union – which consists mostly of large-scale farmers – have often had considerable influence in government circles. Farmers score well with the public and this in turn influences policy. Popular radio programmes portray British farmers as guardians of the environment. "The strong European farming lobby has successfully tapped into an emotional strain among the public," says Christopher Stevens of the Overseas Development Institute, a London-based thinktank. Many people in Europe therefore go along with the view that a high level of government support for farming is necessary. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>11</sup> In Europe much of the money is channelled through the EU's Common Agricultural Policy (CAP). The single biggest gainer is the British dairy trading company, Fayrefield Foods, which received support totalling more than £22 million (\$40.7m) over 2004 and 2005, according to data obtained by the campaign group farmsubsidy.org. The £10 million claimed by Fayrefield Foods in 2004 was worth almost 10 per cent of its turnover – and dwarfed its profits, which were less than £1 million. The export arm of Dairy Crest, another well-known British brand, received a similar amount from CAP. Nestle, the Swiss food giant whose practices over marketing baby milk substitutes in the developing world have long been controversial, received more than £7 million. Some farm supports even find their way to those who are not the intended beneficiaries – such as large banks that service the agricultural sector. And some of the support to farmers and agribusiness in the North encourages overproduction and dumping – selling below the cost of production – on the world market. This can ruin the livelihoods of countless small-scale farmers in developing countries. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)



The standard models also employ a bit of economic chicanery<sup>12</sup>. They assume that the tariff revenue that developing countries lose when they cut their tariffs is made up from a "lump sum" tax. Lump sum taxes can be a useful modeling tool, but they don't actually exist in the world. A lump sum tax means that the government effectively sucks money out of the economy to pay its bills.

Using lump sum taxes in trade models is dishonest, because lump sum taxes do not lead to economic distortions. Real world taxes, like income taxes, sales taxes, or value-added taxes all lead to economic distortions - meaning that they reduce income. In other words, if the models assumed that the lost tariff revenue from a WTO agreement was made up through any real world tax, the projected gains would be even less than 0.1 percent of income<sup>13</sup>. In short, there is little reason to believe that the world's poor stand much to gain from a new WTO agreement<sup>14</sup>.

It wouldn't be difficult to design policies to aid the world's poor, if anyone cared. For starters, we could exempt them from US-type patent and copyright protections. This would mean that poor countries could always import generic versions of any drug, saving themselves both money and/or the time needed to arrange lower cost shipments from the drug industry. This could potentially save millions of lives as well. Exempting poor countries from patent and copyright rules would save developing countries money on everything from computers and software to books and recorded music and videos. The gains from this policy would vastly exceed even the most optimistic projections of gains from a new WTO agreement.

Of course, Paul Wolfowitz told the world that approving a new WTO agreement is essential for the world's poor. The problem is that there just is no evidence to support this claim. While it may be no easier to know his true motive for promoting a WTO agreement than it

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<sup>12</sup> The gainers naturally oppose any changes to the hand that feeds them. When EU governments announced reforms in CAP in June 2003, large-scale farmers strongly opposed a proposal for a ceiling on payments. The reforms de-linked a certain percentage of farm subsidies from production. So EU farmers receive direct payments - de-linked from how much they produce, or whether they produce at all. The reforms were about the way farmers are paid, not lowering levels of overall support. They are most unlikely to stop over-production and dumping, say international aid and development agencies who have examined the reform proposals. And three years on, some EU governments at least seem to recognise that the reforms they hailed as sweeping are nothing of the kind. The UK government has spoken of the need "to urgently tackle the scandal and waste of the CAP". Yet real reduction in levels of EU support has failed to materialise. EU ministers did agree in December 2005 to start a review of CAP in 2008, five years earlier than previously agreed, but France made it clear that it did favour any change before 2013. Farmers in countries with large rural areas such as France and Ireland are especially vocal in their defence of CAP, and have forced their governments not to yield to calls for reforms. Yet even in France, agriculture employs only 4 per cent of the workforce and contributes just 3 per cent to national income. Some say culture, history and tradition are powerful obstacles to change: "fundamental to our identity" is how the French trade minister Christine Lagarde describes farming. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>13</sup> Michael Hart of the Britain-based Small and Family Farms Alliance points out that while agriculture in Britain contributes only about 1 per cent to national income, farms cover almost 80 per cent of Britain's land. "The tourist industry rides on the back of the agricultural landscape," says Hart. "If land is not farmed it will return to wilderness." But the OECD study argues that high levels of support are not necessary to ensure the quality of the environment and prosperity in rural areas. CAP, and other Northern government support programmes like the US Farm Act, have thwarted progress in WTO talks on ending subsidies. The failure of the US and EU to make significant concessions on farm supports was largely responsible for the suspension of the WTO's Doha round in July. Along with continued international pressure, it will take a radical shift in domestic public opinion in the North to get them to change their position.

<sup>14</sup> On the other hand, for example, India's position on farm subsidies is a consequence of the current crisis in the country's agriculture sector. More than half of India's one billion-plus population depends on agriculture though the sector's share in the national GDP has declined to 20 percent from 40 percent over the last decade. In recent years, India's agricultural production has been increasing by less than two percent a year whereas the economy as a whole has been growing by eight percent. India's federal agriculture minister Sharad Pawar confirmed in May that between 1993 and 2003, at least 100,000 farmers had killed themselves because of their inability to repay loans. The Indian media continues to regularly report on suicides in the Vidarbha region in the western part of the country, where 655 farmers have killed themselves mostly by consuming pesticides, in the last two months alone. Prime Minister Manmohan Singh recently visited the region to commiserate with farmers. Pawar has gone on record stating that as many as 16,000 farmers continue to commit suicide each year in 32 vulnerable districts in western and southern India in the provinces of Maharashtra, Andhra Pradesh, Karnataka and Kerala. "The Indian government's decision to refuse to negotiate further on the issue of farm subsidies was a correct one," said Dhar. "What was on offer in the negotiations was way below our minimum expectations. No deal is better than a bad deal," he said, adding that the total quantum of farm subsidies given by the developed OECD (Organization of Economic Cooperation and Development) countries works out to 340 billion US dollars a year or almost a billion dollars a day. Retrieved from Global Policy Forum online resource "Rare Unity Against West's Farm Subsidies" by Paranjoy Guha Thakurta (Inter Press Service; July 27, 2006)

is to know Wolfowitz's true motive for promoting the invasion of Iraq, we should not get fooled again<sup>15</sup>.

## 2.6 A Primer on Doha Development Round

The Ministerial Conference is the apex body of the WTO. The biennial Ministerial Conferences are the most important events of WTO regime and the world of multilateral trade. The first two WTO Ministerial Conferences in Singapore (1996)<sup>16</sup> and Geneva (1998) did not have large agendas and little to decide because they were held in the aftermath of the Uruguay Round (1986-94), the most comprehensive round of MTNs under the aegis of the General Agreement of Tariffs and Trade (GATT). Therefore, they succeeded. However, the 3rd one held in Seattle (1999) imploded ignominiously and that in Cancún (2003) collapsed among acrimonious disagreements and confusion (Das, 2003). The inconclusive end of the Cancún Ministerial essentially eliminated the prospects of Doha Round ending by January 1, 2005, the scheduled completion date. As opposed to them, the 4th Ministerial Conference held in Doha, Qatar (2001), succeeded with a mandate for a new round of MTNs from the WTO members. This Ministerial Conference had to succeed due to several reasons. One of them was the September 11 terrorist attack in New York. At this point in time, the global community sorely needed a tangible symbol of success of cooperation and solidarity. Besides, a failure in Doha—on the heels of the debacle in Seattle—would have been a serious setback to the multilateral trade regime and put it under a question mark. It could have resulted in long-lasting, if not permanent damage, to the multilateral trading system. Many developing economies were less enthusiastic about a fresh round of MTNs essentially because they were having difficulties in implementing the recommendations of the Uruguay Round. Development objective was made an intrinsic part of it for the first time. The skepticism of the developing economies was allayed by promises in the area of development. The round was assigned a pro-development mandate, with integration of the developing economies into the multilateral trading system as one of its objectives. The WTO secretariat labeled it the "Doha Development Agenda" or the DDA, the official title of the round. At the time of its launch, it was billed as more than another round of MTNs. A total of 149 WTO members participated in the sixth Ministerial Conference held in Hong Kong SAR in mid-December 2005. If success is defined as lack of failure, it was a success. Candidly speaking, if it was not a failure, it did not achieve much of substance and was not a success either. Mattoo (2006) described the Doha Round as "a stagnant whole"; it is hard to take issue with this assessment. Disappointing as it was, the fact that it did not collapse was its valuable accomplishment. While it did not energize the Doha Round negotiations in any notable manner, it did not leave the MTNs eviscerated.

The Framework Agreement, or the so-called July Package, or the July Framework Agreement of 2004 (WTO, 2004) was the most important event preceding the Hong Kong Ministerial, which provided a firm step forward in the form of a framework for negotiations<sup>17</sup>. Retaining an element of continuity since the launch of the Doha Round, it reiterated the importance of development as a corner stone of the on-going MTNs as well as stressed the pressing need for reform in agricultural trade. Notwithstanding the July Framework Agreement, the MTNs were indubitably stagnating. In view of the disparity of positions among the large trading economies and country groups, major participants had forewarned months before the Conference to keep expectations from the Hong Kong Ministerial low, rendering them easy to meet. Therefore, the Ministerial Conference commenced on a less sanguine note and kept its objectives so low that they can be

<sup>15</sup> However, the U.S. has come in for severe criticism in India and elsewhere for its intransigence on the issue of reducing subsidies to its farmers. ActionAid's international director John Samuel was quoted on Wednesday in an IPS report saying: "The interests of 90 percent of poor farmers were being threatened for the sake of 2 per cent of the rich farmers." He said that the deadlock marked only a "semicolon in the process of multilateral world trade talks, not a full stop".

<sup>16</sup> The most important contribution of the Singapore Ministerial Conference was the addition of four "new" issues to the agenda of the World Trade Organization (WTO), which were subsequently christened the Singapore issues. They were (1) investment, (2) competition, (3) transparency in government procurement, and (4) trade facilitation.

<sup>17</sup> Ideas and figures drawn from Hong Kong Ministerial of the Doha Round of Multilateral Trade Negotiations: Achieving A Low-Level Equilibrium by Dilip K. Das. It is important to note that Dr. Dilip K. Das was educated at the Graduate Institute of International Studies, University of Geneva, Switzerland. A professor of international trade and international finance and banking, he was associated with Webster College Geneva; ESSEC, Paris; INSEAD, Fontainebleau, France; The Australian National University, Canberra; Graduate School of Business, University of Sydney, Sydney. He has published extensively on international trade, international finance, international business and globalization related issues. His most recent books include Regionalism in Global Trade, Edward Elgar, Boston, USA, 2004 and The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses. Palgrave Macmillan Ltd. Houndmills, Hampshire, UK. 2005. He presently works as a Toronto-based consultant to multilateral organizations.

achieved without difficulty. The targeted low-level equilibrium was indeed achieved at Hong Kong where few bold decisions were taken. Many long-awaiting decisions were put off for the future. Success in Hong Kong was possible and could have been achieved by thoughtful, pragmatic and clairvoyant negotiations on the one hand and political will of the member governments on the other.

Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as the rules was the other important, if controversial, issue under negotiations. Very little of value was achieved in these areas in Hong Kong. The harvest of decisions taken was meager because most of the politically difficult decisions were shelved for 2006. That negotiations on agricultural are as important as they are politically sensitive was evident in the Cancún Ministerial Conference also, where the developing economies, led by the Group-of-Twenty (G-20), had made it clear that further progress in the MTNs was not possible without industrial economies agreeing to lower their agricultural subsidies, particularly on cotton. The acrimonious disarray in Cancún was followed by an intense period of negotiations, which culminated in July 2004, providing an outline regarding how the Doha agreement can be restructured. This resulted in the above-noted July Framework Agreement<sup>19</sup>.

In negotiations on trade in agriculture, there are three principal areas of negotiations, namely, export subsidies, domestic support and market access. In the so-called Framework Agreement of July 2004, members had agreed to eliminate export subsidies on farm exports, albeit no deadline was agreed (Das, 2005)<sup>19</sup>. The core achievement in Hong Kong was agreement on a date, end of 2013, for the elimination of export subsidies. The EU, which accounted for 90 percent of these subsidies, accepted this date. The US, the developing economies—both the G-20 and the Group-of-Ninety (G-90)—and the Cairns Group had unsuccessfully tried to move this date back to 2010, but the EU took an intransigent stand<sup>20</sup>. The MTNs had languished since 2001 because of impasse over the politically sensitive agricultural issues. They had impeded negotiations in the other areas of MTNs as well. Therefore, in the interest of progress in the MTNs, the 2013 had to be reluctantly accepted. What was more disappointing was that negotiations on market access, or tariffs on agricultural products, and trade-distorting domestic support payment completely failed to make progress. These were more difficult areas of negotiations in agriculture than export subsidies. Any decision on them was deferred for 2006.

The US pledged to end export subsidies to its cotton farmers. Cotton exports are of special interest to farmers in Benin, Burkina Faso, Mali, Chad and Senegal, referred to as the Cotton-4. All of them were low-income least-developed countries (LDCs) and had stringently protested against the US subsidies for years. Ironically, the US was obliged to repeal them because it was challenged by Brazil on this issue in the WTO. In early 2005, the dispute settlement panel had given an adverse ruling. The US Congress was expected to repeal the subsidy within days of this promise. Once the final agreement is reached and implementation of the Doha Round recommendations begins, these countries would be provided duty-free, quota-free access of their cotton exports.

Regarding the non-agricultural market access (NAMA), the Hong Kong declaration made small progress, albeit left specifics of the modality decision to be taken between April and July 2006, which for all appearances seemed an unrealistic target<sup>21</sup>. The Hong Kong declaration locked in the progress of the Framework Agreement of July 2004 and members agreed to reduce or eliminate tariff peaks, high tariffs and tariff escalation. The so-called Swiss formula for slashing industrial tariff was adopted which, for a given set of parameters, cuts higher tariff rates proportionately more than the lower tariff rates. As no coefficients were mentioned in the declaration, the agreement was made mild. Mention of a higher coefficient for the industrial economies and lower one for the developing

<sup>19</sup> Developing countries led by Indonesia, India, and China issued a strong message to the World Economic Forum under way here that they will not allow attempts to dilute the agricultural negotiations in the Doha Round of trade talks by certain industrialized countries, especially the United States.

<sup>19</sup> Das, Dilip K. 2005. *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Houndmills, Hampshire, UK. Palgrave Macmillan Ltd.

<sup>20</sup> The Group-of-Ninety (G-90) is a large group of diverse developing economies and includes the emerging-market economies (EMEs), the newly-industrialized economies (NIEs) on the one hand and the low-income developing economies like the least-developed countries (LDCs) and the African, Caribbean and Pacific (ACP) countries on the other.

<sup>21</sup> The term modality implies schedules, formulas and other criteria for implementing tariff and subsidy reduction rates as well as the time table.

economies in the agreement would have made the NAMA related declaration more consequential.

Of the 50 LDCs, 32 are members of the WTO. According to the Hong Kong declaration, these members would be provided duty-free and quota-free market access for most—at least 97 percent of tariff lines—of their export products by 2008, or no later than the start of the implementation period. There is a probability of excluding sugar and textiles from this concession to the TDCs. A small undertaking on “aid for trade” is also a part of the Hong Kong proposal. This is an offer to assist small developing economies lack the infrastructure for trade. They also lose out due to competition. The industrial economies offered them deals in the area of capacity building and debt relief. Pledges for aid for trade were made by the EU, Japan and the US. One analyst regarded them as a mere bauble, a trivial give away (Halle, 2006)<sup>22</sup>. In the services trade the Hong Kong declaration set the deadline for negotiations, requiring member countries to make offers to open their markets in financial services, telecommunications, computer and related services, distribution, and energy services by July 2006 and final offers by October 2006. The agreement in Hong Kong established little in this important area of negotiations. Stalemate in services negotiations continued.

The opportunity that the Doha Round offers to the global economy, particularly the trading economies, is that of multilateral, non-preferential, legally-binding partial liberalization. A reasonably successful Hong Kong Ministerial would have resulted in welfare gains for the global economy, and its different regions and sub-regions. Estimates of gains from partial reforms promised under the Doha Round inter alia were made by Anderson et al (2006) and Anderson and Martin (2006)<sup>23</sup>. The principal conclusions of these empirical studies, that utilized a newly released database on protection and the latest version of the World Banks Linkage model, are as follows<sup>24</sup>:

- If one were to take under consideration merely the static benefits, potential gains from liberalization of trade under the Doha Round are large. In addition, there will be dynamic gains stemming from increased scale economies and competition, which is value-creating.
- While the developing economies' share of the global GDP is 20 percent, their gains from the Doha Round liberalization will be 30 percent of the total. This would lead to 0.8 percent rise in welfare in the developing economies, compared to 0.6 percent rise in the welfare in the industrial economies.
- Complete liberalization of merchandise trade would result in 45 percent of the global welfare gains going to developing economies. Their welfare could increase as much as 1.2 percent compared to an increase of 0.6 percent rise for the industrial economies.
- The proportion of welfare gains going to the developing economies is higher because their tariff barriers are relatively higher. Reforms would lead to higher efficiency gains in the developing economies. Also, their agricultural and textile exports face much higher tariffs in the industrial economies' markets than do exports from the industrial economies.
- Reforms and liberalization by the developing economies in their own economies will be as meaningful in terms of economic benefits as those in the industrial economies. By delaying reforms in their own economies, the developing economies will fail to realize the full potential gains from the Doha Round.
- Trade in agricultural products is the newest frontier of trade liberalization. This sector still suffers the stigma of the highest bound tariffs and largest subsidies, and needs large cuts in both.
- Trade liberalization in agriculture is of crucial importance, although importance of agriculture in the global GDP has been on a decline. Trade liberalization measures in agriculture will have far reaching implications for developing economies as well as the global economy. Approximately two-thirds of the total gains from the Doha Round are likely to come from agricultural liberalization, compared to almost a

<sup>22</sup> Halle, M. 2006. "Is Let's Make a Deal Now Dead at the WTO?" IISD Commentary. Geneva. International Institute of Sustainable Development. January 6.

<sup>23</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2006. "Market and Welfare Implications of the Doha Round Scenario" in K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank. pp. 333-399. Anderson, K. and W. J. Martin. 2006. "Agriculture, Trade reform and the Doha Agenda" in Anderson, K. and W. J. Martin (eds) *Agricultural Trade Reform and the Doha Agenda*. London and Washington. Palgrave Macmillan Ltd and the World Bank. pp. 3-35.

<sup>24</sup> Please refer to the WTO text on Hong Kong Ministerial No: WT/MIN(05)/W/3, issued on 7 December 2005 to see how these expectations were flouted in a virtually inactive/inconclusive set of declarations (to be) made at the aftermath of the HK meeting.

quarter from textiles and apparel and a tenth from other merchandise trade liberalization<sup>25</sup>.

Broadly speaking, there are substantive gains from liberalization of merchandise trade in the Doha Round of MTNs, particularly that in agricultural trade. The on-going MTNs are likely to culminate in partial trade reforms of the multilateral trade regime. The old assessment of global gains from partial trade reforms was \$400 billion in 2015, which was computed with the help of the World Bank's LINKAGE model (WB, 2004). Revised estimates of global gains have been scaled down to \$290 billion in 2015 (van der Mensbrugge, 2004)<sup>26</sup>. There were three reasons for this difference in the two estimates. First, a new Global Trade Analysis Project (GTAP) dataset was used to compute the second estimates, which had a different base year from the earlier computations. The bench mark of the earlier estimates was 1997, while that for the more recent ones was 2001. The new data set also incorporated the trade policy reforms undertaken between 1997 and 2001. It also reflected the non-reciprocal tariff preferences, which the previous data set did not incorporate. Second, the new data set successfully reflected the transformations that came about in the global economy, particularly the changing value of the dollar vis-à-vis other major currencies after 1997 and rising importance of several Asian economies as traders of global significance. Third, the new bench mark also included major global economies developments like China's WTO accession and liberalization commitments, implementation of the Uruguay Round commitments, of which dismantling of the multi-fiber agreement (MFA) was an important part, and the expansion of EU from 15 to 25 members that took place in May 2004. Together these developments have had an appreciable impact over the multilateral trade regime and the global economy. The value of welfare gains stemming from them was estimated to be \$70 billion to the global economy in 2015. As they were incorporated into the new baseline, they cannot be expected to make a renewed contribution to the estimates of welfare gains from the on-going round of MTNs.

Using a global model, Anderson et al (2005)<sup>27</sup> estimated potential consequences from a successful Doha Round agreement. According to their estimates, it could annually generate income gains for the global economy between \$95 billion and \$126 billion. While making these estimates, it was assumed that no exemptions were being made for sensitive and special agricultural products. Agriculture trade liberalization was found to have the

<sup>25</sup> Ideas and concepts heavily drawn from the article, "The Politics of Trade Liberalization in the Presence of FDI Incentives", by Andréa M. Maechler (Swiss National Bank; Last Revised: July 14, 2000). The paper examines whether inward FDI incentives can soften the political constraints associated with trade liberalization. After introducing the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996), the paper traces the effects of FDI incentives on the politically sustainable equilibrium level of trade protection. In particular, the paper shows that FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they inhibit the process of trade liberalization when labor is the main influential political force. Welfare implications are also considered.

One of the major contributions of this paper is to introduce the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996). While their maximization technique is borrowed for use in the paper, the author has modified it to analyze the interactions between the equilibrium levels of FDI incentives and of trade protection. In particular, how the presence of one policy instrument (FDI incentives) influences the equilibrium level of another policy (trade protection) is highlighted. According to the model presented in the paper, FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they exacerbate the process of trade liberalization when labor is the main influential political force. This dichotomy, which arises from the conflicting interests pursued by the lobby groups, highlights how important it is for the government to understand the economic and political motivations of the lobby groups if it want to promote an environment conducive to free trade. In particular, the results of the paper suggest that the domestic capital owners favor an FDI tax, while the labor union always lobbies for a higher level of trade protection. In equilibrium, when the two interest groups lobby over both policies, the government is in a better position to implement trade liberalization. If, however, one of the interest groups (say, the labor union) is particularly prominent on the political stage, it may be harder for the government to override its lobbying exports and hence, to liberalize trade.

Finally, the model suggests that the highest levels of policy intervention occur when special interest groups participate in the lobbying process, when these groups represent a relatively small fraction of the population and when the government places a relatively large weight on political contributions. This suggests that if a country's political framework does not restrain the government from pursuing mostly political rather than economic objectives, it would be socially optimal to substitute the government's discretionary powers over trade policy with a commitment to free trade. The paper is a must read for understanding some of the basic tenets of the entire research project that we have undertaken.

<sup>26</sup> van der Mensbrugge, D. 2004. "Linkage Technical Reference Document: Version 6.0". Washington DC: The World Bank.

Available on the Internet at <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1100792545130/LinkageTechNote.pdf>.

<sup>27</sup> Anderson, K., W. J. Martin and D. van der Mensbrugge. 2005. "Global Impact of the Doha Scenario on Poverty". Washington DC: The World Bank. (mimeo).

largest impact. Reforms in this one sector will be responsible for 60 percent of the total gains from merchandise trade liberalizations. On the whole, larger income gains were estimated to go to the industrial economies because they were assumed to undertake more aggressive trade reforms in the Doha Round. As the developing economies suffer from a large binding overhang, and negotiations are based on bound tariffs, not applied tariffs, the reforms undertaken by them will only have a minor impact in terms of genuine liberalization of the trade regime<sup>28</sup>. Given this scenario, the industrial economies would achieve between 40 percent and 45 percent of what they could under full merchandise trade reforms. Similarly, the developing economies will achieve approximately 20 percent of what could be achieved under full merchandise trade reforms. Adding these gains, total global welfare gains that are likely to be achieved come to one-third of those from freeing global merchandise trade totally.

Developing economies have more to gain from full elimination of merchandise trade barriers. As trade reforms engender positive externalities in the form of improved productivity in the economy, the gains to developing economies could increase up to \$200 billion in 2015 (Anderson et al, 2005)<sup>29</sup>. The state of MTNs at the time of the Hong Kong Ministerial Conference clearly indicated that liberalization measures adopted in agriculture and manufactures can be realistically expected to be modest, albeit improvements in the market access in agricultural market in the industrial economies is well within the realm of possibility. Empirical evidence is available to show that trade liberalization contributes to poverty alleviation<sup>30</sup>. Also, estimates of impact of trade liberalization under the DDA on poverty came to a positive result. This was essentially due to the fact that the existing pattern of global protection favors skilled labor and capital relative to unskilled workers. Therefore, reduction or elimination of barriers in merchandise trade would lift the unskilled wages, the primary source of income for many of the world's poor. In real terms this wage increase was found to be modest. Hertel and Winters (2006)<sup>31</sup> show that the poorest in the developing economies can potentially benefit most from the liberalization endeavors during the Doha Round of MTNs. However, that was found to be conditional. For the poor to benefit, the liberalization targets "under the DDA have to be ambitious if the round is to have a measurable impact". Only deep tariff cuts would have poverty friendly impact. Even then the "near-term poverty impacts are likely to be mixed" (Hertel and Winters, 2005)<sup>32</sup>. If the developing economies decide not to take reform measures, the estimated poverty impact would decline markedly. Notwithstanding this pessimism, the long-term impact of the DDA on poverty reduction is more definite and pronounced.

However, a quagmire around agriculture has evolved. Although a declining sector of the global economy, it still employs a large proportion—54 percent—of work force in the developing economies<sup>33</sup>. Not freeing trade in agriculture from barriers works basically against the interest of the developing economies<sup>34</sup>. Also, it cannot be ignored that majority of the poor in the developing economies live in the rural areas. It is widely acknowledged that poverty is essentially a rural phenomenon in the developing economies. Therefore, if the final outcome of the MTNs has to be pro-poor, trade in agriculture will need to be an area of exclusive attention. Liberalization of agricultural trade would gradually change market shares of countries and country groups and

<sup>28</sup> The term binding overhang needs to be explained. A country may decide to apply tariff rate of 20 percent on the import of a good, but it may keep the bound tariff at 50 percent. The WTO rules allow this country to raise its tariff rate to 50 percent if it so decides. The difference between the bound tariffs and applied tariffs is known as the "binding overhang".

<sup>29</sup> Ibid

<sup>30</sup> See, for instance Dollar and Kraay (2004), Winters (2004) and Winters, McCulloch and McKay (2004).

<sup>31</sup> Hertel, T.W. and L.A. Winters.2006. Poverty and the WTO: Impacts of the Doha Development Agenda. London and Washington Palgrave Macmillan Ltd and the World Bank.

<sup>32</sup> Hertel, T.W. and L.A. Winters.2005. "Poverty Impacts of a WTO Agreement: Synthesis and Overview In Hertel and Winters (eds.) Putting Development Back into the Doha Agenda: Poverty Impact of a WTO Agreement. Washington DC. The World Bank. pp. 3-28.

<sup>33</sup> HK Ministerial text denotes "On domestic support, we note in particular that there is a working hypothesis of three bands for developed countries for reductions in Final Bound Total AMS and in the overall cut in trade-distorting domestic support with higher linear cuts in higher bands. In addition, developed countries in the lower bands with high relative levels of Final Bound Total AMS will make an additional effort in AMS reduction. We also note that there has been some convergence concerning the reductions in Final Bound Total AMS, the overall cut in trade-distorting domestic support and in both product-specific and non product-specific de minimis limits". (Paragraph 5 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>34</sup> "We recall our agreement to ensure the parallel elimination of all forms of export subsidies, and disciplines on all export measures with equivalent effect by a credible end date. We note emerging convergence on some elements of disciplines with respect to export credits, export credit guarantees or insurance programmes with repayment periods of 180 days and below, as well as on some aspects of exporting state trading enterprises, and on some elements regarding the disciplines on food aid necessary to eliminate commercial displacement." (Paragraph 6 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

eventually reflect the comparative advantage of countries and country-groups in multilateral trade<sup>35</sup>.

The articles of agreements of the GATT-1947 had some regulations for trade in agriculture, but they made several exceptions and had loopholes, which were freely exploited by the Contracting Parties (CPs). Consequently, agriculture became one of the most distorted areas of multilateral trade. Industrial economies increasingly subsidized their farm sector and trade—which was permissible—and erected trade barriers. So much so that trade in agriculture was virtually outside the ambit of the GATT system until the Uruguay Round (1986-94). It was not easy to bring it under the multilateral trade regime like merchandise trade. After enormous and long drawn-out efforts, the Uruguay Round Agreement on Agriculture (URAA) was instrumental in drawing agricultural trade within the sphere of the multilateral trade regime. These efforts not only contributed to slowing down of the negotiations in the Uruguay Round but also prolonged it. The URAA imposed new disciplines on trade in agricultural products. The new rules were implemented between 1995 and 2000. Under the URAA industrial economies committed to (i) reducing domestic support to agriculture, (ii) reducing export subsidies and (iii) improving access to their markets. These were referred to as the "three pillars" of the agreement. As progressive liberalization of agricultural trade was a long-term process, the WTO members committed to continue negotiations on it under the so-called "built-in agenda". This was the mandate of the WTO Agreement of April 1994. Accordingly, the agricultural negotiations began in January 2000.

Since the URAA agricultural trade has continued to grow, but ironically more slowly than the pre-URAA period and more slowly than non-agricultural trade (OECD, 2005a)<sup>36</sup>. While trade in agriculture came within the domain of the multilateral regulations, the URAA failed to deliver significant multilateral liberalization in agricultural trade (Messerlin, 2002)<sup>37</sup>. Developing economies complained that on the whole the URAA did not work as intended and that they did not get a fair deal. Evidence supported their gripe that tariff cuts by the developing economies were significantly deeper than what was agreed to by the industrial economies (Finger and Winters, 2002)<sup>38</sup>. In addition, they had to commit to costly commitments that were embodied in the Sanitary and Phytosanitary (SPS) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements. Some of the requirements for the developing economies under the SPS agreements are more stringent than those for the industrial economies. Given this background of malcontent, higher market access commitments were sought by the developing economies in the Doha Round from the industrial economies.

As expected, the Doha Round began with high expectations of reforms in agricultural trade, but members did not agree on the first draft on modalities which was presented in February 2003. The Cairns Group found the draft unambitious, conversely the EU, Japan, Norway and Switzerland found it not only overly ambitious but also unbalanced in terms of the three pillars of negotiations. Among many disagreements and contretemps in the 5th Ministerial Conference, held in Cancún, were the sectoral initiative taken by the Cotton-4 opposing cotton subsidies in the industrial economies because they depressed cotton revenues in the West African countries by \$250 million per year (Section 3). The demand of the Cotton-4 countries was met in the Hong Kong Ministerial. Before the Cancún Ministerial, the EU and the US agreed on a broad framework for negotiating agricultural trade liberalization and presented a joint framework paper on agricultural negotiations, which was found to be weak by many members. It was followed by counter-proposal by

<sup>35</sup> "On market access, we note in particular the progress made on ad valorem equivalents and that there is a working hypothesis for four bands for structuring tariff cuts. We also note that there have been some recent movements on the designation and treatment of Special Products and elements of the Special Safeguard Mechanism (SSM)". (Paragraph 7 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>36</sup> "On special and differential treatment, we note in particular the consensus that exists in the Framework on several issues in all three pillars of domestic support, export competition and market access and that some progress has been made on other special and differential treatment issues." (Paragraph 8 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>37</sup> "However, we recognize that much remains to be done in order to establish modalities and to conclude the negotiations. Therefore, we agree to intensify work on all outstanding issues. In particular, we are resolved to establish modalities no later than [...] and to submit comprehensive draft Schedules based on these modalities no later than [...]" (Paragraph 9 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>38</sup> Organization for Economic Cooperation and Development (OECD). "Tackling Trade in Agriculture". Policy Brief. November.

<sup>39</sup> Messerlin, P.A. 2002. "Agriculture in the Doha Agenda". Paper presented at the World Bank Roundtable on Policy Research in Preparation for the 5th Ministerial Conference in Cancún in Cairo, during May 20-21.

<sup>40</sup> Finger, J.M. and L.A. Winters. 2002. "Reciprocity in the WTO" in B. Hoekman, A. Mattoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC. The World Bank.

the G-20. This framework paper was more ambitious than the EU-US framework paper, particularly in the areas of export subsidies and domestic farm support. There were significant differences in the two framework papers and deep disagreements regarding how to proceed. A veritable negotiations log-jam was created.

After intense negotiations, an elaborate "Framework for Establishing Modalities in Agriculture" was prepared and made into an Annex of the Framework Agreement July 2004. This Annex was the most significant part of the Framework Agreement and was structured around the three pillars. Members had decided upon a framework to eliminate all forms of export subsidies as well as render better discipline on export credit and exporting state trading enterprises. Regarding the trade distorting farm subsidies, it was agreed in the Framework Agreement that the new discipline will include deeper cuts in farm subsidies in countries which have the highest levels of subsidies. "Progressive tariff reductions" was also a part of the Framework Agreement. However, the timeframe of implementation was left without mention.

The industrial economies dominated the global trade in agriculture when the Doha Round was launched, as they did at the time of the Hong Kong Ministerial. While developing economies exporters have more market access opportunities in agriculture than in textiles and clothing, even at the time of the Hong Kong Ministerial their exports faced high tariffs in the industrial economies. While average tariff rates faced by agricultural exports from the developing economies are 15.6 percent in the industrial economies, they are 9.3 percent for textiles and apparel exports and 2.5 percent for the other manufacturers (Anderson and Martin, 2006)<sup>39</sup>. Producer support estimates (PSE) for the Organization for Economic Cooperation and Development (OECD) economies were almost the same in 2001-03 as in 1986-88, hovering around \$240 billion annually (Anderson and Martin, 2006)<sup>40</sup>. Agricultural tariffs are high in the developing economies as well, therefore, this sector a fortiori deserves special attention in the on-going Doha Round negotiations<sup>41 42 43</sup>.

<sup>39</sup> OECD (2005b) buttresses this point using producer support statistics for the 1986-2004 period.

<sup>40</sup> Producer Support Estimate (PSE) is defined as the annual monetary value of gross transfer from consumers and tax payers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on the farm production or income.

<sup>41</sup> As of January 2007, Trade ministers of the G33 are demanding flexibility to moderate the impact of imports of some farm products such as rice, pulses (legumes), and sugar on its farmers, and will work with World Trade Organisation members to ensure development is part of the multilateral trade negotiations. World leaders - including British Prime Minister Tony Blair, Brazil's President Luiz Inácio Lula da Silva, South Africa's President Thabo Mbeki, among others stepped up their efforts at the World Economic Forum's 37th annual meeting for a speedy conclusion to the stalled "Doha Development Round", but differences cropped up over how to intensify the talks and who should make the first move to break the deadlock.

<sup>42</sup> In July, the WTO director general suspended the negotiations after trade ministers of the G6 (United States, European Union, Brazil, India, Australia, and Japan) failed to agree on the magnitude of reduction commitments for farm subsidies and tariffs. The leaders reportedly insisted that all members must strive for an early conclusion of the Doha trade negotiations (launched at the 4th WTO ministerial conference in the Qatari capital, in 2001), stating that a failure to arrive at an agreement bodes poorly for the global trade system. During a closed-door meeting of leaders convened by the WEF on Friday, in which the WTO chief Pascal Lamy chaired the discussion, the Indian trade minister said many developing countries would prefer a formal resumption of trade talks, arguing that they want a "credible" outcome from the Doha Development Agenda.

<sup>43</sup> At the core of the stalemate in the Doha farm trade package is whether the United States is ready to cut what some call its trade-distorting domestic subsidies to a level below 15 billion dollars, and accept clear discipline to ensure that there is no concentration of subsidy payments for certain products. In October 2005, the United States had proposed that it would reduce its agricultural subsidies to a level above 22 billion dollars, but almost all members rejected the U.S. proposal on the ground that it allowed no material change in its current subsidy payments. The United States, for example, spent little over 11 billion dollars last year on farm subsidies. Consequently, the EU, Brazil, India, Canada and others insisted that the U.S. demands to spend on its domestic subsidies well over its current actual subsidy payments leave farmers in other countries at disadvantage. In fact, the U.S. subsidies for cotton were found to have depressed global cotton prices, harming the interests of four West African cotton-producing countries: Benin, Chad, Burkina Faso, and Mali. The ongoing intensive consultations between Washington and Brussels to find what they are calling a "landing zone" for a palatable agreement in the Doha farm package is facing difficulties on account of differences on how big the reductions of farm subsidies should be. U.S. Trade Representative Susan Schwab has repeatedly said that Washington is committed to curbing its farm subsidies, provided there is real market access for U.S. farm products into industrialised countries, such as the EU, Japan, and Switzerland, and developing countries like India, China, and Indonesia. Washington had maintained that the flexibilities sought by the G33 members, through what are known as special products and special safeguard mechanisms, would constitute a loophole to deny market access for U.S. products. Arguing that trade liberalisation is all about opening markets as new trade flows provide an opportunity for all countries, the United States had demanded steep cuts in import tariffs for both farm and industrial products. Many developing countries have rejected the U.S. demands to pry open their farm markets on the grounds that they have specific livelihood and rural development concerns that cannot be sacrificed overnight.



Three months before the Hong Kong Ministerial Conference, the US had made a proposal for deep cuts in both, but the EU made a weak counter-proposal which would have resulted in little additional market access to what is currently available. Differences in positions were wide and agreement on trade in agriculture was not reached in the Hong Kong Ministerial, but some progress was made in the year and a half since the Cancún Ministerial, which led to narrowing of differences. However, negotiations were nowhere near deciding on modalities.

Therefore, a new schedule was agreed in Hong Kong for continuing negotiations in 2006 and resolve the unfinished agenda by the end of the year. Going by the past experience, this target appears unattainable<sup>41</sup>.

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<sup>41</sup> Ideas expressed and initiated in this section are heavily drawn from "The Implications of Trade and Investment Liberalization for Sustainable Development: Review of Literature; Final Report", Prepared by Colin Kirkpatrick, Clive George, and Serban S. Scricciu; Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester for the Department for Environment, Food and Rural Affairs; 19th May 2004. This study was undertaken at the request of the UK Department for Environment, Food and Rural Affairs, United Kingdom. Its purpose was to provide a comprehensive and critical review of the literature relating to the implications for sustainable development, in particular the environmental and social dimensions, of the greater liberalization of international trade and investment flows. The study has examined the likely effects of trade liberalization and greater investment flows on sustainable development, which is considered to have three aspects, namely economic, social and environmental. The study primarily focuses on the environmental and social dimensions of sustainable development, and examines whether these potential impacts of trade and investment liberalization are likely to be positive. In making this assessment, the study has taken into consideration both their direct (positive and negative) impacts and indirect consequences. In the course of the literature review, over 200 studies have been selected for inclusion in the report. Some of these studies have been of a theoretical nature but most have been empirical studies. Based on these studies, the assessment of the potential impact of trade and investment liberalization on sustainable development is organized around the following cross cutting effects:

- Scale effects: the impact of increased levels of trade, investment and economic activity on environmental and social outcomes.
- Structural effects: the implications for environmental and social outcomes of the structural adjustment within and between economies that occur as the pattern of resource use (production and consumption) shifts in response to trade or investment liberalization.
- Technology effects: environmental or social outcomes arising from greater access to new technologies, which in general tend to produce less pollution and use fewer resources than their predecessors.
- Location effects: the environmental and social implications of shifts in production and consumption between countries, and possibly shifts within countries.
- The integration of environmental (and social) considerations (or lack of it) into global and regional trade and investment institutions and frameworks.

Key Findings mention that:

- Much of the literature on the consequences of trade liberalization is focused on one dimension of sustainable development and seldom provides an integrated analysis of the economic, environmental and social effects of greater trade and investment flows.
- The methodologies used in the empirical studies are very diverse. There are potential difficulties if the use of different methods, in the same situations, leads to apparently different findings. This highlights the importance of clarifying the methodology used in each study and its principal assumptions when interpreting its findings.
- Much of the economic analysis of trade liberalization uses a combination of classical trade and welfare theory to deduce, under idealized market conditions, that trade liberalization will lead to increased economic welfare and 'optimal' environmental quality. However, in imperfect market conditions, 'win-win' outcomes are not guaranteed. In real world situations, both negative and positive effects should be expected. 'Win-win' outcomes may be potentially realizable, but whether this is achieved in practice may depend on the nature and extent of the flanking and other supporting measures that are taken.
- The findings of the empirical studies, though they differ in detail, reach the same conclusions and are consistent with the findings reached in the theoretical studies. Although there are often potential, aggregate economic welfare gains to be made from trade liberalization and increased foreign investment inflows, these are not necessarily shared by all countries and all socio-economic groups within these countries. Further, a significant number of the cases reviewed contain examples where the environmental (and social impacts) are negative, where existing environmental and social protection measures are insufficiently effective. As in the case of the theoretical studies, flanking and other supporting measures assume a potentially pivotal role, if trade liberalization is expected to deliver an overall positive contribution to sustainable development.
- The review of the literature provides support for the conclusion that most 'win-win' outcomes for sustainable development are conditional upon the application of appropriate flanking and other supporting measures. Formal appraisals of flanking measures for trade policies are not well developed. However, certain types of environmental policy instruments that may be used have been appraised in other policy contexts and these may be adapted for use in the trade policy area.
- The responsibility and authority for adopting and implementing the different flanking and other supporting measures varies. Only some of these lie with the WTO. The remainder fall within the competence of other international organizations, including the multilateral environmental agreements, or more commonly, with national and local government authorities supported by their social partners. Effective co-operation between different government ministries and different international institutions is very important, and in the case of developing countries, financial and other forms of external support are needed to assist the poorer countries to participate fully in the trade and sustainable development process.

## 2.7 Other Issues of Relevance to Agriculture

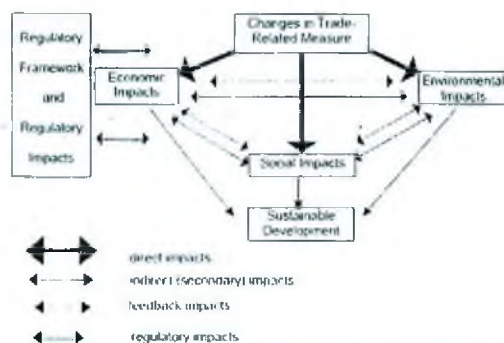
The main reduction commitments are in market access, domestic support and export subsidies. But the Agriculture Agreement contains other provisions, including export restrictions, a "peace clause", dispute settlement and further negotiations.

### 2.7.1 Export restrictions

The Agreement on Agriculture requires Members which consider to institute new export restrictions on foodstuffs to give due consideration to the effects of such restrictions on importing Members' food security. Members, except developing country Members which are not net exporters of the product concerned, must notify the Committee on Agriculture before introducing new export restrictions on foodstuffs and consult with affected Members if so requested. This requirement — increased reliability of access to world market supply — is a corollary for the opening of markets which is required by the market access provisions of the Agreement and the related specific commitments undertaken by Members.

### 2.7.2 Peace clause

The Agreement in Agriculture contains a "due restraint" or "peace clause" which regulates the application of other WTO agreements to subsidies in respect of agricultural products (Article 13). The provisions provide that Green Box domestic support measures cannot be the subject of countervailing duty action or other subsidy action under the WTO Agreement on Subsidies and Countervailing Measures, nor can they be subject to actions



The theoretical and empirical evidence that has been reviewed in this study confirms that while trade and investment liberalization may be a necessary condition for continued growth and hence provide one of the cornerstone policies in promoting sustainable development, it is not a sufficient one. To ensure that trade and investment liberalization contributes to sustainable development in developed and developing countries, sound social and environmental policies are needed, both at the national and international level. This requires the development of appropriate regulatory frameworks. The robustness of environmental and social policies and institutions, including the adequacy of supporting regulatory instruments, are important determinants of the environmental and social impacts of trade and investment liberalization. The paper concludes that trade and investment liberalization impacts on the environment in many different ways. In many situations — possibly the majority — both the economy and the environment may benefit but only if certain preconditions are met. These preconditions are established by implementing a set of policies that will allow for 'win-win' outcomes to be realized. The aim of key policies such as those outlined above is to ensure that any negative repercussions that greater trade and investment liberalization might have on environmental performance are minimized as much as possible and that any eventual positive impacts are maximized. The objectives of such policies may conflict with the principles underlying trade and investment liberalization, as they are intended to promote environmentally sustainable development rather than simply economic efficiency and growth. How environmental policy-making relates to multilateral trade and investment policies is an ongoing and contested area for international discussion and negotiation within and outside the WTO (Jha V. (2002) 'Environment, Regulation and the WTO' in B. Hoekman, A. Mattoo and P. English (eds) *Development, Trade and the WTO: A Handbook*. Washington DC: World Bank; Sampson, G. P. and Chambers, W.B. (2002) *Trade, Environment, and the Millennium*, United Nations University Press). Irrespective of the institutional structures that evolve, multilateral trade policy and environmental policy-making need to jointly address issues in a balanced and coherent manner, which recognizes that trade liberalization and environmental protection are each means for achieving the end goal of global sustainable development. Policies on economic development and environmental (and social) protection should be designed and implemented in conjunction with each other, thereby avoiding the separation of trade liberalization policy from environmental policy. In other words, the more integrated environmental and trade policies are, the more sustainable economic growth will be (Panayotou, 2000). Moreover, it is crucial in the case of developing countries that besides effective cooperation between various institutions and governments, substantial additional financial and technical assistance is provided to enable the poorer nations to engage effectively in this process of enhancing understanding and strengthening policy coordination in the areas of trade, environment and development.

based on non-violation nullification or impairment of tariff concessions under the GATT. Other domestic support measures which are in conformity with the provisions of the Agreement on Agriculture may be the subject of countervailing duty actions, but due restraint is to be exercised by Members in initiating such investigations. Further, in so far as the support provided to individual products does not exceed that decided in the 1992 marketing year, these measures are exempt from other subsidy action or nullification or impairment action. Export subsidies conforming to the Agreement on Agriculture are, to the extent relevant, covered by corresponding provisions. The peace clause remains in effect for a period of nine years.

### **2.7.3 Resolving disputes**

In the case of disputes involving provisions of the Agreement on Agriculture, the general WTO dispute settlement procedures apply. Nevertheless, the Agreement also provides for certain mechanisms that can be used by Members to address their concerns without recourse to these procedures. In particular, the review process of the Committee on Agriculture provides a forum for discussion and consultation. This process is mainly based on the notifications and on a provision (Article 18.6) allowing any Member to raise at any time any matter relevant to the implementation of the commitments under the reform programme as set out in the Agreement. There is also a counter-notification provision. Furthermore, the Working Procedures of the Committee allow Members to request the Chairperson to mediate in concerns that may arise between them. The use of instruments under the auspices of the Committee on Agriculture does not, however, prevent any Member from seeking formal dispute settlement at any time.

### **2.7.4 Continuation clause**

The commitments taken under the Agreement on Agriculture and within the Members' schedules are part of an ongoing process. Already at the conclusion of the Uruguay Round, Members agreed to hold further negotiations on agriculture commencing one year before the end of the six-year implementation period (Article 20). These negotiations will examine what further commitments are necessary to achieve the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform. The negotiations are also to take into account factors such as the experience gained during the implementation period, the effects of Uruguay Round reduction commitments on world trade in agriculture, non-trade concerns, special and differential treatment to developing country Members and the objective to establish a fair and market-oriented agricultural trading system.

## **2.8 Summary of Negotiation Parameters**

This summary provides an overview of key elements of the Agreement on Agriculture and the related commitments<sup>45</sup>.

### **2.8.1 Market Access**

<b>Instrument</b>	<b>What it says or deals with</b>
Article 4.2	Prohibition on the use of restrictions on imports other than tariffs;
Article 4.1 and Schedules	All tariffs bound;

<sup>45</sup> On the reasons why need detailed discourse on trade and trade liberalizations, the article titled, "Trade Wars: The Exaggerated Impact of Trade in Economic Debate" by Richard B. Freeman (paper subsequently published in *The World Economy*, Vol.27, No.1, 2004) was consulted. Among other issues, the article notes that trade has been at the heart of economic debates about globalization in the past decade. Proponents of Washington Consensus (WC) style globalization have touted the benefits of trade and open capital markets to developing countries and warned of the dangers of global labor standards. Opponents of WC style globalization have worried that trade with developing countries lowers employment and wages in advanced countries and create a race to the bottom in poor countries. The referenced paper shows that both proponents and opponents of WC style globalization have exaggerated the effects of trade and of trade treaties on economic outcomes. It is argued that: 1) trade and widely debated trade treaties have had modest often indiscernible impacts on labor and other economic outcomes, and that in the US at least immigration has affected national factor proportions more than trade, 2) international capital flows have created as much harm as good in developing countries, and thus need to be more carefully regulated and monitored; 3) trade and labor standards are complements in the global economy, so that improvements in one create pressures for improvements in the other.

Article 5	Special agriculture safeguard mechanism against import volume surges or import price declines below a trigger level (limited to "tariffed" products and not applicable to imports under related tariff quota commitments);	
Schedules	Tariffs resulting from conversion of non-tariff border measures under negotiating modalities ("tariffication") plus pre-existing tariffs on all other agricultural products to be reduced;	
Schedules	Implementation of current and minimum access opportunity commitments in respect of tariffed products.	
	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Average tariff reductions of 36% (minimum 15%) over 6 years.	Average tariff reductions of 24% (minimum 10%) over 10 years; Where "ceiling bindings" commitments undertaken reductions not required except on ad hoc basis; Least developed not required to undertake reduction commitments.

### 2.8.2 Domestic support

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 6, 7 and Annex 2	Policies divided into two groups; (i) permitted policies (Green Box), (ii) other policies included in the Aggregate Measure of Support (AMS) subject to reduction commitments (Amber Box);	
Article 6.5	Decoupled direct payments associated with production limiting programmes (Blue Box) not in Green Box but excluded from AMS.	
	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 6.2	De minimis provision allows exclusion of support less than 5% of output value from AMS;	Developing countries allowed to use some types of investment and input subsidies under certain conditions;
Article 6.4(a) and (b)	Total AMS support to be reduced by 20% over 6 years.	De minimis provision allows exclusion from AMS of product-specific and non-product specific support less than 10% of respective current output value;
Schedules		Total AMS support to be reduced by 13.3% over 10 years;
Schedules		Least-developed countries must bind AMS support level if applicable but not required to reduce it.

### 2.8.3 Export subsidies

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 9	Definition of export subsidies subject to reduction;	
Article 10	Other export subsidies subject to anti-circumvention provisions which include disciplines relating to food aid;	
Article 3.3	Prohibition on the use of export subsidies on products not subject to reduction commitments.	
	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Distinct reduction commitments on both volume (21%) and	Two-thirds of the reduction required for developed countries over ten years;

Article 11	budgetary outlays (36%) over six years; For incorporated/processed products budgetary outlays only (36%).	
Article 9.4		Exception during the implementation period in respect of certain marketing and internal transportation subsidies.

**2.8.4 Export prohibitions and restrictions**

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 12	Requirement for advance notice and obligation to consult on request and supply information in case of new export restrictions on foodstuffs.	
	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 12.2		Exception for developing countries that are net-exporters of the foodstuff concerned.

**2.8.5 Other aspects**

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 13	Peace Clause;	
Article 17	WTO Committee on Agriculture given the task of overseeing the implementation of the Agreement and related commitments;	
Article 16	Marrakesh Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.	

**2.8.6 Sanitary and Phytosanitary measures**

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 14	Separate Agreement: Reaffirms right to countries to set their own health and safety standards provided they are justified on scientific grounds and do not result in arbitrary or unjustified barriers to trade; encourages use of international standards; includes certain special and differential treatment provisions	

# QUALITATIVE STUDY

### 3.0 Qualitative Study

#### 3.1 Avenues for WTO Impact into Agricultural Sector of Bangladesh

Agriculture continues to play a key role in the overall economic performance of Bangladesh. It still dominates in terms of its contribution to GDP, poverty alleviation, and foreign exchange earnings and in providing employment to a large segment of the population, especially the rural poor. Consequently the nation's progress well into the next century will depend on government policies in the agricultural sector. In Bangladesh, as in most developing countries, agriculture plays a key role in the overall economic performance of the country, not only in terms of its contribution to GDP, but also as a major source of foreign exchange earnings, and in providing employment to a large segment of the population, particularly the poor. But the relationship between agriculture and the macro-economy is not a one-way street. Macroeconomic performance and policies have a very important impact on agriculture. Agriculture will remain important in attaining overall growth, adjustment and poverty alleviation objectives in Bangladesh. It still provides a large share of GDP -- close to one-third -- and this share is not likely to decline significantly in the short - or medium-term. Agriculture is also a key sector to providing export earnings as well as generating jobs not only in farming but also in the highly important agricultural manufacturing sector<sup>46</sup>. The productivity of agriculture in Bangladesh is generally low and agricultural growth, excepting good performance (due to good weather) during 1992-94, generally stagnated in the 1990s<sup>47</sup>.

Experts suggest that the future of Bangladesh agriculture will depend on how the outstanding issues of key instruments such as land credit and environment are addressed. Land remains central to the economic and social life of rural Bangladesh. People's understanding of this centrality has, however, not remained constant. Demand for redistributive land reform was a key part of the anti-colonial struggle. Similar sentiments dominated the political discourse of 1950s and 1960s. The gap between intentions and achievements, however, has led some marginalization of the paradigm itself but still the centrality of land in shaping the life of the people has not declined seriously. Under the present circumstances, a comprehensive rethinking of the paradigm should be structured around two major objectives: (i) a wider and empirically up-to-date understanding of how land assumes centrality in rural life; and (ii) how processes of the state, in particular the use of land administration and judiciary, interface with the use of land as property and means of production.

Hossain Zillur Rahman, in one of his essays sponsored by the World Bank Group, "Rethinking the Land Reform Question" identifies four core elements of the land reform agenda for the 1990s: (i) land administration reform removal of rigidities and dysfunctionality from the existing structure of land administration for effective land reform; (ii) supplementary land reform while there are compelling arguments against redistributive programme aimed at the intensively used private lands, there is a clear case for reform programmes which aim to provide access to the landless over the state sector lands; (iii) field experiences success in the area of land reform is contingent upon parallel

<sup>46</sup> The future growth of agriculture will require policy changes, in four key areas: (i) strengthening private sector trade by permanently abolishing relevant restrictions; (ii) making the price stabilization mechanism more efficient by relying on international trade (both public and private) in place of public storage; (iii) targeting the food insecurity and removing untargeted subsidies that are now captured, at least partly, by the affluent; and (iv) making public food operations more efficient by withdrawing the government from commercial activities.

Quoted from Rasheed FARUQUEE, RDS, World Bank, Dhaka

Source:

<http://wbi0018.worldbank.org/lo%20web%20sites/bangladesh%20Web.nsf/0704a4348e105b2e46256672002397512fead9227a4d674514625671100349641?>

<sup>47</sup> Eminent economist Wahiduddin Mahmud argues in his essay, "Agricultural Development Strategy: Critical Issues and Perspectives" that agricultural growth has been under some strain for a good part of the 1990s. The question of improving and sustaining agricultural growth raises a number of issues; concerning agronomic constraints, farm-level incentives, production technologies, comparative advantage and market supply-demand balances. Wahiduddin Mahmud refers to several studies that have addressed these issues in order to devise a strategy that can deal with new challenges and opportunities to make agriculture more flexible, diversified and efficient. He builds on these studies to redefine an appropriate role of public policy, taking into account the market-oriented liberalized policy reforms of the country in the past. He examines supply imbalances, constraints and prospects focusing on cropping patterns, profitability aspects and crop diversification, and suggests that price incentives do matter in farmer decision-making and labor-intensive irrigation technology, such as hand tubewells and treadle pumps, which is particularly advantageous for small farmers. He also examines the trends in agricultural productivity, irrigation coverage and fertilizer use, and suggests that further productivity growth in crop agriculture must stem from technological innovations.

Source:

<http://wbi0018.worldbank.org/lo%20web%20sites/bangladesh%20Web.nsf/0704a4348e105b2e46256672002397512fead9227a4d674514625671100349641?>

improvements in the sphere of judicial process and the emergence of effective local governments; and (iv) debate from below organization of a debate from below as distinct from a debate at the level of experts or policy-makers so that personal knowledge graduate into analytical knowledge which can have the force of national demands.

Removing financial sector constraints on the development of an efficient and sustainable rural finance system, including all types of rural financial intermediaries, is essential for furthering economic growth. Currently, rural finance in Bangladesh is dominated by both formal and informal sectors, such as government-run commercial and agricultural banks, semi-formal financial institutions and NGOs like Grameen Bank and BRAC and professional moneylenders, who are virtually outside the control of the government. Over the years, however, there has been a substantial reduction in the role of informal lenders, and a moderate increase in the role of formal financial institutions, but a significant increase in the role of semi-formal agencies in rural finance. Such achievement in micro-credit delivery in Bangladesh was primarily orchestrated by Grameen Bank. But agricultural financing of semi-formal agencies is predominately targeted at supporting rural non-farm activities that provide self-employment to the asset-less poor who are members of these institutions. This indicates that small and medium farmers, who cultivate more than 80 per cent of the operational holdings in Bangladesh, require improved access to credit for increasing agricultural production<sup>48</sup>. Also, in yet another forum, the economy of Bangladesh is essentially agricultural, and agricultural growth is its most important component. The sector now accounts for about 35 per cent of the GDP and about 76 per cent of the contribution of the productive sectors (agriculture, mining, quarrying and manufacturing) to the GDP (at constant prices), and some 69 per cent of the labour force (BSB 1994). The role of agriculture in the national economy remains crucial not only as the supplier of food and raw materials and the most important source of employment, but also as the major source of demand for various types of goods and services produced by the other sectors of the economy<sup>49</sup>.

Although the production of food-grains has increased significantly over the past two decades, hunger has not been conquered. On the contrary, more people now have less access to food than ever before: on the one hand, the population has grown rapidly (holding down the per capita availability) and, on the other, disparity has increased (denying/reducing access of increasing numbers of people to food). As already stated, more farmers are now small and marginal and more people are landless labourers with limited access to employment. Further increase in agricultural production and employment is threatened by the unabated environmental degradation caused by the on-going process of human activities, including agriculture, alongside an ever-increasing population pressure on land.

Intensive and continuous cultivation of uniform crops, the introduction of high-yielding hybrid crops, indiscriminate use of chemical fertilizers and pesticides, large-scale deforestation, and utilization of marginal areas and wetlands, and water bodies such as beels, haors and baors for cultivation and other purposes have all taken their toll, reducing the genetic wealth of the country. Moreover, infrastructures such as dams, embankments, polders and canals for flood control, navigation and hydropower generation have caused reduction in biodiversity and increased vulnerability of crops, animals, fishes,

<sup>48</sup> In his essay, "Rural Sector Finance: Current Issues and Perspectives", Shahidur R. Khandker reviews the existing structure of rural financial markets and identifies broad sectoral policy actions that might improve their functioning. He suggests that the fact that small and medium farmers, who account for more than 80 per cent of farmers with a holding of more than 50 decimals, do not have access to credit is a clear indication of market failure, and the sluggish performance of agriculture in Bangladesh may be attributed to such credit constraints. Developing an alternative institution, designed to reach these target households, would be a challenge for policy-makers. Khandker believes that rural finance in the twenty-first century will be governed more by micro-credit institutions, such as Grameen Bank and other NGOs, which will emerge as credit unions. Prudent regulations should be in place for facilitating the integration of various financial institutions that can improve cost-effectiveness as well as ensure efficient delivery of rural financial services.

Source:  
<http://wbjn0018.worldbank.org/lq%20web%20sites/bangladesh%20Web.nsf/0704a4348e105b2e462566720023975f2f0ad927a4d624514625671100349641?>

<sup>49</sup> In fact, after the quantum jump to nearly 20 million tons by 1990, the food-grain production has virtually stagnated. It is therefore urgently required to review the whole agricultural productive base in Bangladesh the agro-ecology. As a consequence of the increasing number of people trying to extract as much food as possible from the country's limited land area, its genetic resources biodiversity has been eroded. Increased demand on land from such sources as housing on both rural and urban areas, urban infrastructure, industries, roads and various physical overheads has transformed the landscape of the country significantly, forcing agriculture to expand by clearing forests and bringing marginal areas and wetlands under cultivation and to resort to continuous cultivation of the same lands. The forest cover has now been reduced to only 6-9 per cent of the total land area of the country, and the cropping intensity has increased from 151 to 182 per cent during 1969/70 - 1991/92.

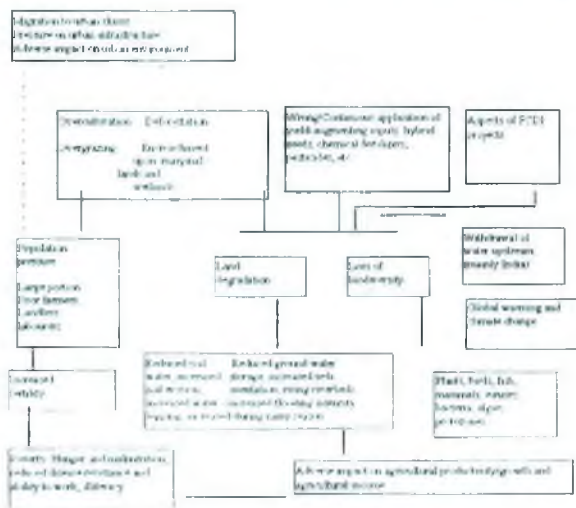


and birds. In addition, frequent floods, riverbank erosion, siltation and accretion, and tidal bores adversely affect the environment which, in turn, increases agricultural vulnerability<sup>50</sup>.

Also, continuous siltation has raised riverbeds which dry up in winter, resulting in reduced feeding and breeding grounds for birds and fishes. A major cause of reduced availability of water, drying up of rivers and saline intrusion in the Ganges basin area of Bangladesh is the reduced flow of water below Farakka during the dry season as a result of withdrawal of water upstream in India.

Structural Adjustment Policies/Programs – commonly known as SAP – have been indicators for avenues which could work as the gateway for outcomes of WTO negotiations to take roots in Bangladesh<sup>51</sup>. Over the years SAP has generated considerable controversy regarding its impact on growth, employment, food security<sup>52</sup> and poverty. Bangladesh has

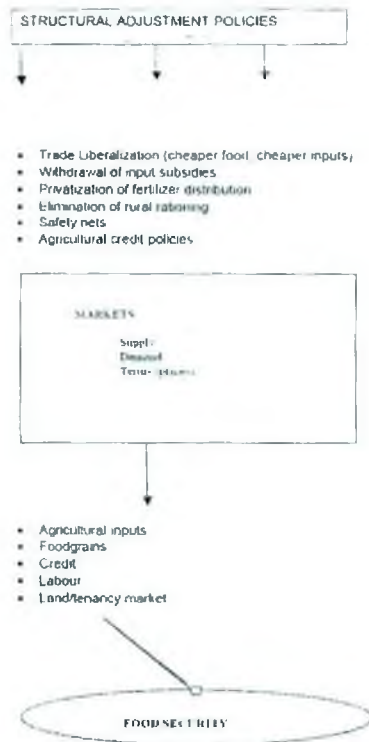
<sup>50</sup> Agricultural Growth and Environmental Degradation: Positive Feed back Spiral



<sup>51</sup> From IMPLICATIONS OF AGRICULTURAL POLICY REFORMS ON RURAL FOOD SECURITY AND POVERTY by K A S Murshid, Research Director, BIDS

<sup>52</sup> There are two distinct aspects of food security: food availability and food access. The former primarily refers to a geographical space (e.g. the nation, a district or a Thana) while the focus of the latter is on the individual and the household. It is clear that both are important for food security and that the two need not always reinforce each other. In fact a growing concern in countries like Bangladesh has been with the question of access, and in particular whether better national level food availability was progressing hand in hand with micro level access. SAPs are likely to have a close bearing on both conditions of availability and of access. For example, policies that contribute towards cheaper food imports or higher domestic food production directly improve conditions of availability. To the extent that policies affect incomes and asset-holdings of the poor, these also affect their access or food entitlements. Policies that have an impact upon aggregate availability include macro policies (e.g. the exchange rate and trade liberalization policies) as well as sectoral policies that improve production incentives at the farm level (cheaper inputs, better output prices). Policies that have a bearing on access on the other hand, include reforms of the Public Food Distribution System and farm price support and credit policies. There may also be quite significant indirect effects of the various reforms on access, primarily acting through changes in the land and labour markets. Schematically:

made substantial progress towards trade liberalization and macroeconomic adjustment policies, including rationalization of policies relating to agricultural price support and input subsidies<sup>53</sup>. These have significant implications for food production and food security<sup>54</sup>.



<sup>53</sup> The Agricultural Subsidies got a substantial boost since 2007- 2008. The Bangladesh caretaker government announced an overall budget of Tk 871.4 billion (\$12.6 billion) for fiscal year 2007/08 (July-June), 30 percent higher than the revised FY 2006/07 budget, relying heavily on massive domestic borrowings and foreign assistance.

The Annual Development Program (ADP) allocation is Tk 269.6 billion (\$ 3.84 billion), of which 8.2 percent is for Agriculture. The Finance Adviser has set a higher GDP growth rate target of 7 percent for FY 2007/08 and hopes to bring inflation down to 6.5 percent. The following are some of the proposals relating to the agriculture and rural development sectors in the FY 2007/08 Budget: The subsidy allocation for agriculture was increased to Tk 22.5 billion (\$326 million) from Tk 11 billion (\$159 million) in FY 2006/07, comprising Tk 15 billion (\$217 million) for fertilizers and Tk 7.5 billion (\$109 million) for diesel. The agricultural research allocation was also increased to Tk 3.5 billion (\$51 million). The current 20 per cent rebate on electricity bills for using electricity-powered pumps will continue in FY 2007/08. The government has set an agricultural credit disbursement target of Tk 63.5 billion (\$920 million) through public sector agricultural and commercial banks.

To meet the foodgrain shortfall and to build adequate grain buffer stocks, the government authorized import of 800,000 tons of foodgrains, over and above imports by the private trade. Under the vulnerable group-feeding (VGF) program, the budget has allocated 400,000 tons of rice to provide subsistence coverage to five million beneficiaries across the country for eight month period. Additionally, about 600,000 tons of foodgrains will be distributed for other relief programs.

In response to the outbreak of Avian Influenza, a special Tk 200 million (\$2.9 million) project was approved for the monitoring of the AI outbreak, compensation to poultry farmers, and hygienic production and marketing of poultry products. A Tk 1 billion (\$14.5 million) fund has been proposed for relief operations targeted to disaster affected small farmers. Additionally, Tk 5.5 billion (\$80 million) has been allocated for rural employment generation programs for poor and marginal farmers, mostly through non-government organizations (NGOs).

The Budget contains the following proposed changes in the import duty structure:

- Elimination of the four percent infrastructure development surcharge on all imports;
- Introduction of import duty slabs at 10 percent, 15 percent and 25 percent for raw materials, intermediate goods and finished products respectively in place of the existing 5 percent, 12 percent and 25 percent; and
- Merger of the existing two slabs of supplementary duty (15 percent and 25 percent) into a single slab of 20 percent.

To keep staple food prices low, the budget proposes a complete withdrawal of the customs duty on crude edible oils and lentils, and continuation of duty-free imports of rice, wheat, onion, peas, chickpeas, and fertilizers. To safeguard the interests of domestic sugarcane growers and the sugar industry, the budget raised the import duty on raw sugar to Tk 4,000 (\$58) per ton from the existing Tk 2,250 (\$32.6) per ton.

<sup>54</sup> Bangladesh has carried out a series of successive liberalisation measures in agriculture sector under the aegis of the World Bank and the IMF. She has opened her agricultural market since 1980s, initially by

1. Exchange rate policies - generally the Bangladesh currency has been edged towards its equilibrium rate of exchange, making agricultural imports (inputs, food) more expensive and exports cheaper (Forhad, 1998). More expensive inputs could slow technological change while cheaper exports makes agriculture more competitive.
2. Trade liberalization policies - reduction of tariffs and removal of quantity restrictions have occurred across the board and has had a profound impact on agricultural input imports and food security (the latter through private rice imports in the face of shortages and the former through expanded irrigation coverage). Liberalization of imports of irrigation equipment took place in the late 1980s while the ban on rice imports by the private sector was lifted in 1994.
3. Monetary/Credit policies - official credit disbursed to agriculture has declined in the face of strong donor criticism against poor recovery rates and frequent loan forgiveness. The NGO sector has traditionally shied away from agricultural credit for want of an effective institutional model of agricultural credit delivery.

Sector-specific SAPs include<sup>55</sup>:

1. Withdrawal/reduction of input subsidies (e.g. fertilizers) - this affected only locally produced urea fertilizers, tending to raise its price. Other things remaining constant, this would tend to lower usage and therefore yields.
2. Privatization of the fertilizer distribution system - the fertilizer distribution system went through major reforms in the late 80s-early 90s when the monopoly role of the BADC was removed from wholesale trade and fertilizer distribution; non-urea imports were also opened up to private imports and distribution. There was some reversal of policy after the crisis of 1994-95, with the introduction of a system of distribution through authorized (licensed) dealers operating within their own districts (and selected by a National Coordination Committee). Policy reforms related to the fertilizer sector have been the most challenging, commencing as early as 1978 (when the BADC first began to withdraw from sales/distribution at the local level) to 1994-95 when, as already noted, some policy reversals took place. It has also been observed that while liberalization of the distribution system has improved availability, prices have tended to be more volatile, especially for urea - an indication of monopoly elements even in the new distributional arrangements (Shahabuddin and Rahman, 1998).
3. Withdrawal of ban on private sector imports of irrigation equipment in the late 1980s - this led to a surge of imports of irrigation equipment in the late eighties-early nineties and a spurt of growth in the crop sector.
4. Withdrawal of ban on rice/foodgrain imports by the private sector in 1995 - the private sector has moved quickly and aggressively to this sector. In 1998-99, more than 3 m MT of rice was imported from India privately.

liberalising the input market. Agricultural markets in Bangladesh are now substantially liberalised. Reforms have been quite extensive in the areas of:

- i. fertiliser marketing and distribution,
- ii. minor irrigation,
- iii. seed development and marketing,
- iv. interest rate deregulation,
- v. food import.

<sup>55</sup> Table: step-by-step Liberalization of Agricultural Input Markets

	Actions	Time span	Remarks
<b>Fertilizer Market</b>			
1	BADC withdrew from retail and wholesale markets at Thana levels. The primary distribution point	1978-83	This was done at Chittagong Division first. Vigorous response from traders
2	Licensing requirement was abolished and restriction on movement removed (except 5-mile border zones with India)	1982-83	
3	Deregulation of fertilizer price	1982-84	Real competition started
4	Allowing private traders direct purchase from factory gate and port points	1989	Vigorous response from traders
5	Free import from world market	1992	Good response, but fear of oligopoly persisted
<b>Irrigation Devices</b>			
1	BADC sold all its low lift pumps to private parties backed by special credit arrangement for purchasers	1980-82	Good response from farmers
2	BADC sold all its tubewells for irrigation to farmers and cooperative, sale supported by special credit arrangement for purchases	1983-85	Good response from farmers
3	Restriction on import of engines and pumps withdrawn	1988	Drastic fall in prices of engines
4	Standardization restrictions limiting makes and models removed	1988	Drastic fall in prices of engines
<b>Power Tillers, Pesticides and Seeds</b>			
1	Restriction on power tiller import and standardization requirement removed	1989	Modest response
2	Restriction on import by brand names liberalized for pesticides	1989	Modest response
3	Exceptive and wheat, all seed import liberalized	1990	Modest response

5. Rolling back of BADC - The largest parastatal in the agricultural sector - phased out its operations from 1978, gradually from fertilizers (imports, sale, distribution), irrigation and seeds.
6. Reform of the Public Food Distribution System in the 1980s - rural rationing was abandoned and there was a policy shift towards distribution through safety-nets (FFW, VGD). Subsidized sales from the PFDS have dwindled; stabilization operations like OMS have been retained.
7. Seed markets - the National Seed Policy, 1992 provided for privatization of seed production beyond the foundation stage; the GOB monopoly on five 'notified' crops have been retained (including rice).

Given the fact that the 'relevant' SAPs are diverse and have been implemented over a long period of time (early 1980s to mid-90s), often marked by fits and starts, and sometimes characterized by policy reversals, a neat one-to-one cause and effect type exercise had always been very difficult to construct<sup>56</sup>.

An examination of an important World Bank document (World Bank 1993) serves to highlight the issues related to successful SAP implementation<sup>57</sup>. The more important ones underscored include -

- (a) The need for a strong political will, broad consensus and unwavering commitment on the part of policy makers;
- (b) Internalization of policy formulation rather than being driven by external leverage;

<sup>56</sup> SAP and Poverty - a Log-frame Approach (adopted from K A S Murshid, Research Director, BIDS; 2000)

SAP	Intended Effects	Actual Impact	Relationship to Poverty
<b>Fertilizer pricing and distribution</b>			
(i) Reduction of subsidy on urea	prevent smuggling, improve availability, improve efficiency, reduce pressure on the budget	Availability improved. Prices increased.	Poor farmers better access. Use per acre of urea increased - thus no significant affected
(ii) New distribution system	improve availability, stabilize prices	Availability improved	
<b>Import liberalization</b>			
(i) Irrigation equipment	Lower import prices, increase consumer choice	Imports increased and irrigated area expanded rapidly	Very positive response, better availability, positive effect on labor market
(ii) Foodgrains	Lower prices for consumers, improve availability	Large private sector response, prices stabilized	Availability improved. Food security
<b>Public food distribution system</b>			
(i) Safety nets	Direct targeting of the poorest, women	Able to reach the poorest groups, including poor women	Good coverage targeting
(ii) Subsidy reduction	Reduce budgetary pressure, reallocate subsidies to poor through safety nets	Budgetary pressures eased, Distribution through safety nets increased	
(iii) OMS	Price stabilization of foodgrains	Positive	Lower prices food crises
Seed market reforms	Allow private sector imports production to improve availability, quality	Very partial reforms - Government monopoly on main crops not removed	No impact

<sup>57</sup> The following institutional aspects of the challenge of smallholder development need to be noted:

1. Development of smallholder agriculture requires high investments in co-specific assets by a variety of different players, in situations with significant information problems, high opportunity costs for capital and, for some parties, significant risk aversion. Therefore, a CME institutional set may be more appropriate than an LME set.
2. Agriculture is an activity in which continuous technical innovation seems more likely and appropriate than discontinuous innovation, again suggesting that the CME institutional set may be more appropriate than the LME set.
3. There is currently a serious lack of the asset-specific investment needed for development in input supply systems, in agricultural finance, in processing and marketing, and in transport and water infrastructure.
4. If strategic commitment to asset-specific investment could be secured, both horizontally (among specific categories of players such as traders and farmers), and vertically (within supply chains), then much higher growth rates could probably be achieved.
5. Institutions needed to promote strategic commitment to asset-specific investment are largely lacking. Up to the end of the 1980s, the state had played, with mixed success, the central role in providing infrastructure, subsidized finance and input and output marketing services. Processors were often state owned and/or operated under policies of protection.

- (c) Inertia and tentativeness on the part of the government, adoption of fitful measures;
- (d) Resistance from entrenched bureaucracies, especially in the context of institutional reforms;
- (e) Commissioning and review of studies supposed to provide inputs into the SAP process are often deliberately delayed as a dilatory tactic.

Mainstream analysis of agricultural trade liberalization has tended to focus on the effects of trade reform and other policy instruments on the volumes and location of production, consumption and resulting trade flows. Insofar as institutional change is a change in the rules of the game, trade policy liberalization can be thought of as a bundle of institutional changes. In this sense, mainstream analysis of trade liberalization is a form of institutional analysis<sup>58</sup>. In Bangladesh, with hindsight, it must be said that the reforms related to agriculture fared relatively better than that of most other sectors – with the possible exception of the macro reforms. Question arises where there was greater political will or commitment for agricultural sector reforms or that these originated internally from within the government. A more plausible explanation relates to the level of donor pressure on the one hand and the ease with which the government could 'sell' these to its different constituencies – including the bureaucracy, the farmers, the academics and the opposition political parties. Clearly where the government itself was inherently satisfied with the logic and the need for a particular reform measure it would try that much harder to overcome the resistance from different vested groups. Some reform measures entailed less resistance – e.g. liberalization of irrigation equipment imports and rationalization of the PFDS to make it more pro-poor. On the other hand withdrawal of input subsidies and proposals for restructuring the BADC met with stiff resistance. In the case of the former, the government was worried that this would be used as a political tool by the opposition while in the case of the latter, the BADC itself lobbied strongly against it with a helping hand from the 'entrenched' bureaucracy. The resistance against subsidy withdrawal (e.g. from fertilizers) diminished only after other costs of production, especially irrigation costs were brought down by irrigation sector reforms. Another area of heated debate was privatization of the fertilizer distribution system which had been a monopoly of the BADC. Implementation of this policy again, took a lot of effort involving persuasion, studies and donor conditionalities before the government was convinced of its desirability<sup>59</sup>.

<sup>58</sup> The nation, or an alternative aggregation such as a region, can be considered as a system with a particular historical institutional endowment. The institutions of its political economy must be examined from a perspective that recognizes there are different routes to the achievement of effective coordination. The liberal market economy (LME) institutional set is effective in some regards, but unsatisfactory in others. Thus, when liberalization policies are proposed for a particular nation or region, it is necessary to consider these as developments of that nation's systemic approach to dealing with coordination problems. Radical changes may be damaging, as they amount to new institutional models which are not rooted in accepted ways of solving coordination problems. They risk damaging existing sources of "comparative institutional advantage" while failing to find new ones.

LME institutions are probably not appropriate for the development of smallholder agriculture in pre-Green Revolution areas of the poorer countries, although this conclusion is tempered by the fact that transactions challenges differ by crop, and generally are at their most difficult for semi-tradable staples. Thus the institutional changes required by liberalization measures within the Washington Consensus on Agriculture (WCA) (described in Chapter 6) may be taking poor farmers down a blind alley. For poor farmers, the key challenge is to devise institutional arrangements which are able to reduce transactions costs and also induce a much stronger strategic commitment to investing in needed specific (and co-specific) assets. The characteristics of poor smallholder agriculture are such that LME institutions are unable to solve the very particular coordination problems that arise. As yet there is little in terms of detailed alternative policy proposals or policy experiments to find alternative paths for trade liberalization to support growing rural welfare and food security.

Whether poor farmers do benefit from liberalization, and enhanced food security, will be partly a matter of the appropriateness of national institutions, rural institutions and the particular institutional arrangements that can be developed to support the transactions of smallholder farming. From this it follows that it is critical that policy be developed on the basis of an understanding of what are likely to be broad outlines of appropriate institutional arrangements, i.e., arrangements that will be transaction cost-reducing and specific asset investment-inducing.

<sup>59</sup> Agricultural price policies, particularly price supports and input subsidies, have a direct impact on agricultural incentives, thereby influencing agricultural production, investment, growth, employment and income distribution. Commodity-specific trade policies, such as export taxes, import tariffs and quantitative restrictions on both imports and exports also have a direct impact on agricultural incentives.

But the influence of agricultural policies on agricultural sector performance is only half the story. Macroeconomic policies, particularly restrictive trade and exchange rate policies, also have a large indirect impact on the agricultural sector in Bangladesh they change the nature of economic incentives relative to other sectors. During the 1970s and early 1980s, for example, macroeconomic policies to protect the industrial sector were established. This resulted in a significant appreciation of the real exchange rate, which in turn, result in reduction in the real incomes of farmers producing exportable commodities and import-competing agricultural products, since an overvalued real exchange rate represented a tax on these sectors within agriculture. These so-called indirect impacts of macroeconomic policies can be substantial and can potentially offset benefits of the direct policies designed to boost incentives.

Estimates of the commodity terms of trade for the 1980s and early 1990s show that up until the reforms in the

mid-1980s, the terms of trade moved significantly against the agricultural sector, compared to the 1969/70 base period (Table following).

Between 1986/87 and 1989/90 this trend reversed, with terms of trade favouring agriculture. Since the early 1990s, however, the terms of trade have again shifted to the non-agricultural sector and are roughly what they were in the late 1960s.

Table: Trend of Commodity Terms of Trade (1969/70 = 100)

Year	Terms of Trade	Year	Terms of Trade
1980/81	81	1987/88	113
1981/82	87	1988/89	114
1982/83	80	1989/90	114
1983/84	92	1990/91	105
1984/85	103	1991/92	102
1985/86	102	1992/93	102
1986/87	112		

Source: Zohir (1993)

While the overall incentive structure now appears to be neutral, the indirect impact of macroeconomic policies continues to penalize the agricultural sector. A recent study, (Rahman 1994) estimated the direct effect of agricultural policies on farmer incentives, as well as the indirect effects associated with the appreciation of the real exchange rate as a result of trade and exchange rate policies. Both nominal and effective rates of protection were calculated and some of the results are reported in the following table.

Table: Direct and Total Nominal and Effective rates of Protection to Producers of Agricultural Commodities, 1973-1991

Commodity	Protection	1973/74-1975/	1976/77-1	1981/82-1	1986/87-1	Average
		76	980/81	985/86	990/91	
Total Agriculture	NRP Direct	9.0	-17.7	3.1	-8.9	-5.1
	NRP Total	-13.7	-30.8	-17.6	-18.1	-20.1
	ERP Direct	19.6	-17.3	19.4	7.6	7.3
Rice	NRP Direct	-4.2	-30.7	3.5	-2.5	-8.5
	ERP Direct	41.0	-17.0	31.0	11.0	16.5
	ERP Total	7.0	-28.0	10.0	0.0	-2.8
Wheat	NRP Direct	39.4	-8.3	-2.6	9.3	9.5
	NRP Total	16.7	-21.0	-17.0	0.3	-5.3
	ERP Direct	95.0	2.0	1.0	15.0	27.3
Rapeseed	ERP Total	45.0	15.0	-14.0	4.0	5.0
	NRP Direct	102.9	31.4	23.8	91.0	62.3
	NRP Total	78.3	17.7	8.5	80.6	46.3
Jute	ERP Direct	230.0	55.0	40.0	141.0	116.5
	ERP Total	136.0	32.0	18.0	113.0	74.8
	NRP Direct	-15.1	-18.8	-17.8	-27.7	-19.9
Cotton	NRP Total	-41.4	-33.6	-34.4	-38.7	-37.0
	ERP Direct	-17.0	22.0	-22.0	-31.0	-23.0
	ERP Total	-39.0	-33.0	-35.0	-38.0	-36.3
Potato	NRP Direct	-57.5	-71.6	-40.5	4.2	-41.4
	NRP Total	-80.6	-84.5	-55.5	-5.8	-56.6
	ERP Direct	-75.0	-84.0	-49.0	6.0	-50.5
Chilli	ERP Total	-81.0	-86.0	-57.0	-5.0	-57.3
	NRP Direct	115.6	26.7	-4.3	4.2	35.6
	NRP Total	88.3	11.2	-20.7	-6.4	18.3
Sugarcane	ERP Direct	245.0	45.0	-3.0	7.0	73.5
	ERP Total	131.0	23.6	-20.0	-6.0	32.2
	NRP Direct	52.4	3.8	22.5	37.0	30.4
Sugarcane	NRP Total	35.8	-8.9	8.1	28.0	15.8
	ERP Direct	155.0	23.0	58.0	54.0	72.5
	ERP Total	89.0	5.0	26.0	39.0	39.8
Sugarcane	NRP Direct	4.6	77.9	368.8	608.1	264.9
	NRP Total	-23.6	56.9	311.3	564.2	227.2
	ERP Direct	11.0	145.0	-186.0	-465.0	-123.8
	ERP Total	-19.0	85.0	-95.0	-612.0	-1752.8

Note: NRP and ERP denote nominal and effective rates of protection, respectively. Direct rates of protection include distortion due to agricultural price policies. Total rates of protection include distortion due to both agricultural price policies and trade and exchange rate policies. Protection measures given in terms of percentage difference between domestic price and border price, using the border price as the numeraire. For example, for a domestic price of 60 and border price of 80, protection rate would be  $-25$  (i.e.,  $100 * (60-80)/80$ ).

Source: Rahman (1994).

The results show that exchange rate policies consistently lowered the protection to agricultural commodities. Based on averages over the 18 year period, appreciation of the exchange rate increased the implicit taxation of the agricultural sector as a whole and of jute and cotton in particular. The macroeconomic policy also reduced the overall protection of wheat, rapeseed, potatoes, chilli and sugarcane, while it offset the protection from direct trade policies for rice. Based on the average parity prices, there was implicit taxation of rice (except in the first half of the 1980s) albeit fairly small (only 3 per cent during 1986/87-1990/91). In other words, the domestic rice price was close to its free trade equilibrium price when average parity price was considered the international reference price. It should be noted that Bangladesh is a marginal importer of rice and could have an exportable surplus in years of bumper harvests. Shahabuddin and Zohir (1995) provide a comparison of nominal rates of protection based on both import and export parity prices. This comparison shows that domestic prices have always been between these two prices. This implies that in a trade environment, the market would clear at a price somewhere in between the import and export parity prices range that is quite large. Therefore, rice can be assumed to be non-traded good, and hence trade liberalization would do little to change domestic prices. Implicit protection of wheat was positive until the mid-1970s, but

The pattern that emerges is that some reforms are relatively painless and easy to conduct. Others are much more difficult, mainly due to strong vested interests, lobbies and pressure groups, as well as political sensitivity. Perhaps the most important reason why the agricultural reforms performed better was that the farmers as a group are not well organized and are less well equipped to resist policy changes, compared to public sector corporations or financial institutions with strong, vocal trade unions. Since no major policy reform was internally generated, it must be assumed that external pressure was the dominant if not the only reason why the government took these up. In some cases, the government can have serious reservations or inhibitions about some policies.

A good example relates to the seed sector, e.g. regarding introduction of hybrids or removing government controls like certification. In such cases the way to change is dependent on being effectively able to allay fears and enable a change of hearts and minds rather than for example, overcoming resistance from vested quarters<sup>60</sup>.

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between 197677 and 198586 wheat was implicitly taxed. The combined effect of trade and exchange rate policies on wheat was fairly neutral from 1986-87 to 1990-91.

The implicit protection rate of the agricultural sector as a whole averaged -18.1 per cent during the period 1986/87-1990/91. With an aggregate agricultural supply response of 0.05, Rahman (1994) noted that implicit taxation implied an average transfer out of agriculture due to direct and indirect price and trade policies of almost Tk 35 billion from 198687 to 198990, amounting to roughly 20 per cent of the average agricultural value added in the same period. This transfer, however, must be weighted against the transfer into agriculture such, subsidies on fertilizers and other inputs.

In sum, agriculture appears to remain crucial to attaining overall growth, adjustment and poverty alleviation objectives. It continues to provide a large share of GDP close to a third and this share is not likely to decline significantly in the short or medium term. It is also a key sector for providing export earnings as well as jobs not only in farming but also in the highly important agricultural manufacturing sector. In general, government policies have been pro-agriculture in recent years. For instance, Bangladesh's agricultural economy has been relatively free after the reforms of the 1980s, which have made most public interventions less intrusive. However, despite substantial progress in freeing markets, there is still some way to go. For instance, government policy continues to distort price signals for some remaining agricultural inputs, including seeds and fertilizers. Further, trade policies restricting foodgrain trade discourage private sector development in agricultural storage activities, while quotas on imports of sugar still remain. In the future, agriculture's role will be important, but will be more significant only with the right government policies. In this regard, the World Bank (1995e) sector work on food policy has recommended policy changes in four key areas: (i) strengthening private sector trade by permanently abolishing restrictions on that trade; (ii) making the price stabilization mechanism more efficient by relying on international trade (both public and private) in place of public storage; (iii) targeting the food-insecurity and removing integrated subsidies that are now captured, at least partly, by the affluent; and (iv) making public food operations more efficient by withdrawing from commercial activities that can be done by the private sector.

<sup>60</sup> The Government has identified agriculture and rural development as the top most priority sector for rapid poverty reduction. According to PRSP, the strategic importance of agriculture and rural development stand second to none. The policy framework to support this strategic choice focuses on four issues: (a) intensification of major crops (cereals); (b) diversification to high value crops (horticulture); (c) development of non-crop agriculture (fishery, poultry and livestock); and (d) promotion of rural non-farm activities (rural MSMEs). Food security for 140 million people is an overriding objective of the Government.

However, the economic and institutional challenges for ensuring broad-based agricultural growth and consequent rural development are compounded by Bangladesh's location, frequent natural disasters and demographic reality. Some of the key issues identified by the Poverty Reduction Strategy Paper (PRSP) are:

**Low agricultural productivity:** Agriculture faces the challenge of stimulating and sustaining productivity and income growth on an ever declining land base. Due to demographic pressure and increased urbanization, cultivated area is declining at the rate of 1% per annum whereas population is growing at the rate of 1.6% per annum. Cropping intensity (about 175% now) has limited scope for further increase. In future, agriculture has to rely more on intensification of cereal production, diversification into high-value crop and non-crop activities, and value addition in the agro-processing sector, including storage, processing and marketing. Achieving these goals will require reforms in the agricultural research and extension systems, and removal of infrastructure, finance and regulatory obstacles to growth of agro-processing sector.

**Poorly functioning agricultural markets:** There are serious problems with agricultural markets, both outputs and inputs. This includes lack of easily accessible markets in the rural areas, on the one hand, and interference and collusion by the traders, on the other. Marketing margins are often too high to be justified by the services performed. Lack of market information, law and order situation, existence of syndicates, collection of illegal tolls and poor marketing infrastructure often aggravate the situation. There is a need not only to address these problems but in order to reduce losses (particularly for perishable commodities) and add value, there is also a need to develop the supply chain that consists of proper grading, storage, transportation, cooling, processing, packaging and quality control.

**Inefficient land administration:** Land is a scarce commodity in Bangladesh and land grab (particularly the public land) by the powerful is quite common. There is thus a need to review land administration, land ownership distribution, land rights and titles and land use policy. This needs to be followed by adequate enforcement of land laws and policies. There is also a need for proper land use planning. All development projects need to be evaluated with respect to their impact on agricultural land.

**Limited access to rural finance:** There is a need to understand and address the issue of rural finance, particularly the issue of access to rural finance by the "missing middle" farmers as well as rural entrepreneurs to finance MSMEs in the rural areas. There is also a need to reform the state-owned "agriculture banks",

improve recovery rates, reduce defaults, and increase the role of commercial banks in providing financial services in the rural areas.

**Lack of enabling rural business climate:** The average farm-size in Bangladesh is less than one hectare and will continue to shrink because of demographic pressure and inheritance practices. For nearly 45% of the rural population, who are landless or functionally landless (owning less than 0.05 acre of land), employment in the rural non-farm (RNF) sector presents the best chance to escape poverty. Indeed, with a declining land base and a small employment base in the urban sector, employment in the RNF sector remains a viable option for majority new entrants to the labor force. To stimulate RNF growth and to strengthen its linkages with agriculture and urban sector, Bangladesh needs to provide an enabling rural business environment by investing in rural infrastructure, reforming its rural finance delivery mechanism, implementing proper regulatory and policy reforms, including institutional reforms to ensure decentralized and accountable delivery of rural services.

**Weak rural institutions:** While the NGO sector in Bangladesh is well developed and the quality of informal institutions is improving, the formal rural institutions and decentralization remain very weak. Overlapping functions, lack of coordination, weak capacity, poor skills, lack of responsiveness and limited incentives are some of the problems faced by the government agencies at all levels. There is also an urban bias (or anti-rural bias) in agricultural policies and institutions. Elite capture in the rural areas is quite common.

**Inadequate rural infrastructure:** Basic infrastructure, although improving, remains inadequate in the rural areas of Bangladesh. In many rural areas, particularly the remote ones, lack of infrastructure is a major bottleneck to accelerate agricultural and rural development and reduce vulnerability to national disasters. In order to increase agricultural productivity and pro-poor economic growth, as well as productivity and pro-poor economic growth in the rural non-farm sector, it is essential to develop and maintain necessary infrastructure (see Rural Infrastructure Strategy Note for further details).

**Natural resource management:** The sustainable use of natural resources (land, water, fisheries, forestry and bio-diversity) should be an essential component of agricultural and rural development strategy in Bangladesh. With increasing population, overuse or misuse of natural resources as well as environmental degradation are also increasing. There is, thus, a need to deal with policy and institutional framework in light of environmental externalities and the need to promote user participation in the sustainable use and management of natural resources. In a country like Bangladesh, this is absolutely essential to accelerate agricultural growth and reduce rural poverty. In addition to poverty reduction, afforestation has long-term implications for environmental management and bio-diversity conservation. Participatory social forestry in Bangladesh has achieved good success and it needs to be continued, along with measures for improving financial management in the concerned agencies.

**Vulnerability to natural disasters:** Bangladesh is the terminal floodplain delta of three large rivers - Ganges, Brahmaputra and Meghna. Every year about 20 to 30 percent, and every few years about 40 percent, of the country is inundated, causing serious damage to infrastructure, crops and overall economy. Projected climatic changes and rise in the sea level are likely to worsen the situation. Since independence in 1971, the Government of Bangladesh has made large structural and non-structural investments to protect against floods and cyclones. However, issues related to weak capacity, public-private role in disaster management, institutional reforms of Bangladesh Water Development Board (BWDB), environmental protection and community participation have to be addressed to sustain and make further progress in mitigating natural disasters. The Government of Bangladesh (GOB) has recently adopted a comprehensive risk reduction approach to disaster management that focuses on reducing vulnerability to natural disasters. These principles of disaster risk management need to be integrated into agricultural and rural development policies.

**Food insecurity:** Declining land base, increasing population, shrinking farm size, growing number of functionally landless households and urbanization have profound implications for the agricultural sector and, more specifically, for food security for those households who are below the poverty line. While delivering cheap food supply (mainly rice) is necessary but it is not sufficient to ensure national food security. Need to increase purchasing power (through better employment opportunities and low inflation) and entitlement of the poor households should be an important component of any strategy to reduce food insecurity. In this context, promoting diversification of agriculture and livelihood opportunities in the rural areas and promoting trade liberalization in agriculture are not incompatible with ensuring food security.

In spite of the fact that food and livelihood security is critical to the maintenance of stability in the world's strategic affairs, given the number of food insecure people in Asia (i.e., 524 million; FAO, 2006), ARF is yet to induce any definite measures on food security. However, for Bangladesh, it remains a major concern - with approximately 40% of her people living under the absolute poverty line and of that, approximately 30 million plus under the lower poverty line. Challenges to a dependable food security system in the country include:

- (i) Fluctuation of food production due to natural disasters
- (ii) Inadequate access to a stable, safe and nutritionally adequate food supply mechanism - given the "income-poverty gap"
- (iii) Poorly supported subsistence farming systems
- (iv) Improper crop diversification mechanisms - contributing to loss of top soil / fertility
- (v) Vulnerability of groups from minority, resource constrained, and gender/mobility/vision or other physical disability constrained people.

Considering the complex nature of the food security issues and dimensions, the government has approved a "National Food Policy" (NFP) on 14 August 2006 - which replaced the earlier "Food Policy" of 1988. The prime objectives of the policy include:

- (i) Ensuring adequate and stable supply of safe and nutritious food
- (ii) Ensuring purchasing power of the people for increased food accessibility
- (iii) Ensuring adequate and nutritious food for all (especially women and children)

The government is in the process of formulating a National Plan of Action to Implement the NFP soon. The government is also looking into the implementation of the programmes of food security under the Ministry of Food and Disaster Management's Medium Term Budgetary Framework (MTBF) - according to the issue all its due importance.

Apart from the National Food Policy 2006, there are policies/strategies which have some definite bearing on food security. These are: National Food and Nutrition Policy 1997, National Plan of Action for Nutrition 1999, and the Poverty Reduction Strategy Paper 2005.



The likely impacts of the liberalisation under the WTO on the level and stability of market prices raised food security concerns among food importing LDCs<sup>61</sup>. In the short run, the low-income food-deficit countries are concerned; apprehending that withdrawal of subsidies will lead to higher import prices or reduce their food aid and reduce food security. The concerns of food importing LDCs are addressed in the Marrakesh Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Program on Least-Developed and Net-Food Importing Countries (NFIC), which includes mechanisms to monitor food aid under the Food Aid Convention and to ensure a sufficient level of food aid in grant form and/or concessional terms. With reductions in subsidies, these food-importing LDCs may pay higher prices for commodities.

In a summary of various modelling efforts assessing the impacts of the URAA on world market prices, Sharma, Konandreas, and Greenfield found expected price increases of between 4 and 7 percent. Prices for rice, wheat, sugar, and corn were forecast to increase, having a negative impact on net LDC importers. There is growing concern among net food importing LDCs about the impact of reduced food aid availability resulting from a reduction of surplus stocks and the higher prices. The Marrakesh Decision also calls for donor aid programmes to provide technical assistance to LDCs and NFICs that need to improve their agricultural productivity and infrastructure, and possibly short-term assistance to help finance normal commercial imports<sup>62</sup>.

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The leaders at the 12th SAARC Summit (Islamabad, 04-06 January 2004) had decided to establish a Regional Food Bank for the SAARC region. The issue was emphasized in the 13th SAARC Summit (Dhaka, 12-13 November 2005). Finally, an agreement on the establishment of a SAARC Food Bank was signed at the 14th SAARC Summit held in New Delhi on 03-04 April 2007. Under the Food Bank scheme, each member country will undertake to earmark an amount of food grains allocated to it (for Bangladesh, the allocation is 40,000 metric tones out of the total bank reserve of over 241,580 metric tones of food grade grains.

#### Strategic Options for Bangladesh

Under normal circumstances, the reduction in export subsidies raises the world price of the product, benefiting developing country exporters, hurting importers. There is an unavoidable erosion of preferences for NFICs who are enjoying subsidized price of basic foodstuffs. The erosion is not only related to hurting the macroeconomic stability through BoP crisis rather it has a tremendous negative effect on livelihood sustainability of the poor majority in Bangladesh through raising price of basic food items like rice and wheat. **So, there should be effective mechanism in the WTO AoA framework that would mitigate the adverse effect on the poor of the NFICs like Bangladesh as stated in the Marrakesh Agreement.**

From the angle of food security, Bangladesh must focus on the technological advancement, food aid efficacy and need based subsidy, international import insurance or a financial rebate programme for the NFILDCs on the ground of price and affordability of the poor and a countervailing mechanism on the ground of BoP crisis.

1. Technical assistance for agriculture production growth and infrastructure development is needed for ensuring food availability through capacity building in the agriculture. For a dynamic improvement in the production scenario, it is urgently needed to make major investment in the agriculture research, development and technological advancement. There is a need for global compensation fund to provide necessary support to the NFILDCs like Bangladesh as per negotiation made at Marrakesh.

2. The negotiations remained complete silent about the principle of governing the provision of subsidy. The negotiations were nowhere nearer to upturn the arrangements in agriculture to ensure that domestic support should be allowed to farmers in those countries, who need these but not to those living in the countries with abundant financial resources. The negotiations also maintained heightened silence about the Bretton Woods Institutions that had forced the LDCs to eliminate subsidies to needy farmers under unilateral liberalisations carried out as a part of structural adjustment, continue preaching to eliminate whatever subsidies are given, and do not allow these countries to support the small farmers, even at the allowable de minimis level. The negotiation did not deal with and come up with proposals for net-foodimporting countries (NFICs). Bangladesh should go for a strategy to make subsidy available for needy one rather the resourceful one. A different box can be created to support the poverty stricken poor producers by pooling resources globally.

3. As the net food importing LDCs are very prone to face the difficulty in the balance of payment issue while the price is expected to rise in the world market there need to have an effective mechanism to compensate the economy with regard to volatility of the international market. A kind of international import insurance or a financial rebate programme for the NFILDCs is needed.

4. A comprehensive package is needed to make agriculture production sustainable as well as maintaining livelihood of the poor. Elements of such package could be, amongst others: correction of inequities in access to irrigation; bringing all cultivators into the ambit of institutional credit, including tenant farmers; augmentation of farming through technology, extension, price and other incentives; encouragement of cheaper and more sustainable input use, with greater public provision and regulation of private input supply and strong research and extension support; protection of farmers from high volatility in output prices; and enhancement of rural economic diversification to more value-added activities and non-agricultural activities.

Also in the region, SAARC and FAO are in the process of preparing a Regional Programme for Food Security (RPFS) – which would address the issue of primary food insecurity in the region / member states.

<sup>61</sup> Adopted from *Plunging Into Food Insecurity: Multilateral Liberalisation in Agriculture and the Concern of Net-food Importing Countries: The Case of Bangladesh*, by Rashed Al Mahmud Titumir and Golam Sarwar; Unnayan Onneshan, June 2006

<sup>62</sup> The export import scenario of rice (main food item of agricultural trade) in the global market can make a substantive indication for understanding the difference of interests in agriculture negotiation within the

The thing which to be clearly understood is the difference in interests of the developing countries and the food importing LDCs in the arena of agriculture negotiations. All the developing countries does not essentially have the same interest in the context of exemption of export subsidy of the developed countries considering food security and rural development within the framework of agrarian economy of them. Especially the livelihood confrontation of the poor population residing in urban areas and small farmers engaged in the agriculture seems the major trouble to be encountered in NFICs due to the end of export subsidy to agricultural products by Developed countries.

A sustainable food production system will call for increasing productivity through optimal and scientific use of all inputs. Land is a scarce natural resource for Bangladesh. At present, the net land area available for cultivation is about 8.0 million hectares and the total cropped area is about 14 million hectares (BBS, 2004). About 70 per cent of the cropped area is planted with rice every year. There is a little or no opportunity for bringing more land under cultivation. Yet, about 80,000 hectares or 1.0 per cent of the total agricultural land is going out of agriculture every year for other uses (BBS, 2004). Land, even those with irrigation facilities, is continuously being shifted to non-agricultural use. Today with a cropping intensity of about 178 per cent, Bangladesh produces about 26 million tons of clean rice annually, which have to be increased to 30 million tons by the year 2020 if we want to maintain the current level of per capita production. As the scope of further increasing cropping intensity is extremely limited, the increase in production will have to be realized by raising yield per unit area.

Raising the yield per unit area is possible with the sustainable and optimum use of agricultural inputs like seed, fertilizer, water, credit etc. But unilateral liberalization of agriculture sector makes the input market highly disfavoured one for small producers in Bangladesh that hinders the potential of yield raise per unit area<sup>63</sup>. Government has hardly any control on the seed market as they supply only 5% of the total need of seed in the farming sector through BADC. Fertilizer market is also opened for private importers and Urea dealers often hoarding it during the peak season to make the artificial price hike. Means of irrigation is also highly concentrated to the rural elites. About 83 per cent of the irrigated area (6.97 million hectares) is served by groundwater under what is often called "minor" irrigation scheme and the rest by surface water sources. Shallow tubewells (STWs), deep tubewells (DTWs) and other small devices account for 75 per cent, 17 per cent, and 8.0 per cent of all groundwater-served areas, respectively. All STWs and most DTWs are privately owned. About 53 per cent of the total surface water irrigated area (1.43 million hectares) is served by low-lift pumps (LLPs) that are mostly privately owned and number between 75,000 and 80,000. These private owners are the water lords who charges high price for selling water to the farmers in the rural Bangladesh<sup>64</sup>.

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developing world. Some countries like India, Vietnam and Thailand are the major exporter of rice in the world market whereas Bangladesh and Indonesia are the major Importers. So, It is easily predictable that the withdrawal of export subsidy in the north will directly benefit the surplus producers of the South but will negatively impacted on the NFICs like Bangladesh and Indonesia. Bangladesh is a net food importing LDC. She imports a large amount of food grain from overseas every year. Cheap import due to export subsidy is somehow helping the livelihood of the millions of population in several way- withdrawals of which would really be distressful for them. Bangladesh has a two way position in the arena of the agriculture and international trade as it is a major producer of food grain especially rice and also a major importer of rice in the world market.

From the available statistics it can be easily revealed that among the rice importing countries Bangladesh stands second, after Indonesia. Bangladesh also has shared about 3.5 % of total rice production of the world. That makes the situation very crucial for Bangladesh to formulate the national strategy for agriculture negotiation at the WTO as it is always argued that the reduction of the agricultural subsidy in the developed economy will benefit the poor producers of the poor countries through the increase of the world price level. But the argument is not always right, as the fragmented markets in most of the LDCs is the main impediment to appropriate the increased price by the small producers. The issue is elaborated in the following chapters. Again the higher price for importing food grain will obstruct food security of urban poor consumers can result to a poor improvement of poverty reduction in the country.

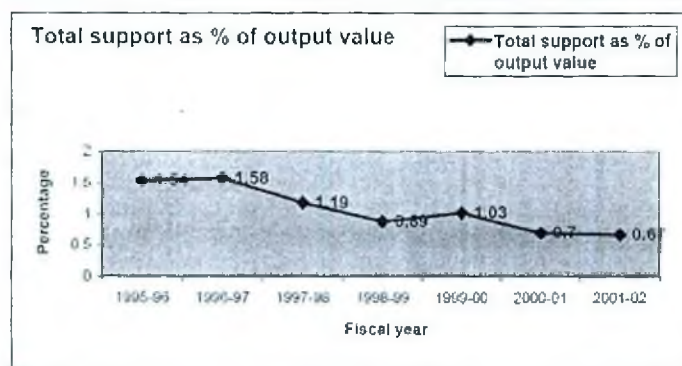
Bangladesh agriculture is dominated with small producers and crop intensity in agriculture is already reached its peak. So, the speculation of production boom due to price rise is beyond pragmatism. As the focuses of this report vested on livelihood struggle of the poor people- the consumers and producers, the impact on national production and macro economy is detoured within the context, though some insights are still there regarding the issue.

<sup>63</sup> Though cropping intensity is already high and cultivable land is squeezing day by day, still there is possibility to increase production, if support to agriculture is increased tremendously and technological innovation takes place which also need the special arrangement in the policy arena regarding agriculture. But unfortunately the reverse measures are taken over the years under the forced guidance of WB and IMF that seriously hurting agriculture in general and poor in particular. If it continues, there is virtually no hope for increasing production to feed the nation particularly the insecure with available supply of food.

Also, at present the wage rate is increasing at a slower rate than that of inflation. Inflation rate is reportedly high in food item than the national average that makes the real threat for the food security of the poor as it directly impact on the affordability of the poor to buy food. This upward price can be minimized if wage increment keeps pace with that of price especially in the sectors where poor have the maximum concentration. I.e., agriculture and construction where majority of the daily labours are engaged. But unfortunately the wage increment in those sectors is very low. In agricultural sector it is 5.33 in 2005 while it is only 3.36 in the same year for construction sector where inflation for food item is 7.9. For rural wage earners the situation is more vulnerable as inflation for food item in the rural areas goes 7.99.

In a study, Chowdhury, Farid and Roy (2006) employed a multi-market (MM) model originally developed in 1994 (Dorosh 1994; Dorosh and Haggblade 1995) and found that the price rise in rice and wheat due to agricultural liberalization under WTO would decrease the income of the poor and contribute to the increased nutrition gap as especially for poor<sup>65</sup>.

When market fails to protect the interests of the majority, state have the due role to protect them from adversity- that is often made by subsidy mechanism towards the thrust sectors. Unfortunately Bangladesh government is minimizing its support towards agriculture for last 20 years under the pressure and prescription of the WB and IMF. Available data shows that the support to agriculture as WTO defined Amber Box subsidy amounts only 0.67 percent of GDP value addition of Agriculture while it can be upto 10 percent under the negotiation made to AoA in Uruguay Round. The government support to



\* Simulation 1-6: Higher World Grain Prices with Liberalized Trade

	Simulation 1	Simulation 2	Simulation 3	Simulation 4	Simulation 5	Simulation 6
<b>Real Incomes</b>						
Urban poor	0.922	-0.45	-1.544	-0.62	-1.977	-0.93
Urban Non poor	0.4855	-0.225	-1.08	-0.29	-1.25	-0.61
Rural Landless	-0.79	-0.48	-1.357	-0.53	-1.836	-0.89
Rural Small Farm	-0.17	-0.09	-0.506	-0.22	-0.576	-0.29
Rural Large Farm	0.91	3.4	0.967	0.25	1.47	0.73
<b>Calories (absolute change, kcal/capita/day)</b>						
Urban poor	-13.7	-7.0	-51.8	-0.23	-65.1	-27.0
Urban Non poor	-7.64	-4.0	0.0	0.0	-7.84	-0.39
Rural Landless	-13.0	-7.2	-28.1	-0.12	-40.2	-21.5
Rural Small Farm	-8.16	-3.80	7.5	3.0	-1.1	-0.57
Rural Large Farm	5.215	4.4	-20.07	-9.1	28.8	-11.0
Note: Simulation 1 - 10% increase in world price of rice Simulation 2 - 5% increase in world price of rice Simulation 3 - 10% increase in world price of wheat Simulation 4 - 7% increase in world price of wheat Simulation 5 - 10% and 18% increase in world price of rice and wheat, respectively Simulation 6 - 5% and 7% increase in world price of rice and wheat, respectively						

Source: Chowdhury, Farid and Roy (2006)

Results indicate that the real incomes would fall except for the most well-off rural income class across all simulations. At the upper bound increase in world price of both rice and wheat (Simulation 5), real incomes of the rural large farm households rise by about 1.5%, while the urban poor and rural landless lose nearly 2% of their real incomes. This follows from large farmers being net-producers for whom the increase in domestic price in line with increase in world prices raises their revenues. The increase in world price of wheat has much larger effect on real incomes than the increase in world price of rice (Simulations 1 and 3). These changes (rise / loss) in the real income across household types are roughly halved when the increase in the world prices are at their lower bound (Simulation 6). In terms of calorie intake, however, all households witness a decline. Expectedly, the decline is highest amongst urban poor and rural landless, by 65 and 40 calories per capita per day, respectively (Chowdhury, N, Farid, N and Roy, D, 2006)

agriculture is declining over the years directly affecting the poor producers for gaining the momentum in production<sup>66</sup>.

Effective RNA programmes can contribute to create new employment for the rural poor and thus increase wage through triggering competition. The RNF activities include activities outside agriculture that include livestock, fisheries and forestry. Non-farm activities can be classified into three categories: (i) Mostly manual labor based, (ii) Human capital based occupations, (iii) Physical and human capital-intensive activities. Mostly manual labour based activities include self-employed subsistence-oriented cottage industries, wage employment in rural business enterprises, transport operation, and construction labour. Human capital based occupations include salaried service in public and private organizations, teachers and imams, village doctors, and various types of personal services. Physical and human capital-intensive activities include commercial type rural industries, including agro- processing, shop keeping, peddling, petty trading, medium and large scale trading, and contractor services (Hossain, 2003).

In Bangladesh most of the rural poor are engaged in manual labour-based and human capital based RNF activities that is highly positively related to the sustainability and profitability of agriculture and small and cottage industries. As the profitability of agriculture for small producers is falling over the year following the market adjustment for agricultural input guided by the WB, the due potential of rural non-farm activity is not materialized. More over liberalization of interest rate made a very negative implication hindering the flourishing of the small and cottage industries as it unconcealed this thrust sector from enjoying rationed interest rate. The available data shows that the NCBs and PCBs lending in the agricultural sector is squeezing day by day. And lending in the small and cottage industry sector is tremendously marginalized.

The credit allocation index- calculated as the ratio of sectoral advances to their proportion in the GDP indicates that the ratio was 0.577 for agriculture and 0.859 for small and cottage industry in 1987, but the ratio is decreased to the 0.42 and 0.398 in 1998 for agriculture and small and cottage industries respectively. It creates a multiplier effect in the income, wage and the employment of the poor people.

### 3.2 The Suggested Hypotheses

In view of the multiplicity of values and parameters put above, the following hypotheses were put forward as relevant points for decision to the participants of the Key Informants Interviews:

- i. Tariff rationalization at WTO will bring economic benefits to Bangladesh.
- ii. Subsidies by advanced countries in agriculture are harmful to the Bangladesh economy.
- iii. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- iv. Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO.
- v. Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector.
- vi. By analyzing the differential trading patterns, Bangladesh can take advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- vii. Bangladesh needs a coherent WTO policy with regards to agricultural subsidies in line with the Singapore GATS Mode-4 issues<sup>67</sup>.

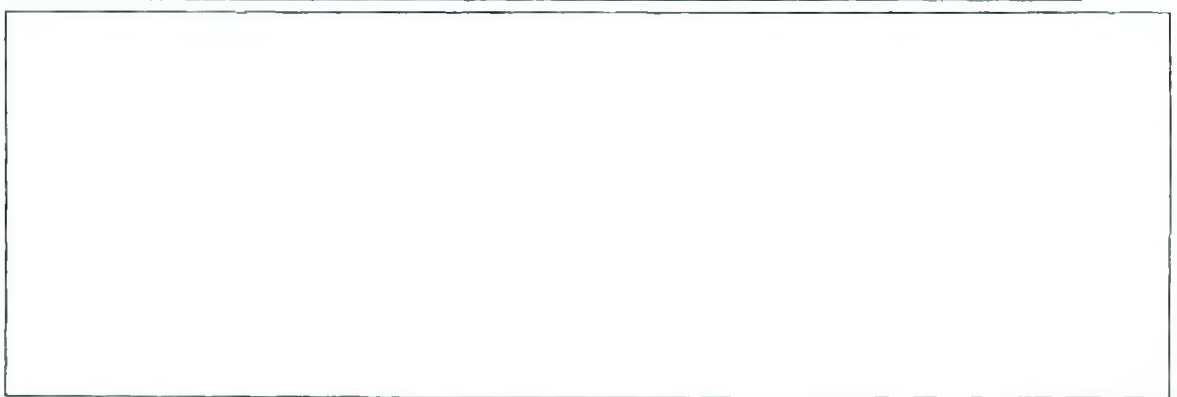
<sup>66</sup> Farmers often face income loss in the domestic market as they have no bargaining power in the market due to various unfavourable institutional arrangements for them like sharecropping system, payments in kind, debt for input collection like fertilizers and irrigation water etc. Various studies are carried out to address the issue in Bangladesh while a most recent study showed that farmers lose Tk 87575 Million in 2005 in the domestic market mechanism due to existing interlocking in the market practice. If this amount is compared with the contribution of crop and horticulture sector in the economy for FY05, it would be more than 1/5 of the GDP share of the sector and 1/6 of the total agricultural share to the GDP. (For detail see Titumir, Ahmed & Sarwar, 2005). In one way the wage is not keeping pace with the inflation along with investment curtailing in small and cottage industries, in the other way farmers are losing potential income in the domestic market leading the poor peoples survival into a deep question whether they appropriate their food security or go for the way of persistent hunger.

<sup>67</sup> The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

### 3.3 Key Informant Interviews

These seven generic sets of hypotheses were tested at the individual expert level. The KIIs were conducted with the following experts.

- i. Mr. Kazi Borhan Amin Raj, Agriculture/Leather Expert and Consultant, Presently he is the Managing Director of Seba, a non-profit NGO.
- ii. Dr. Rafique Uddin Ahmed, Agricultural and Environmental Standards Analyst, Consultant of GTZ, a non-profit NGO.
- iii. Mr. Aminul Hasan, Agricultural and Environmental Standards Analyst, Consultant of Seba.



1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.

The following results were obtained with regards to the generic set of hypotheses. On some issues, there were divided opinions while some were disagreed by all. However, all the three experts commonly opined on some issues which generated the basis of some new hypotheses. All the conclusions based on their interview are given below, mentioning the status of the hypotheses, followed by the newly emerged hypotheses:

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
Tariff rationalization at WTO will be beneficial to Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	If tariff is rationalized then all the countries will have to pay similar amount of tariff. But since the product pattern is different for different countries it will create a bigger difficulty. Benefits accruing to countries with dissimilar products/import-export bases and similar tariff will not be rational.	Dropped
Subsidies by advanced countries in agriculture are harmful for the Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	This hypothesis if implemented will create problem for the imported items by the LDCs. As many items, especially raw materials, are being imported from the developed countries, if the subsidies provided by the developed countries are withdrawn, the product cost for import will rise which will affect the product cost for the LDCs.	Dropped
Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	Subsidies provided to domestic agriculture by the advanced countries ensures production in low cost. Thus there is virtually little (if any) chance for the LDCs to penetrate the market with similar product. Thus it will be bad for the export of our production.	Retained
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Summary of comments: No	Summary of comments: No	Summary of comments: No	Being supportive of the LDC's initiatives to remove agricultural subsidies in the WTO is not the surety of our benefit because of differentiation of the product categories. Different LDCs are exporting different product and their interest to remove agricultural subsidies by the developed countries are different according to their product expertise.	Dropped
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Summary of comments: No	Summary of comments: No	Summary of comments: No/Yes	Subsidies reduction at the WTO would not be beneficial for the Bangladesh industrial sector because then the cost of the raw material i.e. the input for our industrial production like fertilizer, seeds etc will charge a higher price. This in turn will increase the price of the product (through increasing cost of production) making the market un-competitive for Bangladesh.	Dropped
By analyzing the differential trading patterns, Bangladesh can take the advantage of a different (reduced) allowable subsidies regime at WTO for	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	By analyzing the differential trading patterns, Bangladesh can definitely take the advantage of a different (reduced) allowable subsidies by producing the items in which it can be competitive and can be economically beneficial. The production pattern in which Bangladesh has competitive	Retained

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
reorienting its agricultural production pattern	Summary of comments: No	Summary of comments: No	Summary of comments: No	advantage need to be sought out. The categories of item for export in different trading pattern may not be same as the market may behave differently in the different stages. So Bangladesh can reorient its production pattern to be benefited in accordance with the nature of the market.	Dropped
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV Issues	Summary of comments: No	Summary of comments: No	Summary of comments: No	Bangladesh needs a coherent policy for the Singapore Mode IV issues because any cross border trade, consumption abroad, commercial presence or presence of neutral person is important for immediate export requirement. Basing on the mode-4 policy more effective and action oriented WTO policy can be formulated covering all aspect of product and service export.	Dropped
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Summary of comments: Yes	Summary of comments: No	Summary of comments: Yes	Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture based on the de-subsidization stages of the developed countries in order to ensure that it does not lose financially. The policy should be guided by the competitive advantage that Bangladesh will be able to achieve in different phases and also linking the agriculture production pattern with mode -4.	Retained
Issues Suggested for focus	Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.			All the experts were in favor of emphasizing on the commitments for the gradual withdrawal of agricultural subsidies but should not merely tend to align Bangladesh with other LDCs because different LDCs will have interest on different products of their own advantages. So they will try to remove agricultural subsidies only with the items they export and their product expertise.	included as modified hypothesis
	Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products			The experts opined that the negotiation on gradual withdrawal of subsidies should be synchronized with the gradual enhancement of agricultural production pattern and capabilities in which Bangladesh remains competitive. Basing on that advance marketing campaign for those products can enhance export success. This can be found out through scenario analysis.	included as modified hypothesis
	Block activities alongside countries with similar agricultural production patterns			It was opined that block activities of the countries with similar agricultural production may strengthen the negotiation to be implemented. Thus the countries with similar product exporters should be found out and blocked to reinforce WTO negotiation policy.	included as modified hypothesis

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
	Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern			The experts also came to the conclusion of finance from advanced nations to secure continued support in enhancing the agricultural production pattern by supplying seed, raw materials and technology to increase production capacity.	included as modified hypothesis



### **3.4 Modified Hypothesis**

Following the discussion from original eight sets of hypotheses three are retained and more four new hypotheses are introduced. The modified hypotheses are as follows.

- i. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- ii. By analyzing the differential trading patterns, Bangladesh can take the advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- iii. Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture in order not to lose financially.
- iv. Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.
- v. Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products.
- vi. Block activities alongside countries with similar agricultural production patterns.
- vii. Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern.

### **3.5 Modified Research Pattern**

It is found from the discussion points above that even under the changed paradigm of hypotheses/notions, the problem statement do not necessarily change (as the problem statement itself was designed in the most generic format). Nevertheless, the analytical pattern/framework changes considerably with the introduction of the new hypotheses-sets and dropping five of the original eight sets.

As such, the study now focuses on:

- i. Scenario analysis for finding the agricultural products where Bangladesh holds comparative advantages
- ii. Viability analysis/testing for selected products for production/exports under the different regimes – as would be found during stage (i)
- iii. Finding avenues for advanced agricultural marketing / financing options
- iv. Specific WTO negotiation strategy that Bangladesh would follow with regards to linking agricultural production patterns with Mode – 4, specifically, movement of service / personnel (i.e., should gaining positions in GATS Mode-4 be a consideration to give in on agricultural subsidies)
- v. Selection of blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

### **3.6 Methodology**

A detailed qualitative secondary research has been undertaken to validate the research proposition. However, a primary qualitative survey had also been employed to modify the research parameters and consequent hypotheses.

The main research framework comprised of two simultaneous processes, i.e.:

- a. Scenario analysis of the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- b. Bangladesh's stake in agricultural produces and primary survey on finding the appropriate niche/strategy for the development of a vibrant international trading pattern for the agricultural sector.


The survey was Door-to-Door with the executives of WTO cell of Ministry of Foreign Affairs, Ministry of Commerce, and Ministry of Agriculture. Telephone-interviews will also supplement the executive survey in order to conduct the survey with the experts.

Some information was collected from farmer's level from selected regions of Bangladesh, which are highest production location of select agro produces.

Farmers were covered by selective sampling method from high production areas of select agro produces (from Specific Objective 1 & 2) in Bangladesh and information from the farmers on Cost of Production, Yield Rate and impact of de-subsidization of Agro inputs were collected through checklist method.

**3.7 Major Findings**

The research aimed to ascertain the following end results:

- a. The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
  - b. Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
  - c. Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.
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# THEORETICAL MODEL

## 4.0 Theoretical Model

### 4.1 The Problem Statement

Bangladesh's accomplishments in transforming its devastated agricultural sector into one of the most productive farm economies in all of South Asia is a major development success story. Once racked by famine and dependent on food imports, the country is now essentially self-sufficient in rice, is emerging as a significant exporter of high-value agricultural products, and enjoys the second highest percentage growth in per capita income in South Asia<sup>68</sup>. Its success is largely a story of close cooperation between the government of Bangladesh and its peoples with foreign aid agencies, international research institutions, and indigenous nongovernmental organizations. Within the past few years, Bangladesh has reached self-sufficiency in its main cereal, rice. Rice production increased from 11.7 million metric tons in 1974 to 23.1 million tons in 2000, an average annual increase of 3.6 percent. Wheat production climbed from 0.11 million metric tons in 1974 to 1.8 million metric tons in 2000. Cereal prices are comparatively low, and except for period bouts of induced-volatility, generally stable, and production continues to increase. The economy also is showing rapid diversification, particularly in the livestock and poultry sectors. Agricultural exports, both bulk commodities and higher-valued processed products, grew by nearly 5 percent over the last five years. In 2000, the value of shrimp exports alone was \$296.3 million. And unlike the garment industry, where the bulk of the export earnings go back out of the country to pay for imported raw materials and machinery, with agribusiness the value added stays in the country. Much of the success in Bangladesh's agricultural sector can be attributed to the development and implementation of dry season irrigated rice. Thirty years ago, almost all of Bangladesh's cereal production was from the monsoon crop. Now almost half is dry season, made possible by the development and release by the public research institutions of high-yielding rice varieties adapted to shorter days and cooler temperatures. The introduction of this rice was aided by the decision of the Bangladesh government not to intervene in the market. Prices reflected market forces, and the private sector imported pumps to irrigate dry-season crops. The fertilizer system was privatized, resulting in a tripling in the use of fertilizer in 10 years. Bangladesh farmers took the challenge by planting and irrigating the new high-yield seed. The entire rural population has benefited: peasant farmers now get two or even three crops per year, and landless peasants find that their income-earning possibilities have expanded. It was through publicly supported agricultural research working in tandem with private investment for irrigation that made the jump in rice production possible. Similarly, organizations like the International Rice Research Institute (IRRI) and the International Maize and Wheat Improvement Center (CIMMYT) collaborated with Bangladesh's agricultural research system to introduce more sustainable and efficient rice, wheat, and maize cropping systems into Bangladesh. Bangladesh's decision, supported by the U.S. Agency for International Development, to liberalize its food import policy is another important side to the country's success story. The government has removed many agricultural subsidies, eliminated quantitative restrictions, reduced tariff levels, and created an open-market economy that makes agricultural inputs readily available for farmers and guarantees fair commodity prices. Today, Bangladesh's agricultural sector is the most open and least subsidized of South Asia. One of the keys to this success has been the decision by the government to liberalize the import of food. Over the last 10 years, private traders have stepped in to import food grains during times of domestic shortfall, often driven by floods. These actions by private traders have provided both supply and price stabilization and have removed a major financial burden from the government. During fiscal year 1999, private sector food imports to address needs arising from the 1998 flood reached 2.26 million metric tons, mainly from India. Had the government of Bangladesh imported this grain itself, the total fiscal cost would have been about \$185 million. The private sector's share in food imports climbed from zero in 1991 to 50 percent in 1996 and 100 percent in 2000. The government of Bangladesh also reoriented its large public food distribution system away from mass distribution in favor of a targeted food "safety net" program for the poor. In fiscal year 2000, 85 percent of public food was targeted for the poor, an increase of about 46 percent over 1992. One of the major roles played by foreign development agencies in Bangladesh has been the financing of rural infrastructure, which has made it easier to move products from field to market. During 1995-2000, U.S. financing helped rehabilitate over 15,000 kilometers of farm-to-market roads, creating jobs and improving year-round access to markets and to basic human development services. The cost of food transportation has dropped, and freight traffic has increased 94 percent. Foreign financing also facilitated efforts to improve water flow, which led to a quicker recession of floodwaters and a subsequent 16 percent increase in agricultural production — by value — in the affected areas. Rural electrification, aided by funding from foreign aid agencies, has been another important factor in the agricultural productivity gains. During 1977-2000, nearly 2.42 million domestic connections were provided and over 80,000 irrigation pumps electrified. The 57 local electric

<sup>68</sup> From an article titled, "FOOD AND AGRICULTURE IN BANGLADESH: A SUCCESS STORY", by Gordon West, Deputy Assistant Administrator, Asia and Near East Bureau, United States Agency for International Development

cooperatives now reach over 20 million rural people. Crop yields are up in electrified villages, as are both the number of agricultural jobs and the wages received by agricultural labor. The rural electrification program has a 95 percent rate on collection of payments, compared to only 60 percent nationwide. While there have been impressive successes in Bangladesh, important challenges remain. Rates of malnutrition in the country are among the highest in the world, and nutritional standards are poor. Production from dry season farming is leveling off, in large part due to problems of scale — farms are simply too small to make possible or feasible the kind of capitalization necessary to bring about further significant increases in yields. A further transformation of Bangladeshi agriculture, mostly in terms of diversifying into higher value products such as maize, legumes, livestock, and vegetables, both for domestic and export markets, is the next logical step for the country. Rice uses four or more times more water than crops like wheat and maize, and the lack of adequate water will be a major impediment to future agricultural productivity. Also, Bangladeshi diets lack essential amino acids, fats and minerals, and vitamins. By making products such as wheat, fruits, milk, pulses, and meats widely available at affordable prices, it would help improve overall health. The good news is that there are no major obstacles to diversification and there are a host of new seeds to address a broad range of environmental challenges. The close cooperation between the government of Bangladesh, the research institutions, and international development agencies suggest that Bangladesh can move beyond self-sufficiency and that agriculture and agribusiness are going to remain the bedrock of Bangladesh's economy for years to come.

However, there is a tectonic shift in the way scholars and experts have focused on the way agriculture has been treated in Bangladesh. Scholars in the 1970s and 1980s argued that the preponderance of small and marginal farmers and the widespread prevalence of sharecropping tenancy that characterized Bangladesh's agrarian structure would impede technological progress and constrain agricultural growth. Sharecropping has given way to fixed-rent tenancy in the cultivation of modern varieties, and the tightening of the labor market during the busy agricultural seasons has led to a change in the labor contractual arrangements from daily-wage to piece-rate contracts. The areas that have yet to benefit from modern technology are those where irrigation development is uneconomical at the input-output price configuration. Agricultural policy should target factor productivity, investments, and risks by (1) rationalizing public expenditure allocation with enhanced public investment in rural infrastructure, (2) inducing a shift in the relative prices of inputs and outputs to correct market distortions, (3) putting in place an appropriate legal and regulatory framework, and (4) carrying out institutional reforms that make both the public and private sectors more transparent, accountable, and efficient. Such policy changes would help conserve both public and private resources and encourage investment in the agricultural sector. The World Trade Organization (WTO) rules provide several opportunities upon which Bangladeshi agriculture can capitalize through policy actions. As a least-developed country, Bangladesh is exempt from WTO rules on tariff reductions, export subsidies, and domestic support for agriculture. Bangladesh should avail itself of emerging opportunities in fast-growing import markets by increasing the spread and value-added of export commodities. In order to be competitive on the global market, Bangladesh will have to look for suitable high-value crops and agricultural products, and place more emphasis on fisheries, livestock, and forestry. An overall increase in research expenditures, and not simply reallocation of funds among sub-sectors is required. While Micro-credit does not work for medium-size farmers, who are the real producers. Attention must be paid to environmental issues as well, including land and water contamination and natural resource management. Also, the issue of the contract farming systems — which could be transmuted under the GATS Mode IV agenda — needs to be analyzed for furthering the cause of Bangladesh in the field of Agricultural Value Chain analysis. On the issue of diversification to high-value noncereal crops, the private sector is increasingly involved in producing vegetables and other horticulture crops. However, institutional issues do cause impediments—for example, national institutes of biotechnology and agriculture are disconnected. Attention needs to be paid to the linkage between the farm and rural non-farm economy.

Another issue which has gained prominence in the thought-sphere of the agricultural experts is how to respond to strategic challenges such as climate change. The concern that Bangladesh might lose a large area of fertile delta land to the rise of the sea, and this might worsen difficulties in sharing water resources among neighboring countries essentially determines the threat sphere Bangladesh is faced with.

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports)<sup>69</sup>; (b) analysis

<sup>69</sup> For a more diplomatic coverage of the issues, ideas and data have been drawn from "Borders, Trade and Welfare" by James E. Anderson (Boston College) and Eric van Wincoop (Federal Reserve Bank of New York), prepared for the Brookings Trade Forum 2001 on Globalization: Issues and Implications, May 10-11, 2001. The

of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions<sup>70</sup>.

#### 4.2 Constructs and Concepts

<b>Constructs</b>	<b>Definition</b>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial Loss</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition
<i>Through WTO</i>	Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets</i>	Different market-opening opportunities and change in production-location facilities

#### 4.3 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

#### 4.4 The Conditions

The necessary conditions are:

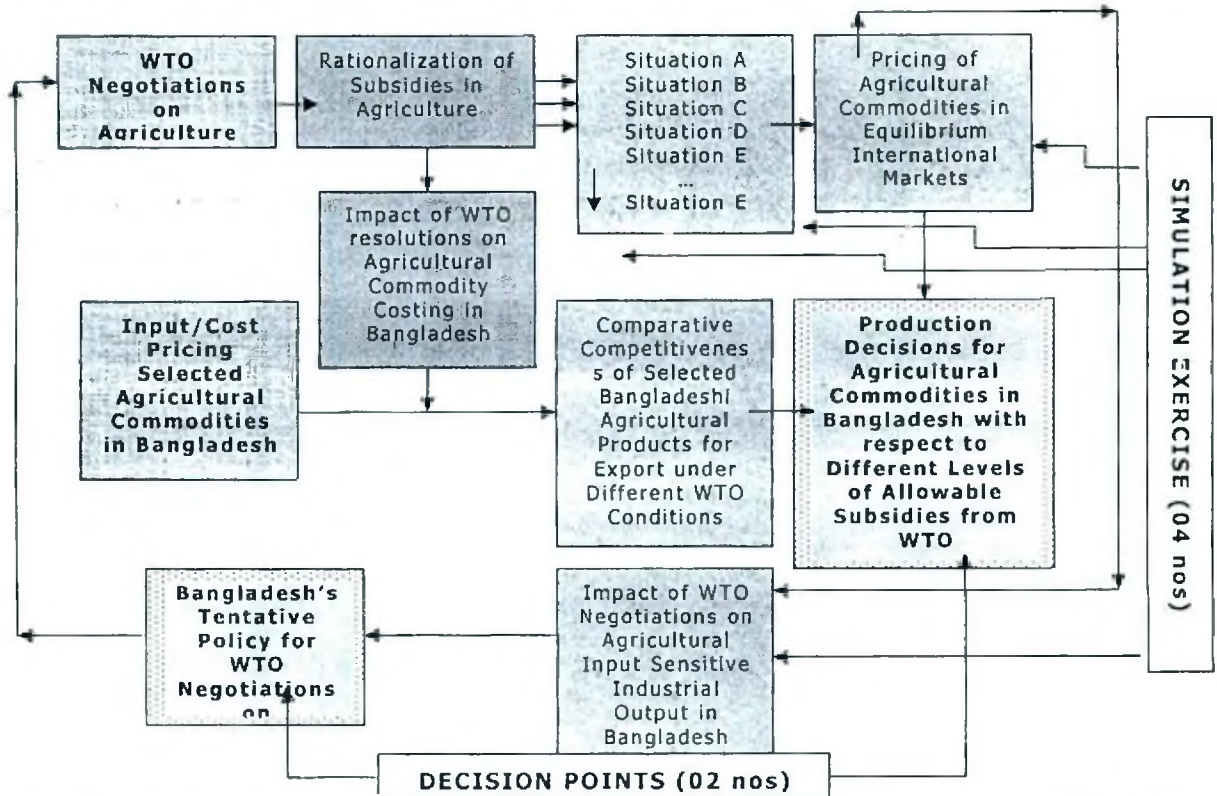
- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- iv. Production sensitivity to inputs will remain valid for the time period projected.

#### 4.5 The Functional Relationship

results of the paper (Anderson and van Wincoop, 2001) show that border barriers are large and inhibit much trade. In the paper it is shown that further economic integration can very substantially increase world trade and welfare. Also of significance are the resources drawn from Anderson, James E. and Eric van Wincoop. 2001, "Gravity with Gravitas: A Solution to the Border Puzzle". National Bureau of Economic Research Working Paper 8079.

<sup>70</sup> Ideas and imperatives heavily drawn from writings of Alessandra Casella (Department of Economics, Columbia University) and James E. Rauch (Department of Economics, University of California, San Diego); "Anonymous Market And Group Ties In International Trade" February 1999. Both authors are also affiliated with the NBER (and Casella with the CEPR). In this paper, the writers develop a model of trade that reflects the difficulty of introducing one's product in a foreign market. Access to local sources that can provide information about the market would facilitate entry, and in our set-up a minority of individuals has such preferential ties, reflecting for example the existence of coethnic bonds or membership in a business group. We analyze the aggregate volume of trade without ties, the use of ties versus the anonymous market by group members, the value of the ties to the overall economy and to the group, and the consequences of the ties for non-members.

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

#### 4.6 Objective

To find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4.

#### 4.7 Specific Objectives

- i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- ii. To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- iii. To find the avenues for advanced agricultural marketing / financing options.
- iv. To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode - 4.

#### 4.8 Scope of Research

Scope of the research focuses on the scenario for different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh.

The specific scopes of the research are as follows.

- i. Current composition of the agricultural produces for export
- ii. Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- iii. Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.
- iv. Specific negotiation strategy for WTO on agricultural subsidies
- v. Specific tactics for implementation of the above strategy (iv)
- vi. Impact of making the block of countries in different stages of de-subsidization

However, as the project is a two-year long M. Phil. dissertation, only scope (i), (ii), and (iii) were covered, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) and their respective marketing strategies were identified in the first stage, within the stipulated 30 days.

#### **4.9 Sampling Methods**

Only experts were consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents were approached. Therefore, convenience sampling method was employed.

#### **4.10 Significance of the Study**

For a small and non-significant<sup>71</sup> country like Bangladesh the only way out is to build on our expertise and experience in niches we already have some mastery on. Admit it, if anything positive is there, for which ones of these positive things does the outside world know us? The answer is simple - number one, Micro-Credit<sup>72</sup>, number two, UN Peacekeeping, and number three, we forgot. If we want to build on our expertise, we need to know what we actually know. We need to combine and integrate our learning in all fields that we have ever operated in and harvest the synergies that we can derive from there on.

Making informed decisions and planning judiciously are the only two ways that can help the cause. Like President A P J Abul Kalam of India had said, we need virtuous Leaders, Wise Officers, and Learned Teachers. This paper, as I duly expect, can ultimately contribute to the formation of a more pro-active strategy for Bangladesh's performance in the United Nations peace efforts, where the country presumably already has made its mark as one of the top-most troops contributors. But is the UN itself anything less than a powerful men's club. Otherwise, why does China forestall Chapter VII enforcement in Sudan? Why is there armed intervention without the sanction of the Security Council? ... only for greater control over resources?

The study is significant to the different levels of concerned bodies and intelligentsia of the country due to different causes. The causes are apparent from the debriefings available on the barriers to international trade. This section depicts only the specific points to be highlighted.

##### **4.10.1 Significance to Diplomatic Endeavors**

The findings of the report are anticipated to help the policy makers and players arrive at a positive focus with regards to the environment and settings where investments and returns to materialize will be easier. It is expected that the results of the research will significantly help the established Non-Governmental entities of the country who allege of the unavailability of policy measures required, to find alternative ways to proliferate into world affairs alongside their current role in the country.

##### **4.10.2 Significance to Literature**

Policy frameworks, especially the effective ones, are very uncommon in Bangladesh when it comes to Foreign Affairs and our participation in multilateral bodies like the WTO. This paper is expected to have a proper insight into the nature of better and more innovative ways to contribute to structural arrangements for international trade, i.e. if the infrastructure can be reoriented for ventures to run smoothly through a combined effort of the business community, civil society organizations, and the diplomatic agents. Also, it is expected to add a different dimension to the existing literature by infusing a fresh presentation of useful data in the most organized form ever created - on WTO - in the country. It uses the quantitative SWOT analysis in the principle analysis section. This is unique in the form and is used only for the second time in

<sup>71</sup> Non-significant - purely in the sense that the advanced community mostly don't regard Bangladesh for anything other than its nuisance value, despite having so many potentials to contribute to the world community - simply because we do not know how to project ourselves in a concerted manner

<sup>72</sup> And organizations like BRAC, Grameen, Proshika, ASA



the administrative history of the country (the first one was when one of the authors had prepared a paper for the Bangladesh Foreign Service Academy in May 2006).

#### 4.10.3 Significance to Society and Government

In spite of impressive achievements in food grain production and significant growth in rural non-farm sector, more than 40 percent of the rural population lives below the poverty line. To lift this population out of poverty, the Government is committed to the Millennium development goal of reducing poverty by half by 2015. In order to fulfill this commitment, the Government has prepared a 'Poverty Reduction Strategy Paper' (PRSP) in 2005, which recognizes agriculture and rural development as the key sector for enhancing pro-poor growth. "Since three-quarters of the country's total population and 85 percent of the total number of the poor live and earn their livelihood in the rural areas, the Government has identified agriculture and rural development as the top most priority sector for rapid poverty reduction. With about 25 percent of GDP contributed by agriculture (crops 14 percent, forestry 2 percent, livestock and poultry 3 percent and fisheries 6 percent) and another 36 percent by the rural non-farm sector, the rural economy as a whole contributes more than 60 percent of total GDP. Agriculture generates two-thirds of total employment, contributes a quarter of total export earnings and provides food security to the increasing population. To ensure continuing food security and generate high economic growth required for rapid poverty reduction, the strategic importance of agriculture and rural development stand second to none" (quoted from PRSP)<sup>73</sup>.

On the other hand, development concerns are supposed to be at the heart of the current World Trade Organisation (WTO) negotiations. The current negotiations are called the "Development Round" and this underlines the importance of achieving a positive outcome for developing countries. The Doha Ministerial Declaration November 2001 recognizes the importance of the development dimension of the Round, stating in the second paragraph: "International trade can play a major role in the promotion of economic development and the alleviation of poverty. We recognise the need for all our peoples to benefit from the increased opportunities and welfare gains that the multilateral trading system generates."

The principle that trade can reduce poverty, but that developing countries face challenges making trade work for development, should be a core theme of the trade and development policy of the developed countries – which is, unfortunately not the case. It is believed that the current round of negotiations in WTO represents the single best opportunity to realize the development potential of trade by addressing the harmful distortions in the international trading system. Reform of trade-distorting practices in agriculture in particular, will be of significant net benefit to developing countries. There are also potentially big gains for developing countries in the areas of services and non-agricultural market access.

We may recognize that trade will not solve all the problems faced by developing countries, but believe that developed economies must ensure that the opportunity to benefit from globalization is available to everyone. The development aspects of the Doha Development Agenda range from specific issues identified by developing countries as priorities; the provision of special and differential treatment within individual negotiations, and broader objectives including improved market access and the provision of technical assistance. SDT is a concept which recognises that developing countries face specific challenges as a result of liberalisation. SDT includes provisions that allow for lower cuts and longer timeframes for reducing tariffs and agricultural domestic and export subsidies, and fewer obligations and reduced commitments for adherence to negotiated agreements. In addition, the Doha Round will probably see the creation of targeted new instruments as part of the SDT package, such as the "special products" category (products important for food security and rural development) and a new special agricultural safeguard for developing countries. In the Doha Round it has been accepted that LDCs will be exempt from having to make any new reduction commitments. Improved market access for agricultural products holds the promise of substantial benefits for developing countries, particularly given their comparative advantage in this area. At the same time, developing countries have some concerns relating to the impact on food security and rural development of opening their own markets for certain products. It is expected that SDT provisions will be designed to take account of these concerns. Under non-agricultural market access, sectors of significance include textiles,

<sup>73</sup> The Agriculture Sector Review done in 2004 also identified agriculture and non-farm rural sector as the main sector for rapid economic growth, required for reducing rural poverty. The sector review, resulted in the formulation of an "Actionable Policy Brief" (APB) provided the basic policy framework for agriculture and rural development, focusing on: (i) intensification of cereal production; (ii) diversification of high value crops; (iii) development of agricultural products (semi-processed and processed); (iv) development of non-crop agriculture (livestock and fisheries); and (v) promotion of rural non-farm activities. The emphasis of the Policy Brief is on increasing productivity, profitability and net return to farm households by increasing land, water and labor productivity. It identified the persisting constraints limiting production and net return to farm households. These constraints are input-output price distortion, declining investment in agriculture, high price and limited availability of quality inputs, institutional inefficiency, and lack of market infrastructure and inefficient market management.

clothing and footwear, forestry and fisheries. These are all important industries for developing countries.

Services trade is also important to many developing countries. Many services, including infrastructure services and services incidental to agriculture facilitate growth, while services such as environmental services can, if managed properly, improve quality of life. In addition, developing countries have their own export interests in services ranging from construction to education, with a particular emphasis on services provided via the temporary entry of service-suppliers into the country where the service is delivered. These exports also contribute to growth in neighbouring developing countries.

The use of trade-distorting subsidies – both “domestic support” measures and export subsidies – significantly distorts the global trading system. The main users of these measures are large developed countries. Trade-distorting domestic support encourages over-production in the subsidising country: this surplus is often then exported (using export subsidies) for less than the cost of production, which has the effect of displacing and/or reducing the world price for many of the agricultural commodities that developing countries trade. This system also means that subsidisers are reluctant to open their markets to efficient producers such as those in developing countries, since this would undermine farm incomes in the subsidising country. A three-pronged approach will be important to achieving a positive development outcome:

- i. Substantial reductions in the use of trade-distorting subsidies
- ii. Elimination of export subsidies
- iii. An ambitious package to open agricultural markets (tempered with SDT targeted to situations of real need).

Many developing countries face domestic and supply-side constraints when seeking to maximize the opportunities that come from trade liberalization. Continued and improved trade-related technical assistance and capacity building is a vital component of trade and development. We can always hope for an ambitious outcome in the Doha Round. There is considerable overlap between the objectives of developing countries and of the developed ones in the Round, particularly in the areas of agricultural market access, the elimination of export subsidies and trade-distorting domestic support.

However, this paper is premised on the idea that if maneuvered properly:

- i. International trade (specifically in agricultural produces) has a positive effect on poverty reduction and improves long-term economic growth in developing countries, and
- ii. A successful outcome to the Doha Round will promote development through improving market access for all products – including those important to developing countries, especially agriculture and textiles – and through the elimination of export subsidies and substantially reducing trade-distorting domestic support

It is important for the WTO to find ways to address the converging issues of trade with labor and the environment in a way that does not encumber the trade system with new, extraneous requirements. There is room to improve the manner in which the WTO interfaces with other international institutions, such as the International Labor Organization and the World Bank. However, it is important that trade agreements not be used as the primary mechanism to enforce alleged abuses on environmental or labor matters. There are more appropriate and effective means and organization through which to pursue these remedies. The business community also has a vital interest in the outcome of WTO negotiations because the WTO's rules are the framework within which business will conduct its activities<sup>74</sup>.

From this paper, we will try to establish that the government should:

- i. Aggressively negotiate on behalf of the country in the new round of multilateral trade negotiations. Priority areas are market access, business facilitation, investment, agricultural export subsidies and trade remedy systems.

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<sup>74</sup> It may be noted that (~ with relevance from previous footnote) APB has placed greater emphasis on policy support targeting factor productivity, investments and risks by (a) rationalizing public expenditure allocation, increasing public investment in infrastructure and public good services and promoting private investment in agriculture, (b) inducing shift in relative prices of input and output to correct market distortion, rationalize the incentive structure for investment and mitigate negative impact on the environment, (c) putting in place appropriate legal and regulatory framework and (d) introducing institutional reform and good governance making both public and private sector more transparent and accountable to people. Keeping this in view, a series of policy recommendations has been made in APB to address the policy issues on seed, fertilizer, minor irrigation, small scale mechanization, marketing and agribusiness, agricultural research and agricultural extension as identified in the sector review for enhancing growth in agriculture.

- ii. Seek out and take full account of the expertise and advice of business houses as negotiations in the Doha round proceed.
- iii. Renew efforts to strengthen the WTO as the rules-based international institution responsible for overseeing the operation of the multilateral trading system. This includes ensuring all WTO members respect the decisions of WTO dispute panels so that the primacy of the WTO system is maintained.
- iv. Work within the WTO context to ensure that developing countries not only have the capacity needed to enjoy the full benefits of the WTO system, but also have the capacity to fulfill their obligations under WTO agreements.

#### **4.11 Limitation**

The research does not include the following in the discussion pattern:

- i. Details of agricultural products' breakdown (minute varieties/variations)
- ii. Changing market/physical conditions with respect to extraneous factors like – global warming, regional/international conflicts, human settlement patterns, etc. These will be considered given (constant) for the limited time frame proposed.

Also, a research is only as good as its assumptions. This project is based on a few important assumptions, which would prove to be la cause-fatale in case of the assumptions not coming true in reality. Here is a list of the limiting factors of the research project's conclusions drawn from the responses observed.

- a. The scope of the research.

The scope of the research is defined for the agricultural production units only. It is assumed that, these are the units to be affected more severely with agricultural subsidies. Also, the industry average is expected to be calculated on the basis of the same assumptions as is stated here.

- b. Sampling technique.

Although probability based techniques have been used all through the report, it is theoretically not possible. Because, the convenience sampling does not eliminate the choice biases. And as a result, does not ensure that, the variations are due to chance errors only.

- c. Analysis techniques.

- i. The analysis techniques used in the preparation of the consolidated findings are based on assigning the concepts the same weights. This has an inherent problem for the overall attitude of the people about the constructs and concepts under consideration.
- ii. The model presented in the paper is based on an assumption that, the people answering the questions are reasonably rational people. But this might be wrong, as the level of reasoning is not the same as for different strata of the respondents.
- iii. The study holds that, the logic behind the people's perception would remain constant over the long run. But this might not be the case, as the time frame aspect is not covered in the report. So, if the people's attitude some how changes over time, the entire work of the research has to be redesigned. And the forecasts would change also.

These are some of the most important limitations barring the performance of the research financings to take the form of a theory.

#### **4.12 Time and Financial Budget**

##### **4.12.1 Financial Involvement**

Primary Data Collection was covered (the first part; within 30 days) under the following budgetary allocation from the group-members:

i. Conveyance	=	BDT 3,000/=
ii. Conducting FGDS	=	BDT 3,000/=
iii. Report preparation and presentation	=	BDT 1,500/=
iv. Internet and other data/information	=	BDT 3,000/=
<b>Total</b>	<b>=</b>	<b>BDT 10.500/=</b>


#### 4.12.2 Time Frame

The project is organized in the following schedule:

- I. The problem defined [March 01 – May 24]
- II. The operational definition of the different concepts under study defined [May 24 – June 05]
- III. The analysis technique decided upon [June 05]
- IV. The data collection instrument designed and pre-tested [June 05 – June 12]  
  
UNDEFINED TIME LAG [June 12 – June 16]
- V. The information collected through extensive interviews [June 16 – June 24]
- VI. Assorting information in order of organizational strata based on the number of employees [June 24 – June 26]
- VII. Organizing information as per the directives of the instructor of the course [June 29].

#### 4.13 The Survey Instrument

The research survey instrument is appended in annex 1.



# **PRIMARY RESEARCH FINDINGS**

**5.0 Primary Research Findings**

**5.1 Combined Average Selection Ranking for Products (Data tables appended at Annex 3)**

A detailed listing of combined averages based on the following control data parameters:

- i. Financial Lucrativeness
- ii. Marketing Opportunities
- iii. Supply side efficiency
- iv. Logistic support
- v. Packaging superiority
- vi. Advertising campaign effectiveness
- vii. Forward Linkages
- viii. Technical Expertise

Detailed supplementary statistics (product wise) appended in Annex 2.

Average	Agro-Commodity	Financial Lucrative- ness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Advertising campaign effectiveness	Forward Linkages	Technical Expertise
4.13	Currants and gooseberries	4	4.4	3.4	4.4	5	4.6	4.2	3
4.13	Tomatoes	3	4	5	5	4	4	3	5
4.05	Rapeseed and Mustard seed	3	4	3.8	4.4	3.6	4.4	4.2	5
4.00	Onions (Inc. shallots)	4	3.2	4.2	4.2	4.4	4	5	3
3.95	Cereals, nec	4	4	3.4	4.2	5	3.4	4.6	3
3.93	Legum. veg., nec	4	4	3.4	4	5	4.2	3.8	3
3.88	Soybeans	3	4	3.8	4.6	3.6	4.6	2.4	5
3.83	Lemons and limes	3	4	4.8	3.2	2.8	3.8	4	5
3.83	Sunflower seed	3	4	5	5	4	2.2	2.4	5
3.80	Groundnuts	3	4	4.8	3.2	2.6	3.8	4	5
3.75	Ginger	4	3.8	2.8	3.8	5	4.2	3.4	3
3.70	Sorghum	4	4	4	3	3.4	3.2	5	3
3.68	Citrus fruit, nec	4	3.2	3.4	4.2	5	3	3.6	3
3.55	Cauliflowers and broccoll	1	2.6	5	3.2	4.4	5	4.2	3
3.50	Beans, dry	1	2.6	3.4	4	4.8	5	4.2	3
3.50	Maize	4	2.8	1.8	3.4	5	4	4	3
3.45	Pumpkins, squash and gourds	4	4	4	3	3.8	3.6	2.2	3
3.38	Bananas	1	2	3	4	5	5	4	3
3.38	Barley	4	4	4	2	2	3	5	3
3.38	Potatoes	3	4	3.8	2	3.6	1.8	3.8	5
3.38	Wheat	3	4	5	5	2	1	2	5
3.38	Yams	3	4	5	5	2	1	2	5
3.33	Pineapples	4	1.6	4.8	3	4.4	3.8	2	3
3.30	Pepper (Piper spp.)	1	2.8	4	3.8	4.2	4	3.6	3
3.28	Cabbages and other brassicas	4	3.6	3.6	2.6	2	2.8	4.6	3
3.25	Mushrooms and truffles	3	1.6	4	2.6	3	4.2	2.6	5
3.23	Beans, green	3	4.2	4.4	4.2	2	1	2	5
3.23	Peas, green	3	4.8	2.6	2	2.4	1.8	4.2	5
3.18	Cassava (fresh and dried)	3	4.2	3.6	4	2.6	1.2	1.8	5
3.15	Chillies and peppers, green	1	3.8	4.2	3.2	1.2	4.2	4.6	3
3.13	Tea and Maté	4	4	4	2	1	2	5	3
3.13	Watermelons	4	4	4	2	1	2	5	3
3.03	Sugar Cane and Sugar crops,nec	4	4	3.4	1.2	1	2.6	5	3
3.00	Papayas	3	1.6	3.2	3.2	2.8	3.8	1.4	5

Dhaka University Institutional Repository

Average	Agro-Commodity	Financial Lucrative- ness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Advertising campaign effectiveness	Forward Linkages	Technical Expertise
3.00	Sweet potatoes	1	2	3	4	3	4	4	3
3.00	Vegetables, nec (Inc. okra)	1	2	3	4	3	4	4	3
2.93	Cucumbers and gherkins	1	3.8	4.2	2.6	1.2	3	4.6	3
2.93	Eggplants (aubergines)	3	2.6	2	2.4	2.8	3.8	1.8	5
2.80	Coconuts (incl. copra)	3	2.2	2	2.4	2.8	3.4	1.6	5
2.58	Oilseeds, nec	1	4.4	3.2	1.6	1.6	2	3.8	3
2.58	Pulses, nec	1	2	1.8	3.8	2	4	3	3
2.50	Chillies and peppers, dry	3	2.2	2	1.6	2.8	1.8	1.6	5
2.43	Garlic	1	2.2	4.2	2.6	1.2	1.4	3.8	3
2.43	Spinach	1	2	1.8	2.8	1.8	3	4	3
2.35	Rice, paddy	1	2	1.8	2.8	1.8	3	3.4	3
2.15	Lettuce and chicory	1	2.2	3.2	2.2	1.2	2	2.4	3
2.00	Guavas, mangoes, mangosteens	1	1.6	2.6	2.2	1.8	1.4	2.4	3



5.2 Respondent Type

WTO Experts:	05
Agro-Commodities/Marketing Experts:	05
Agro-Product Exporters:	05
Farmers:	05

5.3 Comments on if Bangladesh Should Specialize as an Agro-Commodity Exporter

Respondent Type and Response Statistics	Interpretation
<p><b>WTO Experts</b>                      Mean: 3                      Standard Error: 0.316227766                      Median: 3                      Mode: 3                      Standard Deviation: 0.707106781                      Sample Variance: 0.5                      Kurtosis: 2                      Skewness: 0                      Range: 2                      Minimum: 2                      Maximum: 4                      Sum: 15                      Count: 5                      Largest(1): 4                      Smallest(1): 2                      Confidence Level(95.0%): 0.877990852</p>	<p>WTO experts seem to be of an opinion indifferent to the extreme values. The experts maintain a starkly neutral position to the notion that Bangladesh should specialize as an agro-commodity exporter. Not surprisingly the groups under study maintain reasonably similar positions as with regards to all the products and commodities categories under study. However, as is the case, the standard deviation is 0.71, which makes the mean all the more significant as to the indifference signified in the responses recorded and the observations made. Informal discussions suggest that the WTO experts would prefer other sectors of the economy, i.e., the service sector, specifically, implementation of the GATS Mode IV elements as a far superior method for reaping benefits of the WTO regime which happens to be the inner core of analysis for the research project.</p>
<p><b>Agro-Commodities/Marketing Experts</b>                      Mean: 1.4                      Standard Error: 0.244948974                      Median: 1                      Mode: 1                      Standard Deviation: 0.547722558                      Sample Variance: 0.3                      Kurtosis: -3.333333333                      Skewness: 0.608580619                      Range: 1                      Minimum: 1                      Maximum: 2                      Sum: 7                      Count: 5                      Largest(1): 2                      Smallest(1): 1                      Confidence Level(95.0%): 0.680088789</p>	<p>The Agro-Commodities / Marketing Experts maintain significantly higher position in terms of their optimism with the prospects for the agro-commodities and exports abroad. The standard deviation for the category is also small – implying centrality of the results for the optimism expressed with the option from the commodities/marketing experts. Invariably, the experts suggested strong opinions for the development of the sector with proper care.</p>
<p><b>Agro-Product Exporters</b>                      Mean: 1                      Standard Error: 0                      Median: 1                      Mode: 1                      Standard Deviation: 0                      Sample Variance: 0                      Kurtosis: #DIV/0!                      Skewness: #DIV/0!                      Range: 0                      Minimum: 1                      Maximum: 1                      Sum: 5                      Count: 5                      Largest(1): 1                      Smallest(1): 1                      Confidence Level(95.0%): 0</p>	<p>The exporters, as expected, expressed their strong support for a better future with agro-commodities under all possible WTO regimes. Incidentally, all expressed univocal stand-points for the option at point 1, which happens to be the highest agreement in consideration. Standard deviation is also zero, making the significance of the projections made by the exporter statistically significant for the research.</p>
<p><b>Farmers</b>                      Mean: 2.666666667                      Standard Error: 0.251976315                      Median: 3                      Mode: 3                      Standard Deviation: 0.975900073                      Sample Variance: 0.952380952                      Kurtosis: -0.646153846                      Skewness: -0.275879444                      Range: 3                      Minimum: 1                      Maximum: 4                      Sum: 40                      Count: 15                      Largest(1): 4                      Smallest(1): 1                      Confidence Level(95.0%): 0.540435928</p>	<p>Farmers' opinions significantly varied with that of the exporters and agro-commodities experts. Coincidentally, they matched rather with the WTO experts. Informal discussions suggested that to the farmers, it was not a potential for the future that mattered. Rather, it was the cash generating potential that provided the allurements to the choice of profession / product / sector for service. To the farmers, incidentally, old generation industrial implements accorded higher significance than the possibilities of earning more / better than they were at the present time context. Incidentally, the standard deviation is also 0.98, which provides significant variations compared to other forms of answer types observed and recorded from the three other respondent types.</p>

5.4 Response Matrix on The biggest threat to agro-commodity export from Bangladesh

On the biggest threat to agro-commodities export from Bangladesh, different respondent groups identified different issue preferences from the noted response options. The WTO Experts

identified "Absence of superior technological know-how" as the major impediment towards the development of the agricultural commodities export from Bangladesh. The second in order of importance to the group were, "Absence of superior agricultural management techniques" and "Absence of dependable and affordable financing mechanisms".

On the other hand, to the agro-commodities experts, "Absence of factor endowments to produce competitive products" and the "Absence of forward marketing channels" appeared to be the more significant issues to be resolved for expediting development in the agricultural sector of the country.

To the exporter group of respondents as well, the "Absence of agricultural management techniques" and the "Absence of forward marketing channels" were the more important issues for immediate resolution with regards to the development of the sector, while to the farmer group of respondents, "Absence of dependable financing mechanism", "Natural calamities" and "Absence of agricultural management techniques" appear in order of significance for resolution in order to develop the agricultural sector for export in both the short and long runs.

#### **5.5 On the onus of agricultural sector development**

To all groups, the onus of development of the agricultural sector is on the private sector. However, to the farmers group of respondents, both the Government and the Private Sector rank high and close to the Private Sector in sharing the responsibilities with respect to the development of the agricultural sector in Bangladesh.

#### **5.6 On prioritizing development initiatives**

To the WTO experts, "Forward Marketing" and "Product Quality Improvement" were the more important elements in order of priority for the development of the agricultural sector. So was the case with the Agro/Marketing Experts and Exporters. However, with the farmers group of respondents, a separate element of ease of financing came up in the prioritized list of instruments for the development of the agricultural sector.

#### **5.7 Specific methods to prioritize in agro-commodity development**

To the WTO Experts, "Advanced Agro-Commodities Processing" and "Ease of Financing" came up on top for the list of development initiatives of the country. So was the case with the agro-commodities / marketing experts. However, for the exporters group of respondents, product financing secured the second position with the top-most remaining the same. For the Farmers group of respondents, "Advanced Product Processing", "Production Financing", and advanced technological feats, such as "Genetic Engineering" produced higher value responses.

#### **5.8 Bangladesh's biggest competitors in agro-products**

To the WTO Experts, the Sub-Saharan Africa and other African Regions held superior potentials for competing with. Same was true for all other groups.

#### **5.9 Interpretation of Commodities Analysis**

##### **5.9.1 Tobacco (Data tables appended at Annex 4)**

###### **a Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are indifferent with the question with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Agro Marketing Experts strongly agrees with the question with minimum standard deviation which implies they think in favor of specializing as an agro-commodity exporter.

The Exporters strongly agrees with the question with the minimum standard deviation which implies they think must be specialize as an agro-commodity exporter.

The Farmers are indifferent with the question with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

As a global phenomena tobacco production is diverting to the developing countries for many situational factors like from increased control and restrictions on both the supply and consumption sides in the developed countries to ensured and comparatively higher return (as

most of the production volumes are controlled by established tobacco companies with registered farmers) for mostly the developing countries.

The analysis reported in **Tobacco Supply, Demand and Trade by 2010: Policy Options and Adjustment** suggests that modest global action to restrict consumption of tobacco would result in a slowing in growth, but not a contraction, of consumption

Tobacco demand at the world level, during the period to 2010, is increasing but at much lower rates than in previous periods. This increase is expected in spite of declining tobacco consumption on a per adult basis by as much as 10 percent between 1998 and 2010 in the baseline scenario and by as much as 20 percent under an aggressive anti smoking and anti-tobacco policy.

According to the projection results made by FAO, the expansion of demand in the developing countries is expected to drive the tobacco economy of the world. Production of tobacco leaf responds to demand trends and is increasing in countries where demand is increasing, production costs are low, and there are no production restrictions, as well as in countries with good transportation systems and access to the international market. Hence, some further shift of tobacco leaf production towards developing countries is expected.

From social and purely physiological point of consideration cost of smoking is higher than the benefit thus prompts for stricter control on both the supply and demand sides. But from a purely economic point of view most of the farmers of developing countries specially one like Bangladesh lack competitive alternative crops to tobacco neither they have needed support policies. Again, quality of tobacco produced in Bangladesh can meet global standard a proof of which is the increase in volume export of tobacco. Now, to take the global market opportunity besides controlling local consumption Bangladesh can set some strategy for export oriented tobacco production. The trend analysis conducted by FAO shows slower increase in global tobacco consumption supportive to increase production especially for export.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tobacco as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

Source: 1

The second of two volumes to be published from the FAO project **Tobacco Supply, Demand and Trade by 2010: Policy Options and Adjustment**

b **Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** with a mean of 18 and standard deviation of 3.74 which implies the response has moderate consistency.

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Transportation and communications** with standard deviation of 3.74 which implies that this response also has moderate consistency.

Among the alternatives Exporters gave the most emphasis on both **Transportation and communications** and **Quality Seed Development** with standard deviation of 4 and the later 4.84 which implies that may or may not specialize as an agro-commodity exporter.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications** with standard deviation of 2.06 which implies that may or may not specialize as an agro-commodity exporter. And then they opined that next point to be emphasized is the Quality seed Development.

For export when quality is almost ensured for the long experience held collectively in tobacco cultivation and curing, naturally next most important factors would be transportation and communication and that is reflected in the responses of all the categories with moderate consistency for the lower level of standard deviation..

c Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Introducing product variety** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

To develop production possibilities of Tobacco each of the category of respondents concerted for Block Activities along with LDCs in WTO to reduce subsidies (by Advanced countries) and the second ranking goes for **Providing more domestic agricultural subsidies from respondents other than farmers who opt for introducing product varieties** as the second most important factor.

d Production process improvements should prioritize in (100 points to be divided):

5.9.1.d.1 The WTO experts

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

5.9.1.d.2 The Agro Marketing Experts

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

5.9.1.d.3 The Exporters

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean- 26, SD-5.4)

5.9.1.d.4 The Farmers

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.14)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-25.3, SD-5.16)

All of the respondent categories concerted for Ensuring timely and adequate inputs supply as the first priority to improve the production process, whereas the Introduction of superior transportation system is ranked as second priority.

e Attaining competitive efficiency would result from combinations of (ranking in preferential order):

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export services' is ranked as second priority. Very low level of standard deviation shows strong consistency among the responses.

### 5.9.2 Jute (Data tables appended at Annex 5)

#### a Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specialized in Jute as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the 'strongly agreed' extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter with Jute.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Jute as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Farmers and the WTO experts are neutral to the proposition that **Bangladesh should specialize in jute as an agro-commodity exporter but the Agro Marketing Experts and the Exporters strongly agreed to the proposition.**

In the 1960s, petroleum-based synthetics entered the market, competing with jute for practically all of its uses. World trade in jute and jute goods declined absolutely from 1.8 million tons in 1970 to 1.5 million tons in 1982. Despite some major year-to-year swings, prices fell precipitously through the mid-1980s. Prices were too low to cover the costs of production, but the government nonetheless deemed it essential to subsidize growers and industry and ensure the continued existence of as large a foreign market as possible. Ironically, Bangladesh's indispensable foreign exchange earner was thus itself a drain on the economy. There have been enormous year-to-year fluctuations both of producer prices and of production. An extreme example occurred between FY 1984 and FY 1986. Carry-over stocks had been run down since the previous production surge in FY 1980, and serious floods in 1984 resulted in unanticipated production losses. The price doubled to US\$600 per ton at the export level, which triggered the traditional response of farmers; they planted much more of their land in jute, and between one year and the next production rose more than 50 percent, from 5.1 million bales in FY 1985 to 8.6 million bales the following year. History proved true to itself yet again when export prices then fell by 50 percent at the export level and by more than 30 percent at the farm-gate level. The drop would have been even greater had the government not intervened.

Some hope for a better future has been placed in cooperation among jute-producing countries through the International Jute Organization, based in Dhaka. Member countries in 1988 were the

producing countries of Bangladesh, Bhutan, China, India, Nepal, and Thailand and more than twenty consuming countries, including the United States. The goals of the fledgling International Jute Organization were appropriately modest to begin with, centering on better dissemination of basic information, coordination of agricultural and industrial research and of economic studies, and steps toward coordination of marketing. It remained to be seen in mid-1988 whether this poorly financed new organization, representing the first feeble effort at a coordinated approach to the problems of jute, would be effective in arresting its long decline as an important international commodity. Moreover, world wide growing consciousness about superiority of natural products and the greening effort in every aspect can instigate the global market of jute flourish again.

**b** Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 20 with standard deviation of 10.

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Quality Seed Development** as the mean is 28 with standard deviation of 8.94.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications (Mean – 20, SD-21.2)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality Seed Development (Mean – 22, SD-16.56)** and **Transportation and communications (Mean – 19.3, SD-7.98)** as their 2<sup>nd</sup> preference.

The respondents suggested varied opinion with comparatively higher standard deviation indicating less consistency in responses about identifying the major impediments in achieving superior export values in this category (Jute).

**c** Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3, SD- 2.44) as the most preferred possibilities for development production. Then they ranked **providing more domestic agricultural subsidies** (Mean – 3.2, SD- 2.16) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3, SD- 1.8) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.

The Farmers have ranked **more domestic agricultural subsidies** (Mean – 2.6, SD- 1.7) as the most preferred possibilities for development production. Then the option for **introducing product variety** (Mean – 3.4, SD- 1.9) is ranked.

To develop production possibilities of Jute each of the category of respondents except Farmers concerted for **Block Activities along with LDCs in WTO to reduce subsidies (by Advanced countries)** and the second ranking goes for **Providing more domestic agricultural subsidies**. **The farmers ranked Providing more domestic agricultural subsidies as the first and introducing product variety as the second most important factor.**

**d** Production process improvements should prioritize in (100 points to be divided):

**5.9.2.d.1 The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-4.4)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-11.4)

**When first preference is consistent along responses with low standard deviation, second preference lost the ground for very large SD**

**5.9.2.d.2 The Agro Marketing Experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-7)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)  
The above two preferences moderate consistency along responses

**5.9.2.d.3 The Exporters**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-10.95)

**5.9.2.d.4 The Farmers**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-6.32)

Consistent responses with comparatively lower SD

In short, about jute, the responses have wider dispersion from the mean value for most of the category of responders except farmers and choice of preference is same for all the category of respondents.

**e Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- .54) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.44) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency in jute except Exporters who ranked 'Government supported export services' as the first priority, whereas 'Government supported export services' is ranked as second priority by all the respondents except exporters who ranked 'Anti-Corruption drive in the power/utilities sector' as second in priority. High consistency in the responses of farmers is observed as the SD is '0'.

**5.9.3 Tea (Data tables appended at Annex 6)**

**a Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized in Tea as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Tea as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Tea emerged as an important foreign exchange earner of Bangladesh. The country's average export of tea per year is about 26 million kg of value of \$36 million. The USSR, Poland, Egypt and Pakistan emerged as major markets for Bangladesh's teas. The tea sector contributes about 0.8% of the GDP in Bangladesh. About 0.15 million people are directly employed in the tea industry, which constitutes about 3.3 percent of the country's total employment.

With the improvement of the rural economic environment, steady population growth as well as the emergence of an economically stable middle class the domestic consumption may reach approximately 55 m.kgs by 2010.

In this context what effect the recent duty free access of Pakistan to Bangladesh tea will have on our tea industry remains to be seen. It is already apparent that though prices have gone up the total volume of our exports has not risen. This duty free access will ensure that our prices are once again out of line with International prices. Those export markets that had been developed in recent year are already looking for alternative sources. With continued pressure from domestic demand it is unlikely that Pakistan will be able to purchase their target of 10 thousand tons per annum from Bangladesh. If we cannot ensure sufficient quantity of tea in the country in keeping with the increase of consumption in the domestic sector, it can lead to import of tea from other origins. Considering all of the above along with our research findings there is a need for increasing production to meet the local demand as well an opportunity to capture export market of Tea.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tea as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

**b** Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Quality Seed Development** as the mean is 32 with standard deviation of 10.9

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Quality Seed Development** as the mean is 28 with standard deviation of 8.3.

Among the alternatives Exporters gave the most emphasis on both **Quality Seed Development** as the mean is 30 with standard deviation of 10.

Among the alternatives The Farmers gave the most emphasis on **Quality Seed Development (Mean – 23, SD-13.45)**.

Though every respondent identified Quality Seed Development as the major Impediments in achieving superior export values in this category; each type of responses have higher value of SD implying low consistency in responses.

**c** Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- 1.09) as the most preferred possibilities for development production. Then they **Introducing production process improvements** (Mean – 2.4, SD- 2.1) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.



The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.

The Farmers have ranked **Introducing product** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2.09) as the next preference.

Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) is ranked first by every respondent except farmers who ranked Introducing Product.

**d**                    **Production process improvements should prioritize in (100 points to be divided):**

**5.9.3.d.1        The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-7)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-15)

**5.9.3.d.2        The Agro Marketing Experts**

1st Preference - Introducing advanced production engineering(Mean-34, SD-15.1)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-16)

**5.9.3.d.3        The Exporters**

1st Preference - Introducing advanced production engineering (Mean-32, SD-13)

**5.9.3.d.4        The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-28.66, SD-10.6)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-6.32)

WTO experts and Farmers concurred for Ensuring timely and adequate inputs supply as the first priority to improve the production process, whereas the Introduction of superior transportation system is ranked as second priority. Whereas, Agro Marketing Experts and the Exporters ranked Introducing advanced production engineering

**e**                    **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.6, SD- 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 3.2, SD- 1.09) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- 0.83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.4, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.06, SD- 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.5, SD- 1.08) as the next preference for attaining competitive efficiency.

All of the respondent categories concurred for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export

services' is ranked as second priority. Level of standard deviation shows strong consistency among the responses.

#### 5.9.4 Maize (Data tables appended at Annex 7)

##### a Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Maize currently occupies only about 3000 hectares, and a significant market for the grain has yet to develop (Karim, 1992). It is consumed principally as a green cob either roasted or boiled with some spices. It is considered an inferior grain, and most consumers are not aware of its potential uses in cooking. Evidence suggests that income elasticities of demand for maize are low, even negative for middle and upper income groups. Maize may therefore be a suitable 'inferior good' for inclusion in food distribution programmes. As in the case of wheat, the use of maize in ration shops may ultimately promote its use in the wider population and, at the same time enhance the ability to target the poor in the short run. Industrial uses of maize have also not been optimally developed. With the emergence of an industrial poultry sector in Bangladesh, the market for maize is certain to strengthen. Throughout the world, maize is the preferred grain for industrial poultry production because of its balance of energy, protein, fiber, and micronutrients. Typically it represents more than 60 per cent of the composition of mixed feeds for poultry. The largest poultry producer in the country is importing maize from India to meet his requirements.

Disincentives to production are associated with poor productivity. Maize yields currently average only 0.8 metric tons per hectare, pointing to farmers' use of few inputs. These yields are only half of those of India, Pakistan and Thailand. Results from farm demonstration plots, however, reveal that maize can grow very well in Bangladesh in all seasons. World Bank (June 30, 1995), According to an economic analysis of intensive maize production assuming use of improved composite varieties, maize can be sufficiently competitive and profitable to compete with irrigated boro rice. Survey data show that maize has stronger net financial returns than rice or wheat in both summer and winter seasons, and financial returns are even greater under demonstration plot conditions, suggesting a very large potential for improving on-farm productivity. However, these results assume that maize is sold primarily as green cob rather than grain. By comparison, the hypothetical analyses based on maize grain sales show substantially lower financial returns (World Bank, 1993). Composite maize shows financial profitability on the order of current returns to boro rice, but if hybrid maize is used, economic and financial returns are substantially more attractive. Despite the ex ante nature of this analysis, potentially attractive maize production technologies do exist which can be introduced into Bangladesh farm systems. That they are currently not used is because these technologies have not been made available to farmers.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tea as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

##### b Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Absence of genetic modifications** as the mean is 20 with standard deviation of 21.2. Then **Transportation and communications** mean is 18 with standard deviation of 8.36

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 26, SD-13.4)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Advanced product processing (Mean – 18, SD-21.6)** and then **Transportation and communications (Mean – 16, SD-11)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean – 19.3, SD-7.98)** and **Absence of genetic modifications (Mean – 18.66, SD-9.15)** as their 2<sup>nd</sup> preference.

Varied responses are with higher SD implying lower consistency along respondents.

c **Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- .83) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Providing more domestic agricultural subsidies** (Mean – 1.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 1.8, SD- 0.83) is ranked.

The Exporters have ranked **Introducing production process improvements** (Mean – 2.6, SD- 2.07) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 2.05) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.8, SD- 1.8) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 3.3, SD- 2.5) is ranked.

Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) is ranked first by WTO experts and farmers they ranked **Introducing production process improvements as the second preference.**

d **Production process improvements should prioritize in (100 points to be divided):**

5.9.4.d.1 **The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-31, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-29, SD-8.9)

5.9.4.d.2 **The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-8.9)  
2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

5.9.4.d.3 **The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

5.9.4.d.4 **The Farmers**

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-26, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among the responses of WTO experts and the farmers. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

e **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.4, SD- 0.54) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 1.8, SD- .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.73, SD- 2.3) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 3.2, SD- 1.7) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export services' is ranked as second priority. Level of standard deviation shows strong consistency among the responses.

5.9.5 **Tomato (Data tables appended at Annex B)**

a **Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with this issue having a Mean of 3 and standard deviation of 0.7 which implies that the idea of being specialized as an agro-commodity exporter was neither supported nor opposed by the WTO exporters.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the 'Strongly Agree' extremity and the standard deviation being 0.5 which doesn't shift the opinion beyond 'Agree' level. So they believe that Bangladesh should specialize as an agro-commodity exporter.

The Exporters unanimously expressed strong agreement with the question, since the Mean 1 denotes 'Strongly Agree' and a Standard deviation of 0 implies their unity in opinion making their response consistent.

Though the Farmers are more likely to be neutral about the Bangladesh's specialization as an agro-commodity exporter, but there is some inclination towards agreeing on the issue as can be seen from the Mean of 2.67 which implies their partial support to the idea of being specialized as an agro-commodity exporter. However, a standard deviation of 0.9 tends to make their response slightly inconsistent.

Global tomato production (processing and fresh) has increased 291 percent since 1961, reaching 108 million metric tons in Calendar Year (CY) 2002, while yield increased 64 percent, reaching an average of 36 tons per hectare. Most of the production growth occurred in Asia, which accounted for 50 percent of global production in 2002. According to FAO data, global trade of tomatoes and tomato products has increased by 33 percent to \$4.2 billion from 1991 to 2001. The growth in global tomato and tomato products trade is due to increased shipments of fresh tomatoes, which accounted for 74 percent of the total export value in 2001. Exports of tomato paste and tomato juice have remained relatively stable in terms of export value. [**September 2003 FAS/USDA**]

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tomato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

b **Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives the WTO Experts emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category.

The Agro Marketing Experts also emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category.

Among the alternatives the Exporters emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category.

The Farmers also emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 16.6, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 19, SD=7.4) as the second impediments in achieving superior export values in this category.

All the respondents identified Quality Seed development as the major impediments **in achieving superior export values in this category** and transport and communication as the second major impediments a higher level of SD implies lower level of consistency among responses.

**Q3-Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Agro Marketing Experts also opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Exporters have have opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Farmers also opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). They however ranked **Introducing product variety** as the second option for developing Production Possibilities under this Category with a Mean of 3.4 and SD of 1.9.

All the respondents opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production **and Providing more domestic agricultural subsidies** as the second preference a higher level of SD implies lower level of consistency among responses. Only the farmers opined for Introducing Product Varieties as the second preference.

c **Production process improvements should prioritize in (100 points to be divided):**

**5.9.5.c.1 The WTO experts**

Ensuring timely and adequate inputs supply with a mean value of 32 and an SD value of 4.5 is the first priority and the second Introducing superior transportation system with a mean of 26 and SD of 5.5

**5.9.5.c.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**5.9.5.c.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**7.1.1.1.1 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-25.3, SD-5.16)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among the responses other than farmers. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

d **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1 SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All the respondents identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result. All the responses are highly consistent with '0' SD.

**5.9.6 Okra (Data tables appended at Annex 9)**

a **Banqladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion

beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Okra as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency.

**b** Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 18 with standard deviation of 8. Then **Quality seed developments** mean is 16 with standard deviation of 5.4

Among the alternatives the Agro Marketing Experts the most emphasis on both **Absence of genetic modifications (Mean – 20, SD-14.1)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean – 18, SD-4.4)** and then **Transportation and communications (Mean – 18, SD-8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean – 22.6, SD-10.99)** and **Quality seed developments (Mean – 18, SD-13)** as their 2<sup>nd</sup> preference.

With the above findings the interpretation can be summarized that for successful production and export of Okra 'Quality seed developments' is the major impediments and Transportation and communications as the next major impediments that Bangladesh should work on.

**c** Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 1.4, SD- .89) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 2.6 SD- 2.3) as the next preference.

The Agro Marketing Experts have ranked **Introducing product variety** (Mean – 3, SD- 1.5) as the most preferred possibilities for development production. Then the option for ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have ranked **Introducing production process improvements** (Mean – 3, SD- 1.5) as the most preferred possibilities for development production. Then the option for **Easing financing mechanism** (Mean – 3.4, SD- 2.3) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.5, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Introducing product variety** (Mean – 3.7, SD- 2.5) is ranked.

From the above data we can come to the conclusion that 'Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)' should be most preferred area that Bangladesh should start working. The second ranking is given to 'providing more domestic agricultural subsidies which is also should be looked into for the widespread production of the Okra and be competitive in the world market.

d **Production process improvements should prioritize in (100 points to be divided):**

5.9.6.d.1 **The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-22, SD-8.9)

5.9.6.d.2 **The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-22, SD-5.4)

5.9.6.d.3 **The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

7.1.1.1.2 **The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-27, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-21, SD-6.32)

From the above data we can see that 'Ensuring timely and adequate inputs supply' and 'Introducing superior transportation system' are the two major areas for improvement in order to be Okra a successful product and foreign earning tools for Bangladesh.

e **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2 SD- .44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- 0.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean –2, SD- 0) as the next preference for attaining competitive efficiency.

From the above study we can see that the major two points that Bangladesh should solve are the 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' for Okra to give the best output.

5.9.7 **Aromatic Rice (Data tables appended at Annex 10)**

a **Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.



The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

To evaluate the export potential of specialty rice, financial and economic analyses have been performed based upon rapid reconnaissance surveys with several farmers currently growing these varieties. Financial analyses results suggest that kataribhog yields marginally higher financial returns per hectare than does common HYV aman rice, however, returns to kaligira are substantially lower than returns to common HYV. Moreover, benefit-cost ratios are also well below the control crop levels. This suggests that there is little incentive to produce kaligira at current farmgate prices. An evaluation further downstream in the market chain shows a substantial improvement in incentives for kaligira, although no policy is known to create this incentive. This implies either that there remain substantial rents in the market which constrain farmer production of specialty rice, or that the farmgate prices used in the market constrain farmer production of specialty rice, or that the farmgate prices used in the analysis are too low.

The net economic returns to specialty rices are also substantially positive; they suggest that both varieties can be produced very competitively for export, given the actual price of these products in overseas markets. Moreover, the economic returns per hectare for kaligira are nearly identical to returns to aman production of HYV common rice for domestic consumption, while those for kataribhog are considerably above HYV aman. In a second analysis, the economic attractiveness of each variety is compared to the international price of basmati, aromatic rice with worldwide recognition. In this scenario, net economic returns to kaligira fall but remain substantially positive (Taka 8,935 per hectare), while the competitiveness of kataribhog improves.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in aromatic rice as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

**b** Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 20 with standard deviation of 10.

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 26, SD-8.9)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications (Mean – 20, SD-21.21)** and then **Transportation and communications (Mean – 18, SD-8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 22, SD-16.5)** and **Transportation and communications (Mean – 19.3, SD-7.9)** as their 2<sup>nd</sup> preference.

All of the above responses shows higher SD implying very lower consistency among responses.

**c** Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3, SD- 2.4) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 3.2 SD- 2.1) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- 0.54) as the most preferred

possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 3.2, SD- 0.83) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 2.07) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 2.05) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.8, SD- 1.8) as the most preferred possibilities for development production. Then the option for **Introducing product variety** (Mean – 3.4, SD- 2.5) is ranked.

All the respondents opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production but with better consistency in te responses of Agro Marketing Expert and farmers. **Providing more domestic agricultural subsidies** though opined by **WTO Experts and exporters** as the second preference a higher level of SD implies lower level of consistency among responses. But responses from Agro Market Exporter identified with comparatively higher consistency (low SD). Only the farmers opined for **Introducing Product Varieties** as the second preference though with higher SD.

d Production process improvements should prioritize in (100 points to be divided):

5.9.7.d.1 The WTO experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)

5.9.7.d.2 The Agro Marketing Experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-5.4)

5.9.7.d.3 The Exporters

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Merging individual farm units to form agricultural conglomerates (Mean-18, SD-4.474)

5.9.7.d.4 The Farmers

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-24, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

e Attaining competitive efficiency would result from combinations of (ranking in preferential order):

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2 SD- .44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- 0.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

All the respondents except Exporters identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result. Mainly, responses from farmers are highly consistent with '0' SD.

The exporters ranked 'Government supported export services' as the first and 'Anti-Corruption drives in the power/utilities sector' as second.

#### **5.9.8 Mushroom (Data tables appended at Annex 11)**

##### **a Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Mashroom as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency.

##### **b Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 17 with standard deviation of 4.4. Then **Transportation and communications** mean is 16 with standard deviation of 8.9

Among the alternatives the Agro Marketing Experts the most emphasis on both **Production process deficiencies (Mean = 17, SD=6.7)** and then **Transportation and communications (Mean = 18, SD=9.7)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications (Mean = 15, SD=9.3)** and then **Quality seed developments (Mean = 13, SD=9.7)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean = 19.3, SD=7.98)** and **Quality seed developments (Mean = 15, SD=7.3)** as their 2<sup>nd</sup> preference.

With the above findings the interpretation can be summarized that 'Quality seed developments' is the major impediments and Transportation and communications as the next major impediments that Bangladesh should work on.

##### **c Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Introducing product variety** (Mean – 3, SD- 1.5) as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.4 SD- 2.3) as the next preference.

The Agro Marketing Experts have **Introducing product variety** (Mean – 3.4, SD- 1.5) as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6 SD- 2.3) as the next preference.

The Exporters have **Introducing product variety** (Mean – 2.4, SD- 1.5) as the most preferred possibilities for development production. Then they ranked **Product quality improvement** (Mean – 3.2 SD- 2.3) as the next preference.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.5, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 3.7, SD- 2.5) is ranked.

From the above data it can be inferred that almost all the respondents ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) as the most preferred one meaning that Bangladesh should start the block activities to reduce agricultural subsidy. The second ranking is given to providing more domestic agricultural subsidies by Agro Market Experts and Exporters which should be looked into for the widespread production of the Mushroom and be competitive in the world market.

**d Production process improvements should prioritize in (100 points to be divided):**

**5.9.8.d.1 The WTO experts**

1st Preference - Merging individual farm units to form agricultural conglomerates (Mean-24, SD- 2.2)

2<sup>nd</sup> Preference- Ensuring timely and adequate inputs supply (Mean-19, SD-8.9)

**5.9.8.d.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-8.9)

2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**5.9.8.d.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**5.9.8.d.4 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply (Mean-24, SD-6.76)

2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-20, SD-6.32)

From the above data we can deduce that 'Ensuring timely and adequate inputs supply' should be the foremost job that is required for Mushroom production a success. Secondly 'Introducing superior transportation system' need to be attended to make the product easy to transport for export.

**5.9.8.d.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Scientific management of the input-supply chains** (Mean – 3 SD- 1.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Superior forward marketing initiatives** (Mean – 3.8, SD- 1.5) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 3, SD- 2.44) as the most preferred possibilities for attaining competitive efficiency. Then

they ranked **Ensuring easy and low-cost financing** (Mean = 3.2, SD= 2.2) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2, SD= 0) as the next preference for attaining competitive efficiency.

From the above study we can see that all the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the most important aspect that The Government should look at to make the Mushroom production and export a success.

### 5.9.9 Potato (Data tables appended at Annex 12)

#### a Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Potato is suitable as a security crop in times of rice shortages due to its high carbohydrate content contributing to improved food security. It is also used as a vegetable by various income groups of the country. Since it is a short duration crop, its increased use can reduce the pressure on rice and wheat. Considering the production potential of the crop, potato production is projected to grow to 2.43 million Mt in 2001/2002. The increased production is expected to come from expansion in cropped area and increase in yield per hectare. To this end, true potato seed technology need to be encouraged and adopted.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in potato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

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#### Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 32 with standard deviation of 10.9.9. Then **Transportation and communications** mean is 18 with standard deviation of 8.3

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean = 28, SD=8.3)** and then **Transportation and communications (Mean = 18, SD=8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean = 30, SD=10)** and then **Transportation and communications (Mean = 18, SD=8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 23, SD-13.45)** and **Transportation and communications (Mean – 18.66, SD-9.15)** as their 2<sup>nd</sup> preference.

All the respondents identified Quality seed developments as the Major Impediments in achieving superior export values in this category only consistency among responses is found better among the respondents of WTO experts but second choice of Transportation and communications has moderate consistency.

c **Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- .83) as the most preferred possibilities for development production. Then they ranked **Introducing production process improvements** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Farmers have ranked **Introducing product variety** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then the option for **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2) is ranked.

All the respondents except farmers ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) whereas, farmers ranked 'Introducing product variety'. The second ranking is given to **providing more domestic agricultural subsidies by Agro Market Experts and Exporters.**

d **Production process improvements should prioritize in (100 points to be divided):**

**5.9.9.d.1 The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-31, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-29, SD-8.9)

**5.9.9.d.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-8.9)  
2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**5.9.9.d.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**7.1.1.1.3 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-26, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

e **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Government supported export** (Mean = 2.6 SD= 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Ensuring easy and low-cost financing** (Mean = 3.2, SD= 1) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1.2, SD= 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2.2, SD= .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 1, SD= 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2.4, SD= 0.89) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean = 2.06, SD= 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean = 2.5, SD= 1.3) as the next preference for attaining competitive efficiency.

All the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result.

The WTO expert ranked 'Government supported export services' as the first and 'Ensuring easy and low-cost financing' as second.

5.9.10 **Sweet potato (Data tables appended at Annex 13)**

a **Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Sweet Potato as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Sweet potato is considered as a subsistence as well as a poor people's food. Hence, its production will be encouraged on marginal lands, homestead areas, roadsides and elsewhere as a low input crop to ensure its continued availability to, and affordability by low income consumers. Sweet potato production is projected to be 0.66 million Mt in the terminal year of the Fifth Plan.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Sweet Potato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

b **Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 32 with standard deviation of 10.9. Then **Transportation and communications** mean is 18 with standard deviation of 8.36

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 28, SD-13.4)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean – 30, SD-21.6)** and then **Transportation and communications (Mean – 18, SD-11)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 23, SD-13)** and **Transportation and communications (Mean – 18.66, SD-9.4)** as their 2<sup>nd</sup> preference.

All the respondents identified 'Quality seed developments' as the major impediments and Transportation and communications as the next major impediments.

**c** **Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- .83) as the most preferred possibilities for development production. Then they ranked **Introducing production process improvements** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Farmers have ranked **Introducing product variety** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then the option for **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2) is ranked.

All the respondents except farmers ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) whereas, farmers ranked 'Introducing product variety'. The second ranking is given to providing more domestic agricultural subsidies by Agro Market Experts and Exporters whereas WTO experts ranked 'Introducing production process improvements'

**d** **Production process improvements should prioritize in (100 points to be divided):**

**5.9.10.d.1** **The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)

**5.9.10.d.2** **The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-8.9)  
2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**5.9.10.d.3** **The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)



1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-6.76)

2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-24, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

e **Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Government supported export services** (Mean – 2.6 SD- 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Ensuring easy and low-cost financing** (Mean – 3.2, SD- 1) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.4, SD- 0.89) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.06, SD- 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.5, SD- 1.83) as the next preference for attaining competitive efficiency.

All the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result.

The WTO expert ranked 'Government supported export services' as the first and '**Ensuring easy and low-cost financing**' as second.



## 6.0 Conclusion

The research findings support the notion that Bangladesh can claim its position as an agro-commodities exporter under a stable WTO regime. However, the recommendations put forward in the individual product/commodity analysis would assist in the resolution of the minor glitches that the agricultural sector is facing at this moment – arising out of primarily three reasons:

- (a) Technological inferiority
- (b) Management inefficiency and absence of advanced marketing focus/control
- (c) Input unavailability.

As is pointed from the literature review, poverty in Bangladesh is primarily a 'rural phenomenon', with 53 percent of its rural population classified as poor, comprising about 85 percent of the country's poor. Achieving the Millennium Development Goal (MDG) of halving poverty to 26.5 percent by 2015 will require a growth rate of at least 4.0 percent in agriculture and 7.0 percent in the non-farm sector. However, economic and institutional realities, the country's geographical and demographic characteristics, and its vulnerability to natural disasters, make this a very challenging task. The reason for an acute low agricultural productivity is rooted and seethed in a rapidly shrinking land base. While the country's population is growing at the rate of 1.6 percent per year, demographic pressures and increased urbanization have caused cultivated area to decline at a rate of 1 percent per year. As cropping intensity has approached its limit (about 175 percent now), growth will need to come from intensification of cereal production, diversification into high-value crop and non-crop activities, and value addition in the agro-processing sector, including storage, processing and marketing. This will require reforming the agricultural research and extension systems, and financial and other regulations. Land administration and security issues also need to be addressed.

Poorly functioning input and output markets account for a major source of failure in agricultural growth pattern. The lack of easily accessible markets and collusion by the traders pose significant constraints in both agricultural input and output markets. Marketing margins are high relative to services provided. Lack of market information and infrastructure, the poor law and order situation, the existence of syndicates, and collection of illegal tolls further aggravate the situation.

Also is responsible is an acute lack of enabling rural investment climate. For nearly 45 percent of the rural population, who are already landless or functionally landless (owning less than 0.05 acre of land), and a majority of the new labor force every year, a declining land base and a small urban employment means that employment in the rural non-farm sector presents the best chance to escape poverty. The growth of the rural non-farm sector, however, is constrained by lack of or poor quality of rural infrastructure and services, highly centralized government framework, weak rural financial systems, and a poor law and order situation.

Weak rural institutions contribute to market failure both for inputs and outputs. While the NGO sector in Bangladesh is well developed and the quality of informal institutions is improving, formal rural institutions remain very weak. Government agencies at all levels face overlapping functions, lack of coordination, low skill levels and incentives, and lack of responsiveness, exacerbated by an urban bias. Elite capture is also quite common in rural areas.

Most importantly, the agricultural sector in Bangladesh is vulnerable to frequent natural disasters. Bangladesh is the terminal floodplain delta of three large rivers - Ganges, Brahmaputra and Meghna. Every year about 20 to 30 percent, and every few years about 40 percent, of the country is flooded, causing serious damage to infrastructure, crops and the overall economy. Projected climatic changes and rise in the sea level are likely to worsen the situation. Since independence in 1971, the Government has made large investments to protect against floods and cyclones. However, issues such as public and private roles and community participation in disaster management, environmental protection, and institutional reforms of Bangladesh Water Development Board (BWDB), need to be addressed.

Priority areas for Intervention and Support include:

### 1. Increasing agricultural productivity, diversification, and value addition

· Agricultural research and extension: Both public and private investments in a dynamic and responsive agricultural research and extension system is essential to accelerate the transition from subsistence to commercial farming through diversification, export promotion, and bridging yield gaps.

· Enabling rural business environment: To stimulate RNF growth, the country needs to provide an enabling rural business environment by investing in rural infrastructure, reforming its rural

finance mechanism, regulatory framework, land policy and administration, and public expenditures, creating an incentive for rural SMEs and agro-business, improving the law and order situation, and ensuring decentralized and accountable rural service delivery.

## 2. Improving Factor Markets, Access to Assets and Natural Resource Management

· **Agricultural land:** Land is becoming a scarce commodity in Bangladesh and land grab (particularly of public land) by the powerful is quite common. There is thus a need to review land administration, ownership distribution, rights and titles, and land use policy, followed by enforcement of laws and policies.

· **Agricultural inputs:** Use of quality agricultural inputs such as seeds, fertilizers, pesticides, farm equipment, and irrigation is critical to promote diversification, and increase productivity. However, despite major improvements, agricultural inputs continue to experience problems such as lack of timely availability, poor quality, and high price, that are even more marked in remote rural areas. There is therefore a need to examine the impact of input price policy and subsidies on profitability and competitiveness, and explore options for their reform.

· **Rural finance:** There is a need to understand the constraints to access to rural finance, particularly by the "missing middle" farmers as well as SMEs. There is also a need to reform 'agricultural banks', to improve their recovery rate, reduce defaults, and increase the number of commercial bank branches in the rural areas.

· **Water resources management:** There is a need to institutionalize participatory water management through water management organizations, improve operations and maintenance of flood control infrastructures, and strengthen water sector institutions, particularly BWDB and the Water Resources Planning Organization (WARPO). There is also a need to promote information sharing to reduce downstream flood damage.

· **Natural resource management:** In view of the growing threat to the longer term sustainability of natural resources, there is a need to design and enforce a policy and institutional framework for natural resources management and conservation, including user participation. This will be critical to sustaining high agricultural growth in a country like Bangladesh with poor natural resource and high population density

## 3. Strengthening Rural Institutions and Livelihood Support

· **Rural Service Delivery:** Improving physical and social infrastructure - roads, electricity, communication, water and sanitation, health and education - in rural areas is fundamental both for promoting employment opportunities and welfare. While Bangladesh has done well on developing rural roads, it has a long way to go to meet other infrastructure needs, such as electricity, which is only available to 15 percent of villages. Because of the inefficiency of the government in public service delivery, the non-governmental sector has de facto become one of the main actors in development efforts. While decentralization efforts remain incipient, the efficiency and sustainability of public service delivery remains in question.

· **Livelihood Support:** Creating and strengthening local organizations such as water management organizations, farmer associations, women's groups and village development committees is also essential to improving service delivery and accountability. Empowering rural communities, especially women, to create livelihood opportunities, such as through micro-credit programs is particularly important in this regard. Increasing the capacity for collective action has effectively enhanced the communities' bargaining power, their access to assets and confidence in micro-enterprise development.

In view of the above, it is to be proposed that:

- i. Bangladesh pursues an agricultural subsidies pattern in line with the World Trade Organization (WTO) negotiation pattern but independent in its focus on:
  - a. Providing a safety-net for the farming community
  - b. Providing food-security to the community and the society
  - c. Providing a stable production base for the agricultural products
- ii. Bangladesh raises the socio-economic issues of its one hundred and sixty million people in the WTO to form a consensus bloc on issues related to subsidies rationalization and tariff-binds for the LDCs and Developing Countries.
- iii. Quantifies its temporal orientation in agricultural production and growth patterns for presenting the findings in a meaningful pattern to the World Community.

**7.0 Future Courses of Study**

It would be advisable to continue with the other advanced objectives of the main research project with a view to cross-correlate the viability of the agricultural products under different WTO regimes and price structures and also to delineate the production-possibility frontier for the production of agricultural commodities.

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# **ANNEXURE**

**AGRICULTURAL SUBSIDIES – IMPACT ANALYSIS AND COMBAT  
TECHNIQUES FOR BANGLADESH IN THE WORLD TRADE ORGANIZATION –  
WITH REFERENCE TO TRADE**

MPHIL RESEARCH PAPER  
IBA, DHAKA UNIVERSITY  
2010

**Index**

<b>ANNEX / APPENDIX</b>	<b>TOPIC</b>	<b>SPECIAL NOTE</b>	<b>PAGE</b>
<b>ANNEX 1:</b>	MPHIL PROPOSAL	02 JANUARY 2006	01
<b>ANNEX 2:</b>	MPHIL REVISED PROPOSAL	30 JUNE 2006	10
<b>ANNEX 3:</b>	RESEARCH METHODOLOGY PROBLEM, CONSTRUCTS AND CONCEPTS	13 MARCH 2007	55
<b>ANNEX 4:</b>	SECONDARY SURVEY FINDINGS	03 APRIL 2007	55
<b>ANNEX 5:</b>	PRIMARY QUALITATIVE RESEARCH AND HYPOTHESES VALIDATION	17 APRIL 2007	124
<b>ANNEX 6:</b>	SURVEY RESEARCH – TYPE AND SOURCES OF INFORMATION	22 MAY 2007	134
<b>ANNEX 7:</b>	DRAFT PROPOSAL FOR RESEARCH METHODOLOGY	05 JUNE 2007	147
<b>ANNEX 8:</b>	TERM PAPER FOR RESEARCH METHODOLOGY	10 JULY 2007	215
<b>ANNEX 9:</b>	<b>PRIMARY SURVEY DATA ANALYSIS TABLES</b>	<b>APPENDICES FOLLOW</b>	<b>297</b>
APPENDIX 1:	COMBINED AVERAGE SELECTION RANKINGS FOR PRODUCTS / RESPONDENT TYPE / BANGLADESH SCENARIO / SWOT / DEVELOPMENT AGENDA	COMPLETE WITH ANALYSIS AND SUPPLEMENTARY DATA TABLES	298
APPENDIX 2:	PRODUCT ANALYSIS TABLES: TOBACCO		312
APPENDIX 3:	PRODUCT ANALYSIS TABLES: JUTE		320
APPENDIX 4:	PRODUCT ANALYSIS TABLES: TEA		328
APPENDIX 5:	PRODUCT ANALYSIS TABLES: MAIZE		336
APPENDIX 6:	PRODUCT ANALYSIS TABLES: TOMATO		344
APPENDIX 7:	PRODUCT ANALYSIS TABLES: OKRA		352
APPENDIX 8:	PRODUCT ANALYSIS TABLES: AROMATIC RICE		360
APPENDIX 9:	PRODUCT ANALYSIS TABLES: MUSHROOM		368
APPENDIX 10:	PRODUCT ANALYSIS TABLES: POTATO		376
APPENDIX 11:	PRODUCT ANALYSIS TABLES: SWEET POTATO		384
APPENDIX 12:	INSTRUMENT QUESTIONNAIRE		392

<b>ANNEX 1:</b>	<b>MPHIL PROPOSAL</b>	<b>02 JANUARY 2006</b>	<b>01</b>
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**Agricultural Subsidies  
Impact and Combat Techniques for Bangladesh  
In the World Trade Organization**

Draft proposal for the M. Phil. Dissertation

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Submitted to:

Professor  
**Dr. M. Z. Mamun**  
Research Supervisor

Submitted by:

Syed Muntasir Mamun  
M. Phil. Applicant

M. Phil. Program  
Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Monday, January 02, 2006

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For any further clarification, PLEASE,  
Call Muntasir at:  
Cell: 0191 - 06 05 06, 0189 - 26 47 50 Home: [880-2] 882 0706, [880-2] 885 6193  
Or mail to: [syedmuntasir@yahoo.com](mailto:syedmuntasir@yahoo.com)  
Or write to: Syed Muntasir Mamun, 345 DOHS Baridhara, Dhaka

---

M. Phil. Program  
Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Monday, January 02, 2006

Professor  
**Dr. M. Z. Mamun**  
Research Supervisor

Subject: Submission of the draft proposal for the M. Phil. Dissertation

Revered Professor:

With profound respect, I would like to submit the draft proposal for my M. Phil. Dissertation titled "Agricultural Subsidies - Impact and Combat Techniques for Bangladesh in the World Trade Organization".

In the backdrop of a massive artificially created *First World* bottleneck for international markets of agricultural products - I earnestly believe that we can construct a consequential paper through the proposed research, which would ultimately contribute to the formation of a proper business strategy for the Agricultural Commodities of Bangladesh, in which the country presumably already enjoys a natural advantage (Working Paper No. 12, ENARPRI, Brussels).

It may, however be noted that, this draft is only a skeletal form of the main proposal, which will be prepared with further instructions and approvals from you.

Thank you Sir, for your time and kind attention.  
With the best of regards,

**Syed Muntasir Mamun**  
M. Phil. Applicant

Agricultural Subsidies  
Impact and Combat Techniques for Bangladesh  
In the World Trade Organization

Draft proposal for the M. Phil. Dissertation

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1. Background \*

A great deal of attention is currently being paid to the discussion of the reform of global agricultural trade. In 2000, the WTO initiated a new round of trade negotiations on agriculture and services. According to the Doha mandate adopted on 14 November 2001, the WTO members committed themselves to substantially improve market access, to reduce (with a view to phasing out) all forms of export subsidies and to substantially reduce trade-distorting domestic support. Furthermore, it was also agreed that non-trade concerns and special and differential treatment for developing countries should become an integral feature throughout the negotiations. In February 2003 a first attempt to agree on modalities, the so-called Harbinson Paper, was presented to the WTO members and revised after intensive discussion. Based on the resulting Harbinson 1½ paper<sup>1</sup>, the Doha Ministerial Declaration requested WTO members to agree upon formulas and other modalities by 31 March 2003 at the latest. But negotiators missed this deadline. While the US and the Cairns Group considered the tariff reductions of the Harbinson 1½ paper as too low and preferred the Swiss formula, the EU considered the liberalization proposals as too far reaching. Together with 75 other WTO members (friends of the Uruguay formula) the EU pleaded for a repetition of the Uruguay round of agriculture and especially for the implementation of the Uruguay formula for tariff reduction (Brockmeier & Salamon, 2004). After 31 March 2003, negotiators selected a number of controversial issues and aimed at achieving a framework agreement at the ministerial conference, taking place in Cancún, on 11-14 September 2003. The EU and the US were the first to come forward with a draft. The joint US-EU text suggested a blended formula under which the tariffs were subdivided into three groups. The tariffs of the first group were categorized as duty free, while the tariffs of the second group were to be reduced by an average with a minimum reduction per product (the Uruguay round formula). The third group of tariffs was supposed to be reduced by the Swiss formula.

After the failure of Cancún a new negotiation process started at the beginning of 2004. On 16

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\* The text of the background information is heavily drawn from the "WTO agricultural negotiations - a comparison of the Harbinson Proposal and the Swiss Formula" ENARPRI Working Paper NO. 12, February 2005, by Martina Brockmeier, Marianne Kurzweil, Janine Pelikan, and Petra Salamon and a series of Articles published in the Daily Star (Dhaka) in 30/12/2005 through 02/01/2006 by Dr. Debapriya Bhattacharya, Dr. Mustafizur Rahman, Dr. Uttam Kumar Deb, and Fahmida Khatun of the Center for Policy Dialogue (CPD), titled "Outcomes of Hong Kong WTO Ministerial - CPD's reflections from Bangladesh perspective". It may be mentioned that, ENARPRI stands for European Network of Agricultural and Rural Policy Research Institutes, a Brussels based organization committed especially to mathematical interpretations of free trade components in the European context.

July 2004, the chairman of the agricultural committee, Tim Grosser, presented a new proposal on modalities for negotiations on agricultural trade. An amended version of the Grosser text was then presented and adopted in a revised form by the WTO General Council on 31 July 2004 as part of the Doha Work Program or Oshima-text. Although it seemed as if the disputing parties had reached an agreement, the outcome of the negotiations is still highly uncertain. In contrast to the former papers, the content of this recently adopted proposal is very vague. It contains (almost exclusively) qualitative information about tariff cuts, the abolition of exports subsidies, etc., but does not make any concrete statement regarding the time horizon or magnitude of the protection cuts. Nor does the more or less nebulous consistency of the Doha Work Program July package help to resolve the most important issue of market access: What kind of tiered formula will be used to cut down the import tariffs? What effect does a tiered formula, such as the Harbinson formula, have in contrast to a more flexible one, such as the Swiss formula? How will the preferential treatment of the developing countries be achieved?

In all, the Doha Work Program comprised an overall cut of all trade-distorting domestic support according to a tiered formula. Under this formula, higher levels of trade-distorting domestic support would be subject to deeper cuts to achieve a harmonized result. For all developed countries a down payment of 20% during the first year of the implementation period would be made. The cut would be based on binding rates. Furthermore, a reduction of the *de minimis* loophole would be negotiated and the criteria for the green box would be reviewed. The blue box support should not exceed 5% of the average total value of agricultural production during a historical reference period that has not yet been specified. On export competition, the Doha Work Program assured the elimination of all forms of export subsidies. Moreover, all export measures with effects equivalent to export subsidies would be eliminated, such as export credits, export credit guarantees or insurance programs with repayment periods beyond 180 days. Export credits of less than 180 days and trade distorting practices of state trading enterprises (STES) would be subject to strict disciplines. Moreover, concrete disciplines would be imposed on food aid that is used for commercial displacement. A substantial reduction in market access barriers would be achieved through a tiered approach with deeper cuts in higher tariffs. The reduction commitments would be made from binding tariff rates applicable to all members other than the least developed countries (LDCs). Countries could self-select sensitive products that would be treated in a more flexible way. As compensation, the TRQs of sensitive products have to be expanded. For developing countries, special and differential treatment is provided. They would be accorded longer implementation periods, lower tariff and subsidy cuts and special concessions for their market access. Furthermore, trade with tropical products would be fully liberalized and the erosion of trade preferences would be addressed. LDCs do not have to lower their tariffs or their domestic farm support. Developed countries and capable developing countries should provide duty- and quota-free market access for LDC products

Situations attained heights of complexity during the Sixth Ministerial in Hong Kong in 2005.

During the run-up to the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering



the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" focussing on duty-free and quota-free market access for all exports from all LDCs.

Despite protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that The WTO rules have perpetuated an unfair trading system which favor rich countries and their corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks - at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries has yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export

subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promise by the developed countries to the developing countries that they would reduce their protectionist measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

1. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
2. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
3. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies by 1 January 2010 or

earlier; immediately end cotton export subsidies and eliminate domestic support for cotton by 2006.

4. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
5. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
6. Agree to genuine development measures, including resolving the Special and Differential proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.
7. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

Only seven steps, but then, only seven almost insurmountable obstacles.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, is the bread earner of the country these days). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in the areas industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities.

Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This will depend on outcomes of further negotiations to be held in Geneva by April 2006.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

The Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs will be provided duty-free and quota-free market access for cotton exports from the commencement of implementation date (to be agreed by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

#### Food Aid

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made so that there was no loophole for continuing export subsidisation. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid will be completed by 30 April 2006 as part of the modalities.

The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

#### NAMA

We have to look for alternate items in trading.

What comes to mind naturally is to develop the indigenous production sector, in which, we may still have some comparative advantage left to fight in a globalized planet (no matter how weird the word may sound).

## 2. The Problem Statement.

So, there is a need to identify the avenues for improvement in the "International Agricultural Business Policy Framework" for Bangladesh - which would lead to a solid comparative advantage for the sector as a whole in the backdrop of a protectionist First World regime and opening of markets.

## 3. Aim.

The aim of this project is to analyze the details of the Agricultural Business Policy Framework for Bangladesh and target the areas for improvement with definite policy

interventions to rapidly enhance the comparative advantage of the sector in an opening World Market.

4. Scope.

The project will encompass the following points in detail:

- a. Analyze the Agricultural Business Policy Framework for Bangladesh with respect to International Trading and homegrown competitive advantage development.
- b. The scope of improvement in the efficiency of the Business Initiatives for Agricultural Products in Bangladesh:
  - i. Identification of the key products that would contribute to a significant increase in Trade and import substitution
  - ii. Analyzing the general details of the key processes required to make the products identified in section *a (i)* competitive in world market
  - iii. Scrutinizing the details for one/two sub-sectors identified in section *b (ii)* for definite policy intervention by the Government to boost up trade in the short run and attaining long-run competitive advantage.

5. Methodology.

The method for the execution of the project will be mostly qualitative secondary research. However, the different components of the research area would be investigated using semi-structured statistical methods. However, calculations for probing into competitive advantages of different products will utilize standard statistical tools.

6. Limitations.

The project is limited in focus. It will limit itself in identifying a business policy framework for an identified set of agricultural products for attaining comparative advantage in the world market with liberal frontiers and heavily subsidized *First World* products.

ANNEX 2:	MPHIL REVISED PROPOSAL	30 JUNE 2006	10
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WORLD TRADE  
ORGANIZATION



Correlation between Trade Negotiations in the  
World Trade Organization (WTO) and  
International Political Alignments

Proposal for M. Phil. Dissertation

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Submitted to:

Professor  
**Dr. Muhammad Ziaulhuq Mamun**  
Research Supervisor

Submitted by:

**Syed Muntasir Mamun**  
M. Phil. Applicant

M. Phil. Program  
Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Friday, June 30, 2006

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FOR ANY FURTHER CLARIFICATION, PLEASE MAIL TO: [syed\\_muntasir@yahoo.com](mailto:syed_muntasir@yahoo.com)  
OR CALL @ CELL # [+88] 0191-060506, HOME: [+880-2] 883 4706, [+880-2] 885 6193  
OR WRITE TO: SYED MUNTASIR MAMUN @ HOUSE NO: 345, ROAD NO: 05, DOHS BARIDHARA, DHAKA

---

M. Phil. Program  
Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Friday, June 30, 2006

Professor  
**Dr. Muhammad Ziaulhuq Mamun**  
Research Supervisor

Re : Submission of the revised proposal for the M. Phil. Dissertation  
Ref : Draft Proposal submitted on Monday, January 02, 2006 and discussions thereafter

Revered Professor:

With profound respect, I request permission to submit the revised proposal for the M. Phil. dissertation.

The proposal has been drafted on reasoned intuitions that the role of ideologies in the formation of both political /trade ties, which we used to observe earlier -let's say in the fifties till the nineties, has diminished to a great extent over the years. Especially with the fall of the USSR and with the rise of asymmetric micro-powers, it is rather hard to discover from the ulterior and stated motives, which country/entity is playing along whose lines. My cerebral observations indicate a reasonably pure, though not very sophisticated, resource-control motivation behind every political step taken by each national leader of international prominence.

May be, it was always like that. But then again, why not deduct a formal/theoretical link between international politics and trade-economics?

My objective therefore, is basically to ascertain the role, if any, negotiations in WTO play in shaping the world political alignments as we know of today – and if possible, to predict, will be. FYI, WTO to my understanding is the would-be-most-powerful supra-national forum ever created to exert the most critical forms of control (control over intellectual property, over import tax revenue, over trading patterns and restrictions, over market access, and the list continues to expand...) over national sovereigns.

Thank you Sir, for your time and kind attention. I earnestly hope that your time with me is proven well spent in all respect.

With the best of regards, I remain sir, most faithfully yours,

**Syed Muntasir Mamun**  
M. Phil. Applicant



## Table of Contents

Table of Contents .....	3
1 Introduction.....	4
1.1 World Trade Organization (WTO), a backgrounder .....	4
1.2 Agreements in the WTO .....	7
1.2.1 Agreement on Agriculture (AoA) .....	7
1.2.2 General Agreement on Trade in Services (GATS).....	8
1.2.3 Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement .....	9
1.2.4 Sanitary and Phyto-Sanitary (SPS) Agreement .....	11
1.2.5 Agreement on Technical Barriers to Trade (TBT).....	11
1.3 Negotiations in the WTO.....	12
1.4 World Trade Organization (WTO) and Diplomacy .....	12
1.5 The Hong Kong Ministerial; December 2005.....	16
1.5.1 State of Affairs in Agriculture .....	20
1.5.2 State of Affairs in Non-Agricultural Market Access .....	22
1.5.3 State of Stagnation in Agreements on Services.....	22
1.5.4 Development Dimension .....	23
1.5.5 Reforming the Rules .....	24
2 Project Mandate .....	24
3 Problem Statement.....	25
4 Aim .....	25
4.1 Broad Objective .....	25
4.2 Specific Objectives .....	25
4.3 Hypothesis .....	25
5 Scope .....	25
6 Significance of the Study.....	26
6.1 Significance to Diplomatic Endeavors .....	26
6.2 Significance to Literature.....	26
6.3 Significance to Society and Government .....	27
7 Methodology .....	28
7.1 Analysis Techniques.....	29
7.2 Study Approach.....	29
7.3 Operational Area .....	29
7.4 Information Collection.....	30
7.5 Schedule of the Research.....	31
7.6 Analysis Variables .....	31
7.7 Statistical Approach .....	32
7.8 Fieldwork Administration.....	32
7.9 Information Collection.....	32
8 Sources and breakdown of the errors of the study .....	32
8.1 Respondent Error .....	32
8.2 Situational Error .....	32
8.3 Measurer Error.....	33
8.4 Acquiescence Bias .....	33
8.5 The Measurement Instrument Error.....	33
9 Limitations .....	33
9.1 Scope of Research .....	33
9.2 Sampling Technique .....	33
9.3 Analysis Techniques .....	33
10 Constraints .....	33
11 Major working abbreviations .....	34
12 Disclaimer .....	35
13 Articles reviewed so far (both Texts and URLs) .....	35
13.1 On Trade and International Trade .....	35
13.2 General information on WTO.....	39
13.2.1 Books and Reports on the WTO .....	39
13.2.2 Articles on the WTO .....	40
13.2.3 Articles by the WTO .....	41
13.2.4 Official WTO Pages.....	41
13.2.5 Non-Governmental Organization Pages on the WTO (Alphabetical List).....	41
13.3 On Agreements on Agriculture .....	41
13.4 Agreement on the Application of Sanitary and Phytosanitary Measures .....	42
13.5 On General Agreements on Trade in Services.....	42
13.6 On Agreement on Trade-Related Aspects of Intellectual Property Rights .....	42
13.7 Agreement on Technical Barriers to Trade.....	43
13.8 On Regionalism .....	43

## Correlation between Trade Negotiations in the World Trade Organization (WTO) and International Political Alignments

Draft proposal for the M. Phil. Dissertation

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### 1 Introduction

#### 1.1 World Trade Organization (WTO), a backgrounder

The World Trade Organization (WTO) is an international, multilateral organization, which sets the rules for the global trading system and resolves disputes between its member states, all of which are signatories to its approximately 30 agreements. WTO headquarters are located in Geneva, Switzerland. Pascal Lamy is the current Director-General, taking over from the previous Director-General Supachai Panitchpakdi on September 1, 2005. As of December 15, 2005, there are 149 members in the organization with the latest to join being Saudi Arabia. All WTO members are required to grant one another Most Favored Nation status (MFN), such that (with some exceptions) trade concessions granted by a WTO member to another country must be granted to all WTO members (WTO, 2004c). Since its inception in 1995, the WTO has been a major target for protests by the anti-globalization movement.

The WTO has 150 members (76 members at its foundation and a further 74 members joined over the following ten years). The 25 states of the European Union are represented also as the European Communities. Some non-sovereign autonomous entities of member states are included as separate members. The shortest accession negotiation was that of the Kyrgyz Republic, lasting 2 years and 10 months. The longest was that of China, lasting 15 years and 5 months. Russia, having first applied to join GATT in 1993, is still in negotiations for membership.

A number of non-members have been observers (31) at the WTO and are currently negotiating their membership: Algeria, Andorra, Azerbaijan, Bahamas (process frozen in 2001), Belarus, Bhutan, Bosnia and Herzegovina, Cape Verde, Equatorial Guinea (expected to start membership negotiations in 2007 or earlier), Ethiopia, Holy See (Vatican; special exception from the rules allows it to remain observer without starting negotiations), Iran 1, Iraq, Kazakhstan, Lao People's Democratic Republic, Lebanon, Libya, Russian Federation, Samoa, Sao Tome and Principe, Serbia and Montenegro (each republic is applying for separate membership), Seychelles (negotiations frozen since 1998), Sudan, Tajikistan, Ukraine, Uzbekistan, Vanuatu (accession agreed in 2001, but not ratified by Vanuatu itself), Vietnam and Yemen. Iran first applied to join the WTO in 1996, but the United States, accusing Tehran of supporting international terrorism, blocked its application 22 times. The U.S. said in March it would drop its veto on a start to Iran's accession negotiations. The U.S. has chosen not to block Iran's latest application for membership as part of a nuclear related deal. Syria first applied to join the WTO in October 2001, then again in January 2004 and September 2005. Its application for membership is currently still pending, waiting for WTO General Council approval to start negotiations. The following states (15) and territories (2) so far have no official interaction with the WTO: the states of Eritrea, Somalia, Liberia, Turkmenistan, North Korea, Monaco, San Marino, East Timor, Comoros, Nauru, Tuvalu, Palau, Kiribati, Micronesia, Marshall Islands and the territories of Western Sahara, Palestine.

As for history, the Bretton Woods Conference of 1944 proposed the creation of an International Trade Organization (ITO) to establish rules and regulations for trade between countries. The ITO charter was agreed at the UN Conference on Trade and Employment in Havana in March 1948, but was blocked by the U.S. Senate (WTO, 2004b). Some historians have argued that the failure may have resulted from fears within the American business community that the International Trade Organization could be used to regulate, rather than liberate, big business (Lisa Wilkins, 1997).

Only one element of the ITO survived: the General Agreement on Tariffs and Trade (GATT). Seven rounds of negotiations occurred under GATT before the eighth round - the Uruguay Round - concluded in 1995 with the establishment of the WTO as the GATT's replacement. The GATT principles and agreements were adopted by the WTO, which was charged with

administering and extending them. Unlike the GATT, the WTO has a substantial institutional structure.

The WTO aims to increase international trade by promoting lower trade barriers and providing a platform for the negotiation of trade and to resolve disputes between member nations, when they arise. The goal is to help producers of goods and services, exporters, and importers conduct their business.

The WTO discussions, in theory, follow these fundamental principles of trading:

1. A trading system should be discrimination-free in a sense that a country cannot favor another country or discriminate against foreign products or services.
2. A trading system should be freer where there should be little trade barriers (tariffs and non-tariff barriers).
3. A trading system should be predictable where foreign companies and governments can be sure that trade barriers would not be raised and markets will remain open.
4. A trading system should be more competitive.
5. A trading system should be more accommodating for less developed countries, giving them more time to adjust, greater flexibility, and more privileges.

All WTO members may participate in all councils, committees, etc., except Appellate Body, Dispute Settlement panels, and plurilateral committees.

#### Tertiary level: Ministerial Conference

The topmost decision-making body of the WTO is the Ministerial Conference, which has to meet at least every two years. It brings together all members of the WTO, all of which are countries or customs unions. The Ministerial Conference can make decisions on all matters under any of the multilateral trade agreements.

#### Second level: General Council

The daily work of the ministerial conference is handled by three groups The General Council, The Dispute Settlement Body and The Trade Policy Review Body.

1. The General Council- is the WTO's highest-level decision-making body in Geneva, meeting regularly to carry out the functions of the WTO. It has representatives (usually ambassadors or equivalent) from all member governments and has the authority to act on behalf of the ministerial conference, which only meets about every two years. The council acts on behalf on the Ministerial Council on all of the WTO affairs. The current chairman is Amina Chawahir Mohamed (Kenya).
2. The Dispute Settlement Body - Made up of all member governments, usually represented by ambassadors or equivalent. The current chairperson is H.E. Mr. Muhamad Noor YACOB (Malaysia).
3. The Trade Policy Review Body (TPRB) - the WTO General Council meets as the Trade Policy Review Body to undertake trade policy reviews of Members under the TRPM. The TPRB is thus open to all WTO Members. The current chairperson is Don Stephenson (Canada).

#### Third level: Councils for Trade

The Councils for Trade work under the General Council. There are three councils - Council for Trade in Goods, Council for Trade-Related Aspects of Intellectual Property Rights, and Council for Trade in Services - each council works in different fields. Apart from these three councils, six other bodies report to the General Council reporting on issues such as trade and development, the environment, regional trading arrangements and administrative issues.

1. Council for Trade in Goods- The workings of the General Agreement on Tariffs and Trade (GATT) which covers international trade in goods, are the responsibility of the Council for Trade in Goods. It is made up of representatives from all WTO member countries. The current chairperson is Vesa Tapani Himanen (Finland).
2. Council for Trade-Related Aspects of Intellectual Property Rights- Information on intellectual property in the WTO, news and official records of the activities of the TRIPS Council, and details of the WTO's work with other international organizations in the field.

3. Council for Trade in Services- The Council for Trade in Services operates under the guidance of the General Council and is responsible for overseeing the functioning of the General Agreement on Trade in Services (GATS). It's open to all WTO members, and can create subsidiary bodies as required. The current chairperson is Claudia Uribe (Colombia).

Fourth level: Subsidiary Bodies

There are subsidiary bodies under each of the three councils.

1. The Goods Council- subsidiary under the Council for Trade in Goods. It has 11 committees consisting of all member countries, dealing with specific subjects such as agriculture, market access, subsidies, anti-dumping measures and so on. Committees include the following:
  - Information Technology Agreement (ITA) Committee
  - State Trading Enterprises
  - Textiles Monitoring Body - Consists of a chairman and 10 members acting under it.
  - Groups dealing with notifications - process by which governments inform the WTO about new policies and measures in their countries.
2. The Services Council- subsidiary under the Council for Trade in Services which deals with financial services, domestic regulations and other specific commitments.
3. Dispute Settlement panels and Appellate Body- subsidiary under the Dispute Settlement Body to resolve disputes and the Appellate Body to deal with appeals.

Other committees include, Committees on Trade and Environment, Trade and Development (Subcommittee on Least-Developed Countries), Regional Trade Agreements, Balance of Payments Restrictions, Budget, Finance and Administration, Working parties on - Accession, and Working groups on - Trade, debt and finance, Trade and technology transfer.

While most international organizations operate on a one country, one vote or even a weighted voting basis, many WTO decisions, such as adopting agreements (and revisions to them) are officially determined by consensus of all member states. The advantage of consensus decision-making is that it encourages efforts to find the most widely acceptable decision. Main disadvantages include large time requirements and many rounds of negotiation to develop a consensus decision, and the tendency for final agreements to use ambiguous language on contentious points that makes future interpretation of treaties difficult.

In reality, WTO negotiations proceed not by consensus of all members, but by a process of informal negotiations between small groups of countries. Such negotiations are often called "Green Room" negotiations (after the color of the WTO Director-General's Office in Geneva), or "Mini-Ministerials", when they occur in other countries. These processes have been regularly criticized by many of the WTO's developing country members, who are often totally excluded from the negotiations. Richard Steinberg (2002) argues that although the WTO's consensus governance model provides law-based initial bargaining, trading rounds close through power-based bargaining favoring Europe and the United States, and may not lead to Pareto improvement. The most notable recent failures of consensus, at the Ministerial meetings at Seattle (1999) and Cancun (2003), were due to the refusal of some developing countries to accept proposals. The WTO began the current round of negotiations, the Doha round, at the Fourth Ministerial Conference in Doha, Qatar in November 2001. The talks have been highly contentious and agreement has not been reached, despite continuing talks at Fifth Ministerial Conference in Cancun in 2003 and at the Sixth Ministerial Conference in Hong Kong on December 13 - December 18, 2005.

Apart from hosting negotiations on trade rules, the WTO also acts as an arbiter of disputes between member states over its rules. And unlike most other international organizations, the WTO has significant power to enforce its decisions through the authorization of trade sanctions against members which fail to comply with its decisions. Member states can bring disputes to the WTO's Dispute Settlement Body if they believe another member has breached WTO rules. Disputes are heard by a Dispute Settlement Panel, usually made up of three trade officials. The panels meet in secret and are not required to alert national parliaments that their laws have been challenged by another country. If decisions of the Dispute Settlement Body are not complied with, it may authorize "retaliatory measures" - trade sanctions - in favor of the member(s) which brought the dispute. While such

measures are a strong mechanism when applied by economically powerful states like the United States or the European Union, when applied by economically weak states against stronger ones, they can often be ignored. This has been the case, for example, with the March 2005 Appellate Body ruling in case DS 267, which declared US cotton subsidies illegal.

Important dates in the history of WTO include:

- ④ 1986-1994 - Uruguay Round of GATT negotiations culminating in the Marrakech Agreement that established the WTO.
- ④ January 1, 1995 - The WTO came into existence.
- ④ May 1, 1995 - Renato Ruggiero became director-general for a 4-year term.
- ④ December 9 - December 13, 1996 - The inaugural ministerial conference in Singapore. Disagreements between largely developed and developing economies emerged during this conference over four issues initiated by this conference, which led to them being collectively referred to as the "Singapore Issues".
- ④ May 18 - May 20, 1998 - 2nd ministerial conference in Geneva, Switzerland.
- ④ September 1, 1999 - Mike Moore became director-general. The post had been fiercely contested; eventually a compromise was reached with Mike Moore and Supachai Panitchpakdi taking half each of a six-year term.
- ④ November 30 - December 3, 1999 - 3rd ministerial conference in Seattle, Washington, USA. The conference itself ended in failure, with massive demonstrations and riots drawing worldwide attention.
- ④ November 9 - November 13, 2001 - 4th ministerial conference in Doha, Qatar begins the Doha round. Issuance of the Doha Declaration.
- ④ December 11, 2001 - The People's Republic of China joined the WTO after 15 years of negotiations (the longest in GATT history).
- ④ January 1, 2002 - The Republic of China (Taiwan) joined under the name "Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu."
- ④ September 1, 2002 - Supachai Panitchpakdi became director-general.
- ④ September 10 - September 14, 2003 - 5th ministerial conference in Cancun, Mexico aims at forging agreement on the Doha round. An alliance of 22 southern states, the G20 (led by India, China and Brazil), resisted demands from the North for agreements on the so-called "Singapore issues" and called for an end to agricultural subsidies within the EU and the US. The talks broke down without progress.
- ④ August 2004 - Geneva talks achieve a framework agreement on the Doha round. Developed countries will lower agricultural subsidies, and in exchange the developing countries will lower tariff barriers to manufactured goods.
- ④ May 2005 - Paris talks aimed at finalizing issues for agreement before the December 2005 ministerial conference in Hong Kong are hung over technical issues. The group of five (U.S., Australia, the EU, Brazil and India) fail to agree over chicken, beef and rice. France continues to protest restrictions on subsidies to farmers. Oxfam accuses the EU of delaying tactics which threaten to scupper the Doha round.
- ④ November 11 - WTO General Council successfully adopts Saudi Arabia's terms of Accession
- ④ December 13 - December 18, 2005 - 6th ministerial conference in Hong Kong.

## 1.2 Agreements in the WTO

The WTO oversees about 30 different agreements which have the status of international legal texts. Member countries must sign and ratify all WTO agreements on accession. A list of WTO agreements can be found in the WTO website. A discussion of some of the most important agreements follows.

### 1.2.1 Agreement on Agriculture (AoA)

The AoA came into effect with the establishment of the WTO at the beginning of 1995. The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies.

#### a. Domestic support

The first pillar of the AoA is "domestic support". The AoA structures domestic support (subsidies) into three categories or "boxes": a Green Box, an Amber Box and a Blue Box. The Green Box contains fixed payments to producers for environmental programs, so long as the payments are "decoupled" from current production levels. The Amber Box contains domestic subsidies that governments have agreed to reduce but not eliminate. The Blue Box

contains subsidies which can be increased without limit, so long as payments are linked to production-limiting programs.

The AoA's domestic support system currently allows Europe and the USA to spend \$380 billion every year on agricultural subsidies alone. "It is often still argued that subsidies are needed to protect small farmers but, according to the World Bank, more than half of EU support goes to 1% of producers while in the US 70% of subsidies go to 10% of producers, mainly agri-businesses." The effect of these subsidies is to flood global markets with below-cost commodities, depressing prices and undercutting producers in poor countries – a practice known as dumping.

b. Market Access

"Market access" is the second pillar of the AoA, and refers to the reduction of tariff (or non-tariff) barriers to trade by WTO member-states. The 1995 AoA required tariff reductions of:

- ③ 36% average reduction by developed countries, with a minimum per tariff line reduction of 15% over five years.
- ④ 24% average reduction by developing countries with a minimum per tariff line reduction of 10% over nine years.

Least Developed Countries (LDCs) were exempted from tariff reductions, but either had to convert non-tariff barriers to tariffs—a process called tariffification—or "bind" their tariffs, creating a "ceiling" which could not be increased in future.

c. Export subsidies

"Export subsidies" is the third pillar of the AoA. The 1995 AoA required developed countries to reduce export subsidies by at least 35% (by value) or by at least 21% (by volume) over the five years to 2000.

The AoA is criticized for reducing tariff protections for small farmers – a key source of income for developing countries – while allowing rich countries to continue pay their farmers massive subsidies, which developing countries cannot afford.

### 1.2.2 General Agreement on Trade in Services (GATS)

For a long time, no need was seen for a trade agreement in services since large segments of the services economy have traditionally been considered as domestic activities that are difficult to trade over borders, e.g. haircuts or seeing a doctor. Furthermore, sectors from rail transport to telecommunications have been viewed as classical domains of government ownership and control, given their infrastructural importance and the perceived existence, in some cases, of natural monopoly situations. A third important group of sectors, including health, education and basic insurance services, are considered in many countries as governmental responsibilities, given their importance for social integration and regional cohesion, which should be tightly regulated and not be left to the rough and tumble of markets. Nevertheless, some services sectors, in particular international finance and maritime transport, have been largely open for centuries—as the natural complements to merchandise trade. Other large sectors have undergone fundamental technical and regulatory changes in recent decades, opening them to private commercial participation and reducing existing barriers to entry. The emergence of the Internet has helped to create a range of internationally tradable product variants—from e-banking to tele-health and distance learning. A growing number of governments have gradually exposed previous monopoly domains to competition; telecommunication is a case in point. The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

GATS Four Mode of Supply			
Mode		Criteria	Supplier Presence
Mode 1	Cross-border supply	1. Service delivered within the territory of the Member, from the territory of another Member	1. Service supplier not present within the territory of the Member.
Mode 2	Consumption abroad	2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member	
Mode 3	Commercial presence	3. Service delivered within the territory of the Member, through the commercial presence of the supplier.	2. Service supplier present within the territory of the Member.
Mode 4	Presence of a natural person	4. Service delivered within the territory of the Member, with supplier present as a natural person.	

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.

A "Natural Person" is a human being, as distinct from legal persons such as companies or organizations. Countries can freely decide where to liberalize on a sector-by-sector basis, including which specific mode of supply they want to cover for a given sector. Services Sector Classifications addressed in the GATS are defined in the so-called "W/120 list", which provides a list of all sectors, which can be negotiated under the GATS. The title "W/120" refers to the name of the official WTO document, MTN.GNS/W/120.

The GATS document has been criticized for allegedly replacing the authority of national legislature, with the authority of the GATS Disputes Panel. Such allegations argue that GATS intends to override all "burdensome rules". The WTO and member governments disagree with such allegations. GATS hearings are closed and held in secret. Sherry M. Stephenson has argued that GATS failed to deliver its service agreement key objectives, namely stability, transparency and liberalization. The integrative approach of NAFTA-inspired Regional Trade Agreements (RTA) has proven more effective for multilateral services liberalization. One of the most obvious defects of GATS remains its 'positive list' approach whereby countries 'schedule' voluntary commitments on specific services sectors. In other words -and by definition- GATS does not cover the entire universe of services activities. NAFTA-like RTAs, on the other hand, have adopted a 'negative list' approach whereby all sectors are taken to be free from restrictions unless listed in annexes of reservations.

### 1.2.3 Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) is an international treaty by the World Trade Organization (WTO), which sets down minimum standards for most forms of intellectual property (IP) regulation within all member countries of the World Trade Organization. It was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) treaty in 1994. Specifically, TRIPs deals with copyright and related rights, such as rights of performers, producers of sound recordings and broadcasting organizations; geographical indications, including appellations of origin; industrial designs; integrated circuit layout-designs; patents, including the protection of new varieties of plants; trademarks; trade dress; and undisclosed or confidential information, including trade secrets and test data. TRIPs also specifies enforcement procedures, remedies, and dispute resolution procedures. The obligations under TRIPs apply equally to all member states, however developing countries are allowed a longer period in which to implement the applicable changes to their national laws. Although subsequent developments have expanded the original requirements of TRIPs, the agreement itself introduced intellectual property law into the international trading system for the first time, and remains the most comprehensive international agreement on intellectual property to date. TRIPs has been contested by the alter-globalization movement, concerning for example the consequences on AIDS in Africa.

TRIPs was added to the General Agreement on Tariffs and Trade (GATT) treaty at the end of the Uruguay Round of trade negotiations in 1994. Its inclusion was the culmination of a program of intense lobbying by the United States, supported by the European Union, Japan and other developed nations. Campaigns of unilateral economic encouragement under the Generalized System of Preferences and coercion under Section 301 of the Trade Act were also influential. In turn, the United States strategy of linking trade policy to intellectual property standards can be traced back to the entrepreneurship of senior management at Pfizer in the early 1980s, who mobilized corporations in the United States and made maximizing intellectual property privileges the number one priority of trade policy in the United States. After the Uruguay round, the GATT became the basis for the establishment of the World Trade Organization. As ratification of TRIPs is a compulsory requirement of World Trade Organization membership, any country seeking to obtain easy access to the numerous international markets opened by the World Trade Organization must enact the very strict intellectual property laws mandated by TRIPs. Furthermore, unlike other international agreements on intellectual property, TRIPs has a powerful enforcement mechanism. States, which do not adopt TRIPs-compliant intellectual property systems can be disciplined through the WTO's dispute settlement mechanism, which is capable of authorizing trade sanctions against non-compliant states.

TRIPs requires member states to provide strong protection for intellectual property rights. For example, under TRIPs:

1. Copyright terms must extend to 50 years after the death of the author, although films and photographs are only required to have fixed 50 and 25 years terms, respectively.
2. Copyright must be granted automatically, and not based upon any "formality", such as registrations or systems of renewal.
3. Computer programs must be regarded as "literary works" under copyright law and receive the same terms of protection.
4. National exceptions to copyright (such as "fair use" in the United States) must be tightly constrained.
5. Patents must be granted in all "fields of technology," although exceptions for certain public interests are allowed (Art. 27.2 and 27.3).
6. Exceptions to patent law must be limited almost as strictly as those to copyright law.
7. In each state, intellectual property laws may not offer any benefits to local citizens, which are not available to citizens of other TRIPs signatories by the principles of national treatment (with certain limited exceptions, Art. 3 and 5). TRIPs also has a most favored nation clause.

Many of the TRIPs provisions on copyright were imported from the Berne Convention for the Protection of Literary and Artistic Works and many of its trademark and patent provisions were imported from the Paris Convention for the Protection of Industrial Property.

Since TRIPs came into force it has received a growing level of criticism from developing countries, academics, and Non-governmental organizations, on the basis that the World Trade Organization system in general and the TRIPs system in particular encapsulates all that is socially, politically and economically unjust about globalization, which is protested by the anti-globalization movement. However, due to the rule-based system of the WTO, and the technical complexities of applicable laws, many commentators consider that only extensive and intense social and political opposition is likely to overcome the perceived unequal application of TRIPs upon lesser-developed countries and communities.

The most visible conflict has been over AIDS drugs in Africa. Despite the role, which patents have played maintaining higher drug costs for public health programs across Africa, this controversy has not led to a revision of TRIPs. Instead, an interpretive statement, the Doha Declaration, was issued in November 2001, which indicated that TRIPs should not prevent states from dealing with public health crises. Since then PhRMA, the United States and, to a lesser extent, other developed nations, have been working to minimize the effect of the declaration. TRIPs provides for "compulsory licensing", which allows a national government to issue a license for the production of drugs without the consent of the patent owner as long as those drugs are primarily for the domestic market. A 2003 agreement loosened the domestic market requirement, and allows developing countries to export to other countries where there is a national health problem as long as drugs exported are not part of a commercial or industrial policy. Drugs exported under such a regime may be packaged or colored differently to prevent them from prejudicing markets in the developed world. Indeed, in 2004, the main way that Intellectual Property rules hinders access to medicines comes not so much from the TRIPs Agreement itself but rather from regional



trade agreements with more stringent IP requirements, or from the way the TRIPS Agreement has been implemented at the national level.

Another recent controversy has been over the TRIPS Article 27 requirements for attainability "in all fields of technology", and whether or not this necessitates the granting of software and business method patents.

The Clinton Administration submitted and won 13 TRIPS international intellectual property theft cases. As of August 2005, the Bush Administration has not submitted any (12:40-16:30).

Although the requirements of TRIPS are, from a policy perspective, extremely stringent, the lobby groups working to expand various IP laws ("intellectual property laws") have certainly found "limitations" in it. These have formed the basis for various bilateral and multilateral initiatives since 1994:

1. The creation of anti-circumvention laws to protect digital restrictions management systems. This was achieved through the 1996 World Intellectual Property Organization Copyright Treaty (WIPO Treaty) and the WIPO Performances and Phonograms Treaty.
2. The desire to further restrict the possibility of compulsory licenses for patents has led to provisions in recent bilateral US trade agreements.
3. It is one thing for states to have intellectual property laws on their statutes, and another for governments to enforce them aggressively. This distinction has led to provisions in bilateral agreements, as well as proposals for World Intellectual Property Organization and European Union rules on intellectual property enforcement. The 2001 EU Copyright Directive was to implement the 1996 WIPO Copyright treaty.
4. The wording of Trips 27 of non-discrimination is used to justify an extension of the patent system.

#### **1.2.4 Sanitary and Phyto-Sanitary (SPS) Agreement**

The Agreement on the Application of Sanitary and Phytosanitary Measures - also known as the SPS Agreement was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO at the beginning of 1995. Under the SPS agreement, the WTO sets constraints on member-states' policies relating to food safety (bacterial contaminants, pesticides, inspection and labeling) as well as animal and plant health (imported pests and diseases).

The USA is currently challenging the EU's laws restricting the importation of Genetically Modified Organisms (GMOs), arguing they are "unjustifiable" and illegal under SPS agreement. The WTO is due to decide the case in 2006. If it decides that the EU laws are illegal, the decision will likely conflict with the Cartagena Protocol on Biosafety - the first legally binding global agreement giving countries the right to reject GM organisms on the basis of the precautionary principle.

Quarantine policies play an important role in ensuring the protection of human, animal and plant health. Yet under the SPS agreement, quarantine barriers can be a 'technical trade barrier' used to keep out foreign competitors. The SPS agreement gives the WTO the power to override a country's use of the precautionary principle - a principle that allows them to act on the side of caution if there is no scientific certainty about potential threats to human health and the environment. Under SPS rules, the burden of proof is on countries to demonstrate scientifically that something is dangerous before it can be regulated, even though scientists agree that it is impossible to predict all forms of damage posed by insects or pest plants.

#### **1.2.5 Agreement on Technical Barriers to Trade (TBT)**

The Agreement on Technical Barriers to Trade - also known as the TBT Agreement is an international treaty of the World Trade Organization. It was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO at the beginning of 1995. The object of the TBT Agreement is to "to ensure that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade"

### 1.3 Negotiations in the WTO

According to classical trade theory, moving from a closed economy to free trade produces substantial economic gains because trading countries benefit from specialization and more efficient resource allocation. In addition, many believe that trade not only brings these traditional "static gains" from specialization, but also the adoption of new technologies and skills, leading to higher productivity – the so-called "dynamic gains" from trade. These notions of gains from trade motivate the commitment to trade liberalization embodied by membership in the World Trade Organization (WTO). The WTO is the successor organization to the General Agreement on Tariffs and Trade (GATT), which produced the WTO through the Uruguay Round of trade negotiations from 1986-1994.

The GATT, an ad hoc body designed to facilitate trade liberalization amongst an initial group of 23 countries, was established in 1947. This body was formed for both economic and geopolitical reasons, in an effort to provide stability and a means for resolving disputes after trade barriers had been established by many industrial countries in the 1930s, exacerbating the Great Depression. Trade liberalization, therefore, has been underway in one form or another for over half a century.

Now that the WTO has been established, liberalization has taken place through additional "rounds" of trade negotiations and Ministerial Conferences. Ministerial Conferences occur at least once every two years, and constitute the decision-making mechanism of the WTO, where members either agree or disagree on various measures and processes for liberalizing trade. Recent Ministerial Conferences have taken place in Doha (November 2001), Seattle (November/December 1999), Geneva (May 1998), and Singapore (December 1996). Upcoming is the Fifth Ministerial Conference to take place September 10-14th, in Cancun, Mexico.

Negotiations are typically arduous and complicated, as they cover all manner of goods and services. Moreover, countries have usually erected trade barriers over time for a variety of reasons: to generate revenue; to protect industries; to protect special interests; to provide stability in employment or prices; the list goes on. Governments negotiating with one another must find means to reduce these barriers, taking into account all of the above.

The "Doha Round" of trade negotiations begun in 2001 after the Fourth Ministerial Conference in Doha, while continuing with trade liberalization that had been in progress long before, also displayed a new focus on development. This is known as the Doha development agenda. It has made central to the trade negotiations numerous issues of specific concern to developing countries: access for agricultural goods to developed world markets; access to pharmaceuticals at affordable prices for poor countries; and the costly implementation of trade policies for developing countries, to name just a few.

Finally, whether and how the benefits predicted by trade theory correspond to gains for citizens in the real world remains the subject of intense debate. The extent to which countries' sovereignty is constrained by WTO agreements is also part of this debate. The WTO, therefore, has become an extremely controversial institution, as evidenced by the protests in Seattle in 1999 and others since then. Many interpret the WTO's activities in the context of the larger debates about the Washington Consensus and globalization.

Debate over feasible solutions to these problems and issues will continue in Cancun. These issues and debates are summarized in this section of the Global Trade Negotiations site, in the hope that all parties can be as informed as possible.

### 1.4 World Trade Organization (WTO) and Diplomacy

It is useful to examine international business negotiations and diplomacy because terms of operations are highly influenced by attempts of international companies and governments to improve their own positions relative to another.

The operating terms of international companies –

- i. Are influenced by governments of home and host countries
- ii. Shift as priorities shift and as strengths of parties change

Compliance occurs when the regulations don't unduly constrain a company's desired mode of operations, when benefits are sufficiently attractive in spite of regulations, and when

companies feel they cannot practically change the regulations. Circumvention occurs when companies use loopholes, legal or illegal, to bypass regulations they find unacceptable

The stated aim of the WTO is to promote free trade and stimulate economic growth. Many people argue that free trade does not make ordinary people's lives more prosperous but only results in the rich (both people and countries) becoming richer. WTO treaties have also been accused of a partial and unfair bias toward multinational corporations and wealthy nations.

Critics contend that small countries in the WTO wield little influence, and despite the WTO aim of helping the developing countries, the influential nations in the WTO focus on their own commercial interests. They also claim that the issues of health, safety and environment are steadfastly ignored.

Martin Khor argues that the WTO does not manage the global economy impartially, rather, in its operation, has a systematic bias toward rich countries and multinational corporations, harming smaller states, which have less negotiation power. Some examples of this bias could be:

- (1) Rich countries are able maintain high import duties and quotas in certain products, blocking imports from developing countries (e.g. clothing);
- (2) The increase in non-tariff barriers such as anti-dumping measures allowed against developing countries;
- (3) The maintenance of high protection of agriculture in developed countries while developing ones are pressed to open their markets;
- (4) Many developing countries do not have the capacity to follow the negotiations and participate actively in the Uruguay Round; and
- (5) The Intellectual Property Rights that bans developing countries to incorporate technology originates from abroad in their local systems (including medicines and agricultural products).

Jagdish Bhagwati, despite being pro-free trade and pro-globalization, has strongly criticized the introduction of TRIPs (forum shifting) into the WTO/GATT framework. His fear is that other non-trade agendas might overwhelm the organization's function.

Many non-governmental organizations, such as the World Federalist Movement, are calling for the creation of a WTO parliamentary assembly to allow for more democratic participation in WTO decision-making. Dr. Caroline Lucas recommended that such an assembly "have a more prominent role to play in the form of parliamentary scrutiny, and also in the wider efforts to reform the WTO processes, and its rules". However, Dr. Raouf Marc Jennar argues that a consultative parliamentary assembly would be ineffective for the following reasons:

- (1) It does not resolve the problem of "informal meetings" whereby industrialized countries negotiate the most important decisions;
- (2) It does not reduce the de facto inequality, which exists between countries with regards to an effective and efficient participation to all activities within all WTO bodies;
- (3) It does not rectify the multiple violations of the general principles of law, which affect the dispute settlement mechanism.

During the run-up to the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" - focusing on duty-free and quota-free market access for all exports from all LDCs.

Despite protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong

Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that The WTO rules have perpetuated an unfair trading system which favor rich countries and their corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks – at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries has yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promise by the developed countries to the developing countries that they would reduce their protectionist measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha

negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

1. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
2. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
3. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies by 1 January 2019 or earlier; immediately end cotton export subsidies and eliminate domestic support for cotton by 2006.
4. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
5. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
6. Agree to genuine development measures, including resolving the Special and Differential proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.
7. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

Only seven steps, but then, only seven almost insurmountable obstacles.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, in the bread earner of the country these days). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in the areas industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities. Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This will depend on outcomes of further negotiations to be held in Geneva by April 2006.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

The Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs will be provided duty-free and quota-free market access for cotton exports from the

commencement of implementation date (to be agreed by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support, which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made so that there was no loophole for continuing export subsidization. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid will be completed by 30 April 2006 as part of the modalities. The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

### **1.5 The Hong Kong Ministerial; December 2005**

A total of 149 WTO members participated in the sixth Ministerial Conference held in Hong Kong SAR in mid-December 2005. If success is defined as lack of failure, it was a success. Candidly speaking, if it was not a failure, it did not achieve much of substance and was not a success either. Mattoo (2006) described the Doha Round as "a stagnant whole"; it is hard to take issue with this assessment. Disappointing as it was, the fact that it did not collapse was its valuable accomplishment. While it did not energize the Doha Round negotiations in any notable manner, it did not leave the MTNs eviscerated. The Framework Agreement, or the so-called July Package, or the July Framework Agreement of 2004 (WTO, 2004) was the most important event preceding the Hong Kong Ministerial, which provided a firm step forward in the form of a framework for negotiations. Retaining an element of continuity since the launch of the Doha Round, it reiterated the importance of development as a corner stone of the on-going MTNs as well as stressed the pressing need for reform in agricultural trade. Notwithstanding the July Framework Agreement, the MTNs were indubitably stagnating. In view of the disparity of positions among the large trading economies and country groups, major participants had forewarned months before the Conference to keep expectations from the Hong Kong Ministerial low, rendering them easy to meet. Therefore, the Ministerial Conference commenced on a less sanguine note and kept its objectives so low that they can be achieved without difficulty. The targeted low-level equilibrium was indeed achieved at Hong Kong where few bold decisions were taken. Many long-awaited decisions were put off for the future. Success in Hong Kong was possible and could have been achieved by thoughtful, pragmatic and clairvoyant negotiations on the one hand and political will of the member governments on the other. Most participating trade ministers were cognizant of the fact that another Cancun-like acrimonious breakdown in Hong Kong will have high cost. For certain, it could devastate the WTO as a multilateral trade negotiating forum. If one takes a constructive and charitable viewpoint of the Hong Kong Ministerial, the agreement reached in Hong Kong SAR can be seen as an incremental advancement in the long-stalled MTNs. At the end of the Conference, Pascal Lamy, the director-general of the WTO optimistically noted that the round was "back on tracks" after a "period of hibernation". In his opinion the Hong Kong Ministerial Conference had "rebalanced" the WTO agenda in favor of the developing economies as well as created "political energy" needed to make progress in the immediate future (The Economist, 2005). Procedurally the Hong Kong Ministerial performed better than the preceding Ministerial Conferences. Negotiations followed a bottom-up approach, which implied that inputs came from the members rather than from above. It contributed to the success of deliberations. Members expressed satisfaction about this method of negotiations. This was the lesson learned during the debacle of Seattle Ministerial Conference, where among other snags, efforts were made to dictate decisions were from the top (Das, 2000).

Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as

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Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as



the rules was the other important, if controversial, issue under negotiations. Very little of value was achieved in these areas in Hong Kong. The harvest of decisions taken was meager because most of the politically difficult decisions were shelved for 2006. That negotiations on agricultural are as important as they are politically sensitive was evident in the Cancún Ministerial Conference also, where the developing economies, led by the Group-of-Twenty (G-20), had made it clear that further progress in the MTNs was not possible without industrial economies agreeing to lower their agricultural subsidies, particularly on cotton<sup>1</sup>. The acrimonious disarray in Cancún was followed by an intense period of negotiations, which culminated in July 2004, providing an outline regarding how the Doha agreement can be restructured. This resulted in the above-noted July Framework Agreement. A new geography of MTNs vividly emerged at Hong Kong. The old Quad comprising Canada, the EU, Japan and the US had retreated into history. The new power groups that emerged and functioned comprised the EU, G-20 and the US. The most active G-20 members in Hong Kong were Brazil and India. In the next ministerial, China which is the third largest trader in the world and the largest EME, can be assumed to play an equally active role in the MTNs.

The Hong Kong Ministerial Conference, like the Doha Round, had to endure mercantilist mindset of the participants. The European Union (EU) was censured most for its long-standing intransigence in negotiations on trade in agriculture. In the end, there were large gaps in the positions taken by the important traders, the EU, the United States (US) and the G-20. The US, the Cairns Group of 17 agricultural exporters and the emerging-market economies (EMEs), which are vocal members of the G-20, regarded the EU proposal on agriculture as hopelessly inadequate. The latter group was unwilling to negotiate any cuts in its own industrial tariffs until some progress was made in the agricultural negotiations in Hong Kong. Disagreeing with this stand, the EU refused to change its position until the EMEs liberalized their markets for industrial goods and services. The EU was not the only demandeur for EMEs' liberalizing their markets for industrial goods and services. Other industrial economies supported the EU in this regard. Emergence of China as a global trading power and several East Asian economies, followed by India, as important trading economies further complicated issues. It is easy to see how a gridlock was created in the negotiations. Political will to take significant steps and make compromises was conspicuous by its absence.

In negotiations on trade in agriculture, there are three principal areas of negotiations, namely, export subsidies, domestic support and market access. In the so-called Framework Agreement of July 2004, members had agreed to eliminate export subsidies on farm exports, albeit no deadline was agreed (Das, 2005). The core achievement in Hong Kong was agreement on a date, end of 2013, for the elimination of export subsidies. The EU, which accounted for 90 percent of these subsidies, accepted this date. The US, the developing economies—both the G-20 and the Group-of-Ninety (G-90)—and the Cairns Group had unsuccessfully tried to move this date back to 2010, but the EU took an intransigent stand<sup>2</sup>. The MTNs had languished since 2001 because of impasse over the politically sensitive agricultural issues. They had impeded negotiations in the other areas of MTNs as well. Therefore, in the interest of progress in the MTNs, the 2013 had to be reluctantly accepted. What was more disappointing was that negotiations on market access, or tariffs on agricultural products, and trade-distorting domestic support payment completely failed to make progress. These were more difficult areas of negotiations in agriculture than export subsidies. Any decision on them was deferred for 2006.

The US pledged to end export subsidies to its cotton farmers. Cotton exports are of special interest to farmers in Benin, Burkina Faso, Mali, Chad and Senegal, referred to as the Cotton-4. All of them were low-income least-developed countries (LDCs) and had stringently protested against the US subsidies for years. Ironically, the US was obliged to repeal them because it was challenged by Brazil on this issue in the WTO. In early 2005, the dispute settlement panel had given an adverse ruling. The US Congress was expected to repeal the subsidy within days of this promise. Once the final agreement is reached and

<sup>1</sup> The Group-of-Twenty (G-20) developing countries was formed during the Fifth Ministerial Conference held in Cancún and became an important negotiating force. The key members included Argentina, Brazil, Chile, China, Egypt, India, Indonesia, Pakistan, Thailand and South Africa. The role of collegial leadership of this group was played Brazil, China, India and South Africa.

<sup>2</sup> The Group-of-Ninety (G-90) is a large group of diverse developing economies and includes the emerging-market economies (EMEs), the newly-industrialized economies (NIEs) on the one hand and the low-income developing economies like the least-developed countries (LDCs) and the African, Caribbean and Pacific (ACP) countries on the other.

implementation of the Doha Round recommendations begins, these countries would be provided duty-free, quota-free access of their cotton exports.

Regarding the non-agricultural market access (NAMA), the Hong Kong declaration made small progress, albeit left specifics of the modality decision to be taken between April and July 2006, which for all appearances seemed an unrealistic target<sup>3</sup>. The Hong Kong declaration locked in the progress of the Framework Agreement of July 2004 and members agreed to reduce or eliminate tariff peaks, high tariffs and tariff escalation. The so-called Swiss formula for slashing industrial tariff was adopted which, for a given set of parameters, cuts higher tariff rates proportionately more than the lower tariff rates. As no coefficients were mentioned in the declaration, the agreement was made mild. Mention of a higher coefficient for the industrial economies and lower one for the developing economies in the agreement would have made the NAMA related declaration more consequential. Of the 50 LDCs, 32 are members of the WTO. According to the Hong Kong declaration, these members would be provided duty-free and quota-free market access for most—at least 97 percent of tariff lines—of their export products by 2008, or no later than the start of the implementation period. There is a probability of excluding sugar and textiles from this concession to the TDCs. A small undertaking on “aid for trade” is also a part of the Hong Kong proposal. This is an offer to assist small developing economies lack the infrastructure for trade. They also lose out due to competition. The industrial economies offered them deals in the area of capacity building and debt relief. Pledges for aid for trade were made by the EU, Japan and the US. One analyst regarded them as a mere bauble, a trivial give away (Halle, 2006). In the services trade the Hong Kong declaration set the deadline for negotiations, requiring member countries to make offers to open their markets in financial services, telecommunications, computer and related services, distribution, and energy services by July 2006 and final offers by October 2006. The agreement in Hong Kong established little in this important area of negotiations. Stalemate in services negotiations continued.

The opportunity that the Doha Round offers to the global economy, particularly the trading economies, is that of multilateral, non-preferential, legally-binding partial liberalization. A reasonably successful Hong Kong Ministerial would have resulted in welfare gains for the global economy, and its different regions and sub-regions. Estimates of gains from partial reforms promised under the Doha Round inter alia were made by Anderson et al (2006) and Anderson and Martin (2006). The principal conclusions of these empirical studies, that utilized a newly released database on protection and the latest version of the World Bank's Linkage model, are as follows:

- If one were to take under consideration merely the static benefits, potential gains from liberalization of trade under the Doha Round are large. In addition, there will be dynamic gains stemming from increased scale economies and competition, which is value-creating.
- While the developing economies' share of the global GDP is 20 percent, their gains from the Doha Round liberalization will be 30 percent of the total. This would lead to 0.8 percent rise in welfare in the developing economies, compared to 0.6 percent rise in the welfare in the industrial economies.
- Complete liberalization of merchandise trade would result in 45 percent of the global welfare gains going to developing economies. Their welfare could increase as much as 1.2 percent compared to an increase of 0.6 percent rise for the industrial economies.
- The proportion of welfare gains going to the developing economies is higher because their tariff barriers are relatively higher. Reforms would lead to higher efficiency gains in the developing economies. Also, their agricultural and textile exports face much higher tariffs in the industrial economies' markets than do exports from the industrial economies.
- Reforms and liberalization by the developing economies in their own economies will be as meaningful in terms of economic benefits as those in the industrial economies. By delaying reforms in their own economies, the developing economies will fail to realize the full potential gains from the Doha Round.

<sup>3</sup> The term modality implies schedules, formulas and other criteria for implementing tariff and subsidy reduction rates as well as the time table.

- Trade in agricultural products is the newest frontier of trade liberalization. This sector still suffers the stigma of the highest bound tariffs and largest subsidies, and needs large cuts in both.
- Trade liberalization in agriculture is of crucial importance, although importance of agriculture in the global GDP has been on a decline. Trade liberalization measures in agriculture will have far reaching implications for developing economies as well as the global economy.

Approximately two-thirds of the total gains from the Doha Round are likely to come from agricultural liberalization, compared to almost a quarter from textiles and apparel and a tenth from other merchandise trade liberalization. Broadly speaking, there are substantive gains from liberalization of merchandise trade in the Doha Round of MTNs, particularly that in agricultural trade. The ongoing MTNs are likely to culminate in partial trade reforms of the multilateral trade regime. The old assessment of global gains from partial trade reforms was \$400 billion in 2015, which was computed with the help of the World Bank's LINKAGE model (WB, 2004). Revised estimates of global gains have been scaled down to \$290 billion in 2015 (van der Mensbrugghe, 2004). There were three reasons for this difference in the two estimates. First, a new Global Trade Analysis Project (GTAP) dataset was used to compute the second estimates, which had a different base year from the earlier computations. The benchmark of the earlier estimates was 1997, while that for the more recent ones was 2001. The new data set also incorporated the trade policy reforms undertaken between 1997 and 2001. It also reflected the non-reciprocal tariff preferences, which the previous data set did not incorporate. Second, the new data set successfully reflected the transformations that came about in the global economy, particularly the changing value of the dollar vis-à-vis other major currencies after 1997 and rising importance of several Asian economies as traders of global significance. Third, the new benchmark also included major global economies developments like China's WTO accession and liberalization commitments, implementation of the Uruguay Round commitments, of which dismantling of the multifiber agreement (MFA) was an important part, and the expansion of EU from 15 to 25 members that took place in May 2004. Together these developments have had an appreciable impact over the multilateral trade regime and the global economy. The value of welfare gains stemming from them was estimated to be \$70 billion to the global economy in 2015. As they were incorporated into the new baseline, they cannot be expected to make a renewed contribution to the estimates of welfare gains from the on-going round of MTNs. Using a global model, Anderson et al (2005) estimated potential consequences from a successful Doha Round agreement. According to their estimates, it could annually generate income gains for the global economy between \$95 billion and \$126 billion. While making these estimates, it was assumed that no exemptions were being made for sensitive and special agricultural products. Agriculture trade liberalization was found to have the largest impact. Reforms in this one sector will be responsible for 60 percent of the total gains from merchandise trade liberalizations. On the whole, larger income gains were estimated to go to the industrial economies because they were assumed to undertake more aggressive trade reforms in the Doha Round. As the developing economies suffer from a large binding overhang, and negotiations are based on bound tariffs, not applied tariffs, the reforms undertaken by them will only have a minor impact in terms of genuine liberalization of the trade regime<sup>1</sup>. Given this scenario, the industrial economies would achieve between 40 percent and 45 percent of what they could under full merchandise trade reforms. Similarly, the developing economies will achieve approximately 20 percent of what could be achieved under full merchandise trade reforms. Adding these gains, total global welfare gains that are likely to be achieved come to one-third of those from freeing global merchandise trade totally.

Developing economies have more to gain from full elimination of merchandise trade barriers. As trade reforms engender positive externalities in the form of improved productivity in the economy, the gains to developing economies could increase up to \$200 billion in 2015 (Anderson et al, 2005). The state of MTNs at the time of the Hong Kong Ministerial Conference clearly indicated that liberalization measures adopted in agriculture and manufactures can be realistically expected to be modest, albeit improvements in the market access in agricultural market in the industrial economies is well within the realm of possibility. Empirical evidence is available to show that trade liberalization contributes to poverty alleviation. Also, estimates of impact of trade liberalization under the DDA on

<sup>1</sup> The term binding overhang needs to be explained. A country may decide to apply tariff rate of 20 percent on the import of a good, but it may keep the bound tariff at 50 percent. The WTO rules allow this country to raise its tariff rate to 50 percent if it so decides. The difference between the bound tariffs and applied tariffs is known as the "binding overhang".

poverty came to a positive result. This was essentially due to the fact that the existing pattern of global protection favors skilled labor and capital relative to unskilled workers. Therefore, reduction or elimination of barriers in merchandise trade would lift the unskilled wages, the primary source of income for many of the world's poor. In real terms this wage increase was found to be modest.

Hertel and Winters (2006) show that the poorest in the developing economies can potentially benefit most from the liberalization endeavors during the Doha Round of MTNs. However, that was found to be conditional. For the poor to benefit, the liberalization targets "under the DDA have to be ambitious if the round is to have a measurable impact". Only deep tariff cuts would have poverty friendly impact. Even then the "near-term poverty impacts are likely to be mixed" (Hertel and Winters, 2005). If the developing economies decide not to take reform measures, the estimated poverty impact would decline markedly. Notwithstanding this pessimism, the long-term impact of the DDA on poverty reduction is more definite and pronounced. A case study of China, which has not only recorded unprecedented economic growth but also become the third largest trader in a short time span of two decades, revealed that MTNs do support poverty alleviation endeavors. Using a household-disaggregated applied general equilibrium model to estimate the impact of trade liberalization under the Doha Round on poverty in China, Zhai and Hertel (2005) found that multilateral trade reforms did support poverty alleviation. They concluded that the largest impact of the Doha Round liberalization was on the rural-poor households in China. This was the result of rising prices of farm products. A large majority of China's poor are to be found in the rural areas and therefore stand to benefit from this trend. Urban poverty was observed to decline, but only in two of the three urban household groups considered for this study. Higher food prices in these two groups were offset by rising factor earnings resulting from sharply accelerating Chinese exports growth.

The third group of urban-poor households did not show the positive impact of trade liberalization because it was heavily dependent on the transfer payments.

#### 1.5.1 State of Affairs in Agriculture

Although a declining sector of the global economy, it still employs a large proportion—54 percent—of work force in the developing economies. Not freeing trade in agriculture from barriers works basically against the interest of the developing economies. Also, it cannot be ignored that majority of the poor in the developing economies live in the rural areas. It is widely acknowledged that poverty is essentially a rural phenomenon in the developing economies. Therefore, if the final outcome of the MTNs has to be pro-poor, trade in agriculture will need to be an area of exclusive attention. Liberalization of agricultural trade would gradually change market shares of countries and country groups and eventually reflect the comparative advantage of countries and country-groups in multilateral trade.

The articles of agreements of the GATT-1947 had some regulations for trade in agriculture, but they made several exceptions and had loopholes, which were freely exploited by the Contracting Parties (CPs). Consequently, agriculture became one of the most distorted areas of multilateral trade. Industrial economies increasingly subsidized their farm sector and trade—which was permissible—and erected trade barriers. So much so that trade in agriculture was virtually outside the ambit of the GATT system until the Uruguay Round (1986- 94). It was not easy to bring it under the multilateral trade regime like merchandise trade. After enormous and long drawn-out efforts, the Uruguay Round Agreement on Agriculture (URAA) was instrumental in drawing agricultural trade within the sphere of the multilateral trade regime. These efforts not only contributed to slowing down of the negotiations in the Uruguay Round but also prolonged it. The URAA imposed new disciplines on trade in agricultural products. The new rules were implemented between 1995 and 2000. Under the URAA industrial economies committed to (i) reducing domestic support to agriculture, (ii) reducing export subsidies and (iii) improving access to their markets. These were referred to as the "three pillars" of the agreement. As progressive liberalization of agricultural trade was a long-term process, the WTO members committed to continue negotiations on it under the so-called "built-in agenda". This was the mandate of the WTO Agreement of April 1994. Accordingly, the agricultural negotiations began in January 2000. Since the URAA agricultural trade has continued to grow, but ironically more slowly than the pre-URAA period and more slowly than non-agricultural trade (OECD, 2005a). While trade in agriculture came within the domain of the multilateral regulations, the URAA failed to deliver significant multilateral liberalization in agricultural trade (Messerlin, 2002).

Developing economies complained that on the whole the URAA did not work as intended and that they did not get a fair deal. Evidence supported their gripe that tariff cuts by the developing economies were significantly deeper than what was agreed to by the industrial economies (Finger and Winters, 2002). In addition, they had to commit to costly commitments that were embodied in the Sanitary and Phytosanitary (SPS) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements. Some of the requirements for the developing economies under the SPS agreements are more stringent than those for the industrial economies. Given this background of malcontent, higher market access commitments were sought by the developing economies in the Doha Round from the industrial economies.

As expected, the Doha Round began with high expectations of reforms in agricultural trade, but members did not agree on the first draft on modalities which was presented in February 2003. The Cairns Group found the draft unambitious, conversely the EU, Japan, Norway and Switzerland found it not only overly ambitious but also unbalanced in terms of the three pillars of negotiations. Among many disagreements and contretemps in the 5th Ministerial Conference, held in Cancún, were the sectoral initiative taken by the Cotton-4 opposing cotton subsidies in the industrial economies because they depressed cotton revenues in the West African countries by \$250 million per year (Section 3). The demand of the Cotton-4 countries was met in the Hong Kong Ministerial. Before the Cancún Ministerial, the EU and the US agreed on a broad framework for negotiating agricultural trade liberalization and presented a joint framework paper on agricultural negotiations, which was found to be weak by many members. It was followed by counter-proposal by the G-20. This framework paper was more ambitious than the EU-US framework paper, particularly in the areas of export subsidies and domestic farm support. There were significant differences in the two framework papers and deep disagreements regarding how to proceed. A veritable negotiations log-jam was created.

After intense negotiations, an elaborate "Framework for Establishing Modalities in Agriculture" was prepared and made into an Annex of the Framework Agreement July 2004. This Annex was the most significant part of the Framework Agreement and was structured around the three pillars. Members had decided upon a framework to eliminate all forms of export subsidies as well as render better discipline on export credit and exporting state trading enterprises. Regarding the trade distorting farm subsidies, it was agreed in the Framework Agreement that the new discipline will include deeper cuts in farm subsidies in countries which have the highest levels of subsidies. "Progressive tariff reductions" was also a part of the Framework Agreement. However, the timeframe of implementation was left without mention. The industrial economies dominated the global trade in agriculture when the Doha Round was launched, as they did at the time of the Hong Kong Ministerial.

While developing economies exporters have more market access opportunities in agriculture than in textiles and clothing, even at the time of the Hong Kong Ministerial their exports faced high tariffs in the industrial economies. While average tariff rates faced by agricultural exports from the developing economies are 15.6 percent in the industrial economies, they are 9.3 percent for textiles and apparel exports and 2.5 percent for the other manufacturers (Anderson and Martin, 2006). Producer support estimates (PSE) for the Organization for Economic Cooperation and Development (OECD) economies were almost the same in 2001-03 as in 1986-88, hovering around \$240 billion annually (Anderson and Martin, 2006)<sup>5</sup>. Agricultural tariffs are high in the developing economies as well, therefore, this sector a fortiori deserves special attention in the on-going Doha Round negotiations.

Three months before the Hong Kong Ministerial Conference, the US had made a proposal for deep cuts in both, but the EU made a weak counter-proposal which would have resulted in little additional market access to what is currently available. Differences in positions were wide and agreement on trade in agriculture was not reached in the Hong Kong Ministerial, but some progress was made in the year and a half since the Cancún Ministerial, which led to narrowing of differences. However, negotiations were nowhere near deciding on modalities. Therefore, a new schedule was agreed in Hong Kong for continuing negotiations in 2006 and resolve the unfinished agenda by the end of the year. Going by the past experience, this target appears unattainable.

<sup>5</sup> Producer Support Estimate (PSE) is defined as the annual monetary value of gross transfer from consumers and tax payers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on the farm production or income.

### 1.5.2 State of Affairs in Non-Agricultural Market Access

While launching the Doha Round, it was agreed to negotiate to reduce or eliminate tariffs on industrial or primary products. Tariff peaks, high tariffs and tariff escalation were to be the special focus of this segment of negotiations. For the industrial economies, tariff rates higher than 15 percent are regarded as tariff peaks. They protect sensitive products from protection. Rising rate of tariff with increase in value-added in a product are known as tariff escalation. The negotiations are also seeking to eliminate the incidence of non-tariff barriers (NTBs), which are created by import licensing, quotas and other forms of quantitative restrictions.

The first deadline for determining modalities for reduction or elimination of tariffs and NTBs was May 2003, which passed evenlessly. Subsequent deadlines were also missed. However, the in Framework Agreement members agreed to adopt a non-linear tariff reduction formula so that higher tariffs could be reduced more than the lower tariffs. Agreement on modalities still remained elusive. The Framework Agreement has clarified that tariff reductions should be computed from bound rates, not the applied rates of tariffs. In case of unbound tariff lines, it was decided that reduction would be carried out from twice the currently applied rates.

Before the Hong Kong Ministerial, negotiators concentrated on technical issues like tariff reduction formulas, further modalities on the unbound tariff lines and conversion of specific duties into ad-valorem duties. Negotiations focused on two variations of the Swiss formula, the first one was the simple Swiss formula, which was proposed by Switzerland during the Tokyo Round of MTNs (1973-79). The key element of this formula is a number which is negotiated and plugged into the formula. It is known as coefficient A, given in the formula below:

$$Z = AX / (A+X)$$

where

X = initial tariff rate

A = coefficient and maximum final tariff rate

Z = resulting lower tariff rate (end of period)

This also determines the maximum final tariff rate. The developing country members pushed for it because it would slash higher tariffs more than the lower ones. The second was the version suggested by Argentina, Brazil and India which was based on tariff averages. Despite continuing negotiations, there was virtually no forward movement in NAMA in Hong Kong. Most important decisions were deferred for 2006. The developing economies made it evident that in the area of NAMA they intend making smaller tariff cuts than industrial economies, while the LDCs expect not to make any cuts at all.

### 1.5.3 State of Stagnation in Agreements on Services

The services sectors possess growth-generating traits and trade in services is expected to increase at a rapid rate in the foreseeable future. Trade in services began to be covered by the General Agreement on Trade in Services (GATS) since its inception in January 1995. Negotiations in this area proved to be difficult and progressed slowly, particularly in the areas of foreign direct investment and temporary movement of labor. As agriculture dominated the Doha Round negotiations, services received much less attention. Scenario in Hong Kong was not much different. Hertel and Keeney (2006) estimated that reduction in barriers to trade in services under the aegis of the Doha Round would result in enormous welfare gains for both developing and industrial economies. Services trade liberalization may boost potential welfare gains from the Doha Round by as much as 80 percent. The distribution of these gains was found to be uneven, with the lion's share going to the industrial economies.

Two imperious Doha Round objectives in services negotiations are: First, to reform the current GATS rules, and second, to liberalize the services markets of the GATS member countries for foreign competition. Negotiations on services had begun before the launch of the Doha Round because like agriculture they were a part of the "built-in-agenda" of the WTO. Although they were launched in January 2000, meaningful progress in the services negotiations was slow. Missing deadlines on decisions became a common malaise. The inertia in negotiations had three principal reasons. First, services negotiations suffered from the general inertia of the Doha Round. Second, lack of progress in agriculture became a necessary condition for progress in services, although it was not sufficient. The EU linked its market access in agriculture to concessions in services by the G-20 countries. Third,

trade in services is a difficult area of negotiations. To come to an outcome that is consistent with the development objective of the Doha Round negotiators needed "extraordinary intellectual, technical and political efforts" which so far have not come about (Mattoo, 2006).

A negative perception about the request-and-offer process, followed for liberalization of trade in services, is gradually emerging and strengthening. This process has not produced expected results in the recent past. From the perspective of negotiations in services, the Cancun Ministerial was not a disaster because there were no major disagreements. Participating trade ministers recognized whatever little progress was made and agreed to further intensify the negotiations. Not the same was observed in Hong Kong, where confidence level among participants was low. The causal factor was that the progress was made in terms of a large number of confidential, albeit ambitious, requests that both developing and industrial country members made to each other for market access, but the response in terms of offer of market access was exceedingly weak. By July 2005, revised offers of market access were made leading to some improvement in offers. However, the overall quality of initial and revised offers was disappointing. Based on the state of offers in July 2005, little additional market liberalization could be expected for the services suppliers. Negotiations had stagnated. As the request-and-offer process is failing to perform, there is a need to develop complementary negotiating tools.

There was virtually no forward movement in services in Hong Kong. Most decisions were put off for 2006, with an unrealistic deadline of mid-2006. The present state of negotiations in services is a low-level equilibrium, where members expect little from each other in terms of request-and-offer. To energize negotiations and further liberalize trade in this important sector, members need to identify ambitious and desirable goals that are feasible in the present mise-enscène. To start a self-propelling cycle of mutually beneficial liberalization Mattoo (2006) suggested the following four steps: First, the request-and-offer process should be complemented with a collective approach to negotiations where groups of members should collectively build opinion for achieving clearly specified goals. Second, a significant number of members should lock in the current openness of in a wide range of trade in services. Third, a significant number of members need to eliminate barriers to foreign participation in those services sectors in which there is little reason to defer liberalization. Fourth, if a good number of members promote greater freedom for temporary presence of service providers to fulfill specific services contracts, it may be the beginning of a trend. If a critical mass of member economies agrees to undertake these measures, there would surely be advancement in market liberalization in trade in services.

#### **1.5.4 Development Dimension**

As the Doha Round was billed the development round, negotiations in all the important areas could be reasonably expected to be pro-development, but it did not transpire in this manner. Two specific developing country-related issues for the Doha Round are: compulsory licensing of medicines and patent protection and review of the age-old special and differential (S&D) treatment. The issue of balancing of patent protection on the one hand and compulsory licensing of lifesaving medicines on the other falls in the domain of TRIPS agreement. The 2002 TRIPS Council proposal allowed countries that lacked manufacturing capacity to produce life-saving drugs to issue compulsory licenses for imports of medicines. The US was the only member that saw possibilities of exploitation of compulsory licenses, while others members approved of it. A concern that the pharmaceutical industry expressed was that of diversion of medicines to another country. This apprehension was resolved by an agreement to mark the medicines produced under licenses so that their inappropriate movement can be tracked. In August 2003, members reached an agreement. An interim waiver of the TRIPS Agreement allowed a member country to export pharmaceutical products made under compulsory licenses to the LDCs and some other member countries (Das, 2005). The US accepted this decision provisionally, that is, under condition that this decision should be used to protect public health and not for promoting industrial or commercial objectives. Reaffirming the S&D treatment for the developing economies, the Doha Declaration had expressed an interest in reviewing it "with a view to strengthening them and making them more precise, effective and operational". A work program on S&D treatment was approved by the ministers, who also tasked the WTO Committee on Trade and Development (CTD) to examine additional ways in which S&D treatment provision can be made more effective and to report to the General Council with clear recommendations for a decision by June 2002. However, soon a wide gulf emerged on the S&D issues between the developing and industrial economies. While the developing economies wanted

to negotiate changes on S&D provisions, keep proposals in the CTD and keep short deadlines for completing negotiations, industrial economies preferred to study S&D provisions, send only selected proposals to the negotiating committee, and leave deadlines open. Developing countries began complaining that the industrial economies are not negotiating in good faith and the industrial economies countered the charge by saying that the developing countries were putting forward unreasonable proposals. By Cancun Ministerial developing economies had offered 85 proposals on S&D, the industrial economies had agreed to only a handful of them. In Hong Kong, despite repeated calls, members were unable to agree on proposals for enhanced S&D provisions.

### **1.5.5 Reforming the Rules**

When the Doha Round was launched, there was mounting concern among the members regarding excessive use of anti-dumping (AD) and subsidies and countervailing measures (SCM), also known as the trade remedies. The articles of agreement that address AD and SCM are ambiguous, perhaps by design. Therefore, one of the explicit objectives of the Doha Declaration was to clarify and improve discipline under the WTO agreements on AD and SCM. A coalition of developing and industrial countries members emerged which called itself the "Friends of Antidumping", which strongly supported improvement in the AD and SCM regulations. The EU joined this group largely because it had been a frequent target of AD and SCM measures and complained of differences among the member economies in interpreting and applying the WTO rules in their domestic trade remedy procedures. The US initially opposed any fresh negotiations on AD and SCM, but relented when it saw that a new round will not take off without some concession in this area. The US tried to keep these negotiations outside the MTNs, but many members expressed preference for making them part of the MTNs. However, the US negotiators were able to include language in the Doha declaration that limited radical change in the related articles of agreement. On numerous occasions, the US and other industrial economies were accused by developing economies for using the AD action as disguised protection and therefore the US was on the defensive. However, the circumstances changed in this regard and the developing economies began using AD and SCM action themselves. This called for reexamining and disciplining the rules and implementation of AD and SCM agreements thoroughly. After agreeing to reexamine and reform the AD and SCM agreements, the US committed to push an "offensive agenda" on trade remedies in order to address the increasing "misuse" of trade remedy measures. By August 2003, members had identified key provisions that they sought to address in the MTNs. Most of the proposals on improving the trade remedies envisaged making them more specific and provide restrictions to the AD and SCM agreements in terms of definitions and procedures. Many of the suggested changes were highly technical in nature, involving calculations of dumping margins, determining injury and granting relief. These proposals were submitted formally to the WTO Negotiating Group on Rules (NGR). After the Cancun Ministerial more elaborate proposals were submitted to the NGR. While Chairperson of the NGR undertook extensive series of consultations, both bilateral and plurilateral, there was little progress in decision-making. As these were controversial issues, active negotiations did not take place on trade remedies in 2005. The likely route that the MTNs could take on trade remedies is to focus on suggested changes and proposals for which there seems to be a broad support among the members. It seems probable that members will begin negotiating on AD and SCM agreements once the Doha Round nears its culmination point.

## **2 Project Mandate**

There existed many levels and many stages of inter-state relationships between and amongst the countries of the world. But with the advent and gradual diffusion of the WTO principles in the life and politics of the countries, the whole dynamics of world politics has changes. If we look at the situation that used to prevail even fifty years back, we would see an artificial order in an unnatural setting – NATO, SEATO, CENTO, WARSAW, etc, prevailed and thrived on the basis of ideological dimensions. But now, what we see is a gradual inclination towards security ties based on "complementarity of service-avenues", and "resource availability". Countries are tying up their knots on the basis of the economic benefits that could be drawn out of the relationship formed afresh.

Now, the obvious questions with regards to the 'onslaught' of globalization are ...  
Is it a reversion to the pre-Westphalian state of world affairs?



Is it a reversion to the levels and dynamics of city-states and of free trade regimes that existed between princely entities ?

With a focus on the above questions, we have to answer the following as well ...

What will happen to the existing relationships?

What new relationships will take form?

What will be the new political blocs?

Three areas are under active consideration in this regard:

1. Regional trade blocs
  2. Political blocs
  3. Sovereign status of individual states
- ... leading to issue wise stake analysis of:
- a. GATS Mode IV and movement of natural individuals
  - b. Non-agricultural market access
  - c. Trade distorting agricultural subsidies
  - d. Financial markets and internationalization of financial instruments

Implications of WTO negotiations on both the first and the third world may result into ...

- a. An ultimate triumph of capitalism as the only sacred means to prosperity – thereby, leading to
- b. Socialism staging a come back
- c. A third order coming to terms with world power
- d. Where will the newly formed econo-political situation, lead to for South Asia

### 3 Problem Statement

The problem is simple. This author of the proposal would like to find out if negotiations in WTO play a role (and if yes, to what degree) in the international trade/political alignments.

### 4 Aim

#### 4.1 Broad Objective

Broadly speaking, the aim of the project is find out the relevance (if any) of negotiations taking place in WTO with the explicit and implicit political and trade alignments materializing in the real world.

#### 4.2 Specific Objectives

Specific objectives include:

- a. To study the major trends in negotiations in major areas in WTO
- b. To appraise / take inventory of the complete political and trading relation pattern of the world over the centuries
- c. Find out relevance of WTO negotiations (as found in step a) with the finding from step b
- d. Deduce a working relationship pattern between the negotiations in WTO and country/region specific trading and political alignment patterns.

#### 4.3 Hypothesis

Only one hypothesis to be (dis)-proven, i.e., "There is a significant positive relationship between the negotiations taking place in WTO and the actual political/trade alignments taking place in the real world.

### 5 Scope

The scope of the paper revolves around the following points:

- i. Short history and pattern of world political alignments
- ii. History and evolution of world trade
- iii. Discussion on the evolution of WTO and a formal arrangement of international trade

- iv. Short history and pattern of blocks in world trade
- v. Theoretical discussion on factors of international trade affecting political decisions
- vi. Trade factors affecting political decisions in international affairs
- vii. Correlation between international trading pattern and international politics
- viii. Effects of WTO negotiations on multilateral forums and regional blocks
- ix. Position of Bangladesh with regards to integration into the world trading system
- x. Trade factors affecting diplomatic moves by Bangladesh

## 6 Significance of the Study

For a small and non-significant<sup>6</sup> country like Bangladesh the only way out is to build on our expertise and experience in niches we already have some mastery on. Admit it, if anything positive is there, for which ones of these positive things does the outside world know us? The answer is simple - number one, Micro-Credit<sup>7</sup>, number two, UN Peacekeeping, and number three, I have forgotten. If we want to build on our expertise, we need to know what we actually know. We need to combine and integrate our learning in all fields that we have ever operated in and harvest the synergies that we can derive from there on.

Making informed decisions and planning judiciously are the only two ways that can help the cause. Like President A P J Abul Kalam of India had said, we need virtuous Leaders, Wise Officers, and Learned Teachers. This paper, as I duly expect, can ultimately contribute to the formation of a more pro-active strategy for Bangladesh's performance in the United Nations peace efforts, where the country presumably already has made its mark as one of the top-most troops contributors. But is the UN itself anything less than a powerful men's club. Otherwise, why does China forestall Chapter VII enforcement in Sudan? Why is there armed intervention without the sanction of the Security Council? ... only for greater control over resources?

The study is significant to the different levels of concerned bodies and intelligentsia of the country due to different causes. The causes are apparent from the debriefings available on the barriers to international trade. This section depicts only the specific points to be highlighted.

### 6.1 Significance to Diplomatic Endeavors

The findings of the report are anticipated to help the policy makers and players arrive at a positive focus with regards to the environment and settings where investments and returns to materialize will be easier. It is expected that the results of the research will significantly help the established Non-Governmental entities of the country who allege of the unavailability of policy measures required, to find alternative ways to proliferate into world affairs alongside their current role in the country.

### 6.2 Significance to Literature

Policy frameworks, especially the effective ones, are very uncommon in Bangladesh when it comes to Foreign Affairs and our participation in multilateral bodies like the WTO. This paper is expected to have a proper insight into the nature of better and more innovative ways to contribute to structural arrangements for international trade, i.e. if the infrastructure can be reoriented for ventures to run smoothly through a combined effort of the business community, civil society organizations, and the diplomatic agents.

Also, it is expected to add a different dimension to the existing literature by infusing a fresh presentation of useful data in the most organized form ever created - on WTO - in the country. It uses the quantitative SWOT analysis in the principle analysis section. This is unique in the form and is used only for the second time in the administrative history of the country (the first one was when this author had prepared a paper for the Bangladesh Foreign Service Academy in May 2006).

<sup>6</sup> Non-significant - purely in the sense that the advanced community mostly don't regard Bangladesh for anything other than its nuisance value, despite having so many potentials to contribute to the world community - simply because we do not know how to project ourselves in a concerted manner

<sup>7</sup> And organizations like BRAC, Grameen, Proshika, ASA

### 6.3 Significance to Society and Government

Development concerns are supposed to be at the heart of the current World Trade Organisation (WTO) negotiations. The current negotiations are called the "Development Round" and this underlines the importance of achieving a positive outcome for developing countries. The Doha Ministerial Declaration November 2001 recognizes the importance of the development dimension of the Round, stating in the second paragraph:

"International trade can play a major role in the promotion of economic development and the alleviation of poverty. We recognise the need for all our peoples to benefit from the increased opportunities and welfare gains that the multilateral trading system generates."

The principle that trade can reduce poverty, but that developing countries face challenges making trade work for development, should be a core theme of the trade and development policy of the developed countries – which is, unfortunately not the case. It is believed that the current round of negotiations in WTO represents the single best opportunity to realize the development potential of trade by addressing the harmful distortions in the international trading system. Reform of trade-distorting practices in agriculture in particular, will be of significant net benefit to developing countries. There are also potentially big gains for developing countries in the areas of services and non-agricultural market access.

We may recognize that trade will not solve all the problems faced by developing countries, but believes that developed economies must ensure that the opportunity to benefit from globalization is available to everyone. The development aspects of the Doha Development Agenda range from specific issues identified by developing countries as priorities; the provision of special and differential treatment within individual negotiations, and broader objectives including improved market access and the provision of technical assistance. Some of the most important elements of the current negotiations include:

SDT is a concept which recognises that developing countries face specific challenges as a result of liberalisation. SDT includes provisions that allow for lower cuts and longer timeframes for reducing tariffs and agricultural domestic and export subsidies, and fewer obligations and reduced commitments for adherence to negotiated agreements.

In addition, the Doha Round will probably see the creation of targeted new instruments as part of the SDT package, such as the "special products" category (products important for food security and rural development) and a new special agricultural safeguard for developing countries. In the Doha Round it has been accepted that LDCs will be exempt from having to make any new reduction commitments.

Improved market access for agricultural products holds the promise of substantial benefits for developing countries, particularly given their comparative advantage in this area. At the same time, developing countries have some concerns relating to the impact on food security and rural development of opening their own markets for certain products. It is expected that SDT provisions will be designed to take account of these concerns. Under non-agricultural market access, sectors of significance include textiles, clothing and footwear, forestry and fisheries. These are all important industries for developing countries.

Services trade is also important to many developing countries. Many services, including infrastructure services and services incidental to agriculture facilitate growth, while services such as environmental services can, if managed properly, improve quality of life. In addition, developing countries have their own export interests in services ranging from construction to education, with a particular emphasis on services provided via the temporary entry of service-suppliers into the country where the service is delivered. These exports also contribute to growth in neighbouring developing countries.

The use of trade-distorting subsidies – both "domestic support" measures and export subsidies – significantly distorts the global trading system. The main users of these measures are large developed countries. Trade-distorting domestic support encourages over-production in the subsidising country: this surplus is often then exported (using export subsidies) for less than the cost of production, which has the effect of displacing and/or reducing the world price for many of the agricultural commodities that developing countries trade. This system also means that subsidisers are reluctant to open their

markets to efficient producers such as those in developing countries, since this would undermine farm incomes in the subsidising country.

A three-pronged approach will be important to achieving a positive development outcome:

- i. Substantial reductions in the use of trade-distorting subsidies
- ii. Elimination of export subsidies
- iii. An ambitious package to open agricultural markets (tempered with SDT targeted to situations of real need).

Many developing countries face domestic and supply-side constraints when seeking to maximize the opportunities that come from trade liberalization. Continued and improved trade-related technical assistance and capacity building is a vital component of trade and development.

We can always hope for an ambitious outcome in the Doha Round. There is considerable overlap between the objectives of developing countries and of the developed ones in the Round, particularly in the areas of agricultural market access, the elimination of export subsidies and trade-distorting domestic support.

However, this paper will, specifically, try to find out, if:

- i. International trade has a positive effect on poverty reduction and improves long-term economic growth in developing countries, and
- ii. A successful outcome to the Doha Round will promote development through improving market access for all products – including those important to developing countries, especially agriculture and textiles – and through the elimination of export subsidies and substantially reducing trade-distorting domestic support

It is important for the WTO to find ways to address the converging issues of trade with labor and the environment in a way that does not encumber the trade system with new, extraneous requirements. There is room to improve the manner in which the WTO interfaces with other international institutions, such as the International Labor Organization and the World Bank. However, it is important that trade agreements not be used as the primary mechanism to enforce alleged abuses on environmental or labor matters. There are more appropriate and effective means and organization through which to pursue these remedies. The business community has a vital interest in the outcome of WTO negotiations because the WTO's rules are the framework within which business will conduct its activities.

From this paper, we will try to establish that the government should:

- i. Aggressively negotiate on behalf of the country in the new round of multilateral trade negotiations. Priority areas are market access, business facilitation, investment, agricultural export subsidies and trade remedy systems.
- ii. Seek out and take full account of the expertise and advice of business houses as negotiations in the Doha round proceed.
- iii. Renew efforts to strengthen the WTO as the rules-based international institution responsible for overseeing the operation of the multilateral trading system. This includes ensuring all WTO members respect the decisions of WTO dispute panels so that the primacy of the WTO system is maintained.
- iv. Work within the WTO context to ensure that developing countries not only have the capacity needed to enjoy the full benefits of the WTO system, but also have the capacity to fulfill their obligations under WTO agreements.

## 7 Methodology

This paper combines both a descriptive study on the existing literature on WTO and its evolution and specifically delves deep into the heart of the impacts on international political decision-making regarding alignments through a primary survey<sup>8</sup>. Whatever be our

<sup>8</sup> Resources drawn from:

Hedley Barry, "A Fundamental Approach to Strategy Development", Long range planning, December 1976, pp: 2-11

Kotler, Philip, Marketing Management, The millennium edition, Prentice Hall of India, New Delhi, 1999

Lilien, G L, and others, Marketing Models, Prentice Hall, New Jersey, 1992

Bunge, Mario, "Scientific Research", Vol 2: the Search for Truth. New York Springer - Verlag, 1967

Brodeck, Mayed, "Reading in the Philosophy of the Social Sciences", New York, The Macmillan Company, 1968

Suppe, Frederick, "Beyond Skinner and Kuhn", New Ideas in Psychology, 2 (1984), pp :99 - 104

moral position, we have to justify our courses of action in the sense of market fundamentalism in these days of globalization and market economy.

### 7.1 Analysis Techniques

We will use factor analysis to arrive at a set of factors affecting sovereign decisions regarding international trade and political blocking. Conjoint analysis will be undertaken to discuss the correlations between negotiations in WTO and decisions on Political alignments.

### 7.2 Study Approach

Quantitative SWOT analysis will be used to decipher the findings in the primary survey.

This section is a conceptual undertaking and looks at one of the most popular qualitative analysis techniques, "THE QUANTATIVE SWOT ANALYSIS" to be used for the first time in the administrative study circle of the country. The technique used in this article has been empirically tested and developed based on the logical empiricists approach with a view to strengthen the present highly subjective technique. The new approach is expected to show higher validity, reliability, and comprehensiveness in the result. The method can be used to measure strength, weakness, opportunity, and threat of an organization, functional area, product, market, brand, and the like both in terms of short term as well as long term perspective.

The SWOT analysis is one of the most widely used techniques, providing assessment of the strengths, weaknesses, opportunities, and threats faced by an organization. The conceptual definitions of the four concepts as outlined in the literature are (Kotler, 1999).

Strength: Competitive advantage internal to the organization.  
Weakness: Competitive disadvantage internal to the organization.  
Opportunity: Competitive advantage external to the organization.  
Threat: Competitive disadvantage external to the organization.

The classical SWOT analysis uses the above conceptual definitions as a means to classify the various management issues using the structured format shown in Appendix - 1. The example in the appendix assesses the status of a company in a competitive environment. The researcher is simply required to identify the status by putting a tick on the nominal scale. Once the listing is complete, which is entirely dependent on the experience of the researcher, it is used to assess the status of strength, weakness, opportunity, and threat based on the modal value for each of the conceptual definition.

A closer look at the classical SWOT analysis indicates that organizations are evaluated based on a highly subjective techniques, which fails to quantify the importance level of each of the four concepts and individual variables listed under each of the functional areas. In addition the short-term versus long-term impact of each of the variable cannot be derived from the analysis. It is quite evident that any technique, intended to introduce a predictive component in an analysis is a superior technique (Brodeck, 1968). This article follows the logical empiricists approach (Suppe, 1984 and Nagel, 1961). Two major usage can be derived from the technique designed, Intuitive Understanding - suggesting the technique has been developed based on a familiar phenomenon (Bunge, 1967) and Scientific Understanding - implying that we can scientifically explain the phenomenon (Bunge, 1967). Thus, the technique will aid in empirically showing: (a) the overall status of the organization, (b) the degree of importance of various concepts and the variables under each of the functional area, (c) the short term and long term status of the organization.

### 7.3 Operational Area

To include the long term and short-term i.e. "predictive" strength component into the SWOT analysis, which is essential for any good research technique (Brodeck, 1968), the four concepts need to be further classified. Thus, the broad conceptual framework must include:

$S_s$  = Internal strength for the short-term period.  
 $S_L$  = Internal strength for the long-term period.

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Nagel, Ernest, "The Structure of Science", New York: Harcourt Brace Jovanovich, 1961

$W_S$  = Internal weakness for the short-term period.

$W_L$  = Internal weakness for the long-term period.

$O_S$  = External opportunity for the short-term period.

$O_L$  = External opportunity for the long-term period.

$T_S$  = External threat for the short-term period.

$T_L$  = External threat for the long-term period.

It also requires mentioning that, according to this technique strength and opportunity are positive factors; and weakness and threat are negative factors.

It is well accepted by researchers that any variable can be measured quantitatively if the units of measurement are appropriately used (Lilien, 1992). This article looks at the unit of measure centering around the various management functions, viz.- Finance, Marketing, Operations, and Organization Behavior. The various units of measurement can be assigned from data available from both within and outside of the organization, for example: current ratio, market share, labor productivity, etc. can be obtained from secondary information while for variables such as – image, efficiency, etc. empirical survey using an attitude scale (e.g. 7-point interval scale) can be used to arrive at a score.

#### 7.4 Information Collection

The above indicates that since the units of measure used are not likely to be the same, it is essential to standardize the outcome using some sort of general framework. In doing so comparison can be done with the market leader, if the Organization is not the leader or with the immediate follower if it is the nearest leader.

The standardized score is actually the relative position of the Organization with respect to either the market leader or the immediate follower as the case may be, the calculation can be based on equation (i).

$\text{Standardized Score} = \frac{\text{Organization Position}}{\text{Competitors Position}} \quad (i)$
--

Once the standardized scores are assigned the researcher based on expert opinion or an empirical survey can identify the level of importance of the factors measured using an attitude scale (e.g. 7-point interval scale). Once the level of importance is obtained, it acts as a weight to arrive at the rated score, which indicates how important the corresponding variable is.

After the classification is completed, the technique calculates the score to assess the status of the various concepts under study, please note this can be done for the Organization, functional area, brand or the like depending upon the research agenda under study. Furthermore the table can also be used to assess the status of the concepts for the various functional areas.

In addition to the status of the eight concepts, the table also helps to determine the competitive position and competitive attractiveness. The position being the present status of the Organization and attractiveness determining the future prospects. To calculate the competitive position ( $\Phi_S$ ) of the Organization, the short-term concepts are considered using equation (ii)

$\Phi_S = (S_S - W_S) + (O_S - T_S) \quad (ii)$
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While for calculating competitive attractiveness ( $\Phi_L$ ) equation (iii) is used:

$\Phi_L = (S_L - W_L) + (O_L - T_L) \quad (iii)$
--

Positive value indicates that the Organization is relatively bettered compared to its competitor while negative value indicates a vulnerable status.

To assess the overall status of the organization two dimensions are considered, the competitive advantage and the comparative advantage. To arrive at the competitive advantage ( $\Phi$ ) of the Organization the sum of competitive position and competitive attractiveness is calculated using equation (iv).

$$\Phi = \Phi_S + \Phi_L \dots\dots\dots(iv)$$

To assess the comparative advantage a 2 X 2 matrix having competitive position in the x-axis and competitive attractiveness in the y-axis is used. The maximum and minimum values can be defined as:

Maximum value: Sum of the highest possible rated score of strengths and opportunities and the lowest possible scores of weaknesses and threats.

Minimum value: Sum of the lowest possible rated score of strengths and opportunities and the highest possible scores of weaknesses and threats.

The comparative advantage assesses the comparative position of the various variables of the functional areas or the organization as a whole. Once the scales are set the comparative advantage is plotted in the matrix using the score arrived at from equation (ii) and (iii).

### 7.5 Schedule of the Research

The research was conducted at four levels, month-wise analysis of which is as follows:

- a. Feasibility study [December 02- June 30, 2006]
- b. The problem FORMALLY defined [June 30, 2006]
- c. The proposal approved [tentatively by July 30, 2006]
- d. The operational definition of the different concepts under study [tentatively by August 15, 2006]
- e. The analysis technique decided upon [tentatively by August 15, 2006]
- f. The data collection instrument designed and pre-tested [tentatively by September 15, 2006]
- g. The information collected through extensive secondary research and depth-interviews with agencies and organizations involved [tentatively by November 15, 2006]
- h. The primary investigation report formalized [tentatively by December 15, 2006]
- i. The collected information assorted in order [tentatively by January 31, 2007]
- j. The final draft RECHECKED [February 28, 2007]
- k. The final report submitted [March 31, 2007]

### 7.6 Analysis Variables

Strategic plans are those to guide the organization through the procedures of a course of operation[s]. The strategic plans are formulated during an evolutionary process with identifiable steps. The first step is formulating a grand strategy, which states the general explanation of how the organization's mission is to be accomplished. A mission is the key denotation of the general idea of why the organization exists and where it is headed. Grand strategies are derived from a careful situational analysis of the organization and its environment.

A situational analysis is a technique for matching organizational strengths, and weaknesses with environmental opportunities and threats to determine the organization's right target market. Strategists refer to this process as a SWOT analysis [SWOT stands for Strengths, Weaknesses, Opportunities, and Threats].

The consideration for the conventional SWOT analysis is divided in two parts:

- a. The analysis of organizational strengths, and weaknesses as Internal Analysis.
- b. The analysis of environmental threats, and opportunities as External Analysis.

In this research project, the SWOT analysis was carried out for two time frames:

- a. The short-term SWOT
- b. The long-term SWOT

The Short-term time frame was decided upon, conventionally at less than a year. The Long-term time frame was decided upon with the help of the experts in the RMG sector at five years.

The logic behind the newer definition of the SWOT analysis in terms of time frame is that, it more accurately pinpoints the principle determinants of the strengths, weaknesses, opportunities, and threats. A thorough understanding of the process employed can support a detailed discussion; but that is out of the scope of this report.

### **7.7 Statistical Approach**

In order to determine the level of awareness and consciousness of the attributes commonly ascribed to the application of a combined strategy in WTO from our country perspective, we can undertake a preliminary experience survey approach. While determining the sample size and location of the samples, the base will be decided upon the experience with humanitarian and administrative experience in a variety of fields.

A stratified random sampling approach will be applied in the first levels of the data collection.

### **7.8 Fieldwork Administration**

The fieldwork will be closely coordinated. It involved [in this case] the delegation, training [preparing the questionnaire manual and coding schedule], supervision, and evaluation of associates who would collect the data. The author will have to do most of the surveys himself. Still, due to the unavailability of time, a few [family friends] associates might be deployed as well. The associates and the author will be cross-trained for the task of survey in discussions in the research team and from the pre-testing results.

### **7.9 Information Collection**

In the analysis, use of non-probability sampling precludes use of most scales and thereby the use of sophisticated analyses. However, to apply the academic knowledge gained from the research methodology course, this author assumes the use of statistical technique in order to go for analyses. Only the SWOT will be utilized to determine the level of significance of the study variables in its due format.

## **8 Sources and breakdown of the errors of the study**

The Quantitative SWOT can be identified with seven major advantages over earlier method. These are:

1. It is possible to identify the importance of each of the variable from the rated score
2. The status of each of the functional areas can be determined
3. Long-term versus short-term status of the company can be ascertained
4. Competitive position (based on short-term status) of the company can be outlined
5. Competitive attractiveness (based on long-term status) of the company can be outlined
6. The overall competitive advantage of the company can be measured
7. The overall comparative advantage of the company can be measured

Still the paper (probably) suffers from the following errors (if there is, any):

### **8.1 Respondent Error**

The respondents [officers/Business Personnel] are busy people pre-occupied in their jobs. To answer the questions might be an interruption in their task. As a result, the bias of the extremities and overriding central tendencies might not be avoided. To reduce this error the researcher can do little. One thing that can be done is to make appointments after mentioning their purpose so that the respondents can at least be mentally prepared for the interview.

### **8.2 Situational Error**

The constraints of time on the part of the respondents and people present during the time of interview might induce some situational errors. Here again, the researcher may try to



reduce errors by fixing appointments so that the respondents can keep their full attention during the survey.

### **8.3 Measurer Error**

The author himself will be involved in data collection for very few of the respondents units. As a result, the data might have been extremely biased. No measure other than heavy consultation might be taken for the elimination or minimization of the data in the followed sequence. The questionnaire manual can be prepared for the proper administration of the respondents' data collection.

### **8.4 Acquiescence Bias**

The respondents might have an overriding bias to agree with the research questions asked.

### **8.5 The Measurement Instrument Error**

The questionnaire will be pre-tested to omit confusing questions. Still, it might contain serious errors... like the sequence of the questions.

## **9 Limitations**

A research is only as good as its assumptions. This project on the prospect of mergers in the RMG sector of the country is based on a few important assumptions, which would prove fatal in case of non-happening of the assumptions in the reality. Here is a list of the limiting factors of the research project's conclusions drawn from the responses observed.

### **9.1 Scope of Research**

The scope of the research is defined for the large and medium scale INGO/NGO units only. It is assumed that, these are the units, which can move into the field of Peacebuilding alongside the Military. Also, the industry average (if you would allow me to use the definition here – industry to denote the whole business of Peacebuilding and Peacekeeping) is calculated on the basis of the same assumptions as is stated here.

### **9.2 Sampling Technique**

Although probability based techniques have been used all through the report, it is theoretically not possible. Because, the convenience sampling does not eliminate the choice biases. And as a result, does not ensure that, the variations are due to chance errors only.

### **9.3 Analysis Techniques**

- i. The analysis techniques used in the preparation of the consolidated findings are based on assigning the concepts the same weights. This has an inherent problem for the overall attitude of the people about the constructs and concepts under consideration.
- ii. Only the SWOT technique is utilized in the project. As a result, the possibility that there might be other ways to get around the problem is not fully covered. Also, the weaknesses of the SWOT analysis have become the weaknesses of the report also.
- iii. The model presented in the paper is based on an assumption that, the people answering the questions are reasonably rational people. But this might be wrong, as the level of reasoning is not the same as for different strata of the respondents.
- iv. The study holds that, the logic behind the people's perception would remain constant over the long run. But this might not be the case, as the time frame aspect is not covered in the report. So, if the people's attitude somehow changes over time, the entire work of the research has to be redesigned. And the forecasts would change also.

These are some of the most important limitations barring the performance of the research financings to take the form of a theory.

## **10 Constraints**

The main problems faced during the work of the project include:

**The lack of comprehension** of the respondents created a lot of confusions regarding verification of conceptual question. Actually, the problem lied not with the respondents, rather with the author, because of his expertise of the novice level in the field of Diplomacy.

**The limitation of time** was one of the most important factors that languished the present study. Due to time limitation many aspect could not be discussed in the present study. The Peacebuilding issues could not be traced to their origins due the lack of time for the author.

**The confidentiality of data** hindered the quantification this study. Every organization has its own set of secrecy rules. The author of this report held such a position that, no matter how secret the data was, he could easily trace it out. But that would clearly violate the Official Secrecy Act, 1923. This study attempts to give an insight into the UN Reforms and Peacebuilding. But **rush business hours** created yet another obstacle for the limited interviews.

**Various training programs** offered by MOFA for its Officer during summer, created another problem for gathering sufficient information, as their absence stood as a barrier in obtaining information in some related areas.

**Some internal change** in the MOFA and other Organizations' local management also created some barrier to a certain extent, since most of the concerned officials were busy with such changes recently.

## 11 Major working abbreviations

CAT	Committee Against Torture
CEDAW	Committee on the Elimination of Discrimination Against Women
CERD	Committee on the Elimination of Racial Discrimination
CESCR	Committee on Economic, Social and Cultural Rights
CHR	Commission on Human Rights
CRC	Committee on the Rights of the Child
CSD	Commission for Social Development
CSW	Commission on the Status of Women
DAW	Division for the Advancement of Women (UN)
DDPA	Durban Declaration and Programme of Action
ECOSOC	Economic and Social Council
FAO	Food and Agriculture Organization of the United Nations
GA	General Assembly
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
HRC	Human Rights Committee, also known as the Committee on Civil and Political Rights
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IE	Independent Expert
IFI	international financial institutions
ILO	International Labor Organization
IMF	International Monetary Fund
IOM	International Organization for Migration
MDGs	Millennium Development Goals
NGO	non governmental organization
NHRI	national human rights institutions
OHCHR	Office of the High Commissioner for Human Rights
PRSP	poverty reduction strategy paper
SC	Security Council
S-G	Secretary-General

SR	Special Rapporteur
SRep	Special Representative
TRIPS	Trade Related Aspects of Intellectual Property Rights (WTO)
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCHR	United Nations High Commissioner for Human Rights
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
WG	Working Group
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

## 12 Disclaimer

As a Government Agency, the Ministry of Foreign Affairs operates in the volatile environment of the world of Bangladesh. And United Nations is one of the most critical elements in the overall functioning of the Ministry (if not the entire country, in terms of its Foreign Exposure). The author himself will bear the responsibility of any data and violation of the rules, if any.

## 13 Articles reviewed so far (both Texts and URLs)

### 13.1 On Trade and International Trade

1. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "ANONYMOUS MARKET AND GROUP TIES IN INTERNATIONAL TRADE" by Alessandra Casella\* Department of Economics, Columbia University, New York, NY 10027, and James E. Rauch\* Department of Economics, University of California, San Diego, La Jolla, CA 92093, February 1999 [Extract: When trade involves differentiated products, preferential ties to a group settled abroad facilitate an exporter's entry into the foreign market by providing information and access to distribution channels. This contrasts with the difficulties experienced by an unattached producer unfamiliar with the foreign environment. We build a simple general equilibrium model of trade that formalizes this observation. Output is generated through bilateral matching of agents spanning a spectrum of types. In the domestic market every trader knows the type of all others and can approach whomever he chooses; when matching abroad, instead, traders lack the information necessary to choose their partner's type. A minority of individuals has access to group ties that extend complete information to international matches. The existence of informational barriers reduces the volume of trade, and thus by increasing total trade group ties are beneficial to the economy as a whole. However, the ties have significant distributional effects because they modify the composition of the market. Only the more desirable types choose to match through the group, worsening the prospects of successful international partnerships for everybody else. The volume of trade and expected per capita income rise for group members, but fall for nonmembers. Whether or not they have access to the ties, individuals with the weakest domestic alternatives are always hurt.]
2. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "BORDERS, TRADE AND WELFARE", by James E. Anderson (Department of Economics, Boston College) and Eric van Wincoop (Federal Reserve Bank of New York, 33 Liberty St), Prepared for the Brookings Trade Forum 2001 on Globalization: Issues and Implications, May 10-11, 2001. [Extract: The writers have shown that policies associated with borders are very costly, even in a world with low formal trade policy barriers. The potential for deep integration even between such closely associated countries as Canada and the US remains astonishingly large. Small countries have much more to gain from integration than large countries, but even huge countries such as the US will earn substantial benefit from deep integration. The large size of the estimated border barriers points to the need for more research to understand what the costs are and why they are so high. The benefit of currency unions in our work provides a useful clue, but the implied costs are very high compared to intuitive notions of the cost of exchange rate uncertainty

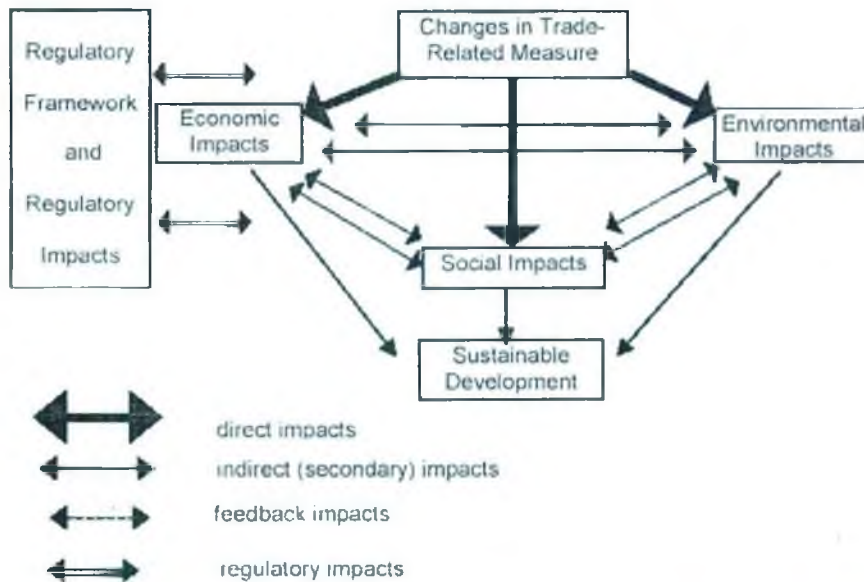
- and foreign exchange. Methodologically, their work indicates that further development and use of the gravity model is likely to yield useful insights. Its attractiveness combines ease of estimation, success in prediction and the consistency and power of readily understood general equilibrium structure.]
3. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "TRADE POLICY AS DEVELOPMENT POLICY: BUILDING ON FIFTY YEARS' EXPERIENCE". Paper prepared by L. Alan Winters, University of Sussex, United Kingdom [Extract: The advocacy of import substitution as a route to development arose naturally from the intellectual and practical policy-making environment after the Second World War. Big government apparently worked (and bureaucrats knew how to plan), manufacturing was equated with development and required planning, and foreign exchange had to be conserved for necessary imports of capital equipment by economizing on all other imports. In time, this view fell apart. Economic theory showed that trade policy was not an appropriate response to most market failures, open economies overtook closed ones in performance, and import substituting trade regimes were shown to be rife with huge, arbitrary and costly distortions. Moreover, once it was realized that political capture rendered it very difficult to make effective and unbiased interventions, policy advice veered towards market-friendly and non-interventionist positions. Such positions have not completely dominated the debate, however, because, as well as traditional protectionist sentiments, such policies raise genuine concerns about equity and because we do not fully understand how openness contributes to economic growth. For the future, the writer argues that openness and non-discrimination should remain our watchwords. Not only does openness boost economic efficiency and, on the balance of the evidence, economic growth, but simple and open trade regimes aid good governance. They reduce the opportunities for discretionary policy, and hence for corruption and arbitrariness, and they offer a way of conserving skilled labor for the many other challenges of development, such as education and efficient administration. The writer argues that countries should embrace vigorous trade liberalization packages, albeit with suitable transitional periods, that trade policy should address barriers, such as poor customs formalities, infrastructure and tariffs, and that liberalization should be multilateral and not regional in nature. Concern for equity should be pursued by explicit redistribution. A key factor in the ascendancy of open trade policies in the 1970s was measurement, which showed the indefensible state of trade regimes under import substitution. The current inability to measure and summarize trade regimes lies at the heart of the difficulty of proving conclusively that openness is good for economic growth. For the next decade an UNCTAD that devises and produces effective measures of trade regimes would make a huge contribution and more than measure up to the complaints of its critics: "An UNCTAD that measures, measures up!")]
  4. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "DOMESTIC POLICIES, NATIONAL SOVEREIGNTY AND INTERNATIONAL ECONOMIC INSTITUTIONS". NBER Working Paper No. 7293 Issued in August 1999, NBER Program(s): ITI, Published by Kyle Bagwell, and Robert W. Staiger. "Domestic Policies, National Sovereignty, And International Economic Institutions," Quarterly Journal of Economics, 2001, v116(2,May), 519-562. [Extract: To what extent must nations cede control over their economic and social policies if global efficiency is to be achieved in an interdependent world? This question is at the center of the debate over the future role of GATT (and its successor, the WTO) in the realm of labor and environmental standards. Current GATT rules reflect the primacy of market access concerns in GATT practice, and this orientation is seen increasingly as unfriendly to labor and environmental causes. Fundamental changes to GATT are being considered as a result, changes that would expand the scope of GATT negotiations to include labor and environmental policies, and would lead to a significant loss of sovereignty for national governments. In this paper we establish that there is no need for the WTO to expand the scope of its negotiations in this way. We show instead that the market access focus of current GATT rules is well-equipped to handle the problems associated with choices over labor and environmental standards, and that with relatively modest changes that grant governments more sovereignty, not less, these rules can in principle deliver globally efficient outcomes.]
  5. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "FIVE SIMPLE PRINCIPLES FOR WORLD TRADE", by Dani Rodrik (professor of international political economy at Harvard's John F. Kennedy School of Government., November 22, 1999)
  6. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "GEP Research Paper 03/41 WINNERS AND LOSERS: FRAGMENTATION, TRADE AND WAGES REVISITED", by Ingo Geishecker and Holger Görg [Extract: The paper investigates the link between outsourcing and wages utilizing a large household panel and combining it with industry level information on industries' outsourcing activities from input-output tables. By doing so we can arguably overcome the potential endogeneity bias as well as other shortcomings that affect industry level studies. The paper finds that fragmentation has had a marked impact on wages. Distinguishing three skill categories we find evidence that outsourcing reduced the real wage for workers in the lowest skill categories; this result is robust to a number of different specifications and definitions of outsourcing. Furthermore we find some evidence that high-skilled workers experienced increased wages due to fragmentation.]
  7. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "IS GLOBALIZATION TODAY REALLY DIFFERENT THAN GLOBALIZATION A HUNDRED YEARS AGO?", NBER Working Paper No. 7195, Issued in June

- 1999, NBER Program(s): DAE IFM ITI, Published: Shorter version in Austrian Economic Papers, Vol. 1 & 2 (2000). Brookings Trade Policy Forum, 1999. The Global Economy: Continuity and Change, Richardson, Martin, ed.: Macmillan, 2001 (shortened version) [Extract: This paper pursues the comparison of economic integration today and pre 1914 for trade as well as finance, primarily for the United States but also with reference to the wider world. We establish the outlines of international integration a century ago and analyze the institutional and informational impediments that prevented the late nineteenth century world from achieving the same degree of integration as today. We conclude that the world today is different: commercial and financial integration before World War I was more limited. Given that integration today is even more pervasive than a hundred years ago, it is surprising that trade tensions and financial instability have not been worse in recent years. In the conclusion we point to the institutional innovations that have taken place in the past century as an explanation. This in turn suggests the way forward for national governments and multilaterals].
8. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "MULTINATIONAL ENTERPRISES AND NEW TRADE THEORY: EVIDENCE FOR THE CONVERGENCE HYPOTHESIS", by Salvador Barrios, Holger Görg and Eric Strobl, Centre for Research on Globalization and Labor Markets, School of Economics, University of Nottingham [Extract: According to the 'convergence hypothesis' multinational companies will tend to displace national firms and trade as total market size increases and as countries converge in relative size, factor endowments, and production costs. Using a recent model developed by Markusen and Venables (1998) as a theoretical framework, we explicitly develop empirical measures to proxy bilateral FDI between two countries and address their properties with regard to the convergence hypothesis. Using a panel of data of country pairs over the years 1985-96 we econometrically test for the relationship between convergence and bilateral FDI. Our results provide some empirical support for the convergence hypothesis.]
  9. "MULTILATERAL TRADE NEGOTIATIONS, BILATERAL OPPORTUNISM AND THE RULES OF GATT", by Kyle Bagwell, and Robert W. Staiger, NBER Working Paper No. 7071, Issued in April 1999, NBER Program(s): ITI, [Extract: Trade negotiations occur through time and between the governments of many countries. An important issue is thus whether the value of concessions that a government wins in a current negotiation may be eroded in a future bilateral negotiation to which it is not party. In the absence of rules that govern the bilateral negotiation, we first show that the potential for opportunistic bilateral agreements is indeed severe. We next identify rules of negotiation that serve to protect the welfare of governments that are not participating in the bilateral negotiation. The reciprocal market access' rule ensures that the market access of a non-participating country is unaltered, and we show that this rule eliminates the potential for opportunistic bilateral negotiations. This rule, however, has practical limitations, and so we next consider the negotiation rules that are prominent in GATT practice and discussion. Our main finding is that the two central rules of GATT -- non-discrimination (MFN) and reciprocity -- effectively mimic the reciprocal market access rule, and therefore offer a practical means through which to protect non-participant welfare and thereby eliminate the potential for opportunistic bilateral negotiations.]
  10. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "NATIONAL SOVEREIGNTY IN AN INTERDEPENDENT WORLD", by Kyle Bagwell and Robert W. Staiger, First Draft: May 2003, Revised: December 2003, [Extract: What are the sovereign rights of nations in an interdependent world, and to what extent do these rights stand in the way of achieving important international objectives? These two questions rest at the heart of contemporary debate over the role and design of international institutions as well as growing tension between globalization and the preservation of national sovereignty. In this paper, the writers propose answers to these two questions. We do so by first developing formal definitions of national sovereignty that capture features of sovereignty emphasized in the political science literature. The writers then utilize these definitions to describe the degree and nature of national sovereignty possessed by governments in a benchmark (Nash) world in which there exist no international agreements of any kind. And with national sovereignty characterized in this benchmark world, the writers then evaluate the extent to which national sovereignty is compromised by international agreements with specific design features. In this way, we delineate the degree of tension between national sovereignty and international objectives and describe how that tension can be minimized -- and in principle at times even eliminated -- through careful institutional design.]
  11. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "OPENNESS AND GROWTH: WHAT'S THE EMPIRICAL RELATIONSHIP?", by Robert E. Baldwin, NBER Working Paper No. 9578, Issued in March 2003, NBER Program(s): ITI, [Extract: There is still disagreement among economists concerning how a country's international economic policies and its rate of economic growth interact, despite a number of multi-country case studies utilizing comparable analytical frameworks, numerous econometric studies using large cross-country data sets, and important theoretical advances in growth theory. This paper briefly surveys this literature and points out the main reasons for the disagreements. Particular attention is given to an important study by Francisco Rodriguez and Dani Rodrik (2001) criticizing the conclusion of a number of recent multi-country statistical studies that openness is associated with higher growth rates. Rodriguez and Rodrik show that openness simply in the sense of liberal trade policies seems to be no guarantee of faster growth. However, the conclusion of most

researchers involved in either country studies or multi-country statistical tests that lower trade barriers in combination with a stable and non-discriminatory exchange-rate system, prudent monetary and fiscal policies and corruption-free administration of economic policies promote economic growth still seems to remain valid.]

12. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "THE POLITICS OF TRADE LIBERALIZATION IN THE PRESENCE OF FDI INCENTIVES", by Andréa M. Maechlerff, Swiss National Bank, Last Revised: July 14, 2000 [Extract: This paper examines whether inward FDI incentives can soften the political constraints associated with trade liberalization. After introducing the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996), the paper traces the effects of FDI incentives on the politically sustainable equilibrium level of trade protection. In particular, the paper shows that FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they inhibit the process of trade liberalization when labor is the main influential political force. Welfare implications are also considered.]
13. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "THE IMPLICATIONS OF TRADE AND INVESTMENT LIBERALISATION FOR SUSTAINABLE DEVELOPMENT: REVIEW OF LITERATURE" IMPACT ASSESSMENT RESEARCH CENTRE WORKING PAPER SERIES Paper No. 4, by Colin Kirkpatrick, Clive George, Serban S. Scricciu, May 2004 [Extract: The theoretical and empirical evidence that has been reviewed in this study confirms that while trade and investment liberalization may be a necessary condition for continued growth and hence provide one of the cornerstone policies in promoting sustainable development, it is not a sufficient one.

Figure 1: Types of Impact of Trade Policy on Sustainable Development



To ensure that trade and investment liberalization contributes to sustainable development in developed and developing countries, sound social and environmental policies are needed, both at the national and international level. This requires the development of appropriate regulatory frameworks. The robustness of environmental and social policies and institutions, including the adequacy of supporting regulatory instruments, are important determinants of the environmental and social impacts of trade and investment liberalization.]

14. "TECHNOLOGICAL DEVELOPMENTS AND THEIR EFFECTS ON WORLD TRADE: ANY IMPLICATIONS FOR GOVERNMENTS?" by Aykut Kibritcioglu (Ankara University) [Referenced from [ideas.repec.org](http://ideas.repec.org) as <http://ideas.repec.org/p/wpa/wuwpwuwpit/0108006.html> and <http://econpapers.repec.org/paper/wpawuwuwpit/0108006.htm>] [Extract: This paper summarizes new developments in world trade, technological changes worldwide and their implications for recent theoretical studies in economics. After defining the economic globalization and schematizing its relations with international trade, economic growth and technological change, dramatic increases in world trade in goods, services and financial assets in last decades are statistically documented in Chapter 2 of the paper. Theoretical studies of economists on international trade and economic growth are certainly affected by the fact that the actual technological developments have strong implications for world trade and output growth. In Chapter 3, this new perspectives in economics are discussed. Last chapter presents some concluding remarks with special reference to the role of governments in the process of technological development within an increasingly globalizing world economy.]

15. "TIME INCONSISTENCY OF TRADE POLICY AND MULTILATERALISM", by Mohammad Amin, [Referenced from econpapers.repec.org as <http://econpapers.repec.org/paper/wpawuw/wuwpit/0402002.htm> and [ideas.repec.org as http://ideas.repec.org/p/wpa/wuw/wuwpit/0402002.html](http://ideas.repec.org/p/wpa/wuw/wuwpit/0402002.html)] [Extract: In this paper the author address the issue of multilateralism versus bilateralism in a situation where a home government's optimal policy is time-inconsistent and the time-consistent policy sub-optimal. Short-run production and wage rigidities create incentive for the government to surprise private agents, ex post, with excessive protection. The problem is shown to be particularly severe when the intended beneficiaries (members of the lobby) cannot coordinate on their (investment) decisions fully. A commitment to multilateral free trade may then be welfare enhancing and politically feasible. However, once a discriminatory Preferential Trade Agreement is formed, it undermines any incentive for further multilateral trade liberalization. Thus, the author proposes another reason why Article XXIV of GATT/WTO may be a stumbling bloc for wider multilateral trade liberalization. the result is based on the trade deflection effect and the market power effect of Preferential Trade Agreements.]
16. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "WHY DO NATIONS TRADE (SO LITTLE)?", by James E. Anderson, Boston College, August 15, 1999 [Extract: There isn't nearly as much trade as standard trade models suggest that there should be. Formal trade barriers such as tariffs and quotas are far too low to account for much of the missing trade while changes in tariffs and quotas in the last 50 years explain too little of the growth in trade. Transport costs help explain the missing trade, but distance and other location variables are far too important in their trade suppressing effects to be accounted for by the effect of distance on measurable transport costs. Measured transport costs do not fall so cannot explain the growth in trade. These anomalies have until recently been ignored by the profession, perhaps in the belief that the anomalies were not important, perhaps in the belief that little progress could be made in explaining them. This paper argues that neither reason for a parenthetic treatment of missing trade is valid. The missing trade anomaly is demonstrated to be important and to have significant patterns, which cry out for explanation in Section 2. Sections 3 and 4 discuss some theoretical structures, which might be used to achieve a fundamental understanding of the missing transactions costs. The paper concludes with some promising directions for theoretical and empirical research. Fundamentally satisfactory theoretical structures must be consistent general equilibrium models, which incorporate endogenous transactions costs of some type. Empirical work should ultimately be based on such models and test their implications.]
17. "Trade Wars: The Exaggerated Impact of Trade in Economic Debate", Richard B. Freeman, GEP Research Paper 03/42; the paper had subsequently been published in *The World Economy*, Vol.27, No.1 (2004). [Extract: Trade has been at the heart of economic debates about globalization in the past decade. Proponents of Washington Consensus (WC) style globalization have touted the benefits of trade and open capital markets to developing countries and warned of the dangers of global labor standards. Opponents of WC style globalization have worried that trade with developing countries lowers employment and wages in advanced countries and creates a race to the bottom in poor countries. This paper shows that both proponents and opponents of WC style globalization have exaggerated the effects of trade and of trade treaties on economic outcomes. This paper argues that: 1) trade and widely debated trade treaties have had modest often indiscernible impacts on labor and other economic outcomes, and that in the US at least immigration has affected national factor proportions more than trade, 2) international capital flows have created as much harm as good in developing countries, and thus need to be more carefully regulated and monitored; 3) trade and labor standards are complements in the global economy, so that improvements in one create pressures for improvements in the other.
18. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "GLOBALIZATION OR THE AGE OF TRANSITION? : A LONG-TERM VIEW OF THE TRAJECTORY OF THE WORLD-SYSTEM", Immanuel Wallerstein (iwaller@binghamton.edu), © Immanuel Wallerstein 1999

## 13.2 General information on WTO

### 13.2.1 Books and Reports on the WTO

1. What happened in Hong Kong? Initial analysis of the WTO Ministerial, Oxfam International, December 2005.
2. *Sailing Close to the Wind: Navigating the WTO Hong Kong Ministerial* Institute for Agriculture and Trade Policy, Dec 2005.
3. *The World Trade Organization: An Australian Guide*, Global Trade Watch, Dec 2005.
4. *What You Need to Know About the WTO Before the Hong Kong Ministerial* Public Citizen, Dec 7 2005.
5. *Derailor's Guide to the WTO, Focus on the Global South*, Dec 2005.
6. Martin Khor et al (2005), *WTO and the Global Trading System: Development Impacts and Reform Proposals*, Zed Books
7. Fatoumata Jawara and Aileen Kwa (2004), *Behind the Scenes at the WTO: The Real World of International Trade Negotiations/Lessons of Cancun*, Zed Books
8. *Jargon Explained: Glossary of Terms Commonly Used in the WTO*, Compiled by 3D (Trade, Human Rights, Equitable Economy)), July 2004.

9. Steinberg, Richard H. (2002). In the shadow of law or power? Consensus-based bargaining and outcomes in the GATT/WTO. *International Organization* 56 (2), 339-374.
10. European Trade Union Institute - Series of reports on WTO and Asbestos
11. The World Trade Organization: Selective Bibliography, prepared by Hugo H.R. van Hamel, Peace Palace Library
12. Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2006. "Market and Welfare Implications of the Doha Round Scenario" in K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank pp. 333-399.
13. Anderson, K. and W. J. Martin. 2006. "Agriculture, Trade reform and the Doha Agenda" in Anderson, K. and W. J. Martin (eds) *Agricultural Trade Reform and the Doha Agenda*. London and Washington. Palgrave Macmillan Ltd and the World Bank. pp. 3-35.
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15. Das, Dilip K. 2006. *China and India: A Tale of Two Economies*. London and New York. Routledge.
16. Das, Dilip K. 2005. *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Houndmills, Hampshire, UK. Palgrave Macmillan Ltd.
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19. Dollar, D. and A. Kraay. 2004. "Trade, Growth and Poverty". *Economic Journal*. Vol. 114. No. 1. pp. F22-F49.
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21. Halle, M. 2006. "Is Let's Make a Deal Now Dead at the WTO?" IISD Commentary. Geneva. International Institute of Sustainable Development. January 6.
22. Hertel, T.W. and R. Keeney. 2006. "What is at Stake: The Relative Importance of Import Barriers, Export Subsidies and Domestic Support" in K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank. pp 37-62.
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29. Organization for Economic Cooperation and Development (OECD). 2005. "Agricultural Policies in the OECD Countries". Paris. October.
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32. Winters, L.A., N. McCulloch and A. McKay. 2004. "Trade Liberalization and Poverty: The Empirical Evidence". Vol. 114. No. 1. pp. F72-115.
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### 13.2.2 Articles on the WTO

1. <http://www.globalexchange.org/campaigns/wto/OpposeWTO.html> — Top Reasons to Oppose the WTO, Sept 2005.



2. The WTO Conference in Seattle — "failed": The Nations' Struggle for the Wealth of the World and its Latest Battlefields, 2004.
3. Guardian Unlimited - Time for Transformation — by George Monbiot, September 8, 2003.
4. Why the WTO Is Going Nowhere, By William Greider, The Nation, Sep 4 2003.
5. Monthly Review - WTO stops world taking over?, January 2000.
6. <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/1999/11/29/ED36269.DTL> — Is the World Trade Organization a blessing or a curse? by Kevin Phillips, Nov 29, 1999.
7. Slate — Enemies of the WTO: Bogus Arguments against the World Trade Organization by Paul Krugman, Nov 24, 1999
8. World Trade Organisation (WTO): An illegal organization that violates the Universal Declaration of Human Rights, By Michel Chossudovsky, Nov 1999.

#### **13.2.3 Articles by the WTO**

1. World Trade Organization. (2004b). Understanding the WTO - The GATT years: From Havana to Marrakesh
2. World Trade Organization. (2004c). Understanding the WTO - Principles of the trading system
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#### **13.2.4 Official WTO Pages**

1. Official WTO homepage
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3. WTO 10th Anniversary — Highlights of the first decade, Annual Report 2005 pages 116-166
4. 6th Ministerial Conference - WTO information
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6. European Union position on the WTO
7. US State Department position on the WTO
8. BBC News — Profile: WTO
9. CNN - Special: WTO Hong Kong ongoing coverage
10. Guardian Unlimited - Special Report: The World Trade Organisation ongoing coverage
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#### **13.2.5 Non-Governmental Organization Pages on the WTO (Alphabetical List)**

1. ActionAid - WTO Hong Kong Ministerial Page
2. Australian Fair Trade & Investment Network
3. Bite Back! WTO: Hands off our Food
4. Focus on the Global South - Trade Campaign
5. Friends of the Earth International - Trade Campaign
6. Gatt.org - Parody of official WTO page by The Yes Men
7. Global Exchange
8. Report on the future of the WTO - Globalisation Institute
9. Globalization Monitor
10. Global Trade Watch (Australia)
11. IATP Trade Observatory
12. International Centre for Trade and Sustainable Development
13. NAMA-Watch - Clearinghouse for information on Non-Agricultural Market Access
14. Our World is Not for Sale Network
15. Make Trade Fair - Oxfam International
16. Public Citizen's Global Trade Watch
17. Target:WTO
18. TradeObservatory.org
19. Third World Network
20. Transnational Institute: Beyond the WTO
21. World Development Movement - Trade Campaign
22. WTOaction.org

#### **13.3 On Agreements on Agriculture**

1. Text of the Agreement on Agriculture: html(1), html(2), doc, pdf
2. Institute for Agriculture and Trade Policy, Agreement on Agriculture Basics 2003.
3. Institute for Agriculture and Trade Policy, WTO Agreement on Agriculture: A Decade of Dumping, Feb 2005.
4. Devinder Sharma, The Indian Experience of Liberalisation of Agriculture, Aug 17, 2005.
5. World Trade Organization and Agriculture: Selective Bibliography, prepared by Hugo H.R. van Hamel, Peace Palace Library

6. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "AGRICULTURE NEGOTIATIONS IN THE WTO : Six Ways to make a new Agreement on Agriculture Work for Development", Working Draft, August 2003 [Extract: This paper is a response by a number of policy analysts<sup>1</sup> from leading international development organizations to the current negotiations on a new Agreement on Agriculture. It highlights the imbalance in the proposals put forward by some developed countries and those contained within the Harbinson Draft Modalities<sup>2</sup> in the current renegotiation of the Agreement. It puts forward a number of proposals for measures to remedy these imbalances.]
7. "WTO AGRICULTURAL NEGOTIATIONS : A COMPARISON OF THE HARBINSON PROPOSAL AND THE SWISS FORMULA", Martina Brockmeier, Marianne Kurzweil, Janine Pelikan, and Petra Salamon [This series of Working Papers is published by CEPS for ENARPRI (European Network of Agricultural and Rural Policy Research Institutes). Martina Brockmeier, Marianne Kurzweil, Janine Pelikan and Petra Salamon are with the Institute of Market Analysis and Agricultural Trade Policy at the Federal Agricultural Research Centre (FAL). This paper was prepared for the ENARPRI workshop held in Brussels on 17-18 January 2005, Work Package 4.1] [Extract: The WTO agricultural negotiations of the Doha round are a key issue in the public debate. This paper analyses the effects of different options to improve market-access on the basis of a GTAP model, comparing the impact of the Harbinson proposal and the Swiss formula on trade balances. An extended version of the GTAP model is used to first project a base run that includes factors arising from Agenda 2000, EU enlargement, the EBA agreement and the EU's mid-term review. The policy simulation run additionally includes the WTO negotiations. Here, the model is differentiated between three experiments. While the first experiment simply implements the Harbinson proposal, the second one additionally takes into account an adoption of the EBA agreement by all industrialized countries. In the third experiment, the tariff cuts are based on the Swiss formula using a coefficient of 33 instead of the tiered approach of the Harbinson proposal. After comparing the results of the three experiments, the paper concludes that the results from the different options for improving market access show parallel developments, with more- or less-pronounced increases or decreases in trade balances. Implementation of the Harbinson approach results in negative changes in the EU's trade balances for most agricultural products, except for the sugar, milk and other animal products sectors. The application of the Swiss formula to cut tariffs predictably results in severe losses to highly protected sectors worldwide in comparison to the Harbinson approach. In the EU, the highly protected sectors of beef and other processed food products would be particularly affected.]

#### 13.4 Agreement on the Application of Sanitary and Phytosanitary Measures

1. Text of the SPS Agreement:html(1), html(2), doc, pdf, wpf
2. Concerted Action on Trade & Environment (CAT&E) Technical barriers to trade, sanitary and phytosanitary standards and eco-labelling
3. World Trade Organization and Health, Sanitary and Phytosanitary Measures: Selective Bibliography, prepared by Hugo H.R. van Hamel, Peace Palace Library

#### 13.5 On General Agreements on Trade in Services

1. Official WTO site about trade in services
2. Gatswatch.org
3. Report into the impact of GATS on the ability of member states to regulate their domestic service industries
4. World Trade Organization and Services: Selective Bibliography, prepared by Hugo H.R. van Hamel, Peace Palace Library

#### 13.6 On Agreement on Trade-Related Aspects of Intellectual Property Rights

1. Official text
2. TRIPs gateway
3. Jagdish Bagwati (WTO) on TRIPs (2002)
4. Drahos & Braithwaite, Information Feudalism: Who Owns the Knowledge Economy?, Earthscan Publications, 2002
5. GRAIN has developed a section of their website to analyse the review of Article 27.3(b), taking place in the WTO TRIPs Council
6. The Consumer Project on Technology page on Health Care and Intellectual Property: <http://www.cptech.org/ip/health/>
7. FFII TRIPs analysis paper <http://swpat.ffii.org/analyse/trips/index.en.html>
8. Comprehensive reviews of TRIPs Compatibility and Software Patentability <http://beauprez.net/softpat/> with a particular emphasis towards conflicts between rights of software authors and logic patent holders
9. Comprehensive portal on intellectual property rights <http://www.iprsonline.org/>
10. Intellectual Property, Access to Medicines and Human Rights [17]
11. TRIPs, the Doha Declaration and increasing access to medicines: policy options for Ghana
12. TRIPs and human rights

13. World Trade Organization and Intellectual Property Rights: selective bibliography compiled by Hugo H.R. van Hamel, Peace Palace Library

### 13.7 Agreement on Technical Barriers to Trade

1. Text of the TBT Agreement
2. Concerted Action on Trade & Environment (CAT&E) Technical barriers to trade, sanitary and phytosanitary standards and eco-labeling

### 13.8 On Regionalism

1. "Does Membership in A Regional Preferential Trade Arrangement Make a Country More or Less Protectionist?", Faezeh Foroutan, April 3, 1998 [Extract: This paper explore whether there exists a systematic relationship between developing countries participation in an effective preferential regional trade agreement (RTA) and the restrictiveness of their trade regimes. The motivation for this study derives from the current debate on a) whether or not regional trading blocs are a stepping stone towards a more liberal global trading system and b) whether or not there has been a change over time in the characteristics of such blocs whereby the "new" blocs differ meaningfully from the "old" ones in this specific respect. The analysis is restricted to reciprocal RTA's involving developing countries either in partnership with developed countries (North-South RTAs) or with other developing countries (South-South RTAs). Because nearly every developing country belongs to one or more RTAs, the paper develops criteria for distinguishing effective from non-effective regional blocs. It then taps into many sources of data to compare the restrictiveness of the trade regimes of countries that participate in effective regional trading blocs with that of countries that do not to see if any systematic differences can be detected. Based on the available data, the paper does not find any systematic relation between RTA membership and trade policy. More precisely, the paper finds no evidence that participation in a regional trade agreement necessarily leads to a more liberal import regime.]
2. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "Integrating the Least Developed Countries into the World Trading System: The Current Impact of EU Preferences under Everything But Arms", Paul Brenton, International Trade Department, The World Bank, 2003 [Trade preferences are a key element in industrial countries efforts to assist the integration of the least developed countries (LDCs) into the world economy. This paper provides an initial evaluation of the impact of the EU's recently introduced Everything but Arms (EBA) initiative on the products currently exported by the LDCs. It shows that the changes introduced by the EBA in 2001 are relatively minor for the currently exported products, primarily because over 99 per cent of EU imports from the LDCs are in products which the EU had already liberalised and the complete removal of barriers to the key remaining products, rice, sugar and bananas has been delayed. The paper proceeds to look at the role EU preferences to LDCs in general have been playing and could play in assisting the integration of the LDCs. It shows that there is considerable variation across countries in the potential impact that EU preferences can have given current export structures. There is a group of the LDCs for whom EU trade preferences on existing exports are not significant since these exports are mainly of products where the MFN duty is zero. Export diversification is the key issue for these countries. For other LDCs, EU preferences have the potential to provide a more substantial impact on trade. However, the paper shows that only 50 per cent of EU imports from non-ACP LDCs which are eligible actually request preferential access to the EU. The prime suspect for this low level of utilization are the rules of origin, both the restrictiveness of the requirements on sufficient processing and the costs and difficulties of providing the necessary documentation. More simple rules of origin are likely to enhance the impact of EU trade preferences both in terms of improving market access and in stimulating diversification towards a broader range of exports.]
3. [Retrieved from Center for International Development, Harvard University's Global Trade Negotiations Homepage] "Multilateral Trade Liberalization, Political Disintegration, and the Choice of Free Trade Agreements versus Customs Unions", Maurice Schiff, Development Research Department, World Bank [Extract: The economics literature has examined whether regionalism is a 'stepping stone' or a 'stumbling block' for multilateral liberalization. On the other hand, Ethier (1998, 1999) has argued that the new 'open regionalism' should not be viewed as exogenous but rather as the result of multilateral liberalization. Another literature dealing with the number and size of countries argues that global liberalization leads to political disintegration, with an increase in the number of countries (Alesina et al., 1997). These two arguments are combined in order to examine the choice of different types of regional agreements. Specifically, it is argued that they can explain why FTAs have proliferated compared to customs unions (CUs), and why North-South regional agreements are likely to be FTAs while South-South agreements are likely to be CUs. We also examine a number of cases where CUs led to losses for some members or even to conflict between members when this might have been avoided if the member countries had formed FTAs.]
4. "RESEARCH AND ANALYSIS: WORKING PAPERS, Preferential and Non-Preferential Trade Flows in World Trade", Jean-Marie Grether (University of Geneva and University of Neuchâtel) and Marcelo Olarreaga (The World Bank and CEPR), September 1998 [Extract: This paper quantifies the extent of preferential trade as a share of total world trade in different regions of the world and for two periods. Results show that: i) preferential trade represented 40% of world trade in the period 1988-1992 and it slightly increased to 42% during the period 1993-1997; ii) during the second period, agricultural products generally benefited more from the existence of

- preferential trade agreements than industrial products (maybe due to GATT-exemption); iii) the regional distribution of preferential trade is relatively uneven with a significant share of preferential trade in Western Europe (around 70 per cent), relatively low values in the Western Hemisphere (around 25 per cent), very low shares in Asia and Oceania (around 4 per cent) and average values in the rest-of-the-world (Eastern Europe and Africa); iv) the largest increase in shares of preferential trade between the two periods has occurred in the Western Hemisphere and in Eastern-Europe and Africa; v) at the country level there is an inverted-u-shape relationship between the share of preferential trade and the size and GDP per capita of individual countries; vi) countries which are highly open to trade tend to have a larger share of preferential trade on total trade in the period 1993-1997, suggesting that preferential and non-preferential trade can be seen as complements.]
5. "Regional Groupings among Microstates". Soamiely Andriamananjara, The University of Maryland at College Park, and Maurice Schiff, The World Bank, March 1998 [Extract: Due to their low bargaining power and high fixed costs of negotiation, microstates face severe disadvantages in their dealing with the rest of the world. Forming a regional grouping with neighboring nations might be an effective instrument to address this problem. This paper presents a model in which the decision to form, expand or join a regional club is based on negotiation costs and bargaining power rather than on the traditional costs and benefits of trade integration. Under various entry conditions, the model is used to determine the equilibrium group size which is shown to be positively related to the number of issues to be tackled, the degree of similarity among the countries, as well as the per-issue international negotiation costs. The particular case of CARICOM is examined to show the relevance of the model in the real world.]
  6. "ON THE SIZE AND NUMBER OF REGIONAL INTEGRATION ARRANGEMENTS: A POLITICAL ECONOMY MODEL". Soamiely Andriamananjara, Department of Economics, University of Maryland at College Park [Extract: The last two decades have seen a rapid proliferation of Regional Integration Arrangements (RIAs). Concurrently, regionalism has re-emerged as a major trade policy issue in many developing countries. Due to their discriminatory nature, RIAs can be welfare reducing for the excluded countries, for the world as a whole, and even for the member countries as they divert resources away from their most efficient uses. This would even be worse if the world became divided into a number of competing trading blocs. It is then perfectly legitimate for both economists and policymakers to worry about the effects of this recent trend on the global trading system. Is the current wave of regionalism going to lead to a division of the world into a number of competing inward-looking blocs? Or is it going to lead to a more open multilateral trading system? This paper addresses these issues using a multi-country political economy model. Having established at the outset that global free trade is optimal and that it is initially feasible as a one-shot game, the paper investigates the possibility of achieving it through the regionalism approach. The goal is to determine the likely equilibrium size and number of RIAs. The paper first looks at the case where countries move sequentially (i.e., one by one). It studies in some detail the incentives for RIA expansion by looking at both the non-members' desire to join the bloc or start forming their own bloc and the members' incentives to accept new members. For an outsider country contemplating entry to a trading bloc, the choice is determined by the trade-off between the costs of opening up one's own market to more foreign competition, on the one hand, and the gains from obtaining better access to the bloc's preferential market on the other hand. It is shown that the latter part (the access gain) is always larger, so that an outsider would always want to apply for membership to the existing bloc. Hence, if the bloc had open membership policy, its expansion would result in global free trade. At the other end of the table, if member countries can choose to accept or reject new members (i.e., if membership were selective), the expansion of the bloc is not likely to yield global free trade. When deciding whether to accept or reject a new member, an insider compares the gains from getting preferential access to the new member's market, on the one hand, with the losses from having to share its original preferential market with the new member on the other hand. At small bloc size, the gains are large enough to offset the losses so that the insiders are willing to accept new members. As the bloc expands, however, the insider's incentives for further bloc expansion decrease and eventually go to zero. If only one RIA were allowed to form, then the insiders would stop accepting new members when the bloc contains about half the world. But what happens to the remaining outsiders? Instead of passively taking the abuse of the existing bloc members, the rejected countries are likely to form a bloc of their own. It is shown that the possibility of a second bloc would lead the members of the original bloc to choose a bloc size which is larger than if only one bloc was allowed to exist. Hence, the threat of regionalism by outsiders would foster larger RIAs. In this model, the typical subgame perfect equilibrium is two blocs with the first one consisting of about two-thirds of the world while the second one about one-third. Next, an alternative and relatively novel process is examined whereby blocs form and merge simultaneously to yield progressively larger symmetric blocs. Will this continue so as to yield one single bloc, which is global free trade? The paper shows that even in this simultaneous bloc expansion, the process fails to converge to a single bloc except when the external tariff happens to be low enough. Here, we have an example of open regionalism, based on low external tariffs, leading to multilateral free trade. One direct policy implication of this is that global free trade can be achieved through bloc expansion if trading blocs lower their external tariffs when they abolish their internal tariffs. The key lesson to take away from this paper is that there is a real possibility that, left on its own, the current wave of regionalism will not lead to global free trade. Additional rules of the game (preferably in the context of the WTO) are required in order to reach this goal: (i) Allow only the formation of trading blocs that have open membership policy and/or (ii) Allow only trading blocs that substantially lower their external tariffs when they eliminate internal tariffs. As the practicality

of these propositions is not evident, vigorous multilateral efforts in trade liberalization are meanwhile needed to achieve a more liberal global trading system.]

<b>ANNEX 3:</b>	<b>RESEARCH METHODOLOGY PROBLEM, CONSTRUCTS AND CONCEPTS</b>	<b>13 MARCH 2007</b>	<b>55</b>
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Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization

Problem, Constructs, and Concepts

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Submitted to:

Professor  
Dr. Syed Ferhat Anwar  
Instructor: Research Methods

Submitted by:


Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, March 13, 2007

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For any further clarification, PLEASE,  
Call Muntasir at: Cell # + 88 - 01911 - 06 05 06; Home # [880-2] 882 0706, [880-2] 885 6193  
Or mail to: [syedmuntasir@yahoo.com](mailto:syedmuntasir@yahoo.com)  
Or write to: Syed Muntasir Mamun. 345 DOHS Baridhara, Dhaka

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**Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization**

Problem, Constructs, and Concepts

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1. Background\*

A great deal of attention is currently being paid to the discussion of the reform of global agricultural trade. In the year 2000, the WTO initiated a new round of trade negotiations on agriculture and services. According to the Doha mandate adopted on 14 November 2001, the WTO members committed themselves to substantially improve market access, to reduce (with a view to phasing out) all forms of export subsidies and to substantially reduce trade-distorting domestic support. Furthermore, it was also agreed that non-trade concerns and special and differential treatment for developing countries should become an integral feature throughout the negotiations. In February 2003 a first attempt to agree on modalities, the so-called Harbinson Paper, was presented to the WTO members and revised after intensive discussion. Based on the resulting Harbinson 1½ paper<sup>1</sup>, the Doha Ministerial Declaration requested WTO members to agree upon formulas and other modalities by 31 March 2003 at the latest. But negotiators missed this deadline. While the US and the Cairns Group considered the tariff reductions of the Harbinson 1½ paper as too low and preferred the Swiss formula, the EU considered the liberalization proposals as too far reaching. Together with 75 other WTO members (friends of the Uruguay formula) the EU pleaded for a repetition of the Uruguay round of agriculture and especially for the implementation of the Uruguay formula for tariff reduction (Brockmeier & Salamon, 2004). After 31 March 2003, negotiators selected a number of controversial issues and aimed at achieving a framework agreement at the ministerial conference, taking place in Cancún, on 11-14 September 2003. The EU and the US were the first to come forward with a draft. The joint US-EU text suggested a blended formula under which the tariffs were subdivided into three groups. The tariffs of the first group were categorized as duty free, while the tariffs of the second group were to be reduced by an average with a minimum reduction per product (the Uruguay round formula). The third group of tariffs was supposed to be reduced by the Swiss formula.

After the failure of Cancún a new negotiation process started at the beginning of 2004. On 16 July 2004, the chairman of the agricultural committee, Tim Grosser, presented a new proposal on modalities for negotiations on agricultural trade. An amended version of the Grosser text was then presented and adopted in a revised form by the WTO General Council on 31 July 2004 as part of the Doha Work Program or Oshima-text. Although it seemed as if the disputing

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\* The text of the background information is heavily drawn from the "WTO agricultural negotiations - a comparison of the Harbinson Proposal and the Swiss Formula" ENARPRI Working Paper NO. 12, February 2005, by Martina Brockmeier, Marianne Kurzweil, Janine Pelikan, and Petra Salamon and a series of Articles published in the Daily Star (Dhaka) in 30/12/2005 through 02/01/2006 by Dr. Debapriya Bhattacharya, Dr. Mustafizur Rahman, Dr. Uttam Kumar Deb, and Fahmida Khatun of the Center for Policy Dialogue (CPD), titled "Outcomes of Hong Kong WTO Ministerial - CPD's reflections from Bangladesh perspective". It may be mentioned that, ENARPRI stands for European Network of Agricultural and Rural Policy Research Institutes, a Brussels based organization committed especially to mathematical interpretations of free trade components in the European context.



parties had reached an agreement, the outcome of the negotiations is still highly uncertain. In contrast to the former papers, the content of this recently adopted proposal is very vague. It contains (almost exclusively) qualitative information about tariff cuts, the abolition of exports subsidies, etc., but does not make any concrete statement regarding the time horizon or magnitude of the protection cuts. Nor does the more or less nebulous consistency of the Doha Work Program July package help to resolve the most important issue of market access: What kind of tiered formula will be used to cut down the import tariffs? What effect does a tiered formula, such as the Harbinson formula, have in contrast to a more flexible one, such as the Swiss formula? How will the preferential treatment of the developing countries be achieved?

In all, the Doha Work Program comprised an overall cut of all trade-distorting domestic support according to a tiered formula. Under this formula, higher levels of trade-distorting domestic support would be subject to deeper cuts to achieve a harmonized result. For all developed countries a down payment of 20% during the first year of the implementation period would be made. The cut would be based on binding rates. Furthermore, a reduction of the *de minimis* loophole would be negotiated and the criteria for the green box would be reviewed. The blue box support should not exceed 5% of the average total value of agricultural production during a historical reference period that has not yet been specified.

On export competition, the Doha Work Program assured the elimination of all forms of export subsidies. Moreover, all export measures with effects equivalent to export subsidies would be eliminated, such as export credits, export credit guarantees or insurance programs with repayment periods beyond 180 days. Export credits of less than 180 days and trade distorting practices of state trading enterprises (STES) would be subject to strict disciplines. Moreover, concrete disciplines would be imposed on food aid that is used for commercial displacement. A substantial reduction in market access barriers would be achieved through a tiered approach with deeper cuts in higher tariffs. The reduction commitments would be made from binding tariff rates applicable to all members other than the least developed countries (LDCs). Countries could self-select sensitive products that would be treated in a more flexible way. As compensation, the TRQs of sensitive products have to be expanded. For developing countries, special and differential treatment is provided. They would be accorded longer implementation periods, lower tariff and subsidy cuts and special concessions for their market access. Furthermore, trade with tropical products would be fully liberalized and the erosion of trade preferences would be addressed. LDCs do not have to lower their tariffs or their domestic farm support. Developed countries and capable developing countries should provide duty- and quota-free market access for LDC products

Situations attained heights of complexity during the Sixth Ministerial in Hong Kong in 2005.

During the run-up to the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" focusing on duty-free and quota-free market access for all exports from all LDCs.

Despite protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that The WTO rules have perpetuated an unfair trading system, which favors rich countries and their corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade-talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks - at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries has yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promise by the developed countries to the developing countries that they would reduce their protectionist

measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

- i. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
- ii. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
- iii. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies by 1 January 2010 or earlier; immediately end cotton export subsidies and eliminate domestic support for cotton by 2006.
- iv. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
- v. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
- vi. Agree to genuine development measures, including resolving the Special and Differential proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the

inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.

- vii. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

Only seven steps, but then, only seven almost insurmountable obstacles.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, is the bread earner of the country these days). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in the areas industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities.

Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access, shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This depended on outcomes of further negotiations held in Geneva by April 2006 - which, however, failed, if not, miserably failed.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed though. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

It has to be noted that the Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs will be provided duty-free and quota-free market access for cotton exports from the commencement of implementation date (scheduled to be agreed - and was not - by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made, so that there was no loophole for continuing export subsidization. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid was supposed to have been completed (which, it was not) by 30 April 2006 as part of the modalities.

The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

What comes next as an alternative trade-pattern gradually unfolds; it is NAMA (Non-Agricultural Market Access) that we have to look into. That is, we have to look for alternate items in trading. What comes to mind naturally is to develop the indigenous production sector, in which, we may still have some comparative advantage left to fight in a globalized planet (no matter how weird the word may sound).

But what do all these mean after all for Bangladesh? The considerations are three fold, i.e.:

- a. The impact of sustained agricultural subsidies by the developed countries on the production and pricing of agricultural commodities in Bangladesh (for exports)
- b. The probable impact of de-subsidized (phase-wise) trade patterns in agricultural commodities on the industrial output of Bangladesh
- c. Avenues for mitigating trade imbalances for Bangladesh by taking advantages of the existing subsidies pattern.

Unfortunately, Bangladesh does not yet have any coherent WTO policy on agricultural subsidies and trade in agricultural commodities.

## 2. The Problem Statement

Given the situation presented above, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports); (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions.

## 3. Constructs and Concepts

<i>Constructs</i>	<i>Definition</i>
<i>Bangladesh:</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial loss:</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition
<i>Through WTO:</i>	Strategy to be taken by the Government by means of bloc-activities and

<i>Constructs</i>	<i>Definition</i>
	negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions:</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns:</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output:</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets:</i>	Different market-opening opportunities and change in production-location facilities

#### 4. Aim

The ultimate aim is to form a national policy that would serve two purposes, i.e.: (a) Form a coherent policy that Bangladesh would follow for WTO negotiations in agenda on Agricultural subsidies, and (b) Decide on the agricultural production pattern with regards to international comparative advantages.

#### 5. Scope

The project will encompass the following points in detail:

- a. Analyze the Agricultural Business Policy Framework for Bangladesh with respect to international trading patterns and consequent development in homegrown competitive advantages.
- b. The scope of improvement in the efficiency of the Business Initiatives for Agricultural Products in Bangladesh:
  - i. Identification of the key products that would contribute to a significant increase in Trade and import substitution (both for agricultural produces and industrial inputs)
  - ii. Analyzing the general details of the key processes required to make the products identified in section *a (i)* competitive in world market
  - iii. Scrutinizing the details for one/two sub-sectors identified in section *b (ii)* for definite policy intervention by the Government to boost up trade in the short run and attaining long-run competitive advantage.

#### 6. Methodology

The method for the execution of the project will be mostly qualitative secondary research. However, the different components of the research area would be investigated using semi-structured statistical methods. However, calculations for probing into competitive advantages of different products will utilize standard statistical tools.

7. Limitations

The project is limited in focus. It will limit itself in identifying a business policy framework for an identified set of agricultural products for attaining comparative advantage in the world market with liberal frontiers and heavily subsidized *First World* products.

<b>ANNEX 4:</b>	<b>SECONDARY SURVEY FINDINGS</b>	<b>03 APRIL 2007</b>	<b>55</b>
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**Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization**

Secondary Survey Findings

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Submitted to:

Professor  
**Dr. Syed Ferhat Anwar**  
Instructor: Research Methods

Submitted by:

Roll No.	Name	Program/Batch

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, April 03, 2007

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For any further clarification, PLEASE,  
Call Muntasir at: Cell # + 88 - 01911 - 06 05 06; Home # [880-2] 882 0706, [880-2] 885 6193  
Or mail to: [syedmuntasir@yahoo.com](mailto:syedmuntasir@yahoo.com)  
Or write to: Syed Muntasir Mamun. 345 DOHS Baridhara, Dhaka

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Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, April 03, 2007

Professor  
Dr. Syed Ferhat Anwar  
Instructor: Research Methods

Subject: **Submission of the Secondary Survey Findings**

Revered Professor:

With profound respect, we submit the results of the secondary survey that we had undertaken for the dissertation titled "Agricultural Subsidies - Impact and Combat Techniques for Bangladesh in the World Trade Organization".

We will be available at all times for any clarification and authentication.

Thank you Sir, for your time and kind attention.

With the best of regards,

Roll No.	Name	Program/Batch

Table of Contents

Table of Contents .....	2
1.0 The Problem Statement .....	4
2.0 Constructs and Concepts .....	4
3.0 Aim .....	5
4.0 Scope .....	6
5.0 Methodology .....	8
6.0 Limitations .....	8
7.0 Abbreviations and Acronyms .....	8
8.0 Introduction on Agricultural Trade .....	10
8.1 A Short Primer .....	10
8.2 Trade policies prior to the WTO .....	11
8.3 Uruguay Round agricultural negotiations .....	12
8.4 Introduction to the Agreement on Agriculture .....	13
8.5 Relationship with other WTO Agreements .....	13
8.6 Product coverage .....	13
8.7 Rules and commitments .....	13
8.8 Implementation period .....	14
8.9 Committee on Agriculture .....	14
9.0 Market access .....	14
9.1 Schedule of tariff concessions .....	14
9.2 The prohibition of non-tariff border measures .....	15
9.3 Special treatment .....	15
9.4 The special safeguard provisions .....	16
9.5 Notification obligations .....	16
10.0 Domestic support .....	16
10.1 The Green Box .....	17
10.1.1 Government service programmes .....	17
10.1.2 Direct payments to producers .....	17
10.1.3 Other exempt measures .....	17
10.1.4 Developmental measures .....	18
10.2 Blue Box .....	18
10.3 De minimis .....	18
10.4 Reduction commitments .....	18
10.4.1 Aggregate Measurement of Support .....	18
10.4.2 Equivalent Measurement of Support .....	19
10.5 Notification obligations .....	19
11.0 Export competition/subsidies .....	20
11.1 Reduction commitments .....	20
11.1.1 Definition of measures .....	20
11.1.2 Product categories .....	21
11.1.3 Rates of cut .....	21
11.2 Products with no specific reduction commitment .....	21
11.3 Anti-circumvention .....	21
11.4 Notification obligations .....	21
12.0 On Agricultural Production Pattern and Distortion .....	22
13.0 A Primer on Doha Development Round .....	24
14.0 Other Issues of Relevance to Agriculture .....	33
14.1 Export restrictions .....	33
14.2 Peace clause .....	33
14.3 Resolving disputes .....	34
14.4 Continuation clause .....	34
15.0 Summary of Elements for Negotiation .....	34
15.1 Market Access .....	34
15.2 Domestic support .....	35
15.3 Export subsidies .....	36
15.4 Export prohibitions and restrictions .....	36
15.5 Other aspects .....	36
15.6 Sanitary and phytosanitary measures .....	36
16.0 The Research Model .....	37
16.1 The Proposition .....	37
16.2 The Conditions .....	38
16.3 The Functional Relationship .....	38
17.0 References .....	41

## Agricultural Subsidies Impact Analysis and Combat Techniques for Bangladesh In the World Trade Organization

### Secondary Survey Findings

#### 1.0 The Problem Statement

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports)<sup>1</sup>; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions<sup>2</sup>.

#### 2.0 Constructs and Concepts

<i>Constructs</i>	<i>Definition</i>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial Loss Through WTO</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets</i>	Different market-opening opportunities and change in production-location facilities

<sup>1</sup> For a more diplomatic coverage of the issues, ideas and data have been drawn from "Borders, Trade and Welfare" by James E. Anderson (Boston College) and Eric van Wincoop (Federal Reserve Bank of New York), prepared for the Brookings Trade Forum 2001 on Globalization: Issues and Implications, May 10-11, 2001. The results of the paper (Anderson and van Wincoop, 2001) show that border barriers are large and inhibit much trade. In the paper it is shown that further economic integration can very substantially increase world trade and welfare. Also of significance are the resources drawn from Anderson, James E. and Eric van Wincoop, 2001, "Gravity with Gravitas: A Solution to the Border Puzzle". National Bureau of Economic Research Working Paper 8079.

<sup>2</sup> Ideas and imperatives heavily drawn from writings of Alessandra Casella (Department of Economics, Columbia University) and James E. Rauch (Department of Economics, University of California, San Diego); "Anonymous Market And Group Ties In International Trade" February 1999. Both authors are also affiliated with the NBER (and Casella with the CEPR). In this paper, the writers develop a model of trade that reflects the difficulty of introducing one's product in a foreign market. Access to local sources that can provide information about the market would facilitate entry, and in our set-up a minority of individuals has such preferential ties, reflecting for example the existence of coethnic bonds or membership in a business group. We analyze the aggregate volume of trade without ties, the use of ties versus the anonymous market by group members, the value of the ties to the overall economy and to the group, and the consequences of the ties for non-members.

### 3.0 Aim

Agriculture continues to play a key role in the overall economic performance of Bangladesh. It still dominates in terms of its contribution to GDP, poverty alleviation, and foreign exchange earnings and in providing employment to a large segment of the population, especially the rural poor. Consequently the nation's progress well into the next century will depend on government policies in the agricultural sector. Much remains to be done to improve the overall agricultural performance of the country. This paper provides insights, which could assist guide policy decisions and reform programs to equip Bangladesh agriculture to meet the needs and challenges of the 21<sup>st</sup> century<sup>3</sup>.

The ultimate aim of this project is to form a national policy that would serve two purposes, i.e.: (a) Form a coherent policy<sup>4</sup> <sup>5</sup> that Bangladesh would follow for WTO

<sup>3</sup> From writings of Pierre Landell-Mills, former Country Director, World Bank, Dhaka

<sup>4</sup> Encouraged by Bagwell, Kyle and Robert W. Staiger in "Domestic Policies, National Sovereignty, and International Economic Institutions," *Quarterly Journal of Economics*, 2001, v116(2,May), 519-562. The article denotes... To what extent must nations cede control over their economic and social policies if global efficiency is to be achieved in an interdependent world? This question is at the center of the debate over the future role of the WTO in the realm of especially labor and environmental standards. Current WTO rules reflect the primacy of market access concerns in WTO practice, and this orientation is seen increasingly as unfriendly to labor and environmental causes. Fundamental changes to WTO are being considered as a result, changes that would expand the scope of WTO negotiations to include labor and environmental policies, and would lead to a significant loss of sovereignty for national governments. This paper establishes that there is no need for the WTO to expand the scope of its negotiations in this way. It is shown that instead the market access focus of current WTO rules is well-equipped to handle the problems associated with choices over labor and environmental standards, and that with relatively modest changes that grant governments more sovereignty, not less, these rules can in principle deliver globally efficient outcomes.

<sup>5</sup> Also encouraged by an article titled, "National Sovereignty in an Interdependent World" by Kyle Bagwell and Robert W. Staiger (First Draft: May 2003; Revised: December 2003). The article notes what the sovereign rights of nations in an interdependent world are, and to what extent these rights stand in the way of achieving important international objectives. These two questions rest at the heart of contemporary debate over the role and design of international institutions as well as growing tension between globalization and the preservation of national sovereignty. In this paper, the authors propose answers to these two questions. The authors do so by first developing formal definitions of national sovereignty that capture features of sovereignty emphasized in the political science literature. The authors then utilize these definitions to describe the degree and nature of national sovereignty possessed by governments in a benchmark (Nash) world in which there exist no international agreements of any kind. And with national sovereignty characterized in this benchmark world, the authors then evaluate the extent to which national sovereignty is compromised by international agreements with specific design features. In this way, the authors delineate the degree of tension between national sovereignty and international objectives and describe how that tension can be minimized - and in principle at times even eliminated - through careful institutional design.

First, in the context of international commercial relations, the authors have found that in principle there is no inherent conflict between the twin objectives of attaining international efficiency through international agreements and preserving national sovereignty. And it is found that a number of the foundational aspects of the GATT/WTO, such as its emphasis on market access commitments and the MFN rule, are in harmony with these twin objectives. In this regard, formal support is given to the observation of Rabkin (1998): "Probably the single most effective and consequential international program of the postwar era has been the mutual reduction of trade barriers under the General Agreement on Tariffs and Trade, initiated in 1947. Reasonable questions may be raised about certain aspects of the World Trade Organization, established in 1995 to help administer GATT norms. But, fundamentally, the trading system is quite compatible with traditional notions of sovereignty. It was developed on the foundations of much older sorts of international agreement, which would have been quite recognizable to the Framers of the Constitution." Rabkin, pp. 85-86 (Rabkin, Jeremy, *Why Sovereignty Matters*, The AEI Press, Washington D.C., 1998). However, the results also suggest that the maintenance of this compatibility depends crucially on being true to these fundamental principles: the further away the WTO moves from a market-access focus and adherence to MFN, the more likely will conflicts arise within the WTO between international efficiency and national sovereignty.

The second broad finding is that, in the universe of international relations among national governments, commercial relations are special, because trade problems that warrant international attention reflect international externalities of a pecuniary nature. Pecuniary externalities give rise to a distinctive structure that, as has been demonstrated, suggests a natural harmony between national sovereignty and international efficiency. In contrast, to the extent that governments are interdependent as a result of non-pecuniary externalities, it is suggested that the conflicts between international efficiency and national sovereignty may be inescapable.

negotiations in agenda on Agricultural subsidies<sup>6</sup>, and (b) Decide on the agricultural production pattern with regards to international comparative advantages<sup>7</sup>.

#### 4.0 Scope

The project will encompass the following points in detail:

- a. Analyze the Agricultural Business Policy Framework for Bangladesh with respect to international trading patterns and consequent development in homegrown competitive advantages<sup>8</sup>.

<sup>6</sup> Ideas drawn extensively from (i) Johnson HG (1970). The efficiency and welfare implications of international corporations. in: McDougall IA and Snape R, eds. Studies in International Economics. Amsterdam, North Holland: 83-103; (ii) Corden WM (1957). Tariffs, subsidies and the terms of trade. *Economica*, 24: 235-42; (iii) Bigsten A et al. (1998). Exports and firm-level efficiency in the African manufacturing sector (mimeo). Oxford, Centre for Study of African Economies, Oxford University; (iv) Bhagwati JN and Ramaswami VK (1963). Domestic distortions, tariffs and the theory of optimum subsidy. *Journal of Political Economy*, 72: 44-50; Corden WM (1957). Tariffs, subsidies and the terms of trade. *Economica*, 24: 235-42.

<sup>7</sup> Ideas drawn from (i) Bruton H (1998). A reconsideration of import substitution. *Journal of Economic Literature*, 36(2), June: 903-936; (ii) Cooper CA and Massell BF (1965). Towards a general theory of customs unions for developing countries. *Journal of Political Economy*, 73: 461-76.

<sup>8</sup> The following text is drawn from "Agricultural Issues and Perspectives" by Rashid Faruque in "The World Bank Bangladesh Publication", "Bangladesh Agriculture in the 21st Century" to point out the elaborate issues and discussions in Agriculture for Bangladesh.

"In Bangladesh, as in most developing countries, agriculture plays a key role in the overall economic performance of the country, not only in terms of its contribution to GDP, but also as a major source of foreign exchange earnings, and in providing employment to a large segment of the population, particularly the poor. But the relationship between agriculture and the macroeconomy is not a one-way street. Macroeconomic performance and policies have a very important impact on agriculture. In the essay "Agricultural Growth with Macroeconomic Policies and Performance" the author argues that agriculture will remain important in attaining overall growth, adjustment and poverty alleviation objectives in Bangladesh. It still provides a large share of GDP -- close to one-third -- and this share is not likely to decline significantly in the short - or medium-term. Agriculture is also a key sector to providing export earnings as well as generating jobs not only in farming but also in the highly important agricultural manufacturing sector. The productivity of agriculture in Bangladesh is generally low and agricultural growth, excepting good performance (due to good weather) during 1992-94, has generally stagnated in the 1990s.

Wahiduddin Mahmud's essay "Agricultural Development Strategy: Critical Issues and Perspectives" also notes that agricultural growth has been under some strain for a good part of the 1990s. The question of improving and sustaining agricultural growth raises a number of issues; concerning agronomic constraints, farm-level incentives, production technologies, comparative advantage and market supply-demand balances. Wahiduddin Mahmud refers to several studies that have addressed these issues in order to devise a strategy that can deal with new challenges and opportunities to make agriculture more flexible, diversified and efficient. He builds on these studies to redefine an appropriate role of public policy, taking into account the market-oriented liberalized policy reforms of the country in the past. He examines supply imbalances, constraints and prospects focusing on cropping patterns, profitability aspects and crop diversification, and suggests that price incentives do matter in farmer decision making and labor-intensive irrigation technology, such as hand tubewells and treadle pumps, which is particularly advantageous for small farmers. He also examines the trends in agricultural productivity, irrigation coverage and fertilizer use, and suggests that further productivity growth in crop agriculture must stem from technological innovations.

The author has also argued that although government policies have been pro-agriculture in recent years, especially since the reforms of the 1980s, which made most public interventions less intrusive, the reforms remain incomplete and more needed to be done. Government policy continues to distort price signals for some agricultural inputs, such as seeds and fertilizers. Restricted food grain trade discourages private sector development in agricultural storage activities, while quotas still remain on imports of sugar. The future growth of agriculture will require policy changes, in four key areas: (i) strengthening private sector trade by permanently abolishing relevant restrictions; (ii) making the price stabilization mechanism more efficient by relying on international trade (both public and private) in place of public storage; (iii) targeting the food insecurity and removing untargeted subsidies that are now captured, at least partly, by the affluent; and (iv) making public food operations more efficient by withdrawing the government from commercial activities.

Raisuddin Ahmed's essay "Assessment of Past Agricultural Policy" also addresses issues of poor performance of agriculture, particularly from the historical and comparative perspectives. Recent agricultural performance of Bangladesh that overshadowed a mood of self-sufficiency by a short-term stagnation has evoked serious concerns and questions. Some of these are fundamental, for example: why has agricultural production never been high in Bangladesh relative to other South Asian and Southeast Asian countries? Evidently, this stems from the fact that Bangladesh has been focusing on the supply side to increase production, while it is the demand side that probably determines the pace of growth in agricultural production. Moreover, long-term and sustained supply response in agriculture depends on basic structural factors that cannot generally be tackled by the individual effort of agricultural producers. Government intervention, in the form of development of information and service infrastructure, and exploration and monitoring of international trade opportunities, could help in creating robust effective demand which, in turn, could spur growth in agriculture.

Based on a historical analysis of key agricultural policies pertaining to agricultural inputs, such as fertilizer, pesticides, seeds, irrigation, and food grain pricing policies Ahmed outlines the likely direction and magnitude of the impact of policy changes on sustainable agricultural production. He also examines the pricing policies of agricultural outputs and finds that government policy to abolish monopoly in import and export of food grains has succeeded in bridging the gap between domestic and world prices. But to accelerate agricultural and food grain production further, he suggests, Bangladesh needs to break out of the mode of self-sufficiency and adopt open trade policy as a strategy for growth. Moreover, it should maintain stability of policies, which is critical to attracting private investment and sustaining the confidence of investors.

The future of Bangladesh agriculture will depend on how the outstanding issues of key instruments such as land credit and environment are addressed. Land remains central to the economic and social life of rural Bangladesh. People's understanding of this centrality has, however, not remained constant. Demand for redistributive land reform was a key part of the anti-colonial struggle. Similar sentiments dominated the political discourse of 1950s and 1960s. The gap between intentions and achievements, however, has led some marginalization of the paradigm itself but still the centrality of land in shaping the life of the people has not declined seriously. Under the present circumstances, a comprehensive rethinking of the paradigm should be structured around two major objectives: (i) a wider and empirically up-to-date understanding of how land assumes centrality in rural life; and (ii) how processes of the state, in particular the use of land administration and judiciary, interface with the use of land as property and means of production. Hossain Zillur Rahman, in his essay "Rethinking the Land Reform Question" identifies four core elements of the land reform agenda for the 1990s: (i) land administration reform removal of rigidities and dysfunctions from the existing structure of land administration for effective land reform; (ii) supplementary land reform while there are compelling arguments against redistributive programme aimed at the intensively used private lands, there is a clear case for reform programmes which aim to provide access to the landless over the state sector lands; (iii) field experiences success in the area of land reform is contingent upon parallel improvements in the sphere of judicial process and the emergence of effective local governments; and (iv) debate from below organization of a debate from below as distinct from a debate at the level of experts or policy-makers so that personal knowledge graduate into analytical knowledge which can have the force of national demands.

Removing financial sector constraints on the development of an efficient and sustainable rural finance system, including all types of rural financial intermediaries, is essential for furthering economic growth. Currently, rural finance in Bangladesh is dominated by both formal and informal sectors, such as government-run commercial and agricultural banks, semi-formal financial institutions and NGOs like Grameen Bank and BRAC and professional moneylenders, who are virtually outside the control of the government. Over the years, however, there has been a substantial reduction in the role of informal lenders, and a moderate increase in the role of formal financial institutions, but a significant increase in the role of semi-formal agencies in rural finance. Such achievement in micro-credit delivery in Bangladesh was primarily orchestrated by Grameen Bank. But agricultural financing of semi-formal agencies is predominately targeted at supporting rural non-farm activities that provide self-employment to the assetless poor who are members of these institutions. This indicates that small and medium farmers, who cultivate more than 80 per cent of the operational holdings in Bangladesh, require improved access to credit for increasing agricultural production.

In his essay, "Rural Sector Finance: Current Issues and Perspectives", Shahidur R. Khandker reviews the existing structure of rural financial markets and identifies broad sectoral policy actions that might improve their functioning. He suggests that the fact that small and medium farmers, who account for more than 80 per cent of farmers with a holding of more than 50 decimals, do not have access to credit is a clear indication of market failure, and the sluggish performance of agriculture in Bangladesh may be attributed to such credit constraints. Developing an alternative institution, designed to reach these target households, would be a challenge for policy-makers. Khandker believes that rural finance in the twenty-first century will be governed more by micro-credit institutions, such as Grameen Bank and other NGOs, which will emerge as credit unions. Prudent regulations should be in place for facilitating the integration of various financial institutions that can improve cost-effectiveness as well as ensure efficient delivery of rural financial services.

The issues of disparity within the agrarian structure and its impact on local environmental degradation are addressed by Qazi Kohliquzzaman Ahmad and S. M. Hasanuzzaman in their essay "Agricultural Growth and Environment". They argue that there exists a vicious cycle, generated by positive feedback relationships among population growth, poverty, environmental degradation and agriculture. The agricultural growth process focuses on extracting as much output as possible from land through expansion of cultivation by cutting down trees and reclaiming wetlands, increasingly intensive land use, unbalanced/continuous application of fertilizers and other chemicals, and poorly designed/inadequately implemented often without people's participation flood control, drainage and irrigation structures. The resultant degradation of the environment has led to a loss of soil quality, water logging, saline intrusion and genetic erosion. These are, in turn, adversely impacting on agricultural prospects. While these issues demand attention for promoting sustainable agriculture, a core concern should be how to improve yield rates alongside protecting and enhancing the environmental base. An analysis of the existing and evolving land-use pattern and intensity and their impact on agriculture and environment needs immediate attention. Alternatives, for instance low-cost, organic biodynamic farming that promotes integration and self-reliance as well as environmental enhancement and soil protection, need to be seriously considered in the context of Bangladesh. Also, appropriate policies and strategies are required for improving the access of small and marginal farmers to information, productive resource, training and technology.

Carter Brandon's essay, "Environmental Degradation and Agricultural Growth: Instilling a Sense of Urgency", argues that continued agricultural growth in Bangladesh is essential if the country is to continue feeding itself in the future. Available studies suggest that environmental degradation threatens the prospects for achieving this. Failure to confront this problem will leave Bangladesh with low agricultural yields, reduced areas of non-degraded agricultural lands, and high expenditures on commercial agricultural inputs to offset loss of land fertility. In related non-agricultural sectors, it will lead to lower fish production, loss of wetlands and forests, inadequate biomass generation for household fuels, and loss of biodiversity. Finally, and more importantly, in terms of social welfare and equity, this

- b. The scope of improvement in the efficiency of the Business Initiatives for Agricultural Products in Bangladesh:
  - i. Identification of the key products that would contribute to a significant increase in Trade and import substitution (both for agricultural produces and industrial inputs)
  - ii. Analyzing the general details of the key processes required to make the products identified in section *a (i)* competitive in world market
  - iii. Scrutinizing the details for one/two sub-sectors identified in section *b (ii)* for definite policy intervention by the Government to boost up trade in the short run and attaining long-run competitive advantage.

## 5.0 Methodology

The method for the execution of the project will be mostly qualitative secondary research. However, the different components of the research area would be investigated using semi-structured statistical methods. However, calculations for probing into competitive advantages of different products will utilize standard statistical tools.

## 6.0 Limitations

The project is limited in focus. It will limit itself in identifying a business policy framework for an identified set of agricultural products for attaining comparative advantage in the world market with liberal frontiers and heavily subsidized *First World* products.

## 7.0 Abbreviations and Acronyms

- i. ACP: African, Caribbean and Pacific Countries
- ii. AMS: Aggregate Measure of Support, the preferred calculation of domestic support used for reduction commitments
- iii. AoA: Agreement on Agriculture
- iv. ATPSM: Agriculture Trade Policy Simulation Model
- v. c.i.f.: cost, insurance, freight (included in the price)
- vi. CAEMC: Central Africa Economic and Monetary Community
- vii. CAFOD: Catholic Agency for Overseas Development
- viii. CAP: Common Agricultural Policy
- ix. CARLs: Countries with Abundant Rural Labor
- x. CEEC: Central and Eastern European Countries

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translates into lower overall land and labour productivity, higher rates of rural poverty, more rapid migration to cities, and higher costs of achieving nutritional self-sufficiency.

Brandon addresses these issues with a warning that the cost of addressing the root causes of degradation, and of finding ways to confront them, is less than the benefits gained. The essay points to the importance of the role that the government has to play in underlining the implications of environmental degradation in agriculture through research, information dissemination, and closer partnership with landowners and farmers. Private individuals and companies are aware that self-interest, given the right incentives, favours not just short-term rewards but also the long-term sustainability of the resource base. Thus, an action programme to address the agriculture-related environmental concerns should include the following elements: clarification of property rights, modification of regulations that encourage inappropriate resource use, improvements in public sector institutional capacity to ensure compliance with resource management programmes, encouragement of public participation in land management and conflict resolution, support social programmes to 'settle' rural population, promote technical innovations aimed at sustainable resource management, and improve regulations for the handling and use, of pesticides.

Agricultural research, especially as it is now managed, is a key instrument for productivity growth in agriculture. Faced with rapid growth and declining per capita natural resources and, consequently decline in productivity in crops and other subsectors, Bangladesh's agricultural challenge becomes more formidable. The redeeming feature here is the very large yield gaps. The achievable yield potential in crops, for example is two to eight times compared to the present level. The major causes for this decline include non-utilization of the full potential of crop varieties and available technologies, continuous cropping without much opportunity to add organic matter to the soil, and insufficient high-tech research to improve the genetic make-up to address constraints like drought and salinity. The decline in productivity and total production is also affected by damage in the stores by rodents, insects and pathogen. Farmers' disincentives resulting from high cost of production and low profit margin also contribute to decline in agricultural productivity.



- xi. CGE: Computable General Equilibrium  
xii. CGIAR: Consultative Group on International Agricultural Research  
xiii. CIS: Commonwealth of Independent States  
xiv. CME: Coordinated Market Economies  
xv. CMEA: Common Market of East Asia  
xvi. COMESA: Common Market for Eastern and Southern Africa  
xvii. CPI: Consumer Price Index  
xviii. DFID: Department for International Development (UK)  
xix. EAC: Commission for East African Cooperation  
xx. ECOWAS: Economic Community of West African States  
xxi. EMS: Equivalent Measure of Support, used when AMS is not practicable  
xxii. EPR: Effective protection rate  
xxiii. EU: European Union  
xxiv. f.o.b.: free on board (price, excluding insurance and freight)  
xxv. FAO: Food and Agriculture Organization  
xxvi. FDI: Foreign Direct Investment  
xxvii. FTA: Free Trade Area  
xxviii. GATT 1947: The text of GATT as used until amended by the WTO Agreements which came into force in 1995  
xxix. GATT 1994: The General Agreement on Tariffs and Trade, as revised in 1994, which is part of the WTO Agreements. GATT 1994 includes GATT 1947 together with amendments.  
xxx. GATT: The General Agreement on Tariffs and Trade, established in 1947. The abbreviation is used for both the legal text and the institution  
xxxi. GMB: Grain Marketing Board  
xxxii. GTAP: Global Trade Analysis Programme  
xxxiii. H-O: Heckscher-Ohlin  
xxxiv. IBRD: International Bank for Reconstruction and Development  
xxxv. IDA: International Development Agency  
xxxvi. IFAD: International Fund for Agricultural Development  
xxxvii. IMF: International Monetary Fund  
xxxviii. IOC: Indian Ocean Commission  
xxxix. LAC: Latin American and Caribbean  
xl. LDC: Least Developed Country  
xli. LIC: Low Income Countries  
xlii. LIFDC: Low-Income Food-Deficit Countries  
xliii. LME: Liberal Market Economy  
xliv. LMIC: Lower Middle-Income Countries  
xlv. MERCOSUR: Mercado Común del Sur (common market of Argentina, Brazil, Paraguay, Uruguay)  
xlvi. MFN: Most-favoured nation, in the WTO, the principle of treating trading partners equally  
xlvii. MNC: Multinational Corporation  
xlviii. MTO: Multilateral Trade Organization — the proposed name of the new organization that eventually became the WTO, used during Uruguay Round negotiations (appears in negotiating documents such as "Modalities" for agricultural commitments)  
xlix. NAEX: Net Agricultural Exporting  
l. NAFTA: North American Free Trade Agreement  
li. NAIM: Net Agricultural Importing  
lii. NFEX: Net Food Exporting  
liii. NFIM: Net Food Importing  
liv. NGO: Non-Governmental Organization  
lv. NIS: Newly Independent States  
lvi. NPR: Nominal Protection Rate  
lvii. NTB: Non-Tariff Barriers  
lviii. OECD: Organization for Economic Cooperation and Development  
lix. OPK: Operasi Pasar Khusus (targeted rice subsidy programme)  
lx. PMB: Paddy Marketing Board  
lxi. PPI: Producer price index  
lxii. PSE: Producer Support Estimate  
lxiii. QR: Quantitative Restriction

- lxiv. RIFF: Regional Integration Facilitation Forum, formerly the Cross-Border initiative (CBI)
- lxv. RTA: Regional Free Trade Agreement
- lxvi. RUNS: Rural-Urban-North-South Model
- lxvii. SACU: Southern Africa Customs Union
- lxviii. SAL: Structural Adjustment Loan
- lxix. SAM: Social Accounting Matrix
- lxx. SAP: Structural Adjustment Programme
- lxxi. SAPRIN: Structural Adjustment Participatory Review International Network.
  
- lxxii. SECAL: Sectoral Adjustment Loan
- lxxiii. SME: Small and Medium Enterprise
- lxxiv. SOFI: State of Food Insecurity
- lxxv. SPS: Sanitary and phytosanitary (measures)
- lxxvi. SSA: Sub-Saharan Africa
- lxxvii. SSG: Special Safeguard
- lxxviii. STE: State Trading Enterprise
- lxxix. TNC: Transnational Corporation
- lxxx. TQ: Tariff-quota
- lxxxi. TRQ: Tariff-rate-quota, same as TQ
- lxxxii. UMIC: Upper Middle Income Countries
- lxxxiii. UMRs: Usual marketing requirements, a system in FAO principles for food aid
  
- lxxxiv. UNCTAD: United Nations Conference on Trade and Development
- lxxxv. UNDP: United Nations Development Programme
- lxxxvi. UR: Uruguay Round
- lxxxvii. USDA: United States Department of Agriculture
- lxxxviii. WB: World Bank
- lxxxix. WCA: Washington Consensus on Agriculture
- xc. WFM: World Food Model
- xc. WFS: World Food Summit
- xcii. WTO: The World Trade Organization, established as the successor to the GATT on 1 January 1995

## **8.0 Introduction on Agricultural Trade**

### **8.1 A Short Primer**

The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies. The first pillar of the AoA is "domestic support". The AoA structures domestic support (subsidies) into three categories or "boxes": a Green Box, an Amber Box and a Blue Box. The Green Box contains fixed payments to producers for environmental programs, so long as the payments are "decoupled" from current production levels. The Amber Box contains domestic subsidies that governments have agreed to reduce but not eliminate. The Blue Box contains subsidies which can be increased without limit, so long as payments are linked to production-limiting programs<sup>9</sup>. The AoA's domestic support system currently allows Europe and the USA to spend \$380 billion every year on agricultural subsidies alone. "It is often still argued that subsidies are needed to protect small farmers but, according to the World Bank, more than half of EU support goes to 1% of producers while in the US 70% of subsidies go to 10% of producers, mainly agri-businesses"<sup>10</sup>. The effect of these subsidies is to flood global markets with below-cost commodities, depressing prices and undercutting producers in poor countries – a practice known as dumping<sup>11</sup>.

"Market access" is the second pillar of the AoA, and refers to the reduction of tariff (or non-tariff) barriers to trade by WTO member-states. The 1995 AoA required tariff reductions of: (i) 36% average reduction by developed countries, with a minimum per tariff line reduction of 15% over five years; and (ii) 24% average reduction by

<sup>9</sup> Text of the Agreement on Agriculture

<sup>10</sup> Institute for Agriculture and Trade Policy, Agreement on Agriculture Basics 2003.

<sup>11</sup> Institute for Agriculture and Trade Policy, WTO Agreement on Agriculture: A Decade of Dumping, Feb 2005.

developing countries with a minimum per tariff line reduction of 10% over nine years. Least Developed Countries (LDCs) were exempted from tariff reductions, but either had to convert non-tariff barriers to tariffs—a process called tariffication—or "bind" their tariffs, creating a "ceiling" which could not be increased in future<sup>12</sup>.

"Export subsidies" is the third pillar of the AoA. The 1995 AoA required developed countries to reduce export subsidies by at least 35% (by value) or by at least 21% (by volume) over the five years to 2000.

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. While the volume of world agricultural exports has substantially increased over recent decades, its rate of growth has lagged behind that of manufactures, resulting in a steady decline in agriculture's share in world merchandise trade. In 1998, agricultural trade accounted for 10.5 per cent of total merchandise trade — when trade in services is taken into account, agriculture's share in global exports drops to 8.5 per cent. However, with respect to world trade agriculture is still ahead of sectors such as mining products, automotive products, chemicals, textiles and clothing or iron and steel. Among the agricultural goods traded internationally, food products make up almost 80 per cent of the total. The other main category of agricultural products is raw materials. Since the mid-1980s, trade in processed and other high value agricultural products has been expanding much faster than trade in the basic primary products such as cereals. Agricultural trade remains in many countries an important part of overall economic activity and continues to play a major role in domestic agricultural production and employment. The trading system plays also a fundamentally important role in global food security, for example by ensuring that temporary or protracted food deficits arising from adverse climatic and other conditions can be met from world markets<sup>13</sup>.

## 8.2 Trade policies prior to the WTO

Although agriculture has always been covered by the GATT, prior to the WTO there were several important differences with respect to the rules that applied to agricultural primary products as opposed to industrial products. The GATT 1947 allowed countries to use export subsidies on agricultural primary products whereas export subsidies on industrial products were prohibited. The only conditions were that agricultural export subsidies should not be used to capture more than an "equitable share" of world exports of the product concerned (Article XVI:3 of GATT). The GATT rules also allowed countries to resort to import restrictions (e.g. import quotas) under certain conditions, notably when these restrictions were necessary to enforce measures to effectively limit domestic production (Article XI:2(c) of GATT). This exception was also conditional on the maintenance of a minimum proportion of imports relative to domestic production.

<sup>12</sup> This section of the paper is influenced by the article, "Multinational Enterprises and New Trade Theory: Evidence for the Convergence Hypothesis", by S. Barrios, H. Görg and E. Strobl (Research Paper 2000/19; Centre for Research on Globalization and Labor Markets, School of Economics, University of Nottingham; collected from the net resources of the University). The article denotes that according to the 'convergence hypothesis' multinational companies will tend to displace national firms and trade as total market size increases and as countries converge in relative size, factor endowments, and production costs. Using a recent model developed by Markusen and Venables (1998) as a theoretical framework, the authors explicitly develop empirical measures to proxy bilateral FDI between two countries and address their properties with regard to the convergence hypothesis. Using a panel of data of country pairs over the years 1985-96 the authors econometrically test for the relationship between convergence and bilateral FDI. The results provide some empirical support for the convergence hypothesis. Overall market size tends to increase, while differences in market size tend to reduce bilateral MNE activity. While the role of differences in relative endowments of human or physical capital skilled workers is not clear from the results, R&D intensity, which serves to proxy the importance of firm level scale economies, and a common language in home and host country significantly increase bilateral MNE activity. The authors have also found that for many cases transportation costs, contrary to the convergence hypothesis, are negative determinants, although these findings are in line with similar findings in the literature. Breaking down the sample into EU and non-EU pairs it is found that a large number of results in aggregate still hold, although, given the small sample size, particularly for EU country pairs, these results must be viewed with some caution.

<sup>13</sup> Paragraph encouraged by article titled, "Five Simple Principles for World Trade" by Dani Rodrik (November 22, 1999) retrieved from his Internet database. Dani Rodrik is professor of international political economy at Harvard's John F. Kennedy School of Government. The article notes that (i) Trade is a means to an end, not an end in itself; (ii) Trade rules have to allow for diversity in national institutions and standards; (iii) Non-democratic countries cannot count on the same trade privileges as democratic ones; (iv) Countries have the right to protect their own social arrangements and institutions; but that ... (v) they do not have the right to impose their institutional preferences on others.

However, in practice many non-tariff border restrictions were applied to imports without any effective counterpart limitations on domestic production and without maintaining minimum import access. In some cases this was achieved through the use of measures not specifically provided for under Article XI. In other cases it reflected exceptions and country-specific derogations such as grandfather clauses, waivers and protocols of accession. In still other cases non-tariff import restrictions were maintained without any apparent justification. The result of all this was a proliferation of impediments to agricultural trade, including by means of import bans, quotas setting the maximum level of imports, variable import levies, minimum import prices and non-tariff measures maintained by state trading enterprises. Major agricultural products such as cereals, meat, dairy products, sugar and a range of fruits and vegetables have faced barriers to trade on a scale uncommon in other merchandise sectors. In part, this insulation of domestic markets was the result of measures originally introduced following the collapse of commodity prices in the 1930s Depression. Furthermore, in the aftermath of the Second World War many governments were concerned primarily with increasing domestic agricultural production so as to feed their growing populations. With this objective in mind and in order to maintain a certain balance between the development of rural and urban incomes, many countries, particularly in the developed world, resorted to market price support — farm prices were administratively raised. Import access barriers ensured that domestic production could continue to be sold. In response to these measures and as a result of productivity gains, self-sufficiency rates rapidly increased. In a number of cases, expanding domestic production of certain agricultural products not only replaced imports completely but resulted in structural surpluses. Export subsidies were increasingly used to dump surpluses onto the world market, thus depressing world market prices. On the other hand, this factor, plus the effects of overvalued exchange rates, low food price policies in favor of urban consumers and certain other domestic measures, reduced in a number of developing countries the incentive for farmers to increase or even maintain their agricultural production levels<sup>14</sup>.

### 8.3 Uruguay Round agricultural negotiations

In the lead-up to the Uruguay Round negotiations, it became increasingly evident that the causes of disarray in world agriculture went beyond import access problems which had been the traditional focus of GATT negotiations. To get to the roots of the

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<sup>14</sup> Inspired by the article, "Strategic Trade, Competitive Industries and Agricultural Trade Disputes" by Kyle Bagwell and Robert W. Staiger (February, 2001). The article notes that the primary predictions of strategic-trade theory are not restricted to imperfectly-competitive markets. Indeed, these predictions emerge in a natural three-country extension of the traditional theory of trade policy in competitive markets, once the theory is augmented to allow for politically motivated governments, so that the sign of export policy may be converted from tax to subsidy. This suggests that the ongoing agricultural trade disputes may be best interpreted from the perspective of strategic-trade theory. In fact, these disputes may offer the most important example yet of strategic-trade theory. The writers have presented a model of strategic trade (modified from Brander, J. and B. Spencer, 1985, *Export Subsidies and Market Share Rivalry*; *Journal of International Economics* 18, 83-100.) that applies for markets with competitive characteristics. We have argued as well that the model predicts quite well the broad features of the agricultural trade disputes, which are perhaps the most important trade disputes in recent decades. The writers conclude with some final thoughts as regards the treatment of export subsidies in GATT and now the WTO. The model suggests that exporting countries prefer a limit on export subsidies in order to stem the rivalry in subsidies that otherwise occurs. Importing countries and the world as a whole lose if exporting countries are successful in this endeavor. From this perspective, the perplexing manner in which GATT and the WTO treat export subsidies may represent conflicting consequences that restrictions on export subsidies have for exporting and importing governments. To the extent that the prohibition of export subsidies has been effective, this policy may correspond to a victory for exporting governments at the expense of importing government - and world - welfare. At a broader level, it is clear that no simple approach toward export subsidization could ever satisfy all goals. Perhaps, as Jackson (Jackson, J., 1997, *The World Trading System: Law and Policy of International Economic Relations*, 2nd edition (The MIT Press, Cambridge), pp. 298-99) emphasizes, if the costs and benefits of a subsidization program are kept within national borders, and thus not shifted onto trading partners, then the program should not be a matter of concern for the WTO. But while this may be a sound principle, cross-border effects are indeed expected when export subsidies are used. And these effects are complicated, too, cutting in different ways in different scenarios: the consumers in importing countries may be inclined to send a "note of thanks;" the import-competing firms in these countries may be harmed; and competing exporters from other countries are also likely to be harmed. The paper's dominant model describes a trading pattern under which overall government welfare increases when the subsidization program is enhanced. But other trading patterns could carry different conclusions. In this perplexing setting, the authors point out that theoretical models, motivated in terms of actual export-subsidy disputes, are of particular value. Such models can clarify the key cost-shifting effects and thereby contribute importantly toward a better understanding of the appropriate manner in which to treat export subsidies within the WTO. This paper is intended as a step in this general direction.

problems, disciplines with regard to all measures affecting trade in agriculture, including domestic agricultural policies and the subsidization of agricultural exports, were considered to be essential. Clearer rules for sanitary and phytosanitary measures were also considered to be required, both in their own right and to prevent circumvention of stricter rules on import access through unjustified, protectionist use of food safety as well as animal and plant health measures. The agricultural negotiations in the Uruguay Round were by no means easy — the broad scope of the negotiations and their political sensitivity necessarily required much time in order to reach an agreement on the new rules, and much technical work was required in order to establish sound means to formalize commitments in policy areas beyond the scope of prior GATT practice. The Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures were negotiated in parallel, and a Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-developed and Net Food-importing Developing Countries also formed part of the overall outcome.

#### **8.4 Introduction to the Agreement on Agriculture**

The Agreement on Agriculture, (the "Agreement"), came into force on 1 January 1995. The preamble to the Agreement recognizes that the agreed long-term objective of the reform process initiated by the Uruguay Round reform programme is to establish a fair and market-oriented agricultural trading system. The reform programme comprises specific commitments to reduce support and protection in the areas of domestic support, export subsidies and market access, and through the establishment of strengthened and more operationally effective GATT rules and disciplines. The Agreement also takes into account non-trade concerns, including food security and the need to protect the environment, and provides special and differential treatment for developing countries, including an improvement in the opportunities and terms of access for agricultural products of particular export interest to these Members.

#### **8.5 Relationship with other WTO Agreements**

In principle, all WTO agreements and understandings on trade in goods apply to agriculture, including the GATT 1994 and WTO agreements on such matters as customs valuation, import licensing procedures, pre-shipment inspection, emergency safeguard measures, subsidies and technical barriers to trade. However, where there is any conflict between these agreements and the Agreement on Agriculture, the provisions of the Agreement on Agriculture prevail. The WTO Agreements on Trade in Services and on Trade-Related Aspects of Intellectual Property rights are also applicable to agriculture.

#### **8.6 Product coverage**

The Agreement defines in its Annex 1 agricultural products by reference to the harmonized system of product classification — the definition covers not only basic agricultural products such as wheat, milk and live animals, but the products derived from them such as bread, butter and meat, as well as all processed agricultural products such as chocolate and sausages. The coverage also includes wines, spirits and tobacco products, fibers such as cotton, wool and silk, and raw animal skins destined for leather production. Fish and fish products are not included, nor are forestry products.

#### **8.7 Rules and commitments**

The Agreement on Agriculture establishes a number of generally applicable rules with regard to trade-related agricultural measures, primarily in the areas of market access, domestic support and export competition. These rules relate to country-specific commitments to improve market access and reduce trade-distorting subsidies which are contained in the individual country schedules of the WTO Members and constitute an integral part of the GATT.

## 8.8 Implementation period

The implementation period for the country-specific commitments is the six-year period commencing in 1995. However, developing countries have the flexibility to implement their reduction and other specific commitments over a period of up to 10 years. Members had the choice of implementing their concessions and commitments on the basis of calendar, marketing (crop) or fiscal years. A WTO Member's implementation year for tariff reductions may thus differ from the one applied to export subsidy reductions. For the purpose of the peace clause, the implementation period is the nine-year period commencing in 1995.

## 8.9 Committee on Agriculture

The Agreement established a Committee on Agriculture. The Committee oversees the implementation of the Agreement on Agriculture and affords Members the opportunity of consulting on any matter relating to the implementation of commitments, including rule-based commitments. For this purpose, the Committee usually meets four times per year. Special meetings can be convened if necessary.

## 9.0 Market access

Under the reform programme, members have converted their non-tariff measures to equivalent bound tariffs. Some additional market access is provided through tariff rate quotas, and the tariffs are being reduced. Contingency protection is provided through special safeguards, and transparency works through notifications.

On the market access side, the Uruguay Round resulted in a key systemic change: the switch from a situation where a myriad of non-tariff measures impeded agricultural trade flows to a regime of bound tariff-only protection plus reduction commitments. The key aspects of this fundamental change have been to stimulate investment, production and trade in agriculture by (i) making agricultural market access conditions more transparent, predictable and competitive, (ii) establishing or strengthening the link between national and international agricultural markets, and thus (iii) relying more prominently on the market for guiding scarce resources into their most productive uses both within the agricultural sector and economy-wide.

In many cases, tariffs were the only form of protection for agricultural products before the Uruguay Round — the Round led to the "binding" in the WTO of a maximum level for these tariffs. For many other products, however, market access restrictions involved non-tariff barriers. This was frequently, though not only, the case for major temperate zone agricultural products. The Uruguay Round negotiations aimed to remove such barriers. For this purpose, a "tariffication" package was agreed which, amongst other things, provided for the replacement of agriculture-specific non-tariff measures with a tariff which afforded an equivalent level of protection. The tariffs resulting from the tariffication process account, on average of the developed country Members, for around one fifth of the total number of agricultural tariff lines. For the developing country Members, this share is considerably smaller. Following the entry into force of the Agreement on Agriculture, there is now a prohibition on agriculture-specific non-tariff measures, and the tariffs on virtually all agricultural products traded internationally are bound in the WTO.

## 9.1 Schedule of tariff concessions

Each WTO Member has a "schedule" of tariff concessions covering all agricultural products. These concessions are an integral part of the results of the Uruguay Round, are formally annexed to the Marrakesh Protocol [cross-reference] and have become an integral part of the GATT 1994 [cross-reference]. The schedule sets out for each individual agricultural product, or, in some cases agricultural products defined more generally, the maximum tariff that can be applied on imports into the territory of the Member concerned. The tariffs in the schedules include those that resulted from the tariffication process, which, in many cases, are considerably higher than industrial tariffs, reflecting the incidence of agriculture-specific non-tariff measures prior to the

WTO. Many developing countries have bound their previously unbound tariffs at "ceiling" levels, i.e. at levels higher than the applied rates prior to the WTO. Developed country Members have agreed to reduce, over a six-year period beginning in 1995, their tariffs by 36 per cent on average of all agricultural products, with a minimum cut of 15 per cent for any product. For developing countries, the cuts are 24 and 10 per cent, respectively, to be implemented over ten years. Those developing country Members which bound tariffs at ceiling levels did not, in many cases, undertake reduction commitments. Least-developed country Members were required to bind all agricultural tariffs, but not to undertake tariff reductions.

As part of the tariffication package, WTO Members were required to maintain, for tariffied products, current import access opportunities at levels corresponding to those existing during the 1986-88 base period. Where such "current" access had been less than 5 per cent of domestic consumption of the product in question in the base period, an (additional) minimum access opportunity had to be opened on a most-favoured-nation basis. This was to ensure that in 1995, current and minimum access opportunities combined represented at least 3 per cent of base-period consumption and are progressively expanded to reach 5 per cent of that consumption in the year 2000 (developed country Members) or 2004 (developing country Members), respectively. The current and minimum access opportunities are generally implemented in the form of tariff quotas. In case of minimum access, the applicable duty was required to be low or minimal, low that is either in absolute terms or, at least, in relation to the "normal" ordinary customs duty that applies to any imports outside the tariff quota. These tariff quotas, including the applicable tariff rates and any other conditions related to the tariff quotas, are specified in the schedules of the WTO Members concerned. While the vast majority of tariff quotas in agriculture have their origin in the Uruguay Round negotiations, a number of such commitments were the result of accessions to the WTO. As on July 1999, 37 Members have tariff quotas specified in their schedules. In total, there are 1374 individual tariff quotas. These tariff quotas constitute binding commitments as opposed to autonomous tariff quotas which Members may establish at any time, for example, in order to stabilize the domestic price after a poor harvest.

## **9.2 The prohibition of non-tariff border measures**

Article 4.2 of the Agreement on Agriculture prohibits the use of agriculture-specific non-tariff measures. Such measures include quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing procedures, voluntary export restraint agreements and non-tariff measures maintained through state-trading enterprises. All similar border measures other than "normal customs duties" are also no longer permitted. Although Article XI:2(c) of the GATT [cross-reference] continues to permit non-tariff import restrictions on fisheries products, it is now inoperative as regards agricultural products because it is superseded by the Agreement on Agriculture. However, Article 4.2 of the Agreement on Agriculture does not prevent the use of non-tariff import restrictions consistent with the provisions of the GATT or other WTO agreements which are applicable to traded goods generally (industrial or agricultural). Such measures include those maintained under balance-of-payments provisions (Articles XII and XVIII of GATT), general safeguard provisions (Article XIX of GATT and the related WTO agreement), general exceptions (Article XX of GATT), the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Technical Barriers to Trade or other general, non-agriculture-specific WTO provisions.

## **9.3 Special treatment**

The Agreement on Agriculture contains a "special treatment" clause (Annex 5), under which four countries were permitted, subject to strictly circumscribed conditions, to maintain non-tariff border measures on certain products during the period of tariff reductions (with the possibility of extending the special treatment, subject to further negotiations). As one of the conditions, market access in the form of progressively increasing import quotas has to be provided for the products concerned. The products and countries concerned are: rice in the case of Japan, Korea and the Philippines; and

cheese and sheepmeat in the case of Israel. As of 1 April 1999, Japan has ceased to apply special treatment.

#### **9.4 The special safeguard provisions**

As a third element of the tariffication package, Members have the right to invoke for tariffied products the special safeguard provisions of the Agreement on Agriculture (Article 5), provided that a reservation to this effect ("SSG") appears beside the products concerned in the relevant Member's schedule. The right to make use of the special safeguard provisions has been reserved by 38 Members, and for a limited number of products in each case. The special safeguard provisions allow the imposition of an additional tariff where certain criteria are met. The criteria involve either a specified surge in imports (volume trigger), or, on a shipment by shipment basis, a fall of the import price below a specified reference price (price trigger). In case of the volume trigger, the higher duties only apply until the end of the year in question. In case of the price trigger, any additional duty can only be imposed on the shipment concerned. The additional duties cannot be applied to imports taking place within tariff quotas.

#### **9.5 Notification obligations**

The bound agricultural tariffs and the tariff quota commitments are contained in Members' schedules. There is no requirement for Members to notify their tariffs to the Committee on Agriculture. Applied tariffs are, however, to be submitted to other bodies of the WTO, including the Committee on Market Access and in the context of the Trade Policy Review mechanism.

Members with tariff quotas and the right to use the special safeguard provisions are required to make both ad hoc and annual notifications to the Committee on Agriculture. At the beginning of the implementation period, an "up-front" notification was due, setting out how each tariff quota is to be administered. Such notifications disclose, for example, if imports are permitted on a "first-come-first-served" basis or if import licenses are used — and in the latter case, an indication of who is able to obtain a license and how they are allocated. An ad hoc notification is required if the method of allocation under any tariff quota changes. At the end of each year, a notification of the quantity of imports entering under each tariff quota is required (tariff quota fill).

Members with the right to use the special safeguard provisions must notify its first use in order to allow its trading partners to establish the parameters of the special safeguard action, such as the volume or price used to trigger the special safeguard action. In the case of the price trigger, an upfront notification of the relevant reference prices has also been possible. In addition, an annual summary notification of the use of the special safeguard is required.

#### **10.0 Domestic support**

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. The agricultural package of the Uruguay Round has fundamentally changed the way domestic support in favor of agricultural producers was treated under the GATT 1947. A key objective has been to discipline and reduce domestic support while at the same time leaving great scope for governments to design domestic agricultural policies in the face of, and in response to, the wide variety of the specific circumstances in individual countries and individual agricultural sectors. The approach agreed upon is also aimed at helping ensure that the specific binding commitments in the areas of market access and export competition are not undermined through domestic support measures. The main conceptual consideration is that there are basically two categories of domestic support — support with no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures). For example, government provided agricultural research or training is considered to be of the former type, while



government buying-in at a guaranteed price ("market price support") falls into the latter category. Under the Agreement on Agriculture, all domestic support in favor of agricultural producers is subject to rules. In addition, the aggregate monetary value of Amber Box measures is, with certain exceptions, subject to reduction commitments as specified in the schedule of each WTO Member providing such support.

### **10.1 The Green Box**

The Agreement on Agriculture sets out a number of general and measure-specific criteria which, when met, allow measures to be placed in the Green Box (Annex 2). These measures are exempt from reduction commitments and, indeed, can even be increased without any financial limitation under the WTO. The Green Box applies to both developed and developing country Members but in the case of developing countries special treatment is provided in respect of governmental stockholding programmes for food security purposes and subsidized food prices for urban and rural poor. The general criteria are that the measures must have no, or at most minimal, trade-distorting effects or effects on production. They must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and must not have the effect of providing price support to producers.

#### **10.1.1 Government service programmes**

The Green Box covers many government service programmes including general services provided by governments, public stockholding programmes for food security purposes and domestic food aid -as long as the general criteria and some other measure-specific criteria are met by each measure concerned. The Green Box thus provides for the continuation (and enhancement) of programmes such as research, including general research, research in connection with environmental programmes, and research programmes relating to particular products; pest and disease control programmes, including general and product-specific pest and disease control measures; agricultural training services and extension and advisory services; inspection services, including general inspection services and the inspection of particular products for health, safety, grading or standardization purposes; marketing and promotion services; infrastructural services, including electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, etc; expenditures in relation to the accumulation and holding of public stocks for food security purposes; and expenditures in relation to the provision of domestic food aid to sections of the population in need. Many of the regular programmes of governments are thus given the "green light" to continue.

#### **10.1.2 Direct payments to producers**

The Green Box also provides for the use of direct payments to producers which are not linked to production decisions, i.e. although the farmer receives a payment from the government, this payment does not influence the type or volume of agricultural production ("decoupling"). The conditions preclude any linkage between the amount of such payments, on the one hand, and production, prices or factors of production in any year after a fixed base period. In addition, no production shall be required in order to receive such payments. Additional criteria to be met depend on the type of measure concerned which may include: decoupled income support measures; income insurance and safety-net programmes; natural disaster relief; a range of structural adjustment assistance programmes; and certain payments under environmental programmes and under regional assistance programmes.

#### **10.1.3 Other exempt measures**

In addition to measures covered by the Green Box, two other categories of domestic support measures are exempt from reduction commitments under the Agreement on Agriculture (Article 6). These are certain developmental measures in developing countries and certain direct payments under production-limiting programmes. Furthermore, so-called de minimis levels of support are exempted from reduction.

#### **10.1.4 Developmental measures**

The special and differential treatment under the Green Box aside, the type of support that fits into the developmental category are measures of assistance, whether direct or indirect, designed to encourage agricultural and rural development and that are an integral part of the development programmes of developing countries. They include investment subsidies which are generally available to agriculture in developing country Members, agricultural input subsidies generally available to low-income or resource-poor producers in developing country Members, and domestic support to producers in developing country Members to encourage diversification from growing illicit narcotic crops.

#### **10.2 Blue Box**

Direct payments under production limiting programmes (often referred to as "Blue Box" measures) are exempt from commitments if such payments are made on fixed areas and yield or a fixed number of livestock. Such payments also fit into this category if they are made on 85 per cent or less of production in a defined base period. While the Green Box covers decoupled payments, in the case of the Blue Box measures, production is still required in order to receive the payments, but the actual payments do not relate directly to the current quantity of that production.

#### **10.3 De minimis**

All domestic support measures in favor of agricultural producers that do not fit into any of the above exempt categories are subject to reduction commitments. This domestic support category captures policies, such as market price support measures, direct production subsidies or input subsidies. However, under the de minimis provisions of the Agreement there is no requirement to reduce such trade-distorting domestic support in any year in which the aggregate value of the product-specific support does not exceed 5 per cent of the total value of production of the agricultural product in question. In addition, non-product specific support which is less than 5 per cent of the value of total agricultural production is also exempt from reduction. The 5 per cent threshold applies to developed countries whereas in the case of developing countries the de minimis ceiling is 10 per cent.

#### **10.4 Reduction commitments**

Twenty-eight Members (counting the EC as one) had non-exempt domestic support during the base period and hence reduction commitments specified in their schedules. The reduction commitments are expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which includes all product-specific support and non-product-specific support in one single figure. Members with a Total AMS have to reduce base period support by 20 per cent over 6 years (developed country Members) or 13 per cent over 10 years (developing country Members). In any year of the implementation period, the Current Total AMS value of non-exempt measures must not exceed the scheduled Total AMS limit as specified in the schedule for that year. In other words, the maximum levels of such support are bound in the WTO.

In the case of Members with no scheduled reduction commitments, any domestic support not covered by one or another of the exception categories outlined above, must be maintained within the relevant "product-specific" and "non-product-specific" de minimis levels.

##### **10.4.1 Aggregate Measurement of Support**

**Example: Calculation of the current total AMS**  
Member X (developed country), year Y

**Wheat:**

- > Intervention price for wheat = \$255 per tonne
- > Fixed external reference price (world market price) = \$110 per tonne
- > Domestic production of wheat = 2,000,000 tonnes
- > Value of wheat production = \$510,000,000
- > Wheat AMS (AMS 1)
- >  $(\$255 - \$110) \times 2,000,000 \text{ tonnes} = \$290,000,000$
- (*de minimis* level = \$25,500,000)

**Barley**

- > Deficiency payments for barley = \$3,000,000
- > Value of barley production = \$100,000,000
- > Barley AMS (AMS 2) = \$3,000,000
- (*de minimis* level = \$5,000,000)

**Oilseeds**

- > Deficiency payments for oilseeds = \$13,000,000
- > Fertilizer subsidy = \$1,000,000
- > Value of oilseeds production = \$250,000,000
- > Oilseeds AMS (AMS 3) = \$14,000,000
- (*de minimis* level = \$12,500,000)

**Support not specific to products**

- > Generally available interest rate subsidy = \$4,000,000
- Value of total agricultural production = \$860,000,000
- > Non-product-specific AMS (AMS 4) = \$4,000,000
- (*de minimis* level = \$43,000,000)

**Current total AMS (AMS 1 + AMS 3) = \$304,000,000**

Price support measures have been the most important type of policy measure within the non-exempt category. Price support can be provided either through administered prices (involving transfers from consumers) or through certain types of direct payments from governments. For the purpose of Current Total AMS calculations, price support is generally measured by multiplying the gap between the applied administered price and a specified fixed external reference price ("world market price") by the quantity of production eligible to receive the administered price. Calculation details are specified in Annexes 3 and 4 of the Agreement on Agriculture and also incorporated into Members' schedules by way of references to Supporting Material. For each product, the implicit subsidy of price support measures is added to other product-specific subsidies — a product-specific fertilizer subsidy, for example — to arrive at a product-specific AMS which is then evaluated against the applicable *de minimis* threshold. Non-product-specific subsidies are calculated separately and, as in the former case, are included in the Current Total AMS only if they exceed the relevant *de minimis* level. The example in the box illustrates the calculation of the Current Total AMS for a developed country (5 per cent *de minimis* threshold) in year Y.

#### 10.4.2 Equivalent Measurement of Support

Where it is not practicable to calculate a product-specific AMS as set out in the Agreement, provisions are made of an "Equivalent Measurement of Support" (EMS). The EMS is generally calculated on the basis of budgetary outlays — the money spent by governments to support a product, for example, rather than market price support calculated with respect to a fixed external reference price.

#### 10.5 Notification obligations

All Members must notify the Committee on Agriculture the extent of their domestic support measures. This requires a listing of all measures that fit into the exempt categories: the Green Box, developmental measures, direct payments under production limiting programmes (Blue Box) and *de minimis* levels of support. In addition, where the existence of measures requires it, AMS calculations must be undertaken by Members that have scheduled domestic support reduction commitments and the Current Total AMS must be notified. Where a Member without such scheduled commitments has support measures which are not covered by one or other of the exempt categories, a notification must be made showing that such non-exempt support is within the relevant *de minimis* levels. Special formats have been developed by the Committee on Agriculture in order to facilitate compliance with the notification obligations. The requirement to notify is annual, except in the case of least-developed country Members which are only required to notify every other year. Developing country Members can also request the Committee to set aside the annual notification requirement for measures other than those falling into the Green Box or the developmental or Blue Box

categories. In addition to the annual notification obligations, all Members must notify any modifications of existing or any introduction of new measures in the exempt categories. These notifications too are examined by the Committee on Agriculture on a regular basis. As most Members do not have domestic support measures other than those falling into the exempt categories, the annual notification requirements are in many cases not particularly burdensome. However, they are effective in providing a basis for policy discussions within the Committee on Agriculture and they also serve a useful purpose domestically in enabling governments to maintain an annual overview of support to their agricultural sectors.

## **11.0 Export competition/subsidies**

The core of the reform programme on export subsidies are the commitments to reduce subsidized export quantities, and the amount of money spent subsidizing exports. The Agriculture Agreement also looks at anti-circumvention questions. The proliferation of export subsidies in the years leading to the Uruguay Round was one of the key issues that were addressed in the agricultural negotiations. While under the GATT 1947 export subsidies for industrial products have been prohibited all along, in the case of agricultural primary products such subsidies were only subject to limited disciplines (Article XVI of GATT) which moreover did not prove to be operational.

The right to use export subsidies is now limited to four situations: (i) export subsidies subject to product-specific reduction commitments within the limits specified in the schedule of the WTO Member concerned; (ii) any excess of budgetary outlays for export subsidies or subsidized export volume over the limits specified in the schedule which is covered by the "downstream flexibility" provision of Article 9.2(b) of the Agreement on Agriculture; (iii) export subsidies consistent with the special and differential treatment provision for developing country Members (Article 9.4 of the Agreement); and (iv) export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture. In all other cases, the use of export subsidies for agricultural products is prohibited (Articles 3.3, 8 and 10 of the Agreement).

### **11.1 Reduction commitments**

#### **11.1.1 Definition of measures**

Under the Agreement on Agriculture export subsidies are defined as referring to "subsidies contingent on export performance, including the export subsidies listed in detail in Article 9 of [the] Agreement". As specified in more detail in Article 9.1 of the Agreement, this list covers most of the export subsidy practices which are prevalent in the agricultural sector, notably:

- i. Direct export subsidies contingent on export performance;
- ii. Sales of non-commercial stocks of agricultural products for export at prices lower than comparable prices for such goods on the domestic market;
- iii. Producer financed subsidies such as government programmes which require a levy on all production which is then used to subsidize the export of a certain portion of that production;
- iv. Cost reduction measures such as subsidies to reduce the cost of marketing goods for export: this can include upgrading and handling costs and the costs of international freight, for example;
- v. Internal transport subsidies applying to exports only, such as those designed to bring exportable produce to one central point for shipping; and
- vi. Subsidies on incorporated products, i.e. subsidies on agricultural products such as wheat contingent on their incorporation in export products such as biscuits.

All such export subsidies are subject to reduction commitments, expressed in terms of both the volume of subsidized exports and the budgetary outlays for these subsidies.

### **11.1.2 Product categories**

The reduction commitments are shown in the schedules of WTO Members on a product-specific basis. For this purpose, the universe of agricultural products was initially divided into 23 products or product groups, such as wheat, coarse grains, sugar, beef, butter, cheese and oilseeds. Some Members took commitments on a more disaggregated level. The volume and budgetary outlay commitments for each product or group of products specified in a Member's schedule are individually binding. The reduction commitments on "incorporated products" (last item in the Article 9 list) are expressed in terms of budgetary outlays only. The ceilings specified in the schedules must be respected in each year of the implementation period although limited "over-shooting" in the second to fifth year of implementation is permitted ("downstream flexibility"). By the last year of the implementation period, Members must be within their final export subsidy ceilings.

### **11.1.3 Rates of cut**

Developed country Members are required to reduce, in equal annual steps over a period of 6 years, the base-period volume of subsidized exports by 21 per cent and the corresponding budgetary outlays for export subsidies by 36 per cent. In the case of developing country Members, the required cuts are 14 per cent over 10 years with respect to volumes, and 24 per cent over the same period with respect to budgetary outlays. Developing countries may, during the implementation period, make use of a special and differential treatment provision of the Agreement (Article 9.4) which allows them to grant marketing cost subsidies and internal transport subsidies, provided that these are not applied in a manner that would circumvent export subsidy reduction commitments. All in all, 25 Members (counting the EC as one) have export subsidy reduction commitments specified in their schedules, with a total of 428 individual reduction commitments.

### **11.2 Products with no specific reduction commitment**

The Agreement on Agriculture prohibits the use of Article 9.1 export subsidies on any agricultural product which is not subject to a reduction commitment as specified in the relevant part of the Member's schedule (with the exception, during the implementation, period of those benefiting from special and differential treatment).

### **11.3 Anti-circumvention**

In addition to the provisions directly related to the reduction commitments, the Agreement on Agriculture contains provisions which are designed to prevent the use of export subsidies that are not specifically listed in Article 9 of the Agreement in such a way as to circumvent reduction on other export subsidy commitments (Article 10). The anti-circumvention provisions include a definition of food aid in order that transactions claimed to be food aid, but not meeting the criteria in the Agreement, cannot be used to undermine commitments. Food aid that meets the specified criteria is not considered to be subsidized export hence is not limited by the Agreement on Agriculture. The Agreement also calls for the development of internationally agreed disciplines on export credits and similar measures in recognition that such measures could also be used to circumvent commitments. Any Member which claims that any quantity exported in excess of a reduction commitment level is not subsidized must establish that no export subsidy, whether listed in Article 9 or not, has been granted in respect of the quantity of exports in question.

### **11.4 Notification obligations**

All Members must notify the Committee on Agriculture annually with respect to export subsidies. For the vast majority of Members — those without reduction commitments — this involves only a statement to the effect that export subsidies on agricultural products have not been used (or a listing of those measures that may be used by developing country Members under Article 9.4 of the Agreement if this has been the case). For Members with reduction commitments in their schedules, the annual

notification must contain the annual use of subsidies in terms of both volume and budgetary outlays. In addition, as part of the anti-circumvention provisions, Members must notify the use of food aid on an annual basis if such aid is granted. Likewise, total exports of agricultural products must be notified by Members with reduction commitments as well as by a number of other "significant exporters" as defined by the Committee. As in other areas, the export subsidy notifications form part of the basis for reviewing the progress in the implementation of the commitments by the Committee on Agriculture.

## 12.0 On Agricultural Production Pattern and Distortion

President Bush once tried to say, "Fool me once, shame on you. Fool me twice, shame on me." Paul Wolfowitz, as in his new job as president of the World Bank, some experts prefer to think that he is actually baffling the entire intellectual community by pitching the line that a new WTO agreement is the best way to help the world's poor<sup>15</sup> - when he maintains that protectionist barriers and subsidies in rich countries, especially in agriculture, are hugely harmful to the world's poor. It is to be noted that Mr. Paul Wolfowitz claims that if these barriers were removed, it would provide enormous benefits to the world's poor<sup>16</sup>.

The standard economic models don't provide a basis for great hopes about a new WTO agreement. One recent analysis showed that the worldwide gains would be \$54 billion a year. This might sound impressive, until one starts to realize that it is equal to approximately 0.1 percent of world income. According to this model, approximately 1.9 percent of the gains would go to the world's poor, or close to \$2 billion a year. With 1 billion poor people, this translates into an average gain of \$2 a year. Even this might be too optimistic. Some of the world's poor might end up as losers from a WTO agreement. Cutting back subsidies to rich country farmers could be good news to the farmers who compete with them in the developing world, but it is surely bad news to consumers of these crops. They will have to pay more for their food. Some developing countries are net importers of agricultural products. They will end up as losers because they will be paying higher prices for their imports, with little or no gain on their exports<sup>17</sup>.

The standard models also assume that the work force will remain fully employed. In the real world, workers who lose their jobs in the agricultural sector in developing

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<sup>15</sup> Ideas drawn from Global Policy Forum online resource titled, "The WTO and the World's Poor" by Dean Baker

on "truthout" on July 12, 2006

<sup>16</sup> World trade talks collapsed in Geneva (in July 2004) over America's and Europe's refusal to cut the billions of dollars they provide in support to their agricultural sector. As developing countries contemplate the ruin this spells for their farmers, John Madeley looks into the reasons behind the North's tragic intransigence. They employ less than two per cent of the workforce in their industrialised countries and their contribution to the national economies is rapidly declining. Yet, they receive a level of government support which verges on the bizarre and is causing no end of annoyance to the governments and people of the poorest countries of the world. Indeed, some say, it is a protection racket that was chiefly responsible for the recent collapse of the world trade talks. Welcome to the world of Northern 'farming', a phrase used loosely to describe the whole of the agricultural sector - from small farmers to the largest agricultural multinationals - in the world's richest countries. Government support to farmers in the so-called 'rich countries club' - the 30 who belong to the Paris-based Organisation for Economic Co-operation and Development (OECD) - totalled an astounding Eur 225 billion (US\$283 billion) in 2005, some 29 per cent of farm income. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>17</sup> An OECD study on the agricultural policies of member-states shows that the most heavily protected farmers in 2005 were in Switzerland, where 68 per cent of farmers' income came in government support, Norway (64 per cent), Korea (63 per cent), Japan (56 per cent) and European Union (EU) countries (32 per cent). Most of the support - more than half - was in the form of measures to boost the prices of farm products. These include import tariffs, export subsidies and domestic output subsidies, which "badly distort production, markets and trade", says the study. And it's not the small Northern farmer who is the main beneficiary - the support goes mostly to those who have the largest farms. In the European Union, 80 per cent of the money goes to 20 per cent of enterprises, often large agribusinesses. The day the Doha talks broke down the US agriculture secretary admitted 60 per cent of US farmers receive "virtually nothing" from the US Farm Bill. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

countries may not be able to simply find new employment elsewhere<sup>18</sup>. The mass displacement in Mexico's agricultural sector that followed in the wake of NAFTA has been one of the factors driving immigration into the United States<sup>19</sup>.

The standard models also employ a bit of economic chicanery<sup>20</sup>. They assume that the tariff revenue that developing countries lose when they cut their tariffs is made up from a "lump sum" tax. Lump sum taxes can be a useful modeling tool, but they don't actually exist in the world. A lump sum tax means that the government effectively sucks money out of the economy to pay its bills.

Using lump sum taxes in trade models is dishonest, because lump sum taxes do not lead to economic distortions. Real world taxes, like income taxes, sales taxes, or value-added taxes all lead to economic distortions - meaning that they reduce income. In other words, if the models assumed that the lost tariff revenue from a WTO agreement was made up through any real world tax, the projected gains would be even less than 0.1 percent of income<sup>21</sup>. In short, there is little reason to believe that the world's poor stand much to gain from a new WTO agreement<sup>22</sup>.

<sup>18</sup> Why do governments of Northern countries protect agriculture so heavily? And why are they so reluctant to change? Why does the sector, which accounts for a tiny percentage of their national earnings, have such hold over governments? "Agricultural policy reform is difficult to achieve, perhaps in part because those who fear they would lose are able to block or water down reform initiatives," says the OECD study. In Britain groups such as the Countryside Alliance and the National Farmers Union - which consists mostly of large-scale farmers - have often had considerable influence in government circles. Farmers score well with the public and this in turn influences policy. Popular radio programmes portray British farmers as guardians of the environment. "The strong European farming lobby has successfully tapped into an emotional strain among the public," says Christopher Stevens of the Overseas Development Institute, a London-based thinktank. Many people in Europe therefore go along with the view that a high level of government support for farming is necessary. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>19</sup> In Europe much of the money is channelled through the EU's Common Agricultural Policy (CAP). The single biggest gainer is the British dairy trading company, Fayrefield Foods, which received support totalling more than £22 million (\$40.7m) over 2004 and 2005, according to data obtained by the campaign group farmsubsidy.org. The £10 million claimed by Fayrefield Foods in 2004 was worth almost 10 per cent of its turnover - and dwarfed its profits, which were less than £1 million. The export arm of Dairy Crest, another well-known British brand, received a similar amount from CAP. Nestle, the Swiss food giant whose practices over marketing baby milk substitutes in the developing world have long been controversial, received more than £7 million. Some farm supports even find their way to those who are not the intended beneficiaries - such as large banks that service the agricultural sector. And some of the support to farmers and agribusiness in the North encourages overproduction and dumping - selling below the cost of production - on the world market. This can ruin the livelihoods of countless small-scale farmers in developing countries. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>20</sup> The gainers naturally oppose any changes to the hand that feeds them. When EU governments announced reforms in CAP in June 2003, large-scale farmers strongly opposed a proposal for a ceiling on payments. The reforms de-linked a certain percentage of farm subsidies from production. So EU farmers receive direct payments - de-linked from how much they produce, or whether they produce at all. The reforms were about the way farmers are paid, not lowering levels of overall support. They are most unlikely to stop over-production and dumping, say international aid and development agencies who have examined the reform proposals. And three years on, some EU governments at least seem to recognise that the reforms they hailed as sweeping are nothing of the kind. The UK government has spoken of the need "to urgently tackle the scandal and waste of the CAP". Yet real reduction in levels of EU support has failed to materialise. EU ministers did agree in December 2005 to start a review of CAP in 2008, five years earlier than previously agreed, but France made it clear that it did favour any change before 2013. Farmers in countries with large rural areas such as France and Ireland are especially vocal in their defence of CAP, and have forced their governments not to yield to calls for reforms. Yet even in France, agriculture employs only 4 per cent of the workforce and contributes just 3 per cent to national income. Some say culture, history and tradition are powerful obstacles to change: "fundamental to our identity" is how the French trade minister Christine Lagarde describes farming. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>21</sup> Michael Hart of the Britain-based Small and Family Farms Alliance points out that while agriculture in Britain contributes only about 1 per cent to national income, farms cover almost 80 per cent of Britain's land. "The tourist industry rides on the back of the agricultural landscape," says Hart. "If land is not farmed it will return to wilderness." But the OECD study argues that high levels of support are not necessary to ensure the quality of the environment and prosperity in rural areas. CAP, and other Northern government support programmes like the US Farm Act, have thwarted progress in WTO talks on ending subsidies. The failure of the US and EU to make significant concessions on farm supports was largely responsible for the suspension of the WTO's Doha round in July. Along with continued international pressure, it will take a radical shift in domestic public opinion in the North to get them to change their position.

<sup>22</sup> On the other hand, for example, India's position on farm subsidies is a consequence of the current crisis in the country's agriculture sector. More than half of India's one billion-plus population depends on agriculture though the sector's share in the national GDP has declined to 20 percent from 40 percent over the last decade. In recent years, India's agricultural production has been increasing by less than

It wouldn't be difficult to design policies to aid the world's poor, if anyone cared. For starters, we could exempt them from US-type patent and copyright protections. This would mean that poor countries could always import generic versions of any drug, saving themselves both money and/or the time needed to arrange lower cost shipments from the drug industry. This could potentially save millions of lives as well. Exempting poor countries from patent and copyright rules would save developing countries money on everything from computers and software to books and recorded music and videos. The gains from this policy would vastly exceed even the most optimistic projections of gains from a new WTO agreement.

Of course, Paul Wolfowitz has told us that approving a new WTO agreement is essential for the world's poor. The problem is that there just is no evidence to support this claim. While it may be no easier to know his true motive for promoting a WTO agreement than it is to know Wolfowitz's true motive for promoting the invasion of Iraq, we should not get fooled again<sup>23</sup>.

### **13.0 A Primer on Doha Development Round**

The Ministerial Conference is the apex body of the WTO. The biennial Ministerial Conferences are the most important events of WTO regime and the world of multilateral trade. The first two WTO Ministerial Conferences in Singapore (1996)<sup>24</sup> and Geneva (1998) did not have large agendas and little to decide because they were held in the aftermath of the Uruguay Round (1986-94), the most comprehensive round of MTNs under the aegis of the General Agreement of Tariffs and Trade (GATT). Therefore, they succeeded. However, the 3rd one held in Seattle (1999) imploded ignominiously and that in Cancún (2003) collapsed among acrimonious disagreements and confusion (Das, 2003). The inconclusive end of the Cancún Ministerial essentially eliminated the prospects of Doha Round ending by January 1, 2005, the scheduled completion date. As opposed to them, the 4th Ministerial Conference held in Doha, Qatar (2001), succeeded with a mandate for a new round of MTNs from the WTO members. This Ministerial Conference had to succeed due to several reasons. One of them was the September 11 terrorist attack in New York. At this point in time, the global community sorely needed a tangible symbol of success of cooperation and solidarity. Besides, a failure in Doha—on the heels of the debacle in Seattle—would have been a serious setback to the multilateral trade regime and put it under a question mark. It could have resulted in long-lasting, if not permanent damage, to the multilateral trading system. Many developing economies were less enthusiastic about a fresh round of MTNs essentially because they were having difficulties in implementing the recommendations of the Uruguay Round. Development objective was made an intrinsic part of it for the first time. The skepticism of the developing economies was allayed by promises in the area of development. The round was assigned a pro-development mandate, with integration of the developing economies into the multilateral trading system as one of its

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two percent a year whereas the economy as a whole has been growing by eight percent. India's federal agriculture minister Sharad Pawar confirmed in May that between 1993 and 2003, at least 100,000 farmers had killed themselves because of their inability to repay loans. The Indian media continues to regularly report on suicides in the Vidarbha region in the western part of the country, where 655 farmers have killed themselves mostly by consuming pesticides, in the last two months alone. Prime Minister Manmohan Singh recently visited the region to commiserate with farmers. Pawar has gone on record stating that as many as 16,000 farmers continue to commit suicide each year in 32 vulnerable districts in western and southern India in the provinces of Maharashtra, Andhra Pradesh, Karnataka and Kerala. "The Indian government's decision to refuse to negotiate further on the issue of farm subsidies was a correct one," said Dhar. "What was on offer in the negotiations was way below our minimum expectations. No deal is better than a bad deal," he said, adding that the total quantum of farm subsidies given by the developed OECD (Organization of Economic Cooperation and Development) countries works out to 340 billion US dollars a year or almost a billion dollars a day. Retrieved from Global Policy Forum online resource "Rare Unity Against West's Farm Subsidies" by Paranjoy Guha Thakurta (Inter Press Service; July 27, 2006)

<sup>23</sup> However, the U.S. has come in for severe criticism in India and elsewhere for its intransigence on the issue of reducing subsidies to its farmers. ActionAid's international director John Samuel was quoted on Wednesday in an IPS report saying: "The interests of 90 percent of poor farmers were being threatened for the sake of 2 per cent of the rich farmers." He said that the deadlock marked only a "semicolon in the process of multilateral world trade talks, not a full stop".

<sup>24</sup> The most important contribution of the Singapore Ministerial Conference was the addition of four "new" issues to the agenda of the World Trade organization (WTO), which were subsequently christened the Singapore Issues. They were (1) investment, (2) competition, (3) transparency in government procurement, and (4) trade facilitation.



objectives. The WTO secretariat labeled it the "Doha Development Agenda" or the DDA, the official title of the round. At the time of its launch, it was billed as more than another round of MTNs. A total of 149 WTO members participated in the sixth Ministerial Conference held in Hong Kong SAR in mid-December 2005. If success is defined as lack of failure, it was a success. Candidly speaking, if it was not a failure, it did not achieve much of substance and was not a success either. Mattoo (2006) described the Doha Round as "a stagnant whole"; it is hard to take issue with this assessment. Disappointing as it was, the fact that it did not collapse was its valuable accomplishment. While it did not energize the Doha Round negotiations in any notable manner, it did not leave the MTNs eviscerated.

The Framework Agreement, or the so-called July Package, or the July Framework Agreement of 2004 (WTO, 2004) was the most important event preceding the Hong Kong Ministerial, which provided a firm step forward in the form of a framework for negotiations<sup>25</sup>. Retaining an element of continuity since the launch of the Doha Round, it reiterated the importance of development as a corner stone of the on-going MTNs as well as stressed the pressing need for reform in agricultural trade. Notwithstanding the July Framework Agreement, the MTNs were indubitably stagnating. In view of the disparity of positions among the large trading economies and country groups, major participants had forewarned months before the Conference to keep expectations from the Hong Kong Ministerial low, rendering them easy to meet. Therefore, the Ministerial Conference commenced on a less sanguine note and kept its objectives so low that they can be achieved without difficulty. The targeted low-level equilibrium was indeed achieved at Hong Kong where few bold decisions were taken. Many long-awaited decisions were put off for the future. Success in Hong Kong was possible and could have been achieved by thoughtful, pragmatic and clairvoyant negotiations on the one hand and political will of the member governments on the other.

Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as the rules was the other important, if controversial, issue under negotiations. Very little of value was achieved in these areas in Hong Kong. The harvest of decisions taken was meager because most of the politically difficult decisions were shelved for 2006. That negotiations on agricultural are as important as they are politically sensitive was evident in the Cancun Ministerial Conference also, where the developing economies, led by the Group-of-Twenty (G-20), had made it clear that further progress in the MTNs was not possible without industrial economies agreeing to lower their agricultural subsidies, particularly on cotton. The acrimonious disarray in Cancun was followed by an intense period of negotiations, which culminated in July 2004, providing an outline regarding how the Doha agreement can be restructured. This resulted in the above-noted July Framework Agreement<sup>26</sup>.

In negotiations on trade in agriculture, there are three principal areas of negotiations, namely, export subsidies, domestic support and market access. In the so-called Framework Agreement of July 2004, members had agreed to eliminate export subsidies on farm exports, albeit no deadline was agreed (Das, 2005)<sup>27</sup>. The core achievement in Hong Kong was agreement on a date, end of 2013, for the elimination of export

<sup>25</sup> Ideas and figures drawn from Hong Kong Ministerial of the Doha Round of Multilateral Trade Negotiations: Achieving A Low-Level Equilibrium by Dilip K. Das. It is important to note that Dr. Dilip K. Das was educated at the Graduate Institute of International Studies, University of Geneva, Switzerland. A professor of international trade and international finance and banking, he was associated with Webster College Geneva; ESSEC, Paris; INSEAD, Fontainebleau, France; The Australian National University, Canberra; Graduate School of Business, University of Sydney, Sydney. He has published extensively on international trade, international finance, international business and globalization related issues. His most recent books include *Regionalism in Global Trade*, Edward Elgar, Boston, USA, 2004 and *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Palgrave Macmillan Ltd. Houndmills, Hampshire, UK. 2005. He presently works as a Toronto-based consultant to multilateral organizations.

<sup>26</sup> Developing countries led by Indonesia, India, and China issued a strong message to the World Economic Forum under way here that they will not allow attempts to dilute the agricultural negotiations in the Doha Round of trade talks by certain industrialised countries, especially the United States.

<sup>27</sup> Das, Dilip K. 2005. *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Houndmills, Hampshire, UK. Palgrave Macmillan Ltd.

subsidies. The EU, which accounted for 90 percent of these subsidies, accepted this date. The US, the developing economies—both the G-20 and the Group-of-Ninety (G-90)—and the Cairns Group had unsuccessfully tried to move this date back to 2010, but the EU took an intransigent stand<sup>28</sup>. The MTNs had languished since 2001 because of impasse over the politically sensitive agricultural issues. They had impeded negotiations in the other areas of MTNs as well. Therefore, in the interest of progress in the MTNs, the 2013 had to be reluctantly accepted. What was more disappointing was that negotiations on market access, or tariffs on agricultural products, and trade-distorting domestic support payment completely failed to make progress. These were more difficult areas of negotiations in agriculture than export subsidies. Any decision on them was deferred for 2006.

The US pledged to end export subsidies to its cotton farmers. Cotton exports are of special interest to farmers in Benin, Burkina Faso, Mali, Chad and Senegal, referred to as the Cotton-4. All of them were low-income least-developed countries (LDCs) and had stringently protested against the US subsidies for years. Ironically, the US was obliged to repeal them because it was challenged by Brazil on this issue in the WTO. In early 2005, the dispute settlement panel had given an adverse ruling. The US Congress was expected to repeal the subsidy within days of this promise. Once the final agreement is reached and implementation of the Doha Round recommendations begins, these countries would be provided duty-free, quota-free access of their cotton exports.

Regarding the non-agricultural market access (NAMA), the Hong Kong declaration made small progress, albeit left specifics of the modality decision to be taken between April and July 2006, which for all appearances seemed an unrealistic target<sup>29</sup>. The Hong Kong declaration locked in the progress of the Framework Agreement of July 2004 and members agreed to reduce or eliminate tariff peaks, high tariffs and tariff escalation. The so-called Swiss formula for slashing industrial tariff was adopted which, for a given set of parameters, cuts higher tariff rates proportionately more than the lower tariff rates. As no coefficients were mentioned in the declaration, the agreement was made mild. Mention of a higher coefficient for the industrial economies and lower one for the developing economies in the agreement would have made the NAMA related declaration more consequential.

Of the 50 LDCs, 32 are members of the WTO. According to the Hong Kong declaration, these members would be provided duty-free and quota-free market access for most—at least 97 percent of tariff lines—of their export products by 2008, or no later than the start of the implementation period. There is a probability of excluding sugar and textiles from this concession to the TDCs. A small undertaking on “aid for trade” is also a part of the Hong Kong proposal. This is an offer to assist small developing economies lack the infrastructure for trade. They also lose out due to competition. The industrial economies offered them deals in the area of capacity building and debt relief. Pledges for aid for trade were made by the EU, Japan and the US. One analyst regarded them as a mere bauble, a trivial give away (Halle, 2006)<sup>30</sup>. In the services trade the Hong Kong declaration set the deadline for negotiations, requiring member countries to make offers to open their markets in financial services, telecommunications, computer and related services, distribution, and energy services by July 2006 and final offers by October 2006. The agreement in Hong Kong established little in this important area of negotiations. Stalemate in services negotiations continued.

The opportunity that the Doha Round offers to the global economy, particularly the trading economies, is that of multilateral, non-preferential, legally-binding partial liberalization. A reasonably successful Hong Kong Ministerial would have resulted in welfare gains for the global economy, and its different regions and sub-regions. Estimates of gains from partial reforms promised under the Doha Round inter alia were

<sup>28</sup> The Group-of-Ninety (G-90) is a large group of diverse developing economies and includes the emerging-market economies (EMEs), the newly-industrialized economies (NIEs) on the one hand and the low-income developing economies like the least-developed countries (LDCs) and the African, Caribbean and Pacific (ACP) countries on the other.

<sup>29</sup> The term modality implies schedules, formulas and other criteria for implementing tariff and subsidy reduction rates as well as the time table.

<sup>30</sup> Halle, M.2006. “Is Let’s Make a Deal Now Dead at the WTO?” IISD Commentary. Geneva. International Institute of Sustainable Development. January 6.

made by Anderson et al (2006) and Anderson and Martin (2006)<sup>31</sup>. The principal conclusions of these empirical studies, that utilized a newly released database on protection and the latest version of the World Banks Linkage model, are as follows<sup>32</sup>:

- If one were to take under consideration merely the static benefits, potential gains from liberalization of trade under the Doha Round are large. In addition, there will be dynamic gains stemming from increased scale economies and competition, which is value-creating.
- While the developing economies' share of the global GDP is 20 percent, their gains from the Doha Round liberalization will be 30 percent of the total. This would lead to 0.8 percent rise in welfare in the developing economies, compared to 0.6 percent rise in the welfare in the industrial economies.
- Complete liberalization of merchandise trade would result in 45 percent of the global welfare gains going to developing economies. Their welfare could increase as much as 1.2 percent compared to an increase of 0.6 percent rise for the industrial economies.
- The proportion of welfare gains going to the developing economies is higher because their tariff barriers are relatively higher. Reforms would lead to higher efficiency gains in the developing economies. Also, their agricultural and textile exports face much higher tariffs in the industrial economies' markets than do exports from the industrial economies.
- Reforms and liberalization by the developing economies in their own economies will be as meaningful in terms of economic benefits as those in the industrial economies. By delaying reforms in their own economies, the developing economies will fail to realize the full potential gains from the Doha Round.
- Trade in agricultural products is the newest frontier of trade liberalization. This sector still suffers the stigma of the highest bound tariffs and largest subsidies, and needs large cuts in both.
- Trade liberalization in agriculture is of crucial importance, although importance of agriculture in the global GDP has been on a decline. Trade liberalization measures in agriculture will have far reaching implications for developing economies as well as the global economy. Approximately two-thirds of the total gains from the Doha Round are likely to come from agricultural liberalization, compared to almost a quarter from textiles and apparel and a tenth from other merchandise trade liberalization<sup>33</sup>.

<sup>31</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2006. "Market and Welfare Implications of the Doha Round Scenario" in K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank, pp. 333-399.  
Anderson, K. and W. J. Martin. 2006. "Agriculture, Trade reform and the Doha Agenda" in Anderson, K. and W. J. Martin (eds) *Agricultural Trade Reform and the Doha Agenda*, London and Washington, Palgrave Macmillan Ltd and the World Bank, pp. 3-35.

<sup>32</sup> Please refer to the WTO text on Hong Kong Ministerial No: WT/MIN(05)/W/3, issued on 7 December 2005 to see how these expectations were flouted in a virtually inactive/inconclusive set of declarations (to be) made at the aftermath of the HK meeting.

<sup>33</sup> Ideas and concepts heavily drawn from the article, "The Politics of Trade Liberalization in the Presence of FDI Incentives", by Andréa M. Maechler (Swiss National Bank; Last Revised: July 14, 2000). The paper examines whether inward FDI incentives can soften the political constraints associated with trade liberalization. After introducing the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996), the paper traces the effects of FDI incentives on the politically sustainable equilibrium level of trade protection. In particular, the paper shows that FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they inhibit the process of trade liberalization when labor is the main influential political force. Welfare implications are also considered. One of the major contributions of this paper is to introduce the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996). While their maximization technique is borrowed for use in the paper, the author has modified it to analyze the interactions between the equilibrium levels of FDI incentives and of trade protection. In particular, how the presence of one policy instrument (FDI incentives) influences the equilibrium level of another policy (trade protection) is highlighted. According to the model presented in the paper, FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they exacerbate the process of trade liberalization when labor is the main influential political force. This dichotomy, which arises from the conflicting interests pursued by the lobby groups, highlights how important it is for the government to understand the economic and political motivations of the lobby groups if it wants to promote an environment conducive to free trade. In particular, the results of the paper suggest that the domestic capital owners favor an FDI tax, while the labor union always lobbies for a higher level of trade protection. In equilibrium, when the two interest groups lobby over both policies, the government is in a better position to implement trade liberalization. If, however, one of the interest groups (say, the labor union) is particularly prominent on the political stage, it may be harder for the government to override its lobbying exports and hence, to liberalize trade. Finally, the model suggests that the highest levels of policy intervention occur when special interest groups participate in the lobbying process, when these groups represent a relatively small fraction of

Broadly speaking, there are substantive gains from liberalization of merchandise trade in the Doha Round of MTNs, particularly that in agricultural trade. The on-going MTNs are likely to culminate in partial trade reforms of the multilateral trade regime. The old assessment of global gains from partial trade reforms was \$400 billion in 2015, which was computed with the help of the World Bank's LINKAGE model (WB, 2004). Revised estimates of global gains have been scaled down to \$290 billion in 2015 (van der Mensbrugghe, 2004)<sup>34</sup>. There were three reasons for this difference in the two estimates. First, a new Global Trade Analysis Project (GTAP) dataset was used to compute the second estimates, which had a different base year from the earlier computations. The bench mark of the earlier estimates was 1997, while that for the more recent ones was 2001. The new data set also incorporated the trade policy reforms undertaken between 1997 and 2001. It also reflected the non-reciprocal tariff preferences, which the previous data set did not incorporate. Second, the new data set successfully reflected the transformations that came about in the global economy, particularly the changing value of the dollar vis-à-vis other major currencies after 1997 and rising importance of several Asian economies as traders of global significance. Third, the new bench mark also included major global economies developments like China's WTO accession and liberalization commitments, implementation of the Uruguay Round commitments, of which dismantling of the multi-fiber agreement (MFA) was an important part, and the expansion of EU from 15 to 25 members that took place in May 2004. Together these developments have had an appreciable impact over the multilateral trade regime and the global economy. The value of welfare gains stemming from them was estimated to be \$70 billion to the global economy in 2015. As they were incorporated into the new baseline, they cannot be expected to make a renewed contribution to the estimates of welfare gains from the on-going round of MTNs.

Using a global model, Anderson et al (2005)<sup>35</sup> estimated potential consequences from a successful Doha Round agreement. According to their estimates, it could annually generate income gains for the global economy between \$95 billion and \$126 billion. While making these estimates, it was assumed that no exemptions were being made for sensitive and special agricultural products. Agriculture trade liberalization was found to have the largest impact. Reforms in this one sector will be responsible for 60 percent of the total gains from merchandise trade liberalizations. On the whole, larger income gains were estimated to go to the industrial economies because they were assumed to undertake more aggressive trade reforms in the Doha Round. As the developing economies suffer from a large binding overhang, and negotiations are based on bound tariffs, not applied tariffs, the reforms undertaken by them will only have a minor impact in terms of genuine liberalization of the trade regime<sup>36</sup>. Given this scenario, the industrial economies would achieve between 40 percent and 45 percent of what they could under full merchandise trade reforms. Similarly, the developing economies will achieve approximately 20 percent of what could be achieved under full merchandise trade reforms. Adding these gains, total global welfare gains that are likely to be achieved come to one-third of those from freeing global merchandise trade totally.

Developing economies have more to gain from full elimination of merchandise trade barriers. As trade reforms engender positive externalities in the form of improved productivity in the economy, the gains to developing economies could increase up to \$200 billion in 2015 (Anderson et al, 2005)<sup>37</sup>. The state of MTNs at the time of the

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the population and when the government places a relatively large weight on political contributions. This suggests that if a country's political framework does not restrain the government from pursuing mostly political rather than economic objectives, it would be socially optimal to substitute the government's discretionary powers over trade policy with a commitment to free trade. The paper is a must read for understanding some of the basic tenets of the entire research project that we have undertaken.

<sup>34</sup> van der Mensbrugghe, D. 2004. "Linkage Technical Reference Document: Version 6.0". Washington DC. The World Bank. Available on the Internet at <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1100792545130/LinkageTechNote.pdf>.

<sup>35</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2005. "Global Impact of the Doha Scenario on Poverty". Washington DC. The World Bank. (mimeo).

<sup>36</sup> The term binding overhang needs to be explained. A country may decide to apply tariff rate of 20 percent on the import of a good, but it may keep the bound tariff at 50 percent. The WTO rules allow this country to raise its tariff rate to 50 percent if it so decides. The difference between the bound tariffs and applied tariffs is known as the "binding overhang".

<sup>37</sup> Ibid

Hong Kong Ministerial Conference clearly indicated that liberalization measures adopted in agriculture and manufactures can be realistically expected to be modest, albeit improvements in the market access in agricultural market in the industrial economies is well within the realm of possibility. Empirical evidence is available to show that trade liberalization contributes to poverty alleviation<sup>38</sup>. Also, estimates of impact of trade liberalization under the DDA on poverty came to a positive result. This was essentially due to the fact that the existing pattern of global protection favors skilled labor and capital relative to unskilled workers. Therefore, reduction or elimination of barriers in merchandise trade would lift the unskilled wages, the primary source of income for many of the world's poor. In real terms this wage increase was found to be modest. Hertel and Winters (2006)<sup>39</sup> show that the poorest in the developing economies can potentially benefit most from the liberalization endeavors during the Doha Round of MTNs. However, that was found to be conditional. For the poor to benefit, the liberalization targets "under the DDA have to be ambitious if the round is to have a measurable impact". Only deep tariff cuts would have poverty friendly impact. Even then the "near-term poverty impacts are likely to be mixed" (Hertel and Winters, 2005)<sup>40</sup>. If the developing economies decide not to take reform measures, the estimated poverty impact would decline markedly. Notwithstanding this pessimism, the long-term impact of the DDA on poverty reduction is more definite and pronounced.

However, a quagmire around agriculture has evolved. Although a declining sector of the global economy, it still employs a large proportion—54 percent—of work force in the developing economies<sup>41</sup>. Not freeing trade in agriculture from barriers works basically against the interest of the developing economies<sup>42</sup>. Also, it cannot be ignored that majority of the poor in the developing economies live in the rural areas. It is widely acknowledged that poverty is essentially a rural phenomenon in the developing economies. Therefore, if the final outcome of the MTNs has to be pro-poor, trade in agriculture will need to be an area of exclusive attention. Liberalization of agricultural trade would gradually change market shares of countries and country groups and eventually reflect the comparative advantage of countries and country-groups in multilateral trade<sup>43</sup>.

The articles of agreements of the GATT-1947 had some regulations for trade in agriculture, but they made several exceptions and had loopholes, which were freely exploited by the Contracting Parties (CPs). Consequently, agriculture became one of the most distorted areas of multilateral trade. Industrial economies increasingly subsidized

<sup>38</sup> See, for instance Dollar and Kraay (2004), Winters (2004) and Winters, McCulloch and McKay (2004).

<sup>39</sup> Hertel, T.W. and L.A. Winters. 2006. Poverty and the WTO: Impacts of the Doha Development Agenda. London and Washington Palgrave Macmillan Ltd and the World Bank.

<sup>40</sup> Hertel, T.W. and L.A. Winters. 2005. "Poverty Impacts of a WTO Agreement: Synthesis and Overview in Hertel and Winters (eds.) Putting Development Back into the Doha Agenda: Poverty Impact of a WTO Agreement. Washington DC. The World Bank. pp. 3-28.

<sup>41</sup> HK Ministerial text denotes "On domestic support, we note in particular that there is a working hypothesis of three bands for developed countries for reductions in Final Bound Total AMS and in the overall cut in trade-distorting domestic support with higher linear cuts in higher bands. In addition, developed countries in the lower bands with high relative levels of Final Bound Total AMS will make an additional effort in AMS reduction. We also note that there has been some convergence concerning the reductions in Final Bound Total AMS, the overall cut in trade-distorting domestic support and in both product-specific and non product-specific de minimis limits". (Paragraph 5 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>42</sup> "We recall our agreement to ensure the parallel elimination of all forms of export subsidies, and disciplines on all export measures with equivalent effect by a credible end date. We note emerging convergence on some elements of disciplines with respect to export credits, export credit guarantees or insurance programmes with repayment periods of 180 days and below, as well as on some aspects of exporting state trading enterprises, and on some elements regarding the disciplines on food aid necessary to eliminate commercial displacement." (Paragraph 6 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>43</sup> "On market access, we note in particular the progress made on ad valorem equivalents and that there is a working hypothesis for four bands for structuring tariff cuts. We also note that there have been some recent movements on the designation and treatment of Special Products and elements of the Special Safeguard Mechanism (SSM)". (Paragraph 7 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"On special and differential treatment, we note in particular the consensus that exists in the Framework on several issues in all three pillars of domestic support, export competition and market access and that some progress has been made on other special and differential treatment issues." (Paragraph 8 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"However, we recognize that much remains to be done in order to establish modalities and to conclude the negotiations. Therefore, we agree to intensify work on all outstanding issues. In particular, we are resolved to establish modalities no later than [...] and to submit comprehensive draft Schedules based on these modalities no later than [...]" (Paragraph 9 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

their farm sector and trade—which was permissible—and erected trade barriers. So much so that trade in agriculture was virtually outside the ambit of the GATT system until the Uruguay Round (1986-94). It was not easy to bring it under the multilateral trade regime like merchandise trade. After enormous and long drawn-out efforts, the Uruguay Round Agreement on Agriculture (URAA) was instrumental in drawing agricultural trade within the sphere of the multilateral trade regime. These efforts not only contributed to slowing down of the negotiations in the Uruguay Round but also prolonged it. The URAA imposed new disciplines on trade in agricultural products. The new rules were implemented between 1995 and 2000. Under the URAA industrial economies committed to (i) reducing domestic support to agriculture, (ii) reducing export subsidies and (iii) improving access to their markets. These were referred to as the "three pillars" of the agreement. As progressive liberalization of agricultural trade was a long-term process, the WTO members committed to continue negotiations on it under the so-called "built-in agenda". This was the mandate of the WTO Agreement of April 1994. Accordingly, the agricultural negotiations began in January 2000.

Since the URAA agricultural trade has continued to grow, but ironically more slowly than the pre-URAA period and more slowly than non-agricultural trade (OECD, 2005a)<sup>44</sup>. While trade in agriculture came within the domain of the multilateral regulations, the URAA failed to deliver significant multilateral liberalization in agricultural trade (Messerlin, 2002)<sup>45</sup>. Developing economies complained that on the whole the URAA did not work as intended and that they did not get a fair deal. Evidence supported their gripe that tariff cuts by the developing economies were significantly deeper than what was agreed to by the industrial economies (Finger and Winters, 2002)<sup>46</sup>. In addition, they had to commit to costly commitments that were embodied in the Sanitary and Phytosanitary (SPS) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements. Some of the requirements for the developing economies under the SPS agreements are more stringent than those for the industrial economies. Given this background of malcontent, higher market access commitments were sought by the developing economies in the Doha Round from the industrial economies.

As expected, the Doha Round began with high expectations of reforms in agricultural trade, but members did not agree on the first draft on modalities which was presented in February 2003. The Cairns Group found the draft unambitious, conversely the EU, Japan, Norway and Switzerland found it not only overly ambitious but also unbalanced in terms of the three pillars of negotiations. Among many disagreements and contretemps in the 5th Ministerial Conference, held in Cancún, were the sectoral initiative taken by the Cotton-4 opposing cotton subsidies in the industrial economies because they depressed cotton revenues in the West African countries by \$250 million per year (Section 3). The demand of the Cotton-4 countries was met in the Hong Kong Ministerial. Before the Cancún Ministerial, the EU and the US agreed on a broad framework for negotiating agricultural trade liberalization and presented a joint framework paper on agricultural negotiations, which was found to be weak by many members. It was followed by counter-proposal by the G-20. This framework paper was more ambitious than the EU-US framework paper, particularly in the areas of export subsidies and domestic farm support. There were significant differences in the two framework papers and deep disagreements regarding how to proceed. A veritable negotiations log-jam was created.

After intense negotiations, an elaborate "Framework for Establishing Modalities in Agriculture" was prepared and made into an Annex of the Framework Agreement July 2004. This Annex was the most significant part of the Framework Agreement and was structured around the three pillars. Members had decided upon a framework to eliminate all forms of export subsidies as well as render better discipline on export credit and exporting state trading enterprises. Regarding the trade distorting farm subsidies, it was agreed in the Framework Agreement that the new discipline will

<sup>44</sup> Organization for Economic Cooperation and Development (OECD). "Tackling Trade in Agriculture". Policy Brief. November.

<sup>45</sup> Messerlin, P.A. 2002. "Agriculture in the Doha Agenda". Paper presented at the World Bank Roundtable on Policy Research in Preparation for the 5th Ministerial Conference in Cancún in Cairo, during May 20-21.

<sup>46</sup> Finger, J.M. and L.A. Winters. 2002. "Reciprocity in the WTO" In B. Hoekman, A. Mattoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC. The World Bank.

include deeper cuts in farm subsidies in countries which have the highest levels of subsidies. "Progressive tariff reductions" was also a part of the Framework Agreement. However, the timeframe of implementation was left without mention.

The industrial economies dominated the global trade in agriculture when the Doha Round was launched, as they did at the time of the Hong Kong Ministerial. While developing economies exporters have more market access opportunities in agriculture than in textiles and clothing, even at the time of the Hong Kong Ministerial their exports faced high tariffs in the industrial economies. While average tariff rates faced by agricultural exports from the developing economies are 15.6 percent in the industrial economies, they are 9.3 percent for textiles and apparel exports and 2.5 percent for the other manufacturers (Anderson and Martin, 2006)<sup>47</sup>. Producer support estimates (PSE) for the Organization for Economic Cooperation and Development (OECD) economies were almost the same in 2001-03 as in 1986-88, hovering around \$240 billion annually (Anderson and Martin, 2006)<sup>48</sup>. Agricultural tariffs are high in the developing economies as well, therefore, this sector a fortiori deserves special attention in the on-going Doha Round negotiations<sup>49 50 51</sup>.

Three months before the Hong Kong Ministerial Conference, the US had made a proposal for deep cuts in both, but the EU made a weak counter-proposal which would have resulted in little additional market access to what is currently available. Differences in positions were wide and agreement on trade in agriculture was not reached in the Hong Kong Ministerial, but some progress was made in the year and a half since the Cancún Ministerial, which led to narrowing of differences. However, negotiations were nowhere near deciding on modalities.

<sup>47</sup> OECD (2005b) buttresses this point using producer support statistics for the 1986-2004 period.

<sup>48</sup> Producer Support Estimate (PSE) is defined as the annual monetary value of gross transfer from consumers and tax payers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on the farm production or income.

<sup>49</sup> As of January 2007, Trade ministers of the G33 are demanding flexibility to moderate the impact of imports of some farm products such as rice, pulses (legumes), and sugar on its farmers, and will work with World Trade Organisation members to ensure development is part of the multilateral trade negotiations. World leaders - including British Prime Minister Tony Blair, Brazil's President Luiz Inácio Lula da Silva, South Africa's President Thabo Mbeki, among others stepped up their efforts at the World Economic Forum's 37th annual meeting for a speedy conclusion to the stalled "Doha Development Round", but differences cropped up over how to intensify the talks and who should make the first move to break the deadlock.

<sup>50</sup> In July, the WTO director general suspended the negotiations after trade ministers of the G6 (United States, European Union, Brazil, India, Australia, and Japan) failed to agree on the magnitude of reduction commitments for farm subsidies and tariffs. The leaders reportedly insisted that all members must strive for an early conclusion of the Doha trade negotiations (launched at the 4th WTO ministerial conference in the Qatari capital, in 2001), stating that a failure to arrive at an agreement bodes poorly for the global trade system. During a closed-door meeting of leaders convened by the WEF on Friday, in which the WTO chief Pascal Lamy chaired the discussion, the Indian trade minister said many developing countries would prefer a formal resumption of trade talks, arguing that they want a "credible" outcome from the Doha Development Agenda.

<sup>51</sup> At the core of the stalemate in the Doha farm trade package is whether the United States is ready to cut what some call its trade-distorting domestic subsidies to a level below 15 billion dollars, and accept clear discipline to ensure that there is no concentration of subsidy payments for certain products. In October 2005, the United States had proposed that it would reduce its agricultural subsidies to a level above 22 billion dollars, but almost all members rejected the U.S. proposal on the ground that it allowed no material change in its current subsidy payments. The United States, for example, spent little over 11 billion dollars last year on farm subsidies. Consequently, the EU, Brazil, India, Canada and others insisted that the U.S. demands to spend on its domestic subsidies well over its current actual subsidy payments leave farmers in other countries at disadvantage. In fact, the U.S. subsidies for cotton were found to have depressed global cotton prices, harming the interests of four West African cotton-producing countries: Benin, Chad, Burkina Faso, and Mali. The ongoing intensive consultations between Washington and Brussels to find what they are calling a "landing zone" for a palatable agreement in the Doha farm package is facing difficulties on account of differences on how big the reductions of farm subsidies should be. U.S. Trade Representative Susan Schwab has repeatedly said that Washington is committed to curbing its farm subsidies, provided there is real market access for U.S. farm products into industrialised countries, such as the EU, Japan, and Switzerland, and developing countries like India, China, and Indonesia. Washington had maintained that the flexibilities sought by the G33 members, through what are known as special products and special safeguard mechanisms, would constitute a loophole to deny market access for U.S. products. Arguing that trade liberalisation is all about opening markets as new trade flows provide an opportunity for all countries, the United States had demanded steep cuts in import tariffs for both farm and industrial products. Many developing countries have rejected the U.S. demands to pry open their farm markets on the grounds that they have specific livelihood and rural development concerns that cannot be sacrificed overnight.

Therefore, a new schedule was agreed in Hong Kong for continuing negotiations in 2006 and resolve the unfinished agenda by the end of the year. Going by the past experience, this target appears unattainable<sup>52</sup>.

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<sup>52</sup> Ideas expressed and initiated in this section are heavily drawn from "The Implications of Trade and Investment Liberalization for Sustainable Development: Review of Literature; Final Report", Prepared by Colin Kirkpatrick, Clive George, and Serban S. Scricciu; Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester for the Department for Environment, Food and Rural Affairs; 19th May 2004. This study was undertaken at the request of the UK Department for Environment, Food and Rural Affairs, United Kingdom. Its purpose was to provide a comprehensive and critical review of the literature relating to the implications for sustainable development, in particular the environmental and social dimensions, of the greater liberalization of international trade and investment flows. The study has examined the likely effects of trade liberalization and greater investment flows on sustainable development, which is considered to have three aspects, namely economic, social and environmental. The study primarily focuses on the environmental and social dimensions of sustainable development, and examines whether these potential impacts of trade and investment liberalization are likely to be positive. In making this assessment, the study has taken into consideration both their direct (positive and negative) impacts and indirect consequences. In the course of the literature review, over 200 studies have been selected for inclusion in the report. Some of these studies have been of a theoretical nature but most have been empirical studies. Based on these studies, the assessment of the potential impact of trade and investment liberalization on sustainable development is organized around the following cross cutting effects:

- Scale effects: the impact of increased levels of trade, investment and economic activity on environmental and social outcomes.
- Structural effects: the implications for environmental and social outcomes of the structural adjustment within and between economies that occur as the pattern of resource use (production and consumption) shifts in response to trade or investment liberalization.
- Technology effects: environmental or social outcomes arising from greater access to new technologies, which in general tend to produce less pollution and use fewer resources than their predecessors.
- Location effects: the environmental and social implications of shifts in production and consumption between countries, and possibly shifts within countries.
- The integration of environmental (and social) considerations (or lack of it) into global and regional trade and investment institutions and frameworks.

Key Findings mention that:

- Much of the literature on the consequences of trade liberalization is focused on one dimension of sustainable development and seldom provides an integrated analysis of the economic, environmental and social effects of greater trade and investment flows.
- The methodologies used in the empirical studies are very diverse. There are potential difficulties if the use of different methods, in the same situations, leads to apparently different findings. This highlights the importance of clarifying the methodology used in each study and its principal assumptions when interpreting its findings.
- Much of the economic analysis of trade liberalization uses a combination of classical trade and welfare theory to deduce, under idealized market conditions, that trade liberalization will lead to increased economic welfare and 'optimal' environmental quality. However, in imperfect market conditions, 'win-win' outcomes are not guaranteed. In real world situations, both negative and positive effects should be expected. 'Win-win' outcomes may be potentially realizable, but whether this is achieved in practice may depend on the nature and extent of the flanking and other supporting measures that are taken.
- The findings of the empirical studies, though they differ in detail, reach the same conclusions and are consistent with the findings reached in the theoretical studies. Although there are often potential, aggregate economic welfare gains to be made from trade liberalization and increased foreign investment inflows, these are not necessarily shared by all countries and all socio-economic groups within these countries. Further, a significant number of the cases reviewed contain examples where the environmental (and social impacts) are negative, where existing environmental and social protection measures are insufficiently effective. As in the case of the theoretical studies, flanking and other supporting measures assume a potentially pivotal role, if trade liberalization is expected to deliver an overall positive contribution to sustainable development.
- The review of the literature provides support for the conclusion that most 'win-win' outcomes for sustainable development are conditional upon the application of appropriate flanking and other supporting measures. Formal appraisals of flanking measures for trade policies are not well developed. However, certain types of environmental policy instruments that may be used have been appraised in other policy contexts and these may be adapted for use in the trade policy area.
- The responsibility and authority for adopting and implementing the different flanking and other supporting measures varies. Only some of these lie with the WTO. The remainder fall within the competence of other international organizations, including the multilateral environmental agreements, or more commonly, with national and local government authorities supported by their social partners. Effective co-operation between different government ministries and different international institutions is very important, and in the case of developing countries, financial and other forms of external support are needed to assist the poorer countries to participate fully in the trade and sustainable development process.



## 14.0 Other Issues of Relevance to Agriculture

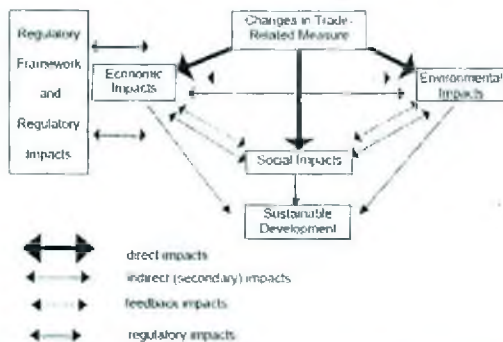
The main reduction commitments are in market access, domestic support and export subsidies. But the Agriculture Agreement contains other provisions, including export restrictions, a "peace clause", dispute settlement and further negotiations.

### 14.1 Export restrictions

The Agreement on Agriculture requires Members which consider to institute new export restrictions on foodstuffs to give due consideration to the effects of such restrictions on importing Members' food security. Members, except developing country Members which are not net exporters of the product concerned, must notify the Committee on Agriculture before introducing new export restrictions on foodstuffs and consult with affected Members if so requested. This requirement — increased reliability of access to world market supply — is a corollary for the opening of markets which is required by the market access provisions of the Agreement and the related specific commitments undertaken by Members.

### 14.2 Peace clause

The Agreement in Agriculture contains a "due restraint" or "peace clause" which regulates the application of other WTO agreements to subsidies in respect of agricultural products (Article 13). The provisions provide that Green Box domestic



The theoretical and empirical evidence that has been reviewed in this study confirms that while trade and investment liberalization may be a necessary condition for continued growth and hence provide one of the cornerstone policies in promoting sustainable development, it is not a sufficient one. To ensure that trade and investment liberalization contributes to sustainable development in developed and developing countries, sound social and environmental policies are needed, both at the national and international level. This requires the development of appropriate regulatory frameworks. The robustness of environmental and social policies and institutions, including the adequacy of supporting regulatory instruments, are important determinants of the environmental and social impacts of trade and investment liberalization. The paper concludes that trade and investment liberalization impacts on the environment in many different ways. In many situations — possibly the majority — both the economy and the environment may benefit but only if certain preconditions are met. These preconditions are established by implementing a set of policies that will allow for 'win-win' outcomes to be realized. The aim of key policies such as those outlined above is to ensure that any negative repercussions that greater trade and investment liberalization might have on environmental performance are minimized as much as possible and that any eventual positive impacts are maximized. The objectives of such policies may conflict with the principles underlying trade and investment liberalization, as they are intended to promote environmentally sustainable development rather than simply economic efficiency and growth. How environmental policy-making relates to multilateral trade and investment policies is an ongoing and contested area for international discussion and negotiation within and outside the WTO (Jha V. (2002) 'Environment, Regulation and the WTO' in B. Hoekman, A. Mattoo and P. English (eds) *Development, Trade and the WTO: A Handbook*. Washington DC: World Bank; Sampson, G. P. and Chambers, W.B. (2002) *Trade, Environment, and the Millennium*, United Nations University Press). Irrespective of the institutional structures that evolve, multilateral trade policy and environmental policy-making need to jointly address issues in a balanced and coherent manner, which recognizes that trade liberalization and environmental protection are each means for achieving the end goal of global sustainable development. Policies on economic development and environmental (and social) protection should be designed and implemented in conjunction with each other, thereby avoiding the separation of trade liberalization policy from environmental policy. In other words, the more integrated environmental and trade policies are, the more sustainable economic growth will be (Panayotou, 2000). Moreover, it is crucial in the case of developing countries that besides effective cooperation between various institutions and governments, substantial additional financial and technical assistance is provided to enable the poorer nations to engage effectively in this process of enhancing understanding and strengthening policy coordination in the areas of trade, environment and development.

support measures cannot be the subject of countervailing duty action or other subsidy action under the WTO Agreement on Subsidies and Countervailing Measures, nor can they be subject to actions based on non-violation nullification or impairment of tariff concessions under the GATT. Other domestic support measures which are in conformity with the provisions of the Agreement on Agriculture may be the subject of countervailing duty actions, but due restraint is to be exercised by Members in initiating such investigations. Further, in so far as the support provided to individual products does not exceed that decided in the 1992 marketing year, these measures are exempt from other subsidy action or nullification or impairment action. Export subsidies conforming to the Agreement on Agriculture are, to the extent relevant, covered by corresponding provisions.

The peace clause remains in effect for a period of nine years.

### **14.3 Resolving disputes**

In the case of disputes involving provisions of the Agreement on Agriculture, the general WTO dispute settlement procedures apply. Nevertheless, the Agreement also provides for certain mechanisms that can be used by Members to address their concerns without recourse to these procedures. In particular, the review process of the Committee on Agriculture provides a forum for discussion and consultation. This process is mainly based on the notifications and on a provision (Article 18.6) allowing any Member to raise at any time any matter relevant to the implementation of the commitments under the reform programme as set out in the Agreement. There is also a counter-notification provision. Furthermore, the Working Procedures of the Committee allow Members to request the Chairperson to mediate in concerns that may arise between them. The use of instruments under the auspices of the Committee on Agriculture does not, however, prevent any Member from seeking formal dispute settlement at any time.

### **14.4 Continuation clause**

The commitments taken under the Agreement on Agriculture and within the Members' schedules are part of an ongoing process. Already at the conclusion of the Uruguay Round, Members agreed to hold further negotiations on agriculture commencing one year before the end of the six-year implementation period (Article 20). These negotiations will examine what further commitments are necessary to achieve the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform. The negotiations are also to take into account factors such as the experience gained during the implementation period, the effects of Uruguay Round reduction commitments on world trade in agriculture, non-trade concerns, special and differential treatment to developing country Members and the objective to establish a fair and market-oriented agricultural trading system.

### **15.0 Summary of Elements for Negotiation**

This summary provides an overview of key elements of the Agreement on Agriculture and the related commitments<sup>53</sup>.

#### **15.1 Market Access**

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<sup>53</sup> On the reasons why need detailed discourse on trade and trade liberalizations, the article titled, "Trade Wars: The Exaggerated Impact of Trade in Economic Debate" by Richard B. Freeman (paper subsequently published in *The World Economy*, Vol.27, No.1, 2004) was consulted. Among other issues, the article notes that trade has been at the heart of economic debates about globalization in the past decade. Proponents of Washington Consensus (WC) style globalization have touted the benefits of trade and open capital markets to developing countries and warned of the dangers of global labor standards. Opponents of WC style globalization have worried that trade with developing countries lowers employment and wages in advanced countries and create a race to the bottom in poor countries. The referenced paper shows that both proponents and opponents of WC style globalization have exaggerated the effects of trade and of trade treaties on economic outcomes. It is argued that: 1) trade and widely debated trade treaties have had modest often indiscernible impacts on labor and other economic outcomes, and that in the US at least immigration has affected national factor proportions more than trade, 2) international capital flows have created as much harm as good in developing countries, and thus need to be more carefully regulated and monitored; 3) trade and labor standards are complements in the global economy, so that improvements in one create pressures for improvements in the other.

Instrument	What it says or deals with	
Article 4.2	Prohibition on the use of restrictions on imports other than tariffs;	
Article 4.1 and Schedules	All tariffs bound;	
Article 5	Special agriculture safeguard mechanism against import volume surges or import price declines below a trigger level (limited to "tariffied" products and not applicable to imports under related tariff quota commitments);	
Schedules	Tariffs resulting from conversion of non-tariff border measures under negotiating modalities ("tariffication") plus pre-existing tariffs on all other agricultural products to be reduced;	
Schedules	Implementation of current and minimum access opportunity commitments in respect of tariffied products.	
	Developed Countries	Developing Countries
Schedules	Average tariff reductions of 36% (minimum 15%) over 6 years.	Average tariff reductions of 24% (minimum 10%) over 10 years; Where "ceiling bindings" commitments undertaken reductions not required except on ad hoc basis; Least developed not required to undertake reduction commitments.

### 15.2 Domestic support

Instrument	What it says or deals with	
Article 6, 7 and Annex 2	Policies divided into two groups; (i) permitted policies (Green Box), (ii) other policies included in the Aggregate Measure of Support (AMS) subject to reduction commitments (Amber Box);	
Article 6.5	Decoupled direct payments associated with production limiting programmes (Blue Box) not in Green Box but excluded from AMS.	
	Developed Countries	Developing Countries
Article 6.2	De minimis provision allows exclusion of support less than 5% of output value from AMS;	Developing countries allowed to use some types of investment and input subsidies under certain conditions;
Article 6.4(a) and (b)	Total AMS support to be reduced by 20% over 6 years.	De minimis provision allows exclusion from AMS of product-specific and non-product specific support less than 10% of respective current output value;
Schedules		Total AMS support to be reduced by 13.3% over 10 years;
Schedules		Least-developed countries must bind AMS support level if applicable but not required to reduce it.

### 15.3 Export subsidies

Instrument	What it says or deals with	
Article 9	Definition of export subsidies subject to reduction;	
Article 10	Other export subsidies subject to anti-circumvention provisions which include disciplines relating to food aid;	
Article 3.3	Prohibition on the use of export subsidies on products not subject to reduction commitments.	
	Developed Countries	Developing Countries
Schedules	Distinct reduction commitments on both volume (21%) and budgetary outlays (36%) over six years;	Two-thirds of the reduction required for developed countries over ten years;
Article 11	For incorporated/processed products budgetary outlays only (36%).	
Article 9.4		Exception during the implementation period in respect of certain marketing and internal transportation subsidies.

### 15.4 Export prohibitions and restrictions

Instrument	What it says or deals with	
Article 12	Requirement for advance notice and obligation to consult on request and supply information in case of new export restrictions on foodstuffs.	
	Developed Countries	Developing Countries
Article 12.2		Exception for developing countries that are net-exporters of the foodstuff concerned.

### 15.5 Other aspects

Instrument	What it says or deals with	
Article 13	Peace Clause;	
Article 17	WTO Committee on Agriculture given the task of overseeing the implementation of the Agreement and related commitments;	
Article 16	Marrakesh Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.	

### 15.6 Sanitary and phytosanitary measures

Instrument	What it says or deals with	
Article 14	Separate Agreement: Reaffirms right to countries to set their own health and safety standards provided they are justified	

on scientific grounds and do not result in arbitrary or unjustified barriers to trade; encourages use of international standards; includes certain special and differential treatment provisions

## 16.0 The Research Model

### 16.1 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda<sup>54</sup> for Bangladesh with respect to agricultural commodities<sup>55</sup>.

<sup>54</sup> There are two dimensions in calculating the potential welfare gains following policy reform: static gains and dynamic gains. The first is related to removing distortions in consumption and production decisions. "Static" gains accrue after producers and consumers fully adjust to price changes when tariffs and subsidies are removed. These static welfare gains accrue over time and reflect changes in income (wages, land rents and returns on capital investments) due to increased economic efficiency. These static gains in welfare, or purchasing power, are worth about \$31 billion to the world economy. Most of the static gains from trade liberalization accrue to countries with the largest initial policy distortions. Developed countries receive most of the global, static welfare gains from full policy reform (\$28.5 billion), compared to the potential welfare gains for emerging and developing countries of about \$2.6 billion. Despite higher world food prices, consumers in most countries would still benefit from the reforms because tariff elimination lowers the consumer price of imported foods, and the policy reforms produce overall economic efficiency gains in their economies. Some food-importing countries face static welfare losses from full trade liberalization because they do not have large initial policy distortions and they must pay higher world food prices. Additional global benefits from full policy reform will come from the "dynamic," long-term effects from increased savings and investment as policy distortions are removed, and from the opportunities for increased productivity that are linked to more open economies. When these potential dynamic gains are taken into account, all countries can benefit from global policy reforms. Reforms lead to higher investments by increasing the potential returns. Higher investment increases the productive capacity of economies. The greater openness of economies can lead to higher productivity, especially in developing countries where there is substantial potential for productivity gains from increased training and the technological change that is embodied in investment goods imported from developed countries. Reflecting their greater dynamic potential for growth, developing countries stand to attract increased global investment, which will benefit developing countries by increasing their resource availability and benefit developed countries by creating investment opportunities. Investment growth and productivity gains due to agricultural policy reform account for 45 percent of the total benefits from full trade liberalization. Whereas developed countries will accrue most of the static gains, emerging and developing countries will accrue most of the potential dynamic gains from full trade liberalization. Developing countries, even foodimporting ones, can expect to benefit if the negotiations eliminate global policy distortions. But, it is developing countries' own, full participation in global reforms, especially the reduction of their own barriers to imports, that is their most important source of potential benefits from global agricultural negotiations. In the long term, developing countries' welfare could increase by \$21 billion annually – nearly 40 percent of the potential world welfare gain from agricultural policy reform. Nearly one-quarter of the global welfare benefits (\$13.3 billion annually) would accrue to the United States. Because U.S. tariffs, domestic support, and export subsidies are relatively low, most of the benefits for the United States come from our trade partners' policy reforms. Although dynamic gains will not directly create many benefits for the United States, mainly because of its technological maturity, U.S. agriculture will benefit substantially from the dynamic gains in developing countries. These countries are important U.S. export markets whose demand for U.S. farm products will increase further if their economies realize their growth potential. In the long run, full policy reform could lead to an increase in the real value of U.S. agricultural exports of 19 percent each year, an increase in agricultural imports of 9 percent, and higher world prices for U.S. exports. The full elimination of agricultural tariffs, domestic subsidies, and export subsidies would increase world agricultural prices 12 percent above their expected level (table 5). Eliminating tariffs, which distort both consumers' choice and producers' decisions, would account for most (52 percent) of the potential price increase. Eliminating the agricultural tariffs of the EU alone accounts for 25 percent of the tariff-induced price effects. Agricultural tariffs in Japan plus Korea, and in the United States, account for 23 percent and 12 percent, respectively, of the tariff-linked price distortions. Tariffs in developing countries account for 38 percent of the tariff-linked effects on world agricultural prices.

<sup>55</sup> Global agricultural policy distortions impose substantial costs on the world economy. Agricultural tariffs, domestic support, and export subsidies leave world agricultural prices about 12 percent below levels

## 16.2 The Conditions

The necessary conditions are:

- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy
- iv. Production sensitivity to inputs will remain valid for the time period projected

## 16.3 The Functional Relationship

otherwise expected. Over the long term (about 15 years), these distorting farm policies will reduce world welfare, or consumer purchasing power, by \$56 billion annually, which represents about 0.2 percent of global GDP. As measured by world price effects, a small number of countries cause most of the agricultural market distortions — developed economies account for nearly 80 percent of the distortions. The EU accounts for 38 percent of world price distortions, compared to Japan plus Korea (12), the United States (16), and Canada (2). Countries typically use different mixes of policies. The EU accounts for over 90 percent of global export subsidy expenditures; these subsidies are an integral part of its domestic price support system. The EU and the United States account for most of the global distortions related to domestic producer support. Most other countries rely mainly on tariffs to support their farm sectors. Particularly in developing countries, tariffs are a more practical farm support policy because they raise government revenue, while domestic programs entail government expenditure. Tariffs are a potentially more distorting type of farm support than domestic producer subsidies, because they directly affect consumers as well as producers.

Table 4—Welfare impacts from elimination of global agricultural tariffs and subsidies

	Static	Static plus dynamic	
	Resource allocation gains	Investment growth gains	Investment growth plus productivity gains
	<i>US\$ billion</i>		
World	31.1	36.3	56.4
Developed country group	28.5	29.7	35.1
Australia and New Zealand	1.6	3.4	3.5
Canada	0.8	1.2	1.4
EFTA	1.7	0.1	0.2
European Union	9.3	8.2	10.6
Japan and Korea	8.6	5.1	6.2
United States	6.6	11.8	13.3
Emerging and developing country group	2.6	6.5	21.3
China	0.4	1.8	2.23
Latin America	3.7	4.7	6.1
Mexico	-0.2	0.1	1.6
Other Asian countries	1.5	0.3	5.11
Southern African countries	0.3	0.5	0.8
Rest of world	-3.1	-0.4	5.4

Static gains refer to the annual gains due to removing distortions to production and consumption decisions in 1997 US\$ billion. Dynamic gains include effects related to cumulative increases in savings, investment, and productivity over a 15-year post-reform period. Dynamic welfare impacts are the annual level about 15 years after reform. China is not assumed to reform its policies because it is not a WTO member.

Source: Das, Sonwani, and Rice in this report.

Economic Research Service/USDA

Agricultural Policy Reform—The Road Ahead/AER 802 ♦ 5

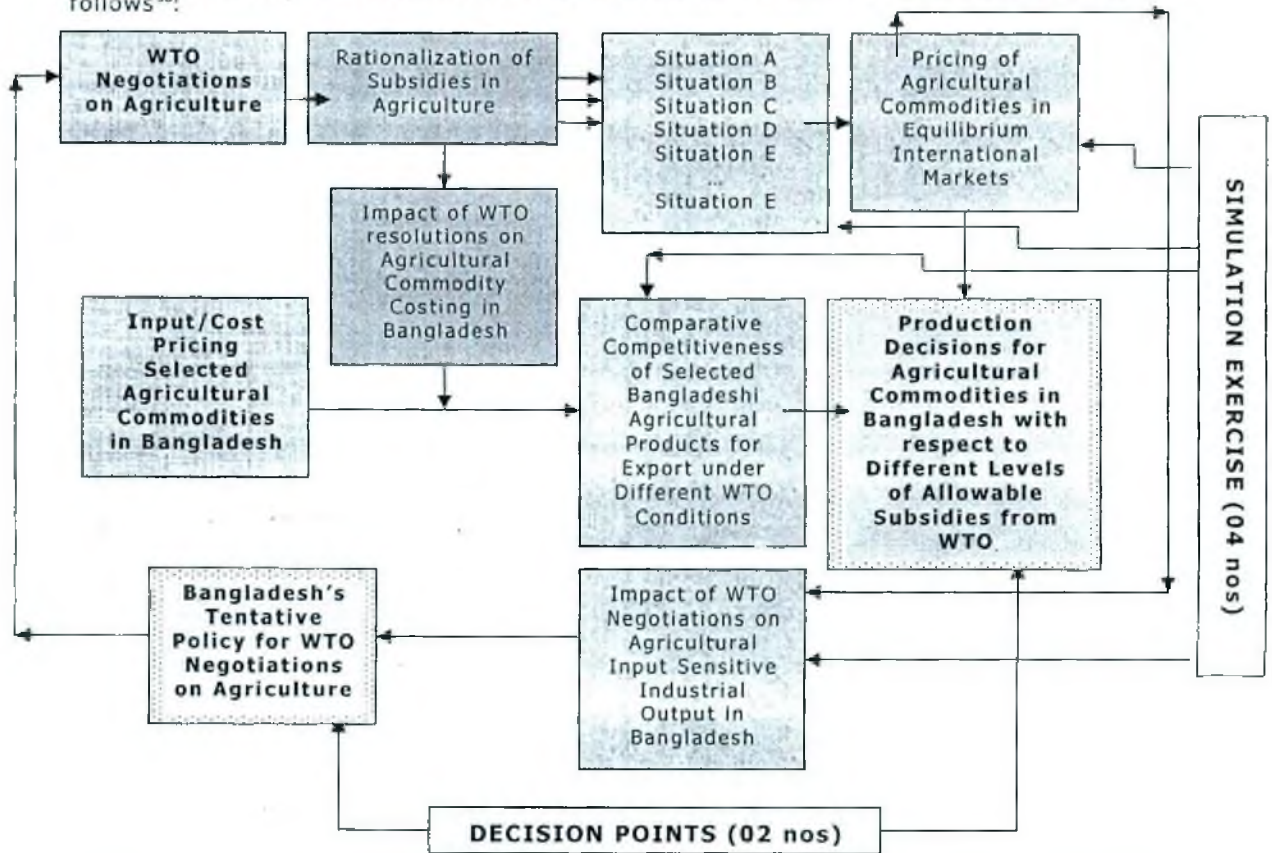
Table 5—Effects on world agricultural prices of eliminating agricultural policy distortions, by country and policy

	World	U.S.	EU	Japan/Korea	LDCs
	<i>Percent change from base price</i>				
Elimination of					
All policies	11.6	1.8	4.4	1.5	2.3
Tariffs	6.0	0.7	1.5	1.4	2.3
Domestic support	3.6	0.9	2.0	0.2	Na
Export subsidies	1.5	0.1	0.9	Na	0.0

Na = not applicable, no policy in use. Numbers do not sum to row and column totals because only selected countries are included and there are interaction effects among policies.

Source: Das, Sonwani, and Rice in this report.

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows<sup>56</sup>:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

<sup>56</sup> The entire discussion pattern on the agricultural perspectives from the Bangladeshi point-de-vu is discoursed on the construct of "food security-plus" efforts, which should literally mean that our agricultural production strategy and any relevant policy should include ensuring the concept of food security in the entire paradigm. Food security is a flexible concept as reflected in the many attempts at definition in research and policy usage. Even a decade ago, there were about 200 definitions in published writings. Whenever the concept is introduced in the title of a study or its objectives, it is necessary to look closely to establish the explicit or implied definition. Essentially, food security can be described as a phenomenon relating to individuals. It is the nutritional status of the individual household member that is the ultimate focus, and the risk of that adequate status not being achieved or becoming undermined. The latter risk describes the vulnerability of individuals in this context. As the definitions reviewed above imply, vulnerability may occur both as a chronic and transitory phenomenon. Useful working definitions are described now. Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the application of this concept to the family level, with individuals within households as the focus of concern. Food Insecurity exists when people do not have adequate physical, social or economic access to food as defined above.





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<b>ANNEX 5:</b>	<b>PRIMARY QUALITATIVE RESEARCH AND HYPOTHESES VALIDATION</b>	<b>17 APRIL 2007</b>	<b>124</b>
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**Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization**

Primary Qualitative Research and Hypotheses Validation

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Submitted to:

Professor  
**Dr. Syed Ferhat Anwar**  
Instructor: Research Methods

Submitted by:

Roll No.	Name	Program/Batch
	Syed Muntasir Mamun	M. Phil. Applicant

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, April 17, 2007

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For any further clarification, PLEASE,  
Call Muntasir at: Cell # +62-81395221398  
Or mail to: [syedmuntasir@yahoo.com](mailto:syedmuntasir@yahoo.com)  
Or write to: Syed Muntasir Mamun, Assistant Secretary (Bangladesh)  
Pushdiklat, Departmen Luan Negri, Jakarta, Republik Indonesia

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Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, April 17, 2007

Professor  
Dr. Syed Ferhat Anwar  
Instructor: Research Methods

Subject: **Submission of the Primary Qualitative Research and Hypotheses Validation**

Revered Professor:

With profound respect, we submit the results of the Primary Qualitative Research and Hypotheses Validation that we had undertaken for the dissertation titled "Agricultural Subsidies - Impact and Combat Techniques for Bangladesh in the World Trade Organization".

We will be available at all times for any clarification and authentication.

Thank you Sir, for your time and kind attention.

With the best of regards,

Roll No.	Name	Program/Batch
	Syed Muntasir Mamun	M. Phil. Applicant

**Table of Contents**

Table of Contents.....	3
1.0 The Problem Statement.....	4
2.0 Constructs and Concepts.....	4
3.0 Aim.....	4
4.0 The Research Model.....	5
4.1 The Proposition.....	5
4.2 The Conditions.....	5
4.3 The Functional Relationship.....	6
5.0 The Key Informants Interview.....	6
5.1 The Suggested Hypotheses.....	6
5.2 Key Informant Interviews.....	7
5.3 Modified Hypotheses.....	8
5.4 Modified Research Pattern.....	9



**Agricultural Subsidies  
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Primary Qualitative Research and Hypotheses Validation

**1.0 The Problem Statement**

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports); (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions.

**2.0 Constructs and Concepts**

<b>Constructs</b>	<b>Definition</b>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial Loss Through WTO</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets</i>	Different market-opening opportunities and change in production-location facilities

**3.0 Aim**

Agriculture continues to play a key role in the overall economic performance of Bangladesh. It still dominates in terms of its contribution to GDP, poverty alleviation, and foreign exchange earnings and in providing employment to a large segment of the population, especially the rural poor. Consequently the nation's progress well into the next century will depend on government policies in the agricultural sector. Much remains to be done to improve the overall agricultural performance of the country. This paper provides insights, which could assist guide policy decisions and reform programs to equip Bangladesh agriculture to meet the needs and challenges of the 21<sup>st</sup> century.

The ultimate aim of this project is to form a national policy that would serve two purposes, i.e.:

- (a) Form a coherent policy that Bangladesh would follow for WTO negotiations in agenda on Agricultural subsidies, and
- (b) Decide on the agricultural production pattern with regards to international comparative advantages.

#### 4.0 The Research Model

##### 4.1 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

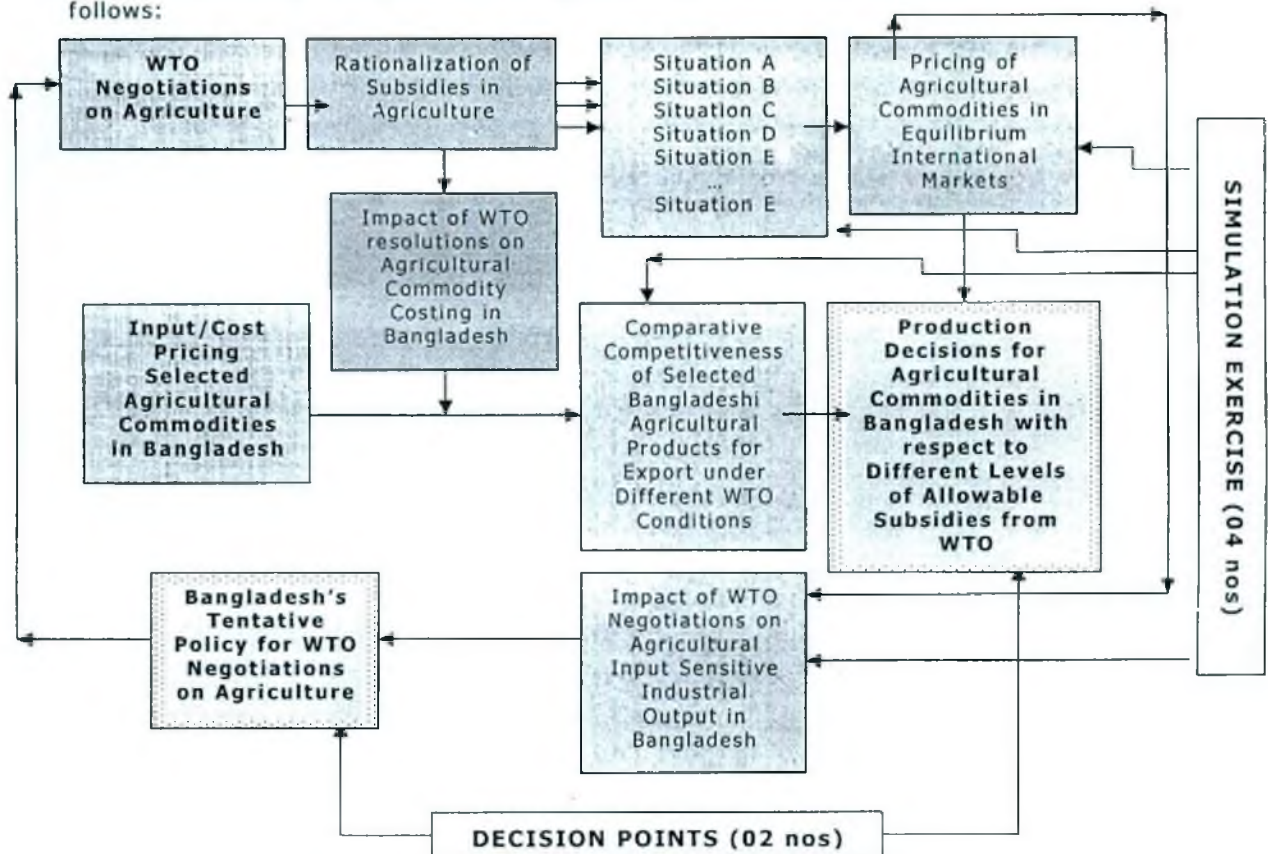
##### 4.2 The Conditions

The necessary conditions are:

- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy
- iv. Production sensitivity to inputs will remain valid for the time period projected

### 4.3 The Functional Relationship

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

## 5.0 The Key Informants Interview

### 5.1 The Suggested Hypotheses

The following hypotheses were put forward as relevant points for decision to the participants of the Key Informants Interviews:

- i. Tariff rationalization at WTO will be beneficial to Bangladesh, economically
- ii. Subsidies by advanced countries in agriculture are bad for the Bangladesh economy
- iii. Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture
- iv. Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO
- v. Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector

- vi. By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern
- vii. Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode 4 issues<sup>1</sup>
- viii. Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.

### 5.2 Key Informant Interviews

These seven generic sets of hypotheses were tested at the individual expert level. The KIIs were conducted with:

- i. Mr. Kazi Borhan Amin Raj, Agriculture/Leather Expert and Consultant
- ii. Dr. Rafique Uddin Ahmed, Agricultural and Environmental Standards Analyst
- iii. Mr. Aminul Hasan, Consultant Analyst, Agricultural and Environmental Standards

The following results were obtained with regards to the generic set of hypotheses:

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan
Tariff rationalization at WTO will be beneficial to Bangladesh, economically	Summary of comments: No	Summary of comments: No	Summary of comments: Yes
Subsidies by advanced countries in agriculture are bad for the Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes
Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in	Summary of comments: No	Summary of comments: No	Summary of comments: No

<sup>1</sup> The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

GATS Four Mode of Supply			
Mode		Criteria	Supplier Presence
Mode 1	Cross-border supply	1. Service delivered within the territory of the Member, from the territory of another Member	1. Service supplier not present within the territory of the Member
Mode 2	Consumption abroad	2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member	
Mode 3	Commercial presence	3. Service delivered within the territory of the Member, through the commercial presence of the supplier	2. Service supplier present within the territory of the Member
Mode 4	Presence of a natural person	4. Service delivered within the territory of the Member, with supplier present as a natural person	

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

- 1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
- 2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
- 3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
- 4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan
the WTO			
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Summary of comments:  No	Summary of comments:  No	Summary of comments:  No/Yes
By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern	Summary of comments:  Yes	Summary of comments:  Yes	Summary of comments:  Yes
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Summary of comments:  No	Summary of comments:  No	Summary of comments:  No
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Summary of comments:  Yes	Summary of comments:  No	Summary of comments:  No
Issues Suggested for focus	Emphasis on Rules and Commitments for the gradual withdrawal of agricultural subsidies. However, better to not align Bangladesh with LDCs.	Spatial negotiation on gradual withdrawal of subsidies in sync with gradual enhancement of agricultural production capacities	Advanced marketing campaigns for selected/niche products (to be found through scenario analysis)
	Emphasis on finding alternate usages of agriculture for production patterns	Block activities alongside countries with similar agricultural production (and demand-supply) patterns	Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern
	Linking agriculture/contract farming with Mode 4		

### 5.3 Modified Hypotheses

Generic Hypotheses	Status
Tariff rationalization at WTO will be beneficial to Bangladesh, economically	Dropped
Subsidies by advanced countries in agriculture are bad for the Bangladesh economy	Dropped

Generic Hypotheses	Status
Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture	Retained
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Dropped
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Dropped
By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern	Retained
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Dropped
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Dropped
New Hypotheses	<ul style="list-style-type: none"> <li>i. Bangladesh's WTO emphasis should be on Rules and Commitments for the gradual withdrawal of agricultural subsidies.</li> <li>ii. Bangladesh should not unilaterally align with LDCs on matters relating to withdrawal of agricultural subsidies.</li> <li>iii. Spatial negotiation on gradual withdrawal of subsidies in sync with gradual enhancement of agricultural production capacities</li> <li>iv. Advanced marketing campaigns for selected/niche products (to be found through scenario analysis)</li> <li>v. Emphasis from Bangladesh, in the policy level, on finding alternate usages of agriculture for production patterns</li> <li>vi. Bangladesh should link agricultural negotiations with Mode 4.</li> <li>vii. Block activities alongside countries with similar agricultural production (and demand-supply) patterns</li> <li>viii. Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural</li> </ul>

Generic Hypotheses	Status
	production pattern

However, it is found from the discussion points above that even under the changed paradigm of hypotheses/notions, the problem statement do not necessarily change (as the problem statement itself was designed in the most generic format).

#### 5.4 Modified Research Pattern

Nevertheless, the analytical pattern/framework changes considerably with the introduction of these seven new hypotheses-sets and dropping of six of the original eight sets.

As such, the study now focuses on:

- i. Scenario analysis for finding the agricultural products where Bangladesh holds comparative advantages
- ii. Attitude/aptitude testing for selected products for production/exports under the different regimes – as would be found during stage (i)
- iii. Finding avenues for advanced agricultural marketing / financing options
- iv. Specific WTO negotiation strategy that Bangladesh would follow with regards to linking agricultural production patterns with Mode – 4, specifically, movement of service / personnel
- v. Selection of blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

#### For i:

(From FAO, BBS, EPB, and WTO) Which products have comparative advantage on the basis of –

- Export Volume
- International Price
- Cost of Production
- Yield Rate

Cost of Production Data & Yield Rate from farmers at Field Level to cross check and find composition of Production Cost on the basis of Input Cost.

#### For ii:

Effects of Change in Cost of production due to de-subsidization of the Input Prices

#### Particularly For iii:

The existing questionnaire

<b>ANNEX 6:</b>	<b>SURVEY RESEARCH – TYPE AND SOURCES OF INFORMATION</b>	<b>22 MAY 2007</b>	<b>134</b>
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**Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization**

Survey Research –Type and sources of Information

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Submitted to:

Professor  
**Dr. Syed Ferhat Anwar**  
Instructor: Research Methods

Submitted by:

Roll No.	Name	Program/Batch
	Syed Muntasir Mamun	M. Phil. Applicant
52	Md Reza Ahmed Khan	MBA, 35(E)
15	Junaed Anwar	MBA, 38(E)
32	Irshadur Rahman	MBA, 39(D)

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, May 22, 2007

---

Institute of Business Administration  
University of Dhaka

Dhaka 1000

Tuesday, May 22, 2007

Professor  
Dr. Syed Ferhat Anwar  
Instructor: Research Methods

Subject: **Submission of the Survey Research –type and source of Information**

Revered Professor:

With profound respect, we submit the Survey research for the type and source of Information required for the specific objective basing on the big research question that we had undertaken for the dissertation titled "Agricultural Subsidies - Impact and Combat Techniques for Bangladesh in the World Trade Organization".

Thank you Sir, for your time and kind attention.

With best regards,

Roll No.	Name	Program/Batch
	Syed Muntasir Mamun	M. Phil. Applicant
52	Md Reza Ahmed Khan	MBA, 35(E)
15	Junaed Anwar	MBA, 38(E)
32	Irshadur Rahman	MBA, 39(D)

**Table of Contents**

Table of Contents .....	3
1.0 The Problem Statement .....	4
2.0 Constructs and Concepts .....	4
3.0 Aim .....	4
4.0 The Research Model.....	4
4.1 The Proposition.....	4
4.2 The Conditions.....	5
4.3 The Functional Relationship .....	5
5.0 The Key Informants Interview .....	6
5.1 The Suggested Hypotheses .....	6
5.2 Key Informant Interviews .....	6
5.3 Modified Hypotheses.....	8
5.4 Modified Research Pattern .....	9

**Agricultural Subsidies  
Impact Analysis and Combat Techniques for Bangladesh  
In the World Trade Organization**

Survey research – type and source of information

### 1.0 The Problem Statement

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not “properly” addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports); (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions.

### 2.0 Constructs and Concepts

<i>Constructs</i>	<i>Definition</i>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial Loss Through WTO</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition
<i>Production and Pricing Decisions</i>	Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>De-subsidized Trade Patterns</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>Domestic Industrial Output</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Opportunities in International Markets</i>	Input composition and pricing of elements for the domestic industrial composition
	Different market-opening opportunities and change in production-location facilities

### 3.0 Aim

Agriculture continues to play a key role in the overall economic performance of Bangladesh. It still dominates in terms of its contribution to GDP, poverty alleviation, and foreign exchange earnings and in providing employment to a large segment of the population, especially the rural poor. Consequently the nation's progress well into the next century will depend on government policies in the agricultural sector. Much remains to be done to improve the overall agricultural performance of the country. This paper provides insights, which could assist guide policy decisions and reform programs to equip Bangladesh agriculture to meet the needs and challenges of the 21<sup>st</sup> century.

The ultimate aim of this project is to form a national policy that would serve two purposes, i.e.:

- (a) Form a coherent policy that Bangladesh would follow for WTO negotiations in agenda on Agricultural subsidies, and
- (b) Decide on the agricultural production pattern with regards to international comparative advantages.

### 4.0 The Research Model

#### 4.1 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

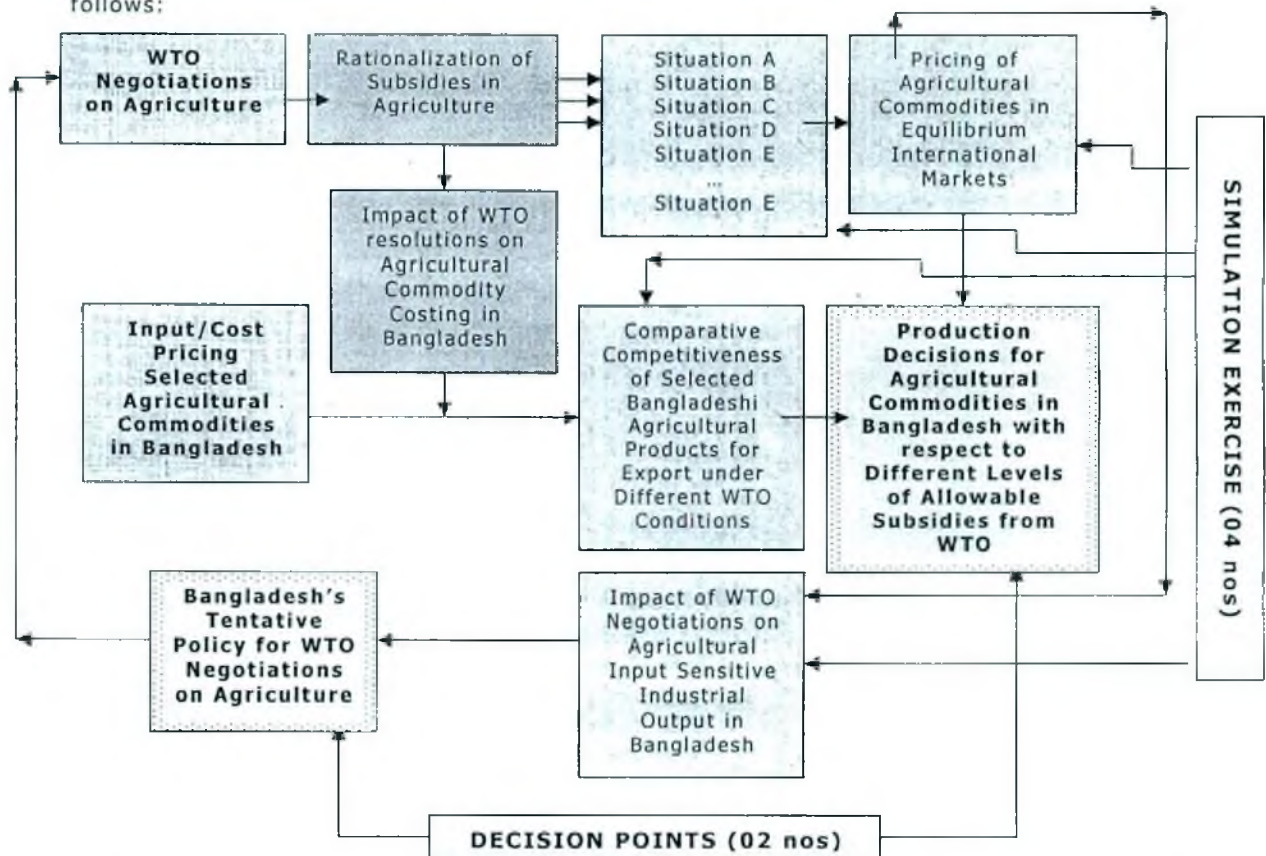
#### 4.2 The Conditions

The necessary conditions are:

- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy
- iv. Production sensitivity to inputs will remain valid for the time period projected

#### 4.3 The Functional Relationship

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization

schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

## 5.0 The Key Informants Interview

### 5.1 The Suggested Hypotheses

The following hypotheses were put forward as relevant points for decision to the participants of the Key Informants Interviews:

- i. Tariff rationalization at WTO will be beneficial to Bangladesh, economically
- ii. Subsidies by advanced countries in agriculture are bad for the Bangladesh economy
- iii. Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture
- iv. Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO
- v. Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector
- vi. By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern
- vii. Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode 4 issues<sup>1</sup>
- viii. Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.

### 5.2 Key Informant Interviews

These seven generic sets of hypotheses were tested at the individual expert level. The KIIs were conducted with:

- i. Mr. Kazi Borhan Amin Raj, Agriculture/Leather Expert and Consultant
- ii. Dr. Rafique Uddin Ahmed, Agricultural and Environmental Standards Analyst
- iii. Mr. Aminul Hasan, Consultant Analyst, Agricultural and Environmental Standards

The following results were obtained with regards to the generic set of hypotheses:

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan
Tariff rationalization at WTO will be beneficial to Bangladesh, economically	Summary of comments:  No	Summary of comments:  No	Summary of comments:  Yes

<sup>1</sup> The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

GATS Four Mode of Supply			
Mode		Criteria	Supplier Presence
Mode 1	Cross-border supply	1. Service delivered within the territory of the Member, from the territory of another Member	1. Service supplier not present within the territory of the Member
Mode 2	Consumption abroad	2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member	
Mode 3	Commercial presence	3. Service delivered within the territory of the Member, through the commercial presence of the supplier	2. Service supplier present within the territory of the Member
Mode 4	Presence of a natural person	4. Service delivered within the territory of the Member, with supplier present as a natural person.	

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan
Subsidies by advanced countries in agriculture are bad for the Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes
Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Summary of comments: No	Summary of comments: No	Summary of comments: No
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Summary of comments: No	Summary of comments: No	Summary of comments: No/Yes
By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Summary of comments: No	Summary of comments: No	Summary of comments: No
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Summary of comments: Yes	Summary of comments: No	Summary of comments: No
Issues Suggested for focus	Emphasis on Rules and Commitments for the gradual withdrawal of agricultural subsidies. However, better to not align Bangladesh with LDCs.	Spatial negotiation on gradual withdrawal of subsidies in sync with gradual enhancement of agricultural production capacities	Advanced marketing campaigns for selected/niche products (to be found through scenario analysis)
	Emphasis on finding alternate usages of agriculture for production patterns Linking agriculture/contract farming with Mode 4	Block activities alongside countries with similar agricultural production (and demand-supply) patterns	Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern

## 5.3 Modified Hypotheses

Generic Hypotheses	Status
Tariff rationalization at WTO will be beneficial to Bangladesh, economically	Dropped
Subsidies by advanced countries in agriculture are bad for the Bangladesh economy	Dropped
Subsidies provided to domestic agriculture by the advanced countries are bad for the development of the Bangladesh agriculture	Retained
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Dropped
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Dropped
By analyzing the differential trading patterns, Bangladesh can advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern	Retained
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Dropped
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Dropped
New Hypotheses	<ul style="list-style-type: none"> <li>i. Bangladesh's WTO emphasis should be on Rules and Commitments for the gradual withdrawal of agricultural subsidies.</li> <li>ii. Bangladesh should not unilaterally align with LDCs on matter relating to withdrawal of agricultural subsidies.</li> <li>iii. Spatial negotiation on gradual withdrawal of subsidies in sync with gradual enhancement of agricultural production capacities</li> <li>iv. Advanced marketing campaigns for selected/niche products (to be found through scenario analysis)</li> <li>v. Emphasis from Bangladesh, in the policy level, on finding alternate usages of agriculture for production patterns</li> <li>vi. Bangladesh should link agricultural negotiations with Mode 4.</li> <li>vii. Block activities alongside countries with similar agricultural production (and demand-supply) patterns</li> <li>viii. Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern</li> </ul>



However, it is found from the discussion points above that even under the changed paradigm of hypotheses/notions, the problem statement do not necessarily change (as the problem statement itself was designed in the most generic format).

#### **5.4 Modified Research Pattern**

Nevertheless, the analytical pattern/framework changes considerably with the introduction of these seven new hypotheses-sets and dropping of six of the original eight sets.

As such, the study now focuses on:

- i. Scenario analysis for finding the agricultural products where Bangladesh holds comparative advantages
- ii. Attitude/aptitude testing for selected products for production/exports under the different regimes – as would be found during stage (i)
- iii. Finding avenues for advanced agricultural marketing / financing options
- iv. Specific WTO negotiation strategy that Bangladesh would follow with regards to linking agricultural production patterns with Mode – 4, specifically, movement of service / personnel
- v. Selection of blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

#### **6.0 Redefining the Problem Statement**

##### **6.1 Problem Statement (Modified)**

Under differentiated and distorted trade subsidization, it is implied that Bangladesh would loose financially if the issues of agricultural subsidies, provided by the developed countries are not properly addressed through the WTO for

- (a) Production and marketing decision where Bangladesh holds comparative advantage in light of changing scenario in the successive stages of de-subsidization.
- (b) Linking agricultural production pattern with mode-4 under WTO regime.
- (c) Strengthening bargaining power of BD by selecting suitable block/countries.

##### **6.2 Big Research Question**

What are the agricultural productions and marketing decisions need to be made and linked with mode-4 in order to remain competitive along different stages of de-subsidization and which countries/blocks should be selected to strengthen bargain power of Bangladesh?

##### **6.3 Broad Objective**

To find comparatively competitive agricultural produces and their marketing strategies for different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural production pattern of Bangladesh with mode-4.

##### **6.4 Specific Objective**

- i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- ii. To test the attitude/aptitude for selected products for exports in different stages of de-subsidization.
- iii. To find the avenues for advanced agricultural marketing / financing options.
- iv. To find specific WTO negotiation strategy that Bangladesh would follow in linking agricultural production patterns with Mode – 4.
- v. To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

7.0 Survey Research-Selecting Type and Source of Information

Following information is required for each specific objective.

7.1 Specific Objective -1. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages

Ser	Information Required	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Farmers
1.	Present Agricultural Produces for export		√		√	√	√
2.	Present scenario in WTO for the agricultural produces	√	√	√	√		
3	Timeframe in the WTO for de-subsidization	√	√	√			
4.	Stages of de-subsidization	√		√			
5	Bangladesh's upper hand of the produces in different timeframe	√	√	√	√		
6	Products where Bangladesh thinks that it has got potentials for export	√	√	√	√		√

7.1.1 Selection of Source of Information

Type of Source of Information	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Farmers
Validity	√	√	√			
Reliability	√	√	√			
Accessibility	√	√	√	√	√	√

The specific objective 1 outlined above relates to a scenario that is yet to be in existence. It needs to found out basing on the facts and figure available with WTO cell of Ministry of foreign affairs, Agriculture ministry to some extend and the experts qualified on the subject.

**7.2 Specific Objective -2.** To test the attitude/aptitude for selected products for exports in different stages of de-subsidization.

Ser	Information Required	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
1.	Present attitude for the selected Agricultural Produces for export	√	√	√	√	√	√
2.	Attitude in different stages for selected products	√		√			√
3.							
4.							
5.							

**7.2.1 Selection of Source of Information**

Type of Source of Information	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
Validity	√	√				
Reliability	√	√	√			
Accessibility	√	√	√	√		

The specific objective 2 outlined above relates to the data that are available in the agricultural Ministry. The attitude in different stages should be predicted basing on the facts and figure available with WTO cell of Ministry of foreign affairs and by the experts.

**7.3 Specific Objective -3.** To find the avenues for advanced agricultural marketing / financing options.

Ser	Information Required	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Finance Ministry	Agricultural experts
1.	Situation of the market in different stages where Bangladesh has comparative advantage basing on above findings	√	√	√	√	√	√
2.	Situation of the financing in different stages where Bangladesh has comparative advantage basing on above findings	√		√		√	√
3.	Avenue for Bangladesh in different stages of subsidization	√	√	√	√		√
4.							
5.							

7.3.1 Selection of Source of Information

Type of Source of Information	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Finance Ministry	Agricultural experts
Validity	√	√	√			
Reliability	√	√				
Accessibility	√	√	√	√	√	√

The specific objective 3 outlined above relates to the finding of the avenue for marketing/financing decision. It needs to be found out basing on the facts and figure available with WTO cell of Ministry of foreign affairs. Agriculture ministry to some extent and the experts qualified on the subject. Finance Ministry also may be aware of the potential of export earnings.

7.4 **Specific Objective -4** To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode - 4.

Ser	Information Required	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
1.	Specific negotiation policy basing on above finding in different stages	√		√			√
2.	Specific strategy for implementation of the above policy	√		√			√
3.	Agricultural production pattern in different stages linking with mode-4	√	√	√	√		√
4.							
5.							

7.4.1 Selection of Source of Information

Type of Source of Information	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
Validity	√	√	√			
Reliability	√	√	√			
Accessibility	√	√	√			

The specific objective 4 outlined above relates to the policy and strategy needs to be followed by Bangladesh in WTO negotiation. WTO cell of Ministry of foreign affairs with the help of Agriculture ministry should be the best source to formulate the policy and strategy and thus provide the information. Since this is not done before experts opinion should of great use.

145

**7.5 Specific Objective -5.** To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

Ser	Information Required	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
1.	Countries having similar production pattern as Bangladesh for export	√	√	√	√		√
2.	Countries having similar production pattern as Bangladesh for different stages of de-subsidization	√	√	√			√
3.	Agricultural production pattern in different stages linking with mode-4	√	√	√			√
4.	Making the block of countries in different stages of de-subsidization	√	√	√			√
5.							

**7.5.1 Selection of Source of Information**

Type of Source of Information	WTO cell (MOFA)	Agriculture ministry	Experts	Exporters	Supplier	Agricultural experts
Validity	√	√	√			
Reliability	√	√	√			
Accessibility	√	√	√			

The specific objective 4 outlined above relates to the selection and grouping of the block/countries having similar product pattern to negotiate strongly in WTO negotiation. WTO cell of Ministry of foreign affairs with the help of Agriculture ministry should be the best source to find out the selected countries to group the block in different stages.

Scope of Research  
 Limitation  
 Questionnaire Outline

—941—

<b>ANNEX 7:</b>	<b>DRAFT PROPOSAL FOR RESEARCH METHODOLOGY</b>	<b>05 JUNE 2007</b>	<b>147</b>
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# **AGRICULTURAL SUBSIDIES**

## **IMPACT ANALYSIS AND COMBAT TECHNIQUES FOR BANGLADESH IN THE WORLD TRADE ORGANIZATION**

DRAFT PROPOSAL FOR THE RESEARCH PAPER IN THE MARKETING RESEARCH COURSE  
IBA, DHAKA UNIVERSITY, SPRING 2007

# AGRICULTURAL SUBSIDIES

## IMPACT ANALYSIS AND COMBAT TECHNIQUES FOR BANGLADESH IN THE WORLD TRADE ORGANIZATION

DRAFT PROPOSAL FOR THE RESEARCH PAPER IN THE MARKETING RESEARCH COURSE

Prepared for:

**Professor Dr. Syed Ferhat Anwar**  
Instructor: Marketing Research

Prepared by:

Roll No.	Name	Program/Batch
M. Phil. Applicant	Syed Muntasir Mamun	M. Phil. Program
52	Md Reza Ahmed Khan	MBA, 35(E)
15	Junaed Anwar	MBA, 38(E)
32	Irshadur Rahman	MBA, 39(D)

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, June 05, 2007

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Tuesday, June 05, 2007

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

**Professor Dr. Syed Ferhat Anwar**  
Instructor: Research Methods

Subject: **Submission of the draft 'Research Proposal'**

Revered Professor,

With profound respect, we submit the draft 'Research Proposal' for the dissertation titled "Agricultural Subsidies - Impact and Combat Techniques for Bangladesh in the World Trade Organization". The draft has been prepared in accordance with the instructions provided in the class. However, any authentication and clarification will be provided on demand.

Thank you sir, for your time and kind attention.

With the best of wishes and regards,

Syed Muntasir Mamun, M. Phil. Program  
Md. Reza Ahmed Khan, Roll No: 52, MBA 35(E)  
Junaed Anwar, Roll No: 15, MBA 38(E)  
Irshadur Rahman, Roll No: 32, MBA 39(D)

**TABLE OF CONTENTS**

TABLE OF CONTENTS .....	4
LIST OF ILLUSTRATIONS .....	5
LIST OF ACCRONYMS .....	6
LIST OF ACCRONYMS .....	6
Executive Summary .....	8
1.0 Background .....	10
2.0 Literature Review .....	15
2.1 Introduction on Agricultural Trade: Short Primer.....	15
2.1.1 Trade policies prior to the WTO .....	16
2.1.2 Uruguay Round agricultural negotiations .....	17
2.1.3 Introduction to the Agreement on Agriculture .....	17
2.1.4 Relationship with other WTO Agreements .....	18
2.1.5 Product coverage .....	18
2.1.6 Rules and commitments .....	18
2.1.7 Implementation period.....	18
2.1.8 Committee on Agriculture.....	18
2.2 Market access.....	19
2.2.1 Schedule of tariff concessions.....	19
2.2.2 The prohibition of non-tariff border measures .....	20
2.2.3 Special treatment.....	20
2.2.4 The special safeguard provisions .....	20
2.2.5 Notification obligations .....	21
2.3 Domestic support .....	21
2.3.1 The Green Box.....	22
a. Government service programmes.....	22
b. Direct payments to producers .....	22
c. Other exempt measures .....	22
d. Developmental measures .....	23
2.3.2 Blue Box.....	23
2.3.3 De minimis.....	23
2.3.4 Reduction commitments .....	23
a Aggregate Measurement of Support .....	24
b Equivalent Measurement of Support.....	24
2.3.5 Notification obligations .....	24
2.4 Export competition/subsidies .....	25
2.4.1 Reduction commitments .....	25
a Definition of measures .....	25
b Product categories.....	26
c Rates of cut.....	26
2.4.2 Products with no specific reduction commitment.....	26
2.4.3 Anti-circumvention .....	27
2.4.4 Notification obligations .....	27
2.5 On Agricultural Production Pattern and Distortion .....	27
2.6 A Primer on Doha Development Round.....	29
2.7 Other Issues of Relevance to Agriculture .....	39
2.7.1 Export restrictions .....	39
2.7.2 Peace clause .....	39
2.7.3 Resolving disputes .....	39
2.7.4 Continuation clause.....	40
2.8 Summary of Elements for Negotiation.....	40
2.8.1 Market Access .....	40
2.8.2 Domestic support.....	41
2.8.3 Export subsidies .....	41
2.8.4 Export prohibitions and restrictions .....	41
2.8.5 Other aspects.....	41
2.8.6 Sanitary and phytosanitary measures .....	41
3.0 Qualitative Study .....	43

3.1	The Suggested Hypotheses .....	43
3.2	Key Informant Interviews .....	43
3.2	Modified Hypothesis.....	49
3.4	Modified Research Pattern .....	49
3.5	Methodology .....	49
3.6	Major Findings .....	50
4.0	Theoretical Model.....	50
4.1	The Problem Statement .....	50
4.2	Constructs and Concepts .....	50
4.3	The Proposition.....	50
4.4	The Conditions.....	50
4.5	The Functional Relationship .....	52
5.0	Objective .....	52
5.1	Specific Objective.....	52
5.2	Scope of Research.....	53
6.0	Sampling Methods .....	53
7.0	Significance of the Study.....	53
7.1	Significance to Diplomatic Endeavors .....	54
7.2	Significance to Literature .....	54
7.3	Significance to Society and Government.....	54
8.0	Limitation .....	56
9.0	Time and Financial Budget.....	57
9.1	Financial Involvement .....	57
9.2	Time Frame .....	58
10.0	DELIVERABLES .....	58
10.1	Report (Structure).....	58
10.2	Questionnaire (Filled in) For Final Report .....	58
10.3	Data Sheet .....	58
10.4	Code Sheet (Questionnaire Manuals) .....	58

**LIST OF ILLUSTRATIONS**

Figure 1 : Measurement of Support .....	24
---	----

**LIST OF ACCRONYMS**

- i. ACP: African, Caribbean and Pacific Countries
- ii. AMS: Aggregate Measure of Support, the preferred calculation of domestic support used for reduction commitments
- iii. AoA: Agreement on Agriculture
- iv. ATPSM: Agriculture Trade Policy Simulation Model
- v. c.i.f.: cost, insurance, freight (included in the price)
- vi. CAEMC: Central Africa Economic and Monetary Community
- vii. CAFOD: Catholic Agency for Overseas Development
- viii. CAP: Common Agricultural Policy
- ix. CARLs: Countries with Abundant Rural Labor
- x. CEEC: Central and Eastern European Countries
- xi. CGE: Computable General Equilibrium
- xii. CGIAR: Consultative Group on International Agricultural Research
- xiii. CIS: Commonwealth of Independent States
- xiv. CME: Coordinated Market Economies
- xv. CMEA: Common Market of East Asia
- xvi. COMESA: Common Market for Eastern and Southern Africa
- xvii. CPI: Consumer Price Index
- xviii. DFID: Department for International Development (UK)
- xix. EAC: Commission for East African Cooperation
- xx. ECOWAS: Economic Community of West African States
- xxi. EMS: Equivalent Measure of Support, used when AMS is not practicable
- xxii. EPR: Effective protection rate
- xxiii. EU: European Union
- xxiv. f.o.b.: free on board (price, excluding insurance and freight)
- xxv. FAO: Food and Agriculture Organization
- xxvi. FDI: Foreign Direct Investment
- xxvii. FTA: Free Trade Area
- xxviii. GATT 1947: The text of GATT as used until amended by the WTO Agreements which came into force in 1995
- xxix. GATT 1994: The General Agreement on Tariffs and Trade, as revised in 1994, which is part of the WTO Agreements. GATT 1994 includes GATT 1947 together with amendments.
- xxx. GATT: The General Agreement on Tariffs and Trade, established in 1947. The abbreviation is used for both the legal text and the institution
- xxxi. GMB: Grain Marketing Board
- xxxii. GTAP: Global Trade Analysis Programme
- xxxiii. H-O: Heckscher-Ohlin
- xxxiv. IBRD: International Bank for Reconstruction and Development
- xxxv. IDA: International Development Agency
- xxxvi. IFAD: International Fund for Agricultural Development
- xxxvii. IMF: International Monetary Fund
- xxxviii. IOC: Indian Ocean Commission
- xxxix. LAC: Latin American and Caribbean
- xl. LDC: Least Developed Country
- xli. LIC: Low Income Countries
- xl.ii. LIFDC: Low-Income Food-Deficit Countries
- xl.iii. LME: Liberal Market Economy
- xl.ii. LMIC: Lower Middle-Income Countries
- xl.iii. MERCOSUR: Mercado Común del Sur (common market of Argentina, Brazil, Paraguay, Uruguay)
- xl.ii. MFN: Most-favoured nation, in the WTO, the principle of treating trading partners equally
- xl.ii. MNC: Multinational Corporation
- xl.ii. MTO: Multilateral Trade Organization — the proposed name of the new organization that eventually became the WTO, used during Uruguay Round negotiations (appears in negotiating documents such as "Modalities" for agricultural commitments)
- xl.ii. NAEX: Net Agricultural Exporting
- i. NAFTA: North American Free Trade Agreement
- ii. NAIM: Net Agricultural Importing
- iii. NFEX: Net Food Exporting

liii.	NFIM: Net Food Importing
liv.	NGO: Non-Governmental Organization
lv.	NIS: Newly Independent States
lvi.	NPR: Nominal Protection Rate
lvii.	NTB: Non-Tariff Barriers
lviii.	OECD: Organization for Economic Cooperation and Development
lix.	OPK: Operasi Pasar Khusus (targeted rice subsidy programme)
lx.	PMB: Paddy Marketing Board
lxi.	PPI: Producer price index
lxii.	PSE: Producer Support Estimate
lxiii.	QR: Quantitative Restriction
lxiv.	RIFF: Regional Integration Facilitation Forum, formerly the Cross-Border initiative (CBI)
lxv.	RTA: Regional Free Trade Agreement
lxvi.	RUNS: Rural-Urban-North-South Model
lxvii.	SACU: Southern Africa Customs Union
lxviii.	SAL: Structural Adjustment Loan
lix.	SAM: Social Accounting Matrix
lxx.	SAP: Structural Adjustment Programme
lxxi.	SAPRIN: Structural Adjustment Participatory Review International Network.
lxxii.	SECAL: Sectoral Adjustment Loan
lxxiii.	SME: Small and Medium Enterprise
lxxiv.	SOFI: State of Food Insecurity
lxxv.	SPS: Sanitary and phytosanitary (measures)
lxxvi.	SSA: Sub-Saharan Africa
lxxvii.	SSG: Special Safeguard
lxxviii.	STE: State Trading Enterprise
lxxix.	TNC: Transnational Corporation
lxxx.	TQ: Tariff-quota
lxxxi.	TRQ: Tariff-rate-quota, same as TQ
lxxxii.	UMIC: Upper Middle Income Countries
lxxxiii.	UMRs: Usual marketing requirements, a system in FAO principles for food aid
lxxxiv.	UNCTAD: United Nations Conference on Trade and Development
lxxxv.	UNDP: United Nations Development Programme
lxxxvi.	UR: Uruguay Round
lxxxvii.	USDA: United States Department of Agriculture
lxxxviii.	WB: World Bank
lxxxix.	WCA: Washington Consensus on Agriculture
xc.	WFM: World Food Model
xci.	WFS: World Food Summit
xcii.	WTO: The World Trade Organization, established as the successor to the GATT on 1 January 1995

## **Executive Summary**

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports) ; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions .

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- (i) Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- (ii) Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

The necessary conditions are:

- (i) Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- (ii) WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- (iii) Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- (iv) Production sensitivity to inputs will remain valid for the time period projected.

The objective of the research is to find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4. Specific objectives include:

- (i) To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- (ii) To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- (iii) To find the avenues for advanced agricultural marketing / financing options.
- (iv) To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode – 4.
- (v) To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

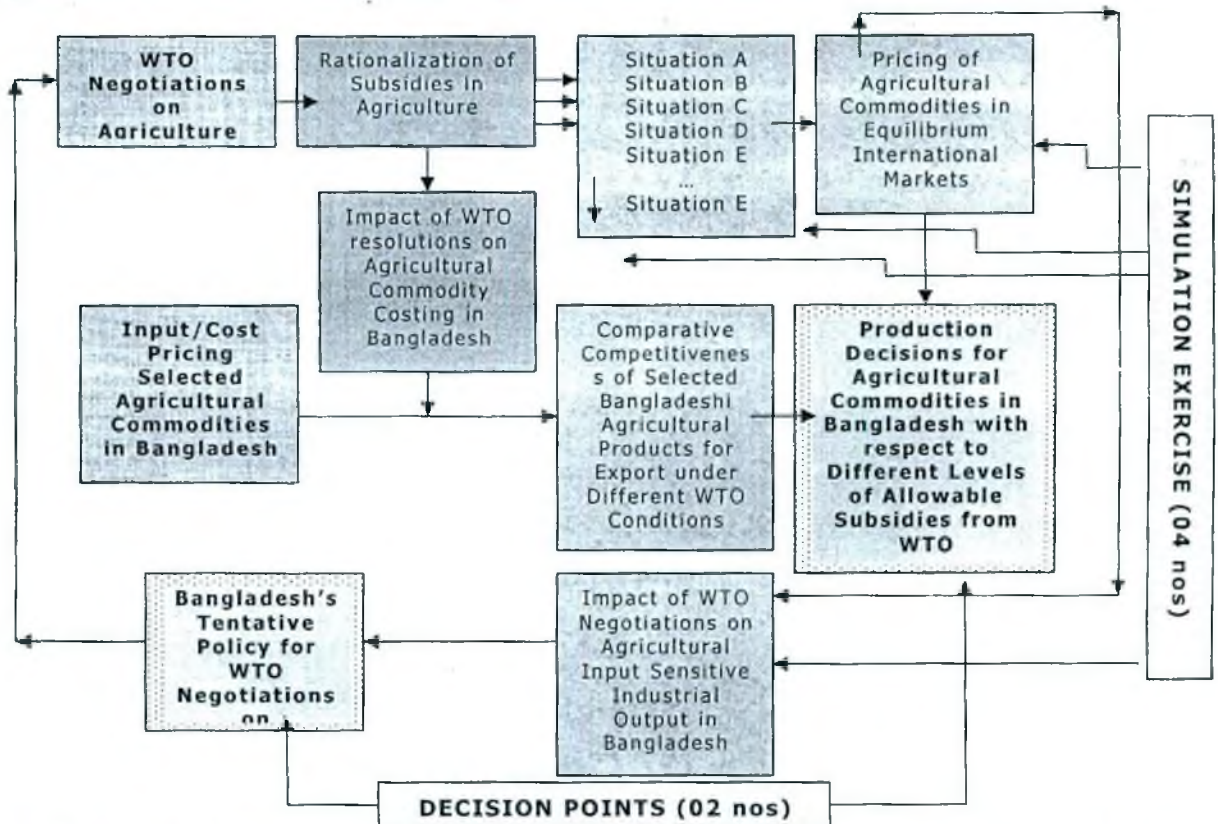
Within the time (30 Days) and budget allocated the scope of the research work will be to analyze the scenario for the different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh. The specific scopes of the research are as follows.

- (i) Current composition of the agricultural produces for export
- (ii) Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- (iii) Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.
- (iv) Specific negotiation strategy for WTO on agricultural subsidies
- (v) Specific tactics for implementation of the above strategy (iv)
- (vi) Impact of making the block of countries in different stages of de-subsidization

However, as the project is a two-year long M. Phil. dissertation, only scope (i), (ii), and (iii) will be covered, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) and their respective marketing strategies will be identified in the first stage, within the next 30 days.

Only experts will be consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents will be approached. Therefore, convenience sampling method will be used.

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

The research aims to ascertain the following end results:

- The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
- Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.

**Agricultural Subsidies**  
**Impact Analysis and Combat Techniques for Bangladesh**  
**In the World Trade Organization**

DRAFT PROPOSAL FOR THE RESEARCH PAPER IN THE MARKETING RESEARCH COURSE

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**1.0 Background**

A great deal of attention is currently being paid to the discussion of the reform of global agricultural trade. In the year 2000, the WTO initiated a new round of trade negotiations on agriculture and services. According to the Doha mandate adopted on 14 November 2001, the WTO members committed themselves to substantially improve market access, to reduce (with a view to phasing out) all forms of export subsidies and to substantially reduce trade-distorting domestic support. Furthermore, it was also agreed that non-trade concerns and special and differential treatment for developing countries should become an integral feature throughout the negotiations. In February 2003 a first attempt to agree on modalities, the so-called Harbinson Paper, was presented to the WTO members and revised after intensive discussion. Based on the resulting Harbinson 1½ paper<sup>1</sup>, the Doha Ministerial Declaration requested WTO members to agree upon formulas and other modalities by 31 March 2003 at the latest. But negotiators missed this deadline. While the US and the Cairns Group considered the tariff reductions of the Harbinson 1½ paper as too low and preferred the Swiss formula, the EU considered the liberalization proposals as too far reaching. Together with 75 other WTO members (friends of the Uruguay formula) the EU pleaded for a repetition of the Uruguay round of agriculture and especially for the implementation of the Uruguay formula for tariff reduction (Brockmeier & Salamon, 2004). After 31 March 2003, negotiators selected a number of controversial issues and aimed at achieving a framework agreement at the ministerial conference, taking place in Cancún, on 11-14 September 2003. The EU and the US were the first to come forward with a draft. The joint US-EU text suggested a blended formula under which the tariffs were subdivided into three groups. The tariffs of the first group were categorized as duty free, while the tariffs of the second group were to be reduced by an average with a minimum reduction per product (the Uruguay round formula). The third group of tariffs was supposed to be reduced by the Swiss formula.

After the failure of Cancún a new negotiation process started at the beginning of 2004. On 16 July 2004, the chairman of the agricultural committee, Tim Grosser, presented a new proposal on modalities for negotiations on agricultural trade. An amended version of the Grosser text was then presented and adopted in a revised form by the WTO General Council on 31 July 2004 as part of the Doha Work Program or Oshima-text. Although it seemed as if the disputing parties had reached an agreement, the outcome of the negotiations is still highly uncertain. In contrast to the former papers, the content of this recently adopted proposal is very vague. It contains (almost exclusively) qualitative information about tariff cuts, the abolition of exports subsidies, etc., but does not make any concrete statement regarding the time horizon or magnitude of the protection cuts. Nor does the more or less nebulous consistency of the Doha Work Program July package help to resolve the most important issue of market access: What kind of tiered formula will be used to cut down the import tariffs? What effect does a tiered formula, such as the Harbinson formula, have in contrast to a more flexible one, such as the Swiss formula? How will the preferential treatment of the developing countries be achieved?

In all, the Doha Work Program comprised an overall cut of all trade-distorting domestic support according to a tiered formula. Under this formula, higher levels of trade-distorting domestic support would be subject to deeper cuts to achieve a harmonized result. For all developed countries a down payment of 20% during the



first year of the implementation period would be made. The cut would be based on binding rates. Furthermore, a reduction of the *de minimis* loophole would be negotiated and the criteria for the green box would be reviewed. The blue box support should not exceed 5% of the average total value of agricultural production during a historical reference period that has not yet been specified.

On export competition, the Doha Work Program assured the elimination of all forms of export subsidies. Moreover, all export measures with effects equivalent to export subsidies would be eliminated, such as export credits, export credit guarantees or insurance programs with repayment periods beyond 180 days. Export credits of less than 180 days and trade distorting practices of state trading enterprises (STES) would be subject to strict disciplines. Moreover, concrete disciplines would be imposed on food aid that is used for commercial displacement. A substantial reduction in market access barriers would be achieved through a tiered approach with deeper cuts in higher tariffs. The reduction commitments would be made from binding tariff rates applicable to all members other than the least developed countries (LDCs). Countries could self-select sensitive products that would be treated in a more flexible way. As compensation, the TRQs of sensitive products have to be expanded. For developing countries, special and differential treatment is provided. They would be accorded longer implementation periods, lower tariff and subsidy cuts and special concessions for their market access. Furthermore, trade with tropical products would be fully liberalized and the erosion of trade preferences would be addressed. LDCs do not have to lower their tariffs or their domestic farm support. Developed countries and capable developing countries should provide duty- and quota-free market access for LDC products

Situations attained heights of complexity during the Sixth Ministerial in Hong Kong in 2005.

During the run-up to the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" focusing on duty-free and quota-free market access for all exports from all LDCs.

Despite protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that The WTO rules have perpetuated an unfair trading system, which favors rich countries and their

corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade-talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks – at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries has yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promise by the developed countries to the developing countries that they would reduce their protectionist measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks

unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

- i. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
- ii. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
- iii. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies by 1 January 2010 or earlier; immediately end cotton export subsidies and eliminate domestic support for cotton by 2006.
- iv. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
- v. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
- vi. Agree to genuine development measures, including resolving the Special and Differential proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.
- vii. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

Only seven steps, but then, only seven almost insurmountable obstacles.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, in the bread earner of the country these days). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in the areas industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities.

Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access, shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This depended

on outcomes of further negotiations held in Geneva by April 2006 – which, however, failed, if not, miserably failed.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed though. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

It has to be noted that the Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs will be provided duty-free and quota-free market access for cotton exports from the commencement of implementation date (scheduled to be agreed – and was not – by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made, so that there was no loophole for continuing export subsidization. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid was supposed to have been completed (which, it was not) by 30 April 2006 as part of the modalities.

The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

What comes next as an alternative trade-pattern gradually unfolds; it is NAMA (Non-Agricultural Market Access) that we have to look into. That is, we have to look for alternate items in trading. What comes to mind naturally is to develop the indigenous production sector, in which, we may still have some comparative advantage left to fight in a globalized planet (no matter how weird the word may sound).

But what do all these mean after all for Bangladesh? The considerations are three fold, i.e.:

- a. The impact of sustained agricultural subsidies by the developed countries on the production and pricing of agricultural commodities in Bangladesh (for exports)
- b. The probable impact of de-subsidized (phase-wise) trade patterns in agricultural commodities on the industrial output of Bangladesh
- c. Avenues for mitigating trade imbalances for Bangladesh by taking advantages of the existing subsidies pattern.

Unfortunately, Bangladesh does not yet have any coherent WTO policy on agricultural subsidies and trade in agricultural commodities.

From Submission-1

## 2.0 Literature Review

### 2.1 Introduction on Agricultural Trade: Short Primer

The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies. The first pillar of the AoA is "domestic support". The AoA structures domestic support (subsidies) into three categories or "boxes": a Green Box, an Amber Box and a Blue Box. The Green Box contains fixed payments to producers for environmental programs, so long as the payments are "decoupled" from current production levels. The Amber Box contains domestic subsidies that governments have agreed to reduce but not eliminate. The Blue Box contains subsidies which can be increased without limit, so long as payments are linked to production-limiting programs<sup>1</sup>. The AoA's domestic support system currently allows Europe and the USA to spend \$380 billion every year on agricultural subsidies alone. "It is often still argued that subsidies are needed to protect small farmers but, according to the World Bank, more than half of EU support goes to 1% of producers while in the US 70% of subsidies go to 10% of producers, mainly agri-businesses"<sup>2</sup>. The effect of these subsidies is to flood global markets with below-cost commodities, depressing prices and undercutting producers in poor countries – a practice known as dumping<sup>3</sup>.

"Market access" is the second pillar of the AoA, and refers to the reduction of tariff (or non-tariff) barriers to trade by WTO member-states. The 1995 AoA required tariff reductions of: (i) 36% average reduction by developed countries, with a minimum per tariff line reduction of 15% over five years; and (ii) 24% average reduction by developing countries with a minimum per tariff line reduction of 10% over nine years. Least Developed Countries (LDCs) were exempted from tariff reductions, but either had to convert non-tariff barriers to tariffs—a process called tariffication—or "bind" their tariffs, creating a "ceiling" which could not be increased in future<sup>4</sup>.

"Export subsidies" is the third pillar of the AoA. The 1995 AoA required developed countries to reduce export subsidies by at least 35% (by value) or by at least 21% (by volume) over the five years to 2000.

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. While the volume of world agricultural exports has substantially increased over recent decades, its rate of growth has lagged behind that of manufactures, resulting in a steady decline in agriculture's share in world merchandise trade. In 1998, agricultural trade accounted for 10.5 per cent of total merchandise trade — when

<sup>1</sup> Text of the Agreement on Agriculture

<sup>2</sup> Institute for Agriculture and Trade Policy, Agreement on Agriculture Basics 2003.

<sup>3</sup> Institute for Agriculture and Trade Policy, WTO Agreement on Agriculture: A Decade of Dumping, Feb 2005.

<sup>4</sup> This section of the paper is influenced by the article, "Multinational Enterprises and New Trade Theory: Evidence for the Convergence Hypothesis", by S. Barrlos, H. Görg and E. Strobl (Research Paper 2000/19; Centre for Research on Globalization and Labor Markets, School of Economics, University of Nottingham; collected from the net resources of the University). The article denotes that according to the 'convergence hypothesis' multinational companies will tend to displace national firms and trade as total market size increases and as countries converge in relative size, factor endowments, and production costs. Using a recent model developed by Markusen and Venables (1998) as a theoretical framework, the authors explicitly develop empirical measures to proxy bilateral FDI between two countries and address their properties with regard to the convergence hypothesis. Using a panel of data of country pairs over the years 1985-96 the authors econometrically test for the relationship between convergence and bilateral FDI. The results provide some empirical support for the convergence hypothesis. Overall market size tends to increase, while differences in market size tend to reduce bilateral MNE activity. While the role of differences in relative endowments of human or physical capital skilled workers is not clear from the results, R&D intensity, which serves to proxy the importance of firm level scale economies, and a common language in home and host country significantly increase bilateral MNE activity. The authors have also found that for many cases transportation costs, contrary to the convergence hypothesis, are negative determinants, although these findings are in line with similar findings in the literature. Breaking down the sample into EU and non-EU pairs it is found that a large number of results in aggregate still hold, although, given the small sample size, particularly for EU country pairs, these results must be viewed with some caution.

trade in services is taken into account, agriculture's share in global exports drops to 8.5 per cent. However, with respect to world trade agriculture is still ahead of sectors such as mining products, automotive products, chemicals, textiles and clothing or iron and steel. Among the agricultural goods traded internationally, food products make up almost 80 per cent of the total. The other main category of agricultural products is raw materials. Since the mid-1980s, trade in processed and other high value agricultural products has been expanding much faster than trade in the basic primary products such as cereals. Agricultural trade remains in many countries an important part of overall economic activity and continues to play a major role in domestic agricultural production and employment. The trading system plays also a fundamentally important role in global food security, for example by ensuring that temporary or protracted food deficits arising from adverse climatic and other conditions can be met from world markets<sup>5</sup>.

### **2.1.1 Trade policies prior to the WTO**

Although agriculture has always been covered by the GATT, prior to the WTO there were several important differences with respect to the rules that applied to agricultural primary products as opposed to industrial products. The GATT 1947 allowed countries to use export subsidies on agricultural primary products whereas export subsidies on industrial products were prohibited. The only conditions were that agricultural export subsidies should not be used to capture more than an "equitable share" of world exports of the product concerned (Article XVI:3 of GATT). The GATT rules also allowed countries to resort to import restrictions (e.g. import quotas) under certain conditions, notably when these restrictions were necessary to enforce measures to effectively limit domestic production (Article XI:2(c) of GATT). This exception was also conditional on the maintenance of a minimum proportion of imports relative to domestic production. However, in practice many non-tariff border restrictions were applied to imports without any effective counterpart limitations on domestic production and without maintaining minimum import access. In some cases this was achieved through the use of measures not specifically provided for under Article XI. In other cases it reflected exceptions and country-specific derogations such as grandfather clauses, waivers and protocols of accession. In still other cases non-tariff import restrictions were maintained without any apparent justification. The result of all this was a proliferation of impediments to agricultural trade, including by means of import bans, quotas setting the maximum level of imports, variable import levies, minimum import prices and non-tariff measures maintained by state trading enterprises. Major agricultural products such as cereals, meat, dairy products, sugar and a range of fruits and vegetables have faced barriers to trade on a scale uncommon in other merchandise sectors. In part, this insulation of domestic markets was the result of measures originally introduced following the collapse of commodity prices in the 1930s Depression. Furthermore, in the aftermath of the Second World War many governments were concerned primarily with increasing domestic agricultural production so as to feed their growing populations. With this objective in mind and in order to maintain a certain balance between the development of rural and urban incomes, many countries, particularly in the developed world, resorted to market price support — farm prices were administratively raised. Import access barriers ensured that domestic production could continue to be sold. In response to these measures and as a result of productivity gains, self-sufficiency rates rapidly increased. In a number of cases, expanding domestic production of certain agricultural products not only replaced imports completely but resulted in structural surpluses. Export subsidies were increasingly used to dump surpluses onto the world

<sup>5</sup> Paragraph encouraged by article titled, "Five Simple Principles for World Trade" by Dani Rodrik (November 22, 1999) retrieved from his Internet database. Dani Rodrik is professor of International political economy at Harvard's John F. Kennedy School of Government. The article notes that (i) Trade is a means to an end, not an end in itself; (ii) Trade rules have to allow for diversity in national institutions and standards; (iii) Non-democratic countries cannot count on the same trade privileges as democratic ones; (iv) Countries have the right to protect their own social arrangements and institutions; but that — (v) they do not have the right to impose their institutional preferences on others.

market, thus depressing world market prices. On the other hand, this factor, plus the effects of overvalued exchange rates, low food price policies in favor of urban consumers and certain other domestic measures, reduced in a number of developing countries the incentive for farmers to increase or even maintain their agricultural production levels<sup>6</sup>.

### **2.1.2 Uruguay Round agricultural negotiations**

In the lead-up to the Uruguay Round negotiations, it became increasingly evident that the causes of disarray in world agriculture went beyond import access problems which had been the traditional focus of GATT negotiations. To get to the roots of the problems, disciplines with regard to all measures affecting trade in agriculture, including domestic agricultural policies and the subsidization of agricultural exports, were considered to be essential. Clearer rules for sanitary and phytosanitary measures were also considered to be required, both in their own right and to prevent circumvention of stricter rules on import access through unjustified, protectionist use of food safety as well as animal and plant health measures. The agricultural negotiations in the Uruguay Round were by no means easy — the broad scope of the negotiations and their political sensitivity necessarily required much time in order to reach an agreement on the new rules, and much technical work was required in order to establish sound means to formalize commitments in policy areas beyond the scope of prior GATT practice. The Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures were negotiated in parallel, and a Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-developed and Net Food-importing Developing Countries also formed part of the overall outcome.

### **2.1.3 Introduction to the Agreement on Agriculture**

The Agreement on Agriculture, (the "Agreement"), came into force on 1 January 1995. The preamble to the Agreement recognizes that the agreed long-term objective of the reform process initiated by the Uruguay Round reform programme is to establish a fair and market-oriented agricultural trading system. The reform programme comprises specific commitments to reduce support and protection in the

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<sup>6</sup> Inspired by the article, "Strategic Trade, Competitive Industries and Agricultural Trade Disputes" by Kyle Bagwell and Robert W. Staiger (February, 2001). The article notes that the primary predictions of strategic-trade theory are not restricted to imperfectly-competitive markets. Indeed, these predictions emerge in a natural three-country extension of the traditional theory of trade policy in competitive markets, once the theory is augmented to allow for politically motivated governments, so that the sign of export policy may be converted from tax to subsidy. This suggests that the ongoing agricultural trade disputes may be best interpreted from the perspective of strategic-trade theory. In fact, these disputes may offer the most important example yet of strategic-trade theory.

The writers have presented a model of strategic trade (modified from Brander, J. and B. Spencer, 1985, Export Subsidies and Market Share Rivalry; *Journal of International Economics* 18, 83-100.) that applies for markets with competitive characteristics. We have argued as well that the model predicts quite well the broad features of the agricultural trade disputes, which are perhaps the most important trade disputes in recent decades. The writers conclude with some final thoughts as regards the treatment of export subsidies in GATT and now the WTO. The model suggests that exporting countries prefer a limit on export subsidies in order to stem the rivalry in subsidies that otherwise occurs. Importing countries and the world as a whole lose if exporting countries are successful in this endeavor. From this perspective, the perplexing manner in which GATT and the WTO treat export subsidies may represent conflicting consequences that restrictions on export subsidies have for exporting and importing governments. To the extent that the prohibition of export subsidies has been effective, this policy may correspond to a victory for exporting governments at the expense of importing government and world welfare. At a broader level, it is clear that no simple approach toward export subsidization could ever satisfy all goals. Perhaps, as Jackson (Jackson, J., 1997, *The World Trading System: Law and Policy of International Economic Relations*, 2nd edition (The MIT Press, Cambridge), pp. 298-99) emphasizes, if the costs and benefits of a subsidization program are kept within national borders, and thus not shifted onto trading partners, then the program should not be a matter of concern for the WTO. But while this may be a sound principle, cross-border effects are indeed expected when export subsidies are used. And these effects are complicated, too, cutting in different ways in different scenarios: the consumers in importing countries may be inclined to send a "note of thanks;" the import-competing firms in these countries may be harmed; and competing exporters from other countries are also likely to be harmed. The paper's dominant model describes a trading pattern under which overall government welfare increases when the subsidization program is enhanced. But other trading patterns could carry different conclusions. In this perplexing setting, the authors point out that theoretical models, motivated in terms of actual export-subsidy disputes, are of particular value. Such models can clarify the key cost-shifting effects and thereby contribute importantly toward a better understanding of the appropriate manner in which to treat export subsidies within the WTO. This paper is intended as a step in this general direction.

areas of domestic support, export subsidies and market access, and through the establishment of strengthened and more operationally effective GATT rules and disciplines. The Agreement also takes into account non-trade concerns, including food security and the need to protect the environment, and provides special and differential treatment for developing countries, including an improvement in the opportunities and terms of access for agricultural products of particular export interest to these Members.

#### **2.1.4 Relationship with other WTO Agreements**

In principle, all WTO agreements and understandings on trade in goods apply to agriculture, including the GATT 1994 and WTO agreements on such matters as customs valuation, import licensing procedures, pre-shipment inspection, emergency safeguard measures, subsidies and technical barriers to trade. However, where there is any conflict between these agreements and the Agreement on Agriculture, the provisions of the Agreement on Agriculture prevail. The WTO Agreements on Trade in Services and on Trade-Related Aspects of Intellectual Property rights are also applicable to agriculture.

#### **2.1.5 Product coverage**

The Agreement defines in its Annex 1 agricultural products by reference to the harmonized system of product classification — the definition covers not only basic agricultural products such as wheat, milk and live animals, but the products derived from them such as bread, butter and meat, as well as all processed agricultural products such as chocolate and sausages. The coverage also includes wines, spirits and tobacco products, fibers such as cotton, wool and silk, and raw animal skins destined for leather production. Fish and fish products are not included, nor are forestry products.

#### **2.1.6 Rules and commitments**

The Agreement on Agriculture establishes a number of generally applicable rules with regard to trade-related agricultural measures, primarily in the areas of market access, domestic support and export competition. These rules relate to country-specific commitments to improve market access and reduce trade-distorting subsidies which are contained in the individual country schedules of the WTO Members and constitute an integral part of the GATT.

#### **2.1.7 Implementation period**

The implementation period for the country-specific commitments is the six-year period commencing in 1995. However, developing countries have the flexibility to implement their reduction and other specific commitments over a period of up to 10 years. Members had the choice of implementing their concessions and commitments on the basis of calendar, marketing (crop) or fiscal years. A WTO Member's implementation year for tariff reductions may thus differ from the one applied to export subsidy reductions. For the purpose of the peace clause, the implementation period is the nine-year period commencing in 1995.

#### **2.1.8 Committee on Agriculture**

The Agreement established a Committee on Agriculture. The Committee oversees the implementation of the Agreement on Agriculture and affords Members the opportunity of consulting on any matter relating to the implementation of commitments, including rule-based commitments. For this purpose, the Committee usually meets four times per year. Special meetings can be convened if necessary.



## **2.2 Market access**

Under the reform programme, members have converted their non-tariff measures to equivalent bound tariffs. Some additional market access is provided through tariff rate quotas, and the tariffs are being reduced. Contingency protection is provided through special safeguards, and transparency works through notifications.

On the market access side, the Uruguay Round resulted in a key systemic change: the switch from a situation where a myriad of non-tariff measures impeded agricultural trade flows to a regime of bound tariff-only protection plus reduction commitments. The key aspects of this fundamental change have been to stimulate investment, production and trade in agriculture by (i) making agricultural market access conditions more transparent, predictable and competitive, (ii) establishing or strengthening the link between national and international agricultural markets, and thus (iii) relying more prominently on the market for guiding scarce resources into their most productive uses both within the agricultural sector and economy-wide.

In many cases, tariffs were the only form of protection for agricultural products before the Uruguay Round — the Round led to the “binding” in the WTO of a maximum level for these tariffs. For many other products, however, market access restrictions involved non-tariff barriers. This was frequently, though not only, the case for major temperate zone agricultural products. The Uruguay Round negotiations aimed to remove such barriers. For this purpose, a “tariffication” package was agreed which, amongst other things, provided for the replacement of agriculture-specific non-tariff measures with a tariff which afforded an equivalent level of protection. The tariffs resulting from the tariffication process account, on average of the developed country Members, for around one fifth of the total number of agricultural tariff lines. For the developing country Members, this share is considerably smaller. Following the entry into force of the Agreement on Agriculture, there is now a prohibition on agriculture-specific non-tariff measures, and the tariffs on virtually all agricultural products traded internationally are bound in the WTO.

### **2.2.1 Schedule of tariff concessions**

Each WTO Member has a “schedule” of tariff concessions covering all agricultural products. These concessions are an integral part of the results of the Uruguay Round, are formally annexed to the Marrakesh Protocol [cross-reference] and have become an integral part of the GATT 1994 [cross-reference]. The schedule sets out for each individual agricultural product, or, in some cases agricultural products defined more generally, the maximum tariff that can be applied on imports into the territory of the Member concerned. The tariffs in the schedules include those that resulted from the tariffication process, which, in many cases, are considerably higher than industrial tariffs, reflecting the incidence of agriculture-specific non-tariff measures prior to the WTO. Many developing countries have bound their previously unbound tariffs at “ceiling” levels, i.e. at levels higher than the applied rates prior to the WTO. Developed country Members have agreed to reduce, over a six-year period beginning in 1995, their tariffs by 36 per cent on average of all agricultural products, with a minimum cut of 15 per cent for any product. For developing countries, the cuts are 24 and 10 per cent, respectively, to be implemented over ten years. Those developing country Members which bound tariffs at ceiling levels did not, in many cases, undertake reduction commitments. Least-developed country Members were required to bind all agricultural tariffs, but not to undertake tariff reductions.

As part of the tariffication package, WTO Members were required to maintain, for tariffied products, current import access opportunities at levels corresponding to those existing during the 1986-88 base period. Where such “current” access had been

less than 5 per cent of domestic consumption of the product in question in the base period, an (additional) minimum access opportunity had to be opened on a most-favoured-nation basis. This was to ensure that in 1995, current and minimum access opportunities combined represented at least 3 per cent of base-period consumption and are progressively expanded to reach 5 per cent of that consumption in the year 2000 (developed country Members) or 2004 (developing country Members), respectively. The current and minimum access opportunities are generally implemented in the form of tariff quotas. In case of minimum access, the applicable duty was required to be low or minimal, low that is either in absolute terms or, at least, in relation to the "normal" ordinary customs duty that applies to any imports outside the tariff quota. These tariff quotas, including the applicable tariff rates and any other conditions related to the tariff quotas, are specified in the schedules of the WTO Members concerned. While the vast majority of tariff quotas in agriculture have their origin in the Uruguay Round negotiations, a number of such commitments were the result of accessions to the WTO. As on July 1999, 37 Members have tariff quotas specified in their schedules. In total, there are 1374 individual tariff quotas. These tariff quotas constitute binding commitments as opposed to autonomous tariff quotas which Members may establish at any time, for example, in order to stabilize the domestic price after a poor harvest.

### **2.2.2 The prohibition of non-tariff border measures**

Article 4.2 of the Agreement on Agriculture prohibits the use of agriculture-specific non-tariff measures. Such measures include quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing procedures, voluntary export restraint agreements and non-tariff measures maintained through state-trading enterprises. All similar border measures other than "normal customs duties" are also no longer permitted. Although Article XI:2(c) of the GATT [cross-reference] continues to permit non-tariff import restrictions on fisheries products, it is now inoperative as regards agricultural products because it is superseded by the Agreement on Agriculture. However, Article 4.2 of the Agreement on Agriculture does not prevent the use of non-tariff import restrictions consistent with the provisions of the GATT or other WTO agreements which are applicable to traded goods generally (industrial or agricultural). Such measures include those maintained under balance-of-payments provisions (Articles XII and XVIII of GATT), general safeguard provisions (Article XIX of GATT and the related WTO agreement), general exceptions (Article XX of GATT), the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Technical Barriers to Trade or other general, non-agriculture-specific WTO provisions.

### **2.2.3 Special treatment**

The Agreement on Agriculture contains a "special treatment" clause (Annex 5), under which four countries were permitted, subject to strictly circumscribed conditions, to maintain non-tariff border measures on certain products during the period of tariff reductions (with the possibility of extending the special treatment, subject to further negotiations). As one of the conditions, market access in the form of progressively increasing import quotas has to be provided for the products concerned. The products and countries concerned are: rice in the case of Japan, Korea and the Philippines; and cheese and sheepmeat in the case of Israel. As of 1 April 1999, Japan has ceased to apply special treatment.

### **2.2.4 The special safeguard provisions**

As a third element of the tariffication package, Members have the right to invoke for tariffied products the special safeguard provisions of the Agreement on Agriculture (Article 5), provided that a reservation to this effect ("SSG") appears beside the

products concerned in the relevant Member's schedule. The right to make use of the special safeguard provisions has been reserved by 38 Members, and for a limited number of products in each case. The special safeguard provisions allow the imposition of an additional tariff where certain criteria are met. The criteria involve either a specified surge in imports (volume trigger), or, on a shipment by shipment basis, a fall of the import price below a specified reference price (price trigger). In case of the volume trigger, the higher duties only apply until the end of the year in question. In case of the price trigger, any additional duty can only be imposed on the shipment concerned. The additional duties cannot be applied to imports taking place within tariff quotas.

### **2.2.5 Notification obligations**

The bound agricultural tariffs and the tariff quota commitments are contained in Members' schedules. There is no requirement for Members to notify their tariffs to the Committee on Agriculture. Applied tariffs are, however, to be submitted to other bodies of the WTO, including the Committee on Market Access and in the context of the Trade Policy Review mechanism.

Members with tariff quotas and the right to use the special safeguard provisions are required to make both ad hoc and annual notifications to the Committee on Agriculture. At the beginning of the implementation period, an "up-front" notification was due, setting out how each tariff quota is to be administered. Such notifications disclose, for example, if imports are permitted on a "first-come-first-served" basis or if import licenses are used — and in the latter case, an indication of who is able to obtain a license and how they are allocated. An ad hoc notification is required if the method of allocation under any tariff quota changes. At the end of each year, a notification of the quantity of imports entering under each tariff quota is required (tariff quota fill).

Members with the right to use the special safeguard provisions must notify its first use in order to allow its trading partners to establish the parameters of the special safeguard action, such as the volume or price used to trigger the special safeguard action. In the case of the price trigger, an upfront notification of the relevant reference prices has also been possible. In addition, an annual summary notification of the use of the special safeguard is required.

### **2.3 Domestic support**

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. The agricultural package of the Uruguay Round has fundamentally changed the way domestic support in favor of agricultural producers was treated under the GATT 1947. A key objective has been to discipline and reduce domestic support while at the same time leaving great scope for governments to design domestic agricultural policies in the face of, and in response to, the wide variety of the specific circumstances in individual countries and individual agricultural sectors. The approach agreed upon is also aimed at helping ensure that the specific binding commitments in the areas of market access and export competition are not undermined through domestic support measures. The main conceptual consideration is that there are basically two categories of domestic support — support with no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures). For example, government provided agricultural research or training is considered to be of the former type, while government buying-in at a guaranteed price ("market price support") falls into the latter category. Under the Agreement on

Agriculture, all domestic support in favor of agricultural producers is subject to rules. In addition, the aggregate monetary value of Amber Box measures is, with certain exceptions, subject to reduction commitments as specified in the schedule of each WTO Member providing such support.

### **2.3.1 The Green Box**

The Agreement on Agriculture sets out a number of general and measure-specific criteria which, when met, allow measures to be placed in the Green Box (Annex 2). These measures are exempt from reduction commitments and, indeed, can even be increased without any financial limitation under the WTO. The Green Box applies to both developed and developing country Members but in the case of developing countries special treatment is provided in respect of governmental stockholding programmes for food security purposes and subsidized food prices for urban and rural poor. The general criteria are that the measures must have no, or at most minimal, trade-distorting effects or effects on production. They must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and must not have the effect of providing price support to producers.

#### **a. Government service programmes**

The Green Box covers many government service programmes including general services provided by governments, public stockholding programmes for food security purposes and domestic food aid -as long as the general criteria and some other measure-specific criteria are met by each measure concerned. The Green Box thus provides for the continuation (and enhancement) of programmes such as research, including general research, research in connection with environmental programmes, and research programmes relating to particular products; pest and disease control programmes, including general and product-specific pest and disease control measures; agricultural training services and extension and advisory services; inspection services, including general inspection services and the inspection of particular products for health, safety, grading or standardization purposes; marketing and promotion services; infrastructural services, including electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, etc; expenditures in relation to the accumulation and holding of public stocks for food security purposes; and expenditures in relation to the provision of domestic food aid to sections of the population in need. Many of the regular programmes of governments are thus given the "green light" to continue.

#### **b. Direct payments to producers**

The Green Box also provides for the use of direct payments to producers which are not linked to production decisions, i.e. although the farmer receives a payment from the government, this payment does not influence the type or volume of agricultural production ("decoupling"). The conditions preclude any linkage between the amount of such payments, on the one hand, and production, prices or factors of production in any year after a fixed base period. In addition, no production shall be required in order to receive such payments. Additional criteria to be met depend on the type of measure concerned which may include: decoupled income support measures; income insurance and safety-net programmes; natural disaster relief; a range of structural adjustment assistance programmes; and certain payments under environmental programmes and under regional assistance programmes.

#### **c. Other exempt measures**

In addition to measures covered by the Green Box, two other categories of domestic support measures are exempt from reduction commitments under the Agreement on Agriculture (Article 6). These are certain developmental measures in developing countries and certain direct payments under production-limiting programmes. Furthermore, so-called de minimis levels of support are exempted from reduction.

#### **d. Developmental measures**

The special and differential treatment under the Green Box aside, the type of support that fits into the developmental category are measures of assistance, whether direct or indirect, designed to encourage agricultural and rural development and that are an integral part of the development programmes of developing countries. They include investment subsidies which are generally available to agriculture in developing country Members, agricultural input subsidies generally available to low-income or resource-poor producers in developing country Members, and domestic support to producers in developing country Members to encourage diversification from growing illicit narcotic crops.

##### **2.3.2 Blue Box**

Direct payments under production limiting programmes (often referred to as "Blue Box" measures) are exempt from commitments if such payments are made on fixed areas and yield or a fixed number of livestock. Such payments also fit into this category if they are made on 85 per cent or less of production in a defined base period. While the Green Box covers decoupled payments, in the case of the Blue Box measures, production is still required in order to receive the payments, but the actual payments do not relate directly to the current quantity of that production.

##### **2.3.3 De minimis**

All domestic support measures in favor of agricultural producers that do not fit into any of the above exempt categories are subject to reduction commitments. This domestic support category captures policies, such as market price support measures, direct production subsidies or input subsidies. However, under the de minimis provisions of the Agreement there is no requirement to reduce such trade-distorting domestic support in any year in which the aggregate value of the product-specific support does not exceed 5 per cent of the total value of production of the agricultural product in question. In addition, non-product specific support which is less than 5 per cent of the value of total agricultural production is also exempt from reduction. The 5 per cent threshold applies to developed countries whereas in the case of developing countries the de minimis ceiling is 10 per cent.

##### **2.3.4 Reduction commitments**

Twenty-eight Members (counting the EC as one) had non-exempt domestic support during the base period and hence reduction commitments specified in their schedules. The reduction commitments are expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which includes all product-specific support and non-product-specific support in one single figure. Members with a Total AMS have to reduce base period support by 20 per cent over 6 years (developed country Members) or 13 per cent over 10 years (developing country Members). In any year of the implementation period, the Current Total AMS value of non-exempt measures must not exceed the scheduled Total AMS limit as specified in the schedule for that year. In other words, the maximum levels of such support are bound in the WTO.

In the case of Members with no scheduled reduction commitments, any domestic support not covered by one or another of the exception categories outlined above,

must be maintained within the relevant "product-specific" and "non-product-specific" de minimis levels.

### a Aggregate Measurement of Support

Figure 1 : Measurement of Support

<p><b>Example: Calculation of the current total AMS</b> Member X (developed country), year Y</p> <p><b>Wheat:</b></p> <ul style="list-style-type: none"> <li>&gt; Intervention price for wheat = \$255 per tonne</li> <li>&gt; Fixed external reference price (world market price) = \$110 per tonne</li> <li>&gt; Domestic production of wheat = 2,000,000 tonnes</li> <li>&gt; Value of wheat production = \$510,000,000</li> <li>&gt; Wheat AMS (AMS 1) (<math>\\$255 - \\$110</math>) x 2,000,000 tonnes = \$290,000,000 (<i>de minimis</i> level = \$25,500,000)</li> </ul> <p><b>Barley:</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for barley = \$3,000,000</li> <li>&gt; Value of barley production = \$100,000,000</li> <li>&gt; Barley AMS (AMS 2) = \$3,000,000 (<i>de minimis</i> level = \$5,000,000)</li> </ul> <p><b>Oilseeds:</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for oilseeds = \$13,000,000</li> <li>&gt; Fertilizer subsidy = \$1,000,000</li> <li>&gt; Value of oilseeds production = \$250,000,000</li> <li>&gt; Oilseeds AMS (AMS 3) = \$14,000,000 (<i>de minimis</i> level = \$17,500,000)</li> </ul> <p><b>Support not specific to products</b></p> <ul style="list-style-type: none"> <li>&gt; Generally available interest rate subsidy = \$4,000,000</li> <li>Value of total agricultural production = \$860,000,000</li> <li>&gt; Non-product-specific AMS (AMS 4) = \$4,000,000 (<i>de minimis</i> level = \$43,000,000)</li> </ul> <p><b>Current total AMS (AMS 1 + AMS 3) = \$304,000,000</b></p>
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Price support measures have been the most important type of policy measure within the non-exempt category. Price support can be provided either through administered prices (involving transfers from consumers) or through certain types of direct payments from governments. For the purpose of Current Total AMS calculations, price support is generally measured by multiplying the gap between the applied administered price and a specified fixed external reference price ("world market price") by the quantity of production eligible to receive the administered price. Calculation details are specified in Annexes 3 and 4 of the Agreement on Agriculture and also incorporated into Members' schedules by way of references to Supporting Material. For each product, the implicit subsidy of price support measures is added to other product-specific subsidies — a product-specific fertilizer subsidy, for example — to arrive at a product-specific AMS which is then evaluated against the applicable de minimis threshold. Non-product-specific subsidies are calculated separately and, as in the former case, are included in the Current Total AMS only if they exceed the relevant de minimis level. The example in the box illustrates the calculation of the Current Total AMS for a developed country (5 per cent de minimis threshold) in year Y.

### b Equivalent Measurement of Support

Where it is not practicable to calculate a product-specific AMS as set out in the Agreement, provisions are made of an "Equivalent Measurement of Support" (EMS). The EMS is generally calculated on the basis of budgetary outlays — the money spent by governments to support a product, for example, rather than market price support calculated with respect to a fixed external reference price.

#### 2.3.5 Notification obligations

All Members must notify the Committee on Agriculture the extent of their domestic support measures. This requires a listing of all measures that fit into the exempt categories: the Green Box, developmental measures, direct payments under production limiting programmes (Blue Box) and de minimis levels of support. In

addition, where the existence of measures requires it, AMS calculations must be undertaken by Members that have scheduled domestic support reduction commitments and the Current Total AMS must be notified. Where a Member without such scheduled commitments has support measures which are not covered by one or other of the exempt categories, a notification must be made showing that such non-exempt support is within the relevant de minimis levels. Special formats have been developed by the Committee on Agriculture in order to facilitate compliance with the notification obligations. The requirement to notify is annual, except in the case of least-developed country Members which are only required to notify every other year. Developing country Members can also request the Committee to set aside the annual notification requirement for measures other than those falling into the Green Box or the developmental or Blue Box categories. In addition to the annual notification obligations, all Members must notify any modifications of existing or any introduction of new measures in the exempt categories. These notifications too are examined by the Committee on Agriculture on a regular basis. As most Members do not have domestic support measures other than those falling into the exempt categories, the annual notification requirements are in many cases not particularly burdensome. However, they are effective in providing a basis for policy discussions within the Committee on Agriculture and they also serve a useful purpose domestically in enabling governments to maintain an annual overview of support to their agricultural sectors.

## **2.4 Export competition/subsidies**

The core of the reform programme on export subsidies are the commitments to reduce subsidized export quantities, and the amount of money spent subsidizing exports. The Agriculture Agreement also looks at anti-circumvention questions. The proliferation of export subsidies in the years leading to the Uruguay Round was one of the key issues that were addressed in the agricultural negotiations. While under the GATT 1947 export subsidies for industrial products have been prohibited all along, in the case of agricultural primary products such subsidies were only subject to limited disciplines (Article XVI of GATT) which moreover did not prove to be operational.

The right to use export subsidies is now limited to four situations: (i) export subsidies subject to product-specific reduction commitments within the limits specified in the schedule of the WTO Member concerned; (ii) any excess of budgetary outlays for export subsidies or subsidized export volume over the limits specified in the schedule which is covered by the "downstream flexibility" provision of Article 9.2(b) of the Agreement on Agriculture; (iii) export subsidies consistent with the special and differential treatment provision for developing country Members (Article 9.4 of the Agreement); and (iv) export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture. In all other cases, the use of export subsidies for agricultural products is prohibited (Articles 3.3, 8 and 10 of the Agreement).

### **2.4.1 Reduction commitments**

#### **a Definition of measures**

Under the Agreement on Agriculture export subsidies are defined as referring to "subsidies contingent on export performance, including the export subsidies listed in detail in Article 9 of [the] Agreement". As specified in more detail in Article 9.1 of the Agreement, this list covers most of the export subsidy practices which are prevalent in the agricultural sector, notably:

- i. Direct export subsidies contingent on export performance;
- ii. Sales of non-commercial stocks of agricultural products for export at prices lower than comparable prices for such goods on the domestic market;
- iii. Producer financed subsidies such as government programmes which require a levy on all production which is then used to subsidize the export of a certain portion of that production;
- iv. Cost reduction measures such as subsidies to reduce the cost of marketing goods for export: this can include upgrading and handling costs and the costs of international freight, for example;
- v. Internal transport subsidies applying to exports only, such as those designed to bring exportable produce to one central point for shipping; and
- vi. Subsidies on incorporated products, i.e. subsidies on agricultural products such as wheat contingent on their incorporation in export products such as biscuits.

All such export subsidies are subject to reduction commitments, expressed in terms of both the volume of subsidized exports and the budgetary outlays for these subsidies.

#### **b Product categories**

The reduction commitments are shown in the schedules of WTO Members on a product-specific basis. For this purpose, the universe of agricultural products was initially divided into 23 products or product groups, such as wheat, coarse grains, sugar, beef, butter, cheese and oilseeds. Some Members took commitments on a more disaggregated level. The volume and budgetary outlay commitments for each product or group of products specified in a Member's schedule are individually binding. The reduction commitments on "incorporated products" (last item in the Article 9 list) are expressed in terms of budgetary outlays only. The ceilings specified in the schedules must be respected in each year of the implementation period although limited "overshooting" in the second to fifth year of implementation is permitted ("downstream flexibility"). By the last year of the implementation period, Members must be within their final export subsidy ceilings.

#### **c Rates of cut**

Developed country Members are required to reduce, in equal annual steps over a period of 6 years, the base-period volume of subsidized exports by 21 per cent and the corresponding budgetary outlays for export subsidies by 36 per cent. In the case of developing country Members, the required cuts are 14 per cent over 10 years with respect to volumes, and 24 per cent over the same period with respect to budgetary outlays. Developing countries may, during the implementation period, make use of a special and differential treatment provision of the Agreement (Article 9.4) which allows them to grant marketing cost subsidies and internal transport subsidies, provided that these are not applied in a manner that would circumvent export subsidy reduction commitments. All in all, 25 Members (counting the EC as one) have export subsidy reduction commitments specified in their schedules, with a total of 428 individual reduction commitments.

#### **2.4.2 Products with no specific reduction commitment**

The Agreement on Agriculture prohibits the use of Article 9.1 export subsidies on any agricultural product which is not subject to a reduction commitment as specified in the relevant part of the Member's schedule (with the exception, during the implementation, period of those benefiting from special and differential treatment).



### 2.4.3 Anti-circumvention

In addition to the provisions directly related to the reduction commitments, the Agreement on Agriculture contains provisions which are designed to prevent the use of export subsidies that are not specifically listed in Article 9 of the Agreement in such a way as to circumvent reduction on other export subsidy commitments (Article 10). The anti-circumvention provisions include a definition of food aid in order that transactions claimed to be food aid, but not meeting the criteria in the Agreement, cannot be used to undermine commitments. Food aid that meets the specified criteria is not considered to be subsidized export hence is not limited by the Agreement on Agriculture. The Agreement also calls for the development of internationally agreed disciplines on export credits and similar measures in recognition that such measures could also be used to circumvent commitments. Any Member which claims that any quantity exported in excess of a reduction commitment level is not subsidized must establish that no export subsidy, whether listed in Article 9 or not, has been granted in respect of the quantity of exports in question.

### 2.4.4 Notification obligations

All Members must notify the Committee on Agriculture annually with respect to export subsidies. For the vast majority of Members — those without reduction commitments — this involves only a statement to the effect that export subsidies on agricultural products have not been used (or a listing of those measures that may be used by developing country Members under Article 9.4 of the Agreement if this has been the case). For Members with reduction commitments in their schedules, the annual notification must contain the annual use of subsidies in terms of both volume and budgetary outlays. In addition, as part of the anti-circumvention provisions, Members must notify the use of food aid on an annual basis if such aid is granted. Likewise, total exports of agricultural products must be notified by Members with reduction commitments as well as by a number of other "significant exporters" as defined by the Committee. As in other areas, the export subsidy notifications form part of the basis for reviewing the progress in the implementation of the commitments by the Committee on Agriculture.

## 2.5 On Agricultural Production Pattern and Distortion

President Bush once tried to say, "Fool me once, shame on you. Fool me twice, shame on me." Paul Wolfowitz, as in his new job as president of the World Bank, some experts prefer to think that he is actually baffling the entire intellectual community by pitching the line that a new WTO agreement is the best way to help the world's poor<sup>7</sup> - when he maintains that protectionist barriers and subsidies in rich countries, especially in agriculture, are hugely harmful to the world's poor. It is to be noted that Mr. Paul Wolfowitz claims that if these barriers were removed, it would provide enormous benefits to the world's poor<sup>8</sup>.

<sup>7</sup> Ideas drawn from Global Policy Forum online resource titled, "The WTO and the World's Poor" by Dean Baker on "truthout" on July 12, 2006

<sup>8</sup> World trade talks collapsed in Geneva (In July 2004) over America's and Europe's refusal to cut the billions of dollars they provide in support to their agricultural sector. As developing countries contemplate the ruin this spells for their farmers, John Madeley looks into the reasons behind the North's tragic intransigence. They employ less than two per cent of the workforce in their industrialised countries and their contribution to the national economies is rapidly declining. Yet, they receive a level of government support which verges on the bizarre and is causing no end of annoyance to the governments and people of the poorest countries of the world. Indeed, some say, it is a protection racket that was chiefly responsible for the recent collapse of the world trade talks. Welcome to the world of Northern 'farming', a phrase used loosely to describe the whole of the agricultural sector - from small farmers to the largest agricultural multinationals - in the world's richest countries. Government support to farmers in the so-called 'rich countries club' - the 30 who belong to the Paris-based Organisation for Economic Co-operation and Development (OECD) - totalled an astounding Eur 225 billion (US\$283 billion) in 2005, some 29 per cent of farm income. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley, Panos London; July 28, 2006)

The standard economic models don't provide a basis for great hopes about a new WTO agreement. One recent analysis showed that the worldwide gains would be \$54 billion a year. This might sound impressive, until one starts to realize that it is equal to approximately 0.1 percent of world income. According to this model, approximately 1.9 percent of the gains would go to the world's poor, or close to \$2 billion a year. With 1 billion poor people, this translates into an average gain of \$2 a year. Even this might be too optimistic. Some of the world's poor might end up as losers from a WTO agreement. Cutting back subsidies to rich country farmers could be good news to the farmers who compete with them in the developing world, but it is surely bad news to consumers of these crops. They will have to pay more for their food. Some developing countries are net importers of agricultural products. They will end up as losers because they will be paying higher prices for their imports, with little or no gain on their exports<sup>9</sup>.

The standard models also assume that the work force will remain fully employed. In the real world, workers who lose their jobs in the agricultural sector in developing countries may not be able to simply find new employment elsewhere<sup>10</sup>. The mass displacement in Mexico's agricultural sector that followed in the wake of NAFTA has been one of the factors driving immigration into the United States<sup>11</sup>.

The standard models also employ a bit of economic chicanery<sup>12</sup>. They assume that the tariff revenue that developing countries lose when they cut their tariffs is made up

<sup>9</sup> An OECD study on the agricultural policies of member-states shows that the most heavily protected farmers in 2005 were in Switzerland, where 68 per cent of farmers' income came in government support, Norway (64 per cent), Korea (63 per cent), Japan (56 per cent) and European Union (EU) countries (32 per cent). Most of the support – more than half – was in the form of measures to boost the prices of farm products. These include import tariffs, export subsidies and domestic output subsidies, which "badly distort production, markets and trade", says the study. And it's not the small Northern farmer who is the main beneficiary – the support goes mostly to those who have the largest farms. In the European Union, 80 per cent of the money goes to 20 per cent of enterprises, often large agri-businesses. The day the Doha talks broke down the US agriculture secretary admitted 60 per cent of US farmers receive "virtually nothing" from the US Farm Bill. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>10</sup> Why do governments of Northern countries protect agriculture so heavily? And why are they so reluctant to change? Why does the sector, which accounts for a tiny percentage of their national earnings, have such hold over governments? "Agricultural policy reform is difficult to achieve, perhaps in part because those who fear they would lose are able to block or water down reform initiatives," says the OECD study. In Britain groups such as the Countryside Alliance and the National Farmers Union – which consists mostly of large-scale farmers – have often had considerable influence in government circles. Farmers score well with the public and this in turn influences policy. Popular radio programmes portray British farmers as guardians of the environment. "The strong European farming lobby has successfully tapped into an emotional strain among the public," says Christopher Stevens of the Overseas Development Institute, a London-based thinktank. Many people in Europe therefore go along with the view that a high level of government support for farming is necessary. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>11</sup> In Europe much of the money is channelled through the EU's Common Agricultural Policy (CAP). The single biggest gainer is the British dairy trading company, Fayrefield Foods, which received support totalling more than £22 million (\$40.7m) over 2004 and 2005, according to data obtained by the campaign group farmsubsidy.org. The £10 million claimed by Fayrefield Foods in 2004 was worth almost 10 per cent of its turnover – and dwarfed its profits, which were less than £1 million. The export arm of Dairy Crest, another well-known British brand, received a similar amount from CAP. Nestle, the Swiss food giant whose practices over marketing baby milk substitutes in the developing world have long been controversial, received more than £7 million. Some farm supports even find their way to those who are not the intended beneficiaries – such as large banks that service the agricultural sector. And some of the support to farmers and agribusiness in the North encourages overproduction and dumping – selling below the cost of production – on the world market. This can ruin the livelihoods of countless small-scale farmers in developing countries. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>12</sup> The gainers naturally oppose any changes to the hand that feeds them. When EU governments announced reforms in CAP in June 2003, large-scale farmers strongly opposed a proposal for a ceiling on payments. The reforms de-linked a certain percentage of farm subsidies from production. So EU farmers receive direct payments – de-linked from how much they produce, or whether they produce at all. The reforms were about the way farmers are paid, not lowering levels of overall support. They are most unlikely to stop over-production and dumping, say international aid and development agencies who have examined the reform proposals. And three years on, some EU governments at least seem to recognise that the reforms they hailed as sweeping are nothing of the kind. The UK government has spoken of the need "to urgently tackle the scandal and waste of the CAP". Yet real reduction in levels of EU support has failed to materialise. EU ministers did agree in December 2005 to start a review of CAP in 2008, five years earlier than previously agreed, but France made it clear that it did favour any change before 2013. Farmers in countries with large rural areas such as France and Ireland are especially vocal in their defence of CAP, and have forced their governments not to yield to calls for reforms. Yet even in France, agriculture employs only 4 per cent of the workforce and contributes just 3 per cent to national income. Some say culture, history and tradition are powerful obstacles to change:

from a "lump sum" tax. Lump sum taxes can be a useful modeling tool, but they don't actually exist in the world. A lump sum tax means that the government effectively sucks money out of the economy to pay its bills.

Using lump sum taxes in trade models is dishonest, because lump sum taxes do not lead to economic distortions. Real world taxes, like income taxes, sales taxes, or value-added taxes all lead to economic distortions - meaning that they reduce income. In other words, if the models assumed that the lost tariff revenue from a WTO agreement was made up through any real world tax, the projected gains would be even less than 0.1 percent of income<sup>13</sup>. In short, there is little reason to believe that the world's poor stand much to gain from a new WTO agreement<sup>14</sup>.

It wouldn't be difficult to design policies to aid the world's poor, if anyone cared. For starters, we could exempt them from US-type patent and copyright protections. This would mean that poor countries could always import generic versions of any drug, saving themselves both money and/or the time needed to arrange lower cost shipments from the drug industry. This could potentially save millions of lives as well. Exempting poor countries from patent and copyright rules would save developing countries money on everything from computers and software to books and recorded music and videos. The gains from this policy would vastly exceed even the most optimistic projections of gains from a new WTO agreement.

Of course, Paul Wolfowitz has told us that approving a new WTO agreement is essential for the world's poor. The problem is that there just is no evidence to support this claim. While it may be no easier to know his true motive for promoting a WTO agreement than it is to know Wolfowitz's true motive for promoting the invasion of Iraq, we should not get fooled again<sup>15</sup>.

## 2.6 A Primer on Doha Development Round

The Ministerial Conference is the apex body of the WTO. The biennial Ministerial Conferences are the most important events of WTO regime and the world of

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"fundamental to our identity" is how the French trade minister Christine Lagarde describes farming. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>13</sup> Michael Hart of the Britain-based Small and Family Farms Alliance points out that while agriculture in Britain contributes only about 1 per cent to national income, farms cover almost 80 per cent of Britain's land. "The tourist industry rides on the back of the agricultural landscape," says Hart. "If land is not farmed it will return to wilderness." But the OECD study argues that high levels of support are not necessary to ensure the quality of the environment and prosperity in rural areas. CAP, and other Northern government support programmes like the US Farm Act, have thwarted progress in WTO talks on ending subsidies. The failure of the US and EU to make significant concessions on farm supports was largely responsible for the suspension of the WTO's Doha round in July. Along with continued international pressure, it will take a radical shift in domestic public opinion in the North to get them to change their position.

<sup>14</sup> On the other hand, for example, India's position on farm subsidies is a consequence of the current crisis in the country's agriculture sector. More than half of India's one billion-plus population depends on agriculture though the sector's share in the national GDP has declined to 20 percent from 40 percent over the last decade. In recent years, India's agricultural production has been increasing by less than two percent a year whereas the economy as a whole has been growing by eight percent. India's federal agriculture minister Sharad Pawar confirmed in May that between 1993 and 2003, at least 100,000 farmers had killed themselves because of their inability to repay loans. The Indian media continues to regularly report on suicides in the Vidarbha region in the western part of the country, where 655 farmers have killed themselves mostly by consuming pesticides, in the last two months alone. Prime Minister Manmohan Singh recently visited the region to commiserate with farmers. Pawar has gone on record stating that as many as 16,000 farmers continue to commit suicide each year in 32 vulnerable districts in western and southern India in the provinces of Maharashtra, Andhra Pradesh, Karnataka and Kerala. "The Indian government's decision to refuse to negotiate further on the issue of farm subsidies was a correct one," said Dhar. "What was on offer in the negotiations was way below our minimum expectations. No deal is better than a bad deal," he said, adding that the total quantum of farm subsidies given by the developed OECD (Organization of Economic Cooperation and Development) countries works out to 340 billion US dollars a year or almost a billion dollars a day. Retrieved from Global Policy Forum online resource "Rare Unity Against West's Farm Subsidies" by Paranjoy Guha Thakurta (Inter Press Service; July 27, 2006)

<sup>15</sup> However, the U.S. has come in for severe criticism in India and elsewhere for its intransigence on the issue of reducing subsidies to its farmers. ActionAid's International director John Samuel was quoted on Wednesday in an IPS report saying: "The interests of 90 percent of poor farmers were being threatened for the sake of 2 percent of the rich farmers." He said that the deadlock marked only a "semicolon in the process of multilateral world trade talks, not a full stop".

multilateral trade. The first two WTO Ministerial Conferences in Singapore (1996)<sup>16</sup> and Geneva (1998) did not have large agendas and little to decide because they were held in the aftermath of the Uruguay Round (1986-94), the most comprehensive round of MTNs under the aegis of the General Agreement of Tariffs and Trade (GATT). Therefore, they succeeded. However, the 3rd one held in Seattle (1999) imploded ignominiously and that in Cancun (2003) collapsed among acrimonious disagreements and confusion (Das, 2003). The inconclusive end of the Cancun Ministerial essentially eliminated the prospects of Doha Round ending by January 1, 2005, the scheduled completion date. As opposed to them, the 4th Ministerial Conference held in Doha, Qatar (2001), succeeded with a mandate for a new round of MTNs from the WTO members. This Ministerial Conference had to succeed due to several reasons. One of them was the September 11 terrorist attack in New York. At this point in time, the global community sorely needed a tangible symbol of success of cooperation and solidarity. Besides, a failure in Doha—on the heels of the debacle in Seattle—would have been a serious setback to the multilateral trade regime and put it under a question mark. It could have resulted in long-lasting, if not permanent damage, to the multilateral trading system. Many developing economies were less enthusiastic about a fresh round of MTNs essentially because they were having difficulties in implementing the recommendations of the Uruguay Round. Development objective was made an intrinsic part of it for the first time. The skepticism of the developing economies was allayed by promises in the area of development. The round was assigned a pro-development mandate, with integration of the developing economies into the multilateral trading system as one of its objectives. The WTO secretariat labeled it the "Doha Development Agenda" or the DDA, the official title of the round. At the time of its launch, it was billed as more than another round of MTNs. A total of 149 WTO members participated in the sixth Ministerial Conference held in Hong Kong SAR in mid-December 2005. If success is defined as lack of failure, it was a success. Candidly speaking, if it was not a failure, it did not achieve much of substance and was not a success either. Mattoo (2006) described the Doha Round as "a stagnant whole"; it is hard to take issue with this assessment. Disappointing as it was, the fact that it did not collapse was its valuable accomplishment. While it did not energize the Doha Round negotiations in any notable manner, it did not leave the MTNs eviscerated.

The Framework Agreement, or the so-called July Package, or the July Framework Agreement of 2004 (WTO, 2004) was the most important event preceding the Hong Kong Ministerial, which provided a firm step forward in the form of a framework for negotiations<sup>17</sup>. Retaining an element of continuity since the launch of the Doha Round, it reiterated the importance of development as a corner stone of the on-going MTNs as well as stressed the pressing need for reform in agricultural trade. Notwithstanding the July Framework Agreement, the MTNs were indubitably stagnating. In view of the disparity of positions among the large trading economies and country groups, major participants had forewarned months before the Conference to keep expectations from the Hong Kong Ministerial low, rendering them easy to meet. Therefore, the Ministerial Conference commenced on a less sanguine note and kept its objectives so low that they can be achieved without difficulty. The targeted low-level equilibrium was indeed achieved at Hong Kong where few bold decisions

<sup>16</sup> The most important contribution of the Singapore Ministerial Conference was the addition of four "new" issues to the agenda of the World Trade organization (WTO), which were subsequently christened the Singapore issues. They were (1) investment, (2) competition, (3) transparency in government procurement, and (4) trade facilitation.

<sup>17</sup> Ideas and figures drawn from Hong Kong Ministerial of the Doha Round of Multilateral Trade Negotiations: Achieving A Low-Level Equilibrium by Dillip K. Das. It is important to note that Dr. Dillip K. Das was educated at the Graduate Institute of International Studies, University of Geneva, Switzerland. A professor of international trade and international finance and banking, he was associated with Webster College Geneva; ESSEC, Paris; INSEAD, Fontainebleau, France; The Australian National University, Canberra; Graduate School of Business, University of Sydney, Sydney. He has published extensively on international trade, international finance, international business and globalization related issues. His most recent books include *Regionalism in Global Trade*, Edward Elgar, Boston, USA, 2004 and *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Palgrave Macmillan Ltd. Houndmills, Hampshire, UK. 2005. He presently works as a Toronto-based consultant to multilateral organizations.

were taken. Many long-awaited decisions were put off for the future. Success in Hong Kong was possible and could have been achieved by thoughtful, pragmatic and clairvoyant negotiations on the one hand and political will of the member governments on the other.

Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as the rules was the other important, if controversial, issue under negotiations. Very little of value was achieved in these areas in Hong Kong. The harvest of decisions taken was meager because most of the politically difficult decisions were shelved for 2006. That negotiations on agricultural are as important as they are politically sensitive was evident in the Cancún Ministerial Conference also, where the developing economies, led by the Group-of-Twenty (G-20), had made it clear that further progress in the MTNs was not possible without industrial economies agreeing to lower their agricultural subsidies, particularly on cotton. The acrimonious disarray in Cancún was followed by an intense period of negotiations, which culminated in July 2004, providing an outline regarding how the Doha agreement can be restructured. This resulted in the above-noted July Framework Agreement<sup>18</sup>.

In negotiations on trade in agriculture, there are three principal areas of negotiations, namely, export subsidies, domestic support and market access. In the so-called Framework Agreement of July 2004, members had agreed to eliminate export subsidies on farm exports, albeit no deadline was agreed (Das, 2005)<sup>19</sup>. The core achievement in Hong Kong was agreement on a date, end of 2013, for the elimination of export subsidies. The EU, which accounted for 90 percent of these subsidies, accepted this date. The US, the developing economies—both the G-20 and the Group-of-Ninety (G-90)—and the Cairns Group had unsuccessfully tried to move this date back to 2010, but the EU took an intransigent stand<sup>20</sup>. The MTNs had languished since 2001 because of impasse over the politically sensitive agricultural issues. They had impeded negotiations in the other areas of MTNs as well. Therefore, in the interest of progress in the MTNs, the 2013 had to be reluctantly accepted. What was more disappointing was that negotiations on market access, or tariffs on agricultural products, and trade-distorting domestic support payment completely failed to make progress. These were more difficult areas of negotiations in agriculture than export subsidies. Any decision on them was deferred for 2006.

The US pledged to end export subsidies to its cotton farmers. Cotton exports are of special interest to farmers in Benin, Burkina Faso, Mali, Chad and Senegal, referred to as the Cotton-4. All of them were low-income least-developed countries (LDCs) and had stringently protested against the US subsidies for years. Ironically, the US was obliged to repeal them because it was challenged by Brazil on this issue in the WTO. In early 2005, the dispute settlement panel had given an adverse ruling. The US Congress was expected to repeal the subsidy within days of this promise. Once the final agreement is reached and implementation of the Doha Round recommendations begins, these countries would be provided duty-free, quota-free access of their cotton exports.

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<sup>18</sup> Developing countries led by Indonesia, India, and China issued a strong message to the World Economic Forum under way here that they will not allow attempts to dilute the agricultural negotiations in the Doha Round of trade talks by certain industrialized countries, especially the United States.

<sup>19</sup> Das, Dilip K. 2005. *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Houndmills, Hampshire, UK. Palgrave Macmillan Ltd.

<sup>20</sup> The Group-of-Ninety (G-90) is a large group of diverse developing economies and includes the emerging-market economies (EMEs), the newly-industrialized economies (NIEs) on the one hand and the low-income developing economies like the least-developed countries (LDCs) and the African, Caribbean and Pacific (ACP) countries on the other.

Regarding the non-agricultural market access (NAMA), the Hong Kong declaration made small progress, albeit left specifics of the modality decision to be taken between April and July 2006, which for all appearances seemed an unrealistic target<sup>21</sup>. The Hong Kong declaration locked in the progress of the Framework Agreement of July 2004 and members agreed to reduce or eliminate tariff peaks, high tariffs and tariff escalation. The so-called Swiss formula for slashing industrial tariff was adopted which, for a given set of parameters, cuts higher tariff rates proportionately more than the lower tariff rates. As no coefficients were mentioned in the declaration, the agreement was made mild. Mention of a higher coefficient for the industrial economies and lower one for the developing economies in the agreement would have made the NAMA related declaration more consequential.

Of the 50 LDCs, 32 are members of the WTO. According to the Hong Kong declaration, these members would be provided duty-free and quota-free market access for most—at least 97 percent of tariff lines—of their export products by 2008, or no later than the start of the implementation period. There is a probability of excluding sugar and textiles from this concession to the TDCs. A small undertaking on “aid for trade” is also a part of the Hong Kong proposal. This is an offer to assist small developing economies lack the infrastructure for trade. They also lose out due to competition. The industrial economies offered them deals in the area of capacity building and debt relief. Pledges for aid for trade were made by the EU, Japan and the US. One analyst regarded them as a mere bauble, a trivial give away (Halle, 2006)<sup>22</sup>. In the services trade the Hong Kong declaration set the deadline for negotiations, requiring member countries to make offers to open their markets in financial services, telecommunications, computer and related services, distribution, and energy services by July 2006 and final offers by October 2006. The agreement in Hong Kong established little in this important area of negotiations. Stalemate in services negotiations continued.

The opportunity that the Doha Round offers to the global economy, particularly the trading economies, is that of multilateral, non-preferential, legally-binding partial liberalization. A reasonably successful Hong Kong Ministerial would have resulted in welfare gains for the global economy, and its different regions and sub-regions. Estimates of gains from partial reforms promised under the Doha Round inter alia were made by Anderson et al (2006) and Anderson and Martin (2006)<sup>23</sup>. The principal conclusions of these empirical studies, that utilized a newly released database on protection and the latest version of the World Banks Linkage model, are as follows<sup>24</sup>:

- If one were to take under consideration merely the static benefits, potential gains from liberalization of trade under the Doha Round are large. In addition, there will be dynamic gains stemming from increased scale economies and competition, which is value-creating.
- While the developing economies' share of the global GDP is 20 percent, their gains from the Doha Round liberalization will be 30 percent of the total. This would lead to 0.8 percent rise in welfare in the developing economies, compared to 0.6 percent rise in the welfare in the industrial economies.

<sup>21</sup> The term modality implies schedules, formulas and other criteria for implementing tariff and subsidy reduction rates as well as the time table.

<sup>22</sup> Halle, M. 2006. "Is Let's Make a Deal Now Dead at the WTO?" IISD Commentary. Geneva. International Institute of Sustainable Development. January 6.

<sup>23</sup> Anderson, K., W. J. Martin and D. van der Mensbrugge. 2006. "Market and Welfare Implications of the Doha Round Scenario" in K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank. pp. 333-399.

<sup>24</sup> Anderson, K. and W. J. Martin. 2006. "Agriculture, Trade reform and the Doha Agenda" in Anderson, K. and W. J. Martin (eds) *Agricultural Trade Reform and the Doha Agenda*. London and Washington. Palgrave Macmillan Ltd and the World Bank. pp. 3-35.

<sup>25</sup> Please refer to the WTO text on Hong Kong Ministerial No: WT/MIN(05)/W/3, Issued on 7 December 2005 to see how these expectations were flouted in a virtually inactive/inconclusive set of declarations (to be) made at the aftermath of the HK meeting.

- Complete liberalization of merchandise trade would result in 45 percent of the global welfare gains going to developing economies. Their welfare could increase as much as 1.2 percent compared to an increase of 0.6 percent rise for the industrial economies.
- The proportion of welfare gains going to the developing economies is higher because their tariff barriers are relatively higher. Reforms would lead to higher efficiency gains in the developing economies. Also, their agricultural and textile exports face much higher tariffs in the industrial economies' markets than do exports from the industrial economies.
- Reforms and liberalization by the developing economies in their own economies will be as meaningful in terms of economic benefits as those in the industrial economies. By delaying reforms in their own economies, the developing economies will fail to realize the full potential gains from the Doha Round.
- Trade in agricultural products is the newest frontier of trade liberalization. This sector still suffers the stigma of the highest bound tariffs and largest subsidies, and needs large cuts in both.
- Trade liberalization in agriculture is of crucial importance, although importance of agriculture in the global GDP has been on a decline. Trade liberalization measures in agriculture will have far reaching implications for developing economies as well as the global economy. Approximately two-thirds of the total gains from the Doha Round are likely to come from agricultural liberalization, compared to almost a quarter from textiles and apparel and a tenth from other merchandise trade liberalization<sup>25</sup>.

Broadly speaking, there are substantive gains from liberalization of merchandise trade in the Doha Round of MTNs, particularly that in agricultural trade. The on-going MTNs are likely to culminate in partial trade reforms of the multilateral trade regime. The old assessment of global gains from partial trade reforms was \$400 billion in 2015, which was computed with the help of the World Bank's LINKAGE model (WB, 2004). Revised estimates of global gains have been scaled down to \$290 billion in 2015 (van der Mensbrugge, 2004)<sup>26</sup>. There were three reasons for this difference in the two estimates. First, a new Global Trade Analysis Project (GTAP) dataset was used to compute the second estimates, which had a different base year from the earlier

<sup>25</sup> Ideas and concepts heavily drawn from the article, "The Politics of Trade Liberalization in the Presence of FDI Incentives", by Andréa M. Mächler (Swiss National Bank; Last Revised: July 14, 2000). The paper examines whether inward FDI incentives can soften the political constraints associated with trade liberalization. After introducing the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996), the paper traces the effects of FDI incentives on the politically sustainable equilibrium level of trade protection. In particular, the paper shows that FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they inhibit the process of trade liberalization when labor is the main influential political force. Welfare implications are also considered.

One of the major contributions of this paper is to introduce the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996). While their maximization technique is borrowed for use in the paper, the author has modified it to analyze the interactions between the equilibrium levels of FDI incentives and of trade protection. In particular, how the presence of one policy instrument (FDI incentives) influences the equilibrium level of another policy (trade protection) is highlighted. According to the model presented in the paper, FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they exacerbate the process of trade liberalization when labor is the main influential political force. This dichotomy, which arises from the conflicting interests pursued by the lobby groups, highlights how important it is for the government to understand the economic and political motivations of the lobby groups if it want to promote an environment conducive to free trade. In particular, the results of the paper suggest that the domestic capital owners favor an FDI tax, while the labor union always lobbies for a higher level of trade protection. In equilibrium, when the two interest groups lobby over both policies, the government is in a better position to implement trade liberalization. If, however, one of the interest groups (say, the labor union) is particularly prominent on the political stage, it may be harder for the government to override its lobbying exports and hence, to liberalize trade.

Finally, the model suggests that the highest levels of policy intervention occur when special interest groups participate in the lobbying process, when these groups represent a relatively small fraction of the population and when the government places a relatively large weight on political contributions. This suggests that if a country's political framework does not restrain the government from pursuing mostly political rather than economic objectives, it would be socially optimal to substitute the government's discretionary powers over trade policy with a commitment to free trade. The paper is a must read for understanding some of the basic tenets of the entire research project that we have undertaken.

<sup>26</sup> van der Mensbrugge, D. 2004. "Linkage Technical Reference Document: Version 6.0". Washington DC. The World Bank. Available on the Internet at <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1100792545130/LinkageTechNote.pdf>.

computations. The bench mark of the earlier estimates was 1997, while that for the more recent ones was 2001. The new data set also incorporated the trade policy reforms undertaken between 1997 and 2001. It also reflected the non-reciprocal tariff preferences, which the previous data set did not incorporate. Second, the new data set successfully reflected the transformations that came about in the global economy, particularly the changing value of the dollar vis-à-vis other major currencies after 1997 and rising importance of several Asian economies as traders of global significance. Third, the new bench mark also included major global economies developments like China's WTO accession and liberalization commitments, implementation of the Uruguay Round commitments, of which dismantling of the multi-fiber agreement (MFA) was an important part, and the expansion of EU from 15 to 25 members that took place in May 2004. Together these developments have had an appreciable impact over the multilateral trade regime and the global economy. The value of welfare gains stemming from them was estimated to be \$70 billion to the global economy in 2015. As they were incorporated into the new baseline, they cannot be expected to make a renewed contribution to the estimates of welfare gains from the on-going round of MTNs.

Using a global model, Anderson et al (2005)<sup>27</sup> estimated potential consequences from a successful Doha Round agreement. According to their estimates, it could annually generate income gains for the global economy between \$95 billion and \$126 billion. While making these estimates, it was assumed that no exemptions were being made for sensitive and special agricultural products. Agriculture trade liberalization was found to have the largest impact. Reforms in this one sector will be responsible for 60 percent of the total gains from merchandise trade liberalizations. On the whole, larger income gains were estimated to go to the industrial economies because they were assumed to undertake more aggressive trade reforms in the Doha Round. As the developing economies suffer from a large binding overhang, and negotiations are based on bound tariffs, not applied tariffs, the reforms undertaken by them will only have a minor impact in terms of genuine liberalization of the trade regime<sup>28</sup>. Given this scenario, the industrial economies would achieve between 40 percent and 45 percent of what they could under full merchandise trade reforms. Similarly, the developing economies will achieve approximately 20 percent of what could be achieved under full merchandise trade reforms. Adding these gains, total global welfare gains that are likely to be achieved come to one-third of those from freeing global merchandise trade totally.

Developing economies have more to gain from full elimination of merchandise trade barriers. As trade reforms engender positive externalities in the form of improved productivity in the economy, the gains to developing economies could increase up to \$200 billion in 2015 (Anderson et al, 2005)<sup>29</sup>. The state of MTNs at the time of the Hong Kong Ministerial Conference clearly indicated that liberalization measures adopted in agriculture and manufactures can be realistically expected to be modest, albeit improvements in the market access in agricultural market in the industrial economies is well within the realm of possibility. Empirical evidence is available to show that trade liberalization contributes to poverty alleviation<sup>30</sup>. Also, estimates of impact of trade liberalization under the DDA on poverty came to a positive result. This was essentially due to the fact that the existing pattern of global protection favors skilled labor and capital relative to unskilled workers. Therefore, reduction or elimination of barriers in merchandise trade would lift the unskilled wages, the primary source of income for many of the world's poor. In real terms this wage

<sup>27</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2005. "Global Impact of the Doha Scenario on Poverty". Washington DC. The World Bank. (mimeo).

<sup>28</sup> The term binding overhang needs to be explained. A country may decide to apply tariff rate of 20 percent on the import of a good, but it may keep the bound tariff at 50 percent. The WTO rules allow this country to raise its tariff rate to 50 percent if it so decides. The difference between the bound tariffs and applied tariffs is known as the "binding overhang".

<sup>29</sup> Ibid

<sup>30</sup> See, for instance Dollar and Kraay (2004), Winters (2004) and Winters, McCulloch and McKay (2004).



increase was found to be modest. Hertel and Winters (2006)<sup>31</sup> show that the poorest in the developing economies can potentially benefit most from the liberalization endeavors during the Doha Round of MTNs. However, that was found to be conditional. For the poor to benefit, the liberalization targets "under the DDA have to be ambitious if the round is to have a measurable impact". Only deep tariff cuts would have poverty friendly impact. Even then the "near-term poverty impacts are likely to be mixed" (Hertel and Winters, 2005)<sup>32</sup>. If the developing economies decide not to take reform measures, the estimated poverty impact would decline markedly. Notwithstanding this pessimism, the long-term impact of the DDA on poverty reduction is more definite and pronounced.

However, a quagmire around agriculture has evolved. Although a declining sector of the global economy, it still employs a large proportion—54 percent—of work force in the developing economies<sup>33</sup>. Not freeing trade in agriculture from barriers works basically against the interest of the developing economies<sup>34</sup>. Also, it cannot be ignored that majority of the poor in the developing economies live in the rural areas. It is widely acknowledged that poverty is essentially a rural phenomenon in the developing economies. Therefore, if the final outcome of the MTNs has to be pro-poor, trade in agriculture will need to be an area of exclusive attention. Liberalization of agricultural trade would gradually change market shares of countries and country groups and eventually reflect the comparative advantage of countries and country-groups in multilateral trade<sup>35</sup>.

The articles of agreements of the GATT-1947 had some regulations for trade in agriculture, but they made several exceptions and had loopholes, which were freely exploited by the Contracting Parties (CPs). Consequently, agriculture became one of the most distorted areas of multilateral trade. Industrial economies increasingly subsidized their farm sector and trade—which was permissible—and erected trade barriers. So much so that trade in agriculture was virtually outside the ambit of the GATT system until the Uruguay Round (1986-94). It was not easy to bring it under the multilateral trade regime like merchandise trade. After enormous and long drawn-out efforts, the Uruguay Round Agreement on Agriculture (URAA) was instrumental in drawing agricultural trade within the sphere of the multilateral trade regime. These efforts not only contributed to slowing down of the negotiations in the Uruguay Round but also prolonged it. The URAA imposed new disciplines on trade in agricultural products. The new rules were implemented between 1995 and 2000. Under the URAA industrial economies committed to (i) reducing domestic support to

<sup>31</sup> Hertel, T.W. and L.A. Winters. 2006. *Poverty and the WTO: Impacts of the Doha Development Agenda*. London and Washington Palgrave Macmillan Ltd and the World Bank.

<sup>32</sup> Hertel, T.W. and L.A. Winters. 2005. "Poverty Impacts of a WTO Agreement: Synthesis and Overview in Hertel and Winters (eds.) *Putting Development Back into the Doha Agenda: Poverty Impact of a WTO Agreement*. Washington DC. The World Bank. pp. 3-28.

<sup>33</sup> HK Ministerial text denotes "On domestic support, we note in particular that there is a working hypothesis of three bands for developed countries for reductions in Final Bound Total AMS and in the overall cut in trade-distorting domestic support with higher linear cuts in higher bands. In addition, developed countries in the lower bands with high relative levels of Final Bound Total AMS will make an additional effort in AMS reduction. We also note that there has been some convergence concerning the reductions in Final Bound Total AMS, the overall cut in trade-distorting domestic support and in both product-specific and non product-specific de minimis limits". (Paragraph 5 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>34</sup> "We recall our agreement to ensure the parallel elimination of all forms of export subsidies, and disciplines on all export measures with equivalent effect by a credible end date. We note emerging convergence on some elements of disciplines with respect to export credits, export credit guarantees or insurance programmes with repayment periods of 180 days and below, as well as on some aspects of exporting state trading enterprises, and on some elements regarding the disciplines on food aid necessary to eliminate commercial displacement." (Paragraph 6 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>35</sup> "On market access, we note in particular the progress made on ad valorem equivalents and that there is a working hypothesis for four bands for structuring tariff cuts. We also note that there have been some recent movements on the designation and treatment of Special Products and elements of the Special Safeguard Mechanism (SSM)". (Paragraph 7 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"On special and differential treatment, we note in particular the consensus that exists in the Framework on several issues in all three pillars of domestic support, export competition and market access and that some progress has been made on other special and differential treatment issues." (Paragraph 8 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"However, we recognize that much remains to be done in order to establish modalities and to conclude the negotiations. Therefore, we agree to intensify work on all outstanding issues. In particular, we are resolved to establish modalities no later than [...] and to submit comprehensive draft Schedules based on these modalities no later than [...]" (Paragraph 9 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

agriculture, (ii) reducing export subsidies and (iii) improving access to their markets. These were referred to as the "three pillars" of the agreement. As progressive liberalization of agricultural trade was a long-term process, the WTO members committed to continue negotiations on it under the so-called "built-in agenda". This was the mandate of the WTO Agreement of April 1994. Accordingly, the agricultural negotiations began in January 2000.

Since the URAA agricultural trade has continued to grow, but ironically more slowly than the pre-URAA period and more slowly than non-agricultural trade (OECD, 2005a)<sup>36</sup>. While trade in agriculture came within the domain of the multilateral regulations, the URAA failed to deliver significant multilateral liberalization in agricultural trade (Messerlin, 2002)<sup>37</sup>. Developing economies complained that on the whole the URAA did not work as intended and that they did not get a fair deal. Evidence supported their gripe that tariff cuts by the developing economies were significantly deeper than what was agreed to by the industrial economies (Finger and Winters, 2002)<sup>38</sup>. In addition, they had to commit to costly commitments that were embodied in the Sanitary and Phytosanitary (SPS) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements. Some of the requirements for the developing economies under the SPS agreements are more stringent than those for the industrial economies. Given this background of malcontent, higher market access commitments were sought by the developing economies in the Doha Round from the industrial economies.

As expected, the Doha Round began with high expectations of reforms in agricultural trade, but members did not agree on the first draft on modalities which was presented in February 2003. The Cairns Group found the draft unambitious, conversely the EU, Japan, Norway and Switzerland found it not only overly ambitious but also unbalanced in terms of the three pillars of negotiations. Among many disagreements and contretemps in the 5th Ministerial Conference, held in Cancún, were the sectoral initiative taken by the Cotton-4 opposing cotton subsidies in the industrial economies because they depressed cotton revenues in the West African countries by \$250 million per year (Section 3). The demand of the Cotton-4 countries was met in the Hong Kong Ministerial. Before the Cancún Ministerial, the EU and the US agreed on a broad framework for negotiating agricultural trade liberalization and presented a joint framework paper on agricultural negotiations, which was found to be weak by many members. It was followed by counter-proposal by the G-20. This framework paper was more ambitious than the EU-US framework paper, particularly in the areas of export subsidies and domestic farm support. There were significant differences in the two framework papers and deep disagreements regarding how to proceed. A veritable negotiations log-jam was created.

After intense negotiations, an elaborate "Framework for Establishing Modalities in Agriculture" was prepared and made into an Annex of the Framework Agreement July 2004. This Annex was the most significant part of the Framework Agreement and was structured around the three pillars. Members had decided upon a framework to eliminate all forms of export subsidies as well as render better discipline on export credit and exporting state trading enterprises. Regarding the trade distorting farm subsidies, it was agreed in the Framework Agreement that the new discipline will include deeper cuts in farm subsidies in countries which have the highest levels of subsidies. "Progressive tariff reductions" was also a part of the Framework Agreement. However, the timeframe of implementation was left without mention.

<sup>36</sup> Organization for Economic Cooperation and Development (OECDa). "Tackling Trade in Agriculture". Policy Brief, November.

<sup>37</sup> Messerlin, P.A. 2002. "Agriculture in the Doha Agenda". Paper presented at the World Bank Roundtable on Policy Research in Preparation for the 5th Ministerial Conference in Cancún in Cairo, during May 20-21.

<sup>38</sup> Finger, J.M. and L.A. Winters. 2002. "Reciprocity in the WTO" In B. Hoekman, A. Mattoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC. The world Bank.

The industrial economies dominated the global trade in agriculture when the Doha Round was launched, as they did at the time of the Hong Kong Ministerial. While developing economies exporters have more market access opportunities in agriculture than in textiles and clothing, even at the time of the Hong Kong Ministerial their exports faced high tariffs in the industrial economies. While average tariff rates faced by agricultural exports from the developing economies are 15.6 percent in the industrial economies, they are 9.3 percent for textiles and apparel exports and 2.5 percent for the other manufacturers (Anderson and Martin, 2006)<sup>39</sup>. Producer support estimates (PSE) for the Organization for Economic Cooperation and Development (OECD) economies were almost the same in 2001-03 as in 1986-88, hovering around \$240 billion annually (Anderson and Martin, 2006)<sup>40</sup>. Agricultural tariffs are high in the developing economies as well, therefore, this sector a fortiori deserves special attention in the on-going Doha Round negotiations<sup>41 42 43</sup>.

Three months before the Hong Kong Ministerial Conference, the US had made a proposal for deep cuts in both, but the EU made a weak counter-proposal which would have resulted in little additional market access to what is currently available. Differences in positions were wide and agreement on trade in agriculture was not reached in the Hong Kong Ministerial, but some progress was made in the year and a half since the Cancún Ministerial, which led to narrowing of differences. However, negotiations were nowhere near deciding on modalities.

Therefore, a new schedule was agreed in Hong Kong for continuing negotiations in 2006 and resolve the unfinished agenda by the end of the year. Going by the past experience, this target appears unattainable<sup>44</sup>.

<sup>39</sup> OECD (2005b) buttresses this point using producer support statistics for the 1986-2004 period.

<sup>40</sup> Producer Support Estimate (PSE) is defined as the annual monetary value of gross transfer from consumers and tax payers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on the farm production or income.

<sup>41</sup> As of January 2007, Trade ministers of the G33 are demanding flexibility to moderate the impact of imports of some farm products such as rice, pulses (legumes), and sugar on its farmers, and will work with World Trade Organisation members to ensure development is part of the multilateral trade negotiations. World leaders - including British Prime Minister Tony Blair, Brazil's President Luiz Inácio Lula da Silva, South Africa's President Thabo Mbeki, among others stepped up their efforts at the World Economic Forum's 37th annual meeting for a speedy conclusion to the stalled "Doha Development Round", but differences cropped up over how to intensify the talks and who should make the first move to break the deadlock.

<sup>42</sup> In July, the WTO Director general suspended the negotiations after trade ministers of the G6 (United States, European Union, Brazil, India, Australia, and Japan) failed to agree on the magnitude of reduction commitments for farm subsidies and tariffs. The leaders reportedly insisted that all members must strive for an early conclusion of the Doha trade negotiations (launched at the 4th WTO ministerial conference in the Qatari capital, in 2001), stating that a failure to arrive at an agreement bodes poorly for the global trade system. During a closed-door meeting of leaders convened by the WEF on Friday, in which the WTO chief Pascal Lamy chaired the discussion, the Indian trade minister said many developing countries would prefer a formal resumption of trade talks, arguing that they want a "credible" outcome from the Doha Development Agenda.

<sup>43</sup> At the core of the stalemate in the Doha farm trade package is whether the United States is ready to cut what some call its trade-distorting domestic subsidies to a level below 15 billion dollars, and accept clear discipline to ensure that there is no concentration of subsidy payments for certain products. In October 2005, the United States had proposed that it would reduce its agricultural subsidies to a level above 22 billion dollars, but almost all members rejected the U.S. proposal on the ground that it allowed no material change in its current subsidy payments. The United States, for example, spent little over 11 billion dollars last year on farm subsidies. Consequently, the EU, Brazil, India, Canada and others insisted that the U.S. demands to spend on its domestic subsidies well over its current actual subsidy payments leave farmers in other countries at disadvantage. In fact, the U.S. subsidies for cotton were found to have depressed global cotton prices, harming the interests of four West African cotton-producing countries: Benin, Chad, Burkina Faso, and Mali. The ongoing intensive consultations between Washington and Brussels to find what they are calling a "landing zone" for a palatable agreement in the Doha farm package is facing difficulties on account of differences on how big the reductions of farm subsidies should be. U.S. Trade Representative Susan Schwab has repeatedly said that Washington is committed to curbing its farm subsidies, provided there is real market access for U.S. farm products into industrialised countries, such as the EU, Japan, and Switzerland, and developing countries like India, China, and Indonesia. Washington had maintained that the flexibilities sought by the G33 members, through what are known as special products and special safeguard mechanisms, would constitute a loophole to deny market access for U.S. products. Arguing that trade liberalisation is all about opening markets as new trade flows provide an opportunity for all countries, the United States had demanded steep cuts in import tariffs for both farm and industrial products. Many developing countries have rejected the U.S. demands to pry open their farm markets on the grounds that they have specific livelihood and rural development concerns that cannot be sacrificed overnight.

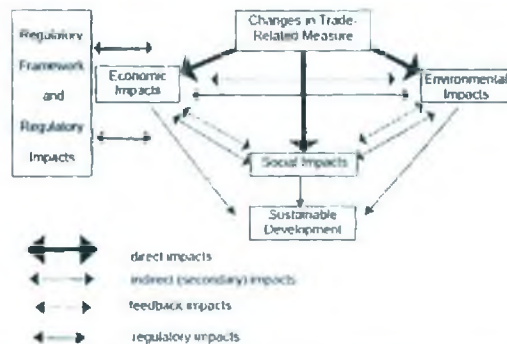
<sup>44</sup> Ideas expressed and initiated in this section are heavily drawn from "The Implications of Trade and Investment Liberalization for Sustainable Development: Review of Literature; Final Report", Prepared by Colin Kirkpatrick, Clive George, and Serban S. Scricliu; Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester for the Department for Environment, Food and Rural Affairs; 19th May 2004. This study was undertaken at the request of the UK Department for Environment, Food and Rural Affairs, United Kingdom. Its purpose was to provide a comprehensive and critical review of the

literature relating to the implications for sustainable development, in particular the environmental and social dimensions, of the greater liberalization of international trade and investment flows. The study has examined the likely effects of trade liberalization and greater investment flows on sustainable development, which is considered to have three aspects, namely **economic, social and environmental**. The study primarily focuses on the environmental and social dimensions of sustainable development, and examines whether these potential impacts of trade and investment liberalization are likely to be positive. In making this assessment, the study has taken into consideration both their direct (positive and negative) impacts and indirect consequences. In the course of the literature review, over 200 studies have been selected for inclusion in the report. Some of these studies have been of a theoretical nature but most have been empirical studies. Based on these studies, the assessment of the potential impact of trade and investment liberalization on sustainable development is organized around the following cross cutting effects:

- **Scale effects:** the impact of increased levels of trade, investment and economic activity on environmental and social outcomes.
- **Structural effects:** the implications for environmental and social outcomes of the structural adjustment within and between economies that occur as the pattern of resource use (production and consumption) shifts in response to trade or investment liberalization.
- **Technology effects:** environmental or social outcomes arising from greater access to new technologies, which in general tend to produce less pollution and use fewer resources than their predecessors.
- **Location effects:** the environmental and social implications of shifts in production and consumption between countries, and possibly shifts within countries.
- The integration of environmental (and social) considerations (or lack of it) into global and regional trade and investment institutions and frameworks.

Key Findings mention that:

- Much of the literature on the consequences of trade liberalization is focused on one dimension of sustainable development and seldom provides an integrated analysis of the economic, environmental and social effects of greater trade and investment flows.
- The methodologies used in the empirical studies are very diverse. There are potential difficulties if the use of different methods, in the same situations, leads to apparently different findings. This highlights the importance of clarifying the methodology used in each study and its principal assumptions when interpreting its findings.
- Much of the economic analysis of trade liberalization uses a combination of classical trade and welfare theory to deduce, under idealized market conditions, that trade liberalization will lead to increased economic welfare and 'optimal' environmental quality. However, in imperfect market conditions, 'win-win' outcomes are not guaranteed. In real world situations, both negative and positive effects should be expected. 'Win-win' outcomes may be potentially realizable, but whether this is achieved in practice may depend on the nature and extent of the flanking and other supporting measures that are taken.
- The findings of the empirical studies, though they differ in detail, reach the same conclusions and are consistent with the findings reached in the theoretical studies. Although there are often potential, aggregate economic welfare gains to be made from trade liberalization and increased foreign investment inflows, these are not necessarily shared by all countries and all socio-economic groups within these countries. Further, a significant number of the cases reviewed contain examples where the environmental (and social impacts) are negative, where existing environmental and social protection measures are insufficiently effective. As in the case of the theoretical studies, flanking and other supporting measures assume a potentially pivotal role, if trade liberalization is expected to deliver an overall positive contribution to sustainable development.
- The review of the literature provides support for the conclusion that most 'win-win' outcomes for sustainable development are conditional upon the application of appropriate flanking and other supporting measures. Formal appraisals of flanking measures for trade policies are not well developed. However, certain types of environmental policy instruments that may be used have been appraised in other policy contexts and these may be adapted for use in the trade policy area.
- The responsibility and authority for adopting and implementing the different flanking and other supporting measures varies. Only some of these lie with the WTO. The remainder fall within the competence of other international organizations, including the multilateral environmental agreements, or more commonly, with national and local government authorities supported by their social partners. Effective co-operation between different government ministries and different international institutions is very important, and in the case of developing countries, financial and other forms of external support are needed to assist the poorer countries to participate fully in the trade and sustainable development process.



The theoretical and empirical evidence that has been reviewed in this study confirms that while trade and investment liberalization may be a necessary condition for continued growth and hence provide one of the cornerstone policies in promoting sustainable development, it is not a sufficient one. To ensure that trade and investment liberalization contributes to sustainable development in developed and developing countries, sound social and environmental policies are needed, both at the national and international level. This requires the development of appropriate regulatory frameworks. The robustness of environmental and social policies and institutions, including the adequacy of supporting regulatory instruments, are important determinants of the environmental and social impacts of trade and investment liberalization. The paper concludes that trade and investment liberalization impacts on the environment in many different ways. In many situations – possibly the majority – both the economy and the environment may benefit but only if certain preconditions are met. These preconditions are established by implementing a set of policies that will allow for 'win-win' outcomes to be realized. The aim of key policies such as those outlined above is to ensure that any negative repercussions that greater trade and investment liberalization might have on environmental performance are minimized as much as possible and that any eventual positive impacts are maximized. The objectives of such policies may conflict

## **2.7 Other Issues of Relevance to Agriculture**

The main reduction commitments are in market access, domestic support and export subsidies. But the Agriculture Agreement contains other provisions, including export restrictions, a "peace clause", dispute settlement and further negotiations.

### **2.7.1 Export restrictions**

The Agreement on Agriculture requires Members which consider to institute new export restrictions on foodstuffs to give due consideration to the effects of such restrictions on importing Members' food security. Members, except developing country Members which are not net exporters of the product concerned, must notify the Committee on Agriculture before introducing new export restrictions on foodstuffs and consult with affected Members if so requested. This requirement — increased reliability of access to world market supply — is a corollary for the opening of markets which is required by the market access provisions of the Agreement and the related specific commitments undertaken by Members.

### **2.7.2 Peace clause**

The Agreement in Agriculture contains a "due restraint" or "peace clause" which regulates the application of other WTO agreements to subsidies in respect of agricultural products (Article 13). The provisions provide that Green Box domestic support measures cannot be the subject of countervailing duty action or other subsidy action under the WTO Agreement on Subsidies and Countervailing Measures, nor can they be subject to actions based on non-violation nullification or impairment of tariff concessions under the GATT. Other domestic support measures which are in conformity with the provisions of the Agreement on Agriculture may be the subject of countervailing duty actions, but due restraint is to be exercised by Members in initiating such investigations. Further, in so far as the support provided to individual products does not exceed that decided in the 1992 marketing year, these measures are exempt from other subsidy action or nullification or impairment action. Export subsidies conforming to the Agreement on Agriculture are, to the extent relevant, covered by corresponding provisions.

The peace clause remains in effect for a period of nine years.

### **2.7.3 Resolving disputes**

In the case of disputes involving provisions of the Agreement on Agriculture, the general WTO dispute settlement procedures apply. Nevertheless, the Agreement also provides for certain mechanisms that can be used by Members to address their concerns without recourse to these procedures. In particular, the review process of the Committee on Agriculture provides a forum for discussion and consultation. This process is mainly based on the notifications and on a provision (Article 18.6) allowing

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with the principles underlying trade and investment liberalization, as they are intended to promote environmentally sustainable development rather than simply economic efficiency and growth. How environmental policy-making relates to multilateral trade and investment policies is an ongoing and contested area for international discussion and negotiation within and outside the WTO (Jha V. (2002) 'Environment, Regulation and the WTO' in B. Hoekman, A. Mattoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC: World Bank; Sampson, G. P. and Chambers, W.B. (2002) Trade, Environment, and the Millennium, United Nations University Press). Irrespective of the institutional structures that evolve, multilateral trade policy and environmental policy-making need to jointly address issues in a balanced and coherent manner, which recognizes that trade liberalization and environmental protection are each means for achieving the end goal of global sustainable development. Policies on economic development and environmental (and social) protection should be designed and implemented in conjunction with each other, thereby avoiding the separation of trade liberalization policy from environmental policy. In other words, the more integrated environmental and trade policies are, the more sustainable economic growth will be (Panayotou, 2000). Moreover, it is crucial in the case of developing countries that besides effective cooperation between various institutions and governments, substantial additional financial and technical assistance is provided to enable the poorer nations to engage effectively in this process of enhancing understanding and strengthening policy coordination in the areas of trade, environment and development.

any Member to raise at any time any matter relevant to the implementation of the commitments under the reform programme as set out in the Agreement. There is also a counter-notification provision. Furthermore, the Working Procedures of the Committee allow Members to request the Chairperson to mediate in concerns that may arise between them. The use of instruments under the auspices of the Committee on Agriculture does not, however, prevent any Member from seeking formal dispute settlement at any time.

#### 2.7.4 Continuation clause

The commitments taken under the Agreement on Agriculture and within the Members' schedules are part of an ongoing process. Already at the conclusion of the Uruguay Round, Members agreed to hold further negotiations on agriculture commencing one year before the end of the six-year implementation period (Article 20). These negotiations will examine what further commitments are necessary to achieve the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform. The negotiations are also to take into account factors such as the experience gained during the implementation period, the effects of Uruguay Round reduction commitments on world trade in agriculture, non-trade concerns, special and differential treatment to developing country Members and the objective to establish a fair and market-oriented agricultural trading system.

### 2.8 Summary of Elements for Negotiation

This summary provides an overview of key elements of the Agreement on Agriculture and the related commitments<sup>45</sup>.

#### 2.8.1 Market Access

<b>Instrument</b>	<b>What it says or deals with</b>
Article 4.2	Prohibition on the use of restrictions on imports other than tariffs;
Article 4.1 and Schedules	All tariffs bound;
Article 5	Special agriculture safeguard mechanism against import volume surges or import price declines below a trigger level (limited to "tariffied" products and not applicable to imports under related tariff quota commitments);
Schedules	Tariffs resulting from conversion of non-tariff border measures under negotiating modalities ("tariffication") plus pre-existing tariffs on all other agricultural products to be reduced;
Schedules	Implementation of current and minimum access opportunity commitments in respect of tariffied

<sup>45</sup> On the reasons why need detailed discourse on trade and trade liberalizations, the article titled, "Trade Wars: The Exaggerated Impact of Trade in Economic Debate" by Richard B. Freeman (paper subsequently published in *The World Economy*, Vol.27, No.1, 2004) was consulted. Among other issues, the article notes that trade has been at the heart of economic debates about globalization in the past decade. Proponents of Washington Consensus (WC) style globalization have touted the benefits of trade and open capital markets to developing countries and warned of the dangers of global labor standards. Opponents of WC style globalization have worried that trade with developing countries lowers employment and wages in advanced countries and create a race to the bottom in poor countries. The referenced paper shows that both proponents and opponents of WC style globalization have exaggerated the effects of trade and of trade treaties on economic outcomes. It is argued that: 1) trade and widely debated trade treaties have had modest often indiscernible impacts on labor and other economic outcomes, and that in the US at least immigration has affected national factor proportions more than trade, 2) international capital flows have created as much harm as good in developing countries, and thus need to be more carefully regulated and monitored; 3) trade and labor standards are complements in the global economy, so that improvements in one create pressures for improvements in the other.

products.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Average tariff reductions of 36% (minimum 15%) over 6 years.	Average tariff reductions of 24% (minimum 10%) over 10 years; Where "ceiling bindings" commitments undertaken reductions not required except on ad hoc basis; Least developed not required to undertake reduction commitments.

### 2.8.2 Domestic support

<b>Instrument</b>	<b>What it says or deals with</b>
Article 6, 7 and Annex 2	Policies divided into two groups; (i) permitted policies (Green Box), (ii) other policies included in the Aggregate Measure of Support (AMS) subject to reduction commitments (Amber Box);
Article 6.5	Decoupled direct payments associated with production limiting programmes (Blue Box) not in Green Box but excluded from AMS.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 6.2	De minimis provision allows exclusion of support less than 5% of output value from AMS;	Developing countries allowed to use some types of investment and input subsidies under certain conditions;
Article 6.4(a) and (b)	Total AMS support to be reduced by 20% over 6 years.	De minimis provision allows exclusion from AMS of product-specific and non-product specific support less than 10% of respective current output value;
Schedules		Total AMS support to be reduced by 13.3% over 10 years;
Schedules		Least-developed countries must bind AMS support level if applicable but not required to reduce it.

### 2.8.3 Export subsidies

<b>Instrument</b>	<b>What it says or deals with</b>
Article 9	Definition of export subsidies subject to reduction;
Article 10	Other export subsidies subject to anti-circumvention provisions which include disciplines relating to food aid;
Article 3.3	Prohibition on the use of export subsidies on products

not subject to reduction commitments.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Distinct reduction commitments on both volume (21%) and budgetary outlays (36%) over six years;	Two-thirds of the reduction required for developed countries over ten years;
Article 11	For incorporated/processed products budgetary outlays only (36%).	
Article 9.4		Exception during the implementation period in respect of certain marketing and internal transportation subsidies.

#### **2.8.4 Export prohibitions and restrictions**

<b>Instrument</b>	<b>What it says or deals with</b>
Article 12	Requirement for advance notice and obligation to consult on request and supply information in case of new export restrictions on foodstuffs.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 12.2		Exception for developing countries that are net-exporters of the foodstuff concerned.

#### **2.8.5 Other aspects**

<b>Instrument</b>	<b>What it says or deals with</b>
Article 13	Peace Clause;
Article 17	WTO Committee on Agriculture given the task of overseeing the implementation of the Agreement and related commitments;
Article 16	Marrakesh Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.

#### **2.8.6 Sanitary and phytosanitary measures**

<b>Instrument</b>	<b>What it says or deals with</b>
Article 14	Separate Agreement: Reaffirms right to countries to set their own health and safety standards provided they are justified on scientific grounds and do not result in arbitrary or unjustified barriers to trade; encourages use of international standards; includes certain special and



## differential treatment provisions

### 3.0 Qualitative Study

#### 3.1 The Suggested Hypotheses

The following hypotheses were put forward as relevant points for decision to the participants of the Key Informants Interviews:

- i. Tariff rationalization at WTO will bring economic benefits to Bangladesh.
- ii. Subsidies by advanced countries in agriculture are harmful to the Bangladesh economy.
- iii. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- iv. Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO.
- v. Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector.
- vi. By analyzing the differential trading patterns, Bangladesh can take advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- vii. Bangladesh needs a coherent WTO policy with regards to agricultural subsidies in line with the Singapore GATS Mode-4 issues<sup>46</sup>.

#### 3.2 Key Informant Interviews

These seven generic sets of hypotheses were tested at the individual expert level. The KIIs were conducted with the following experts.

- i. Mr. Kazi Borhan Amin Raj, Agriculture/Leather Expert and Consultant, Presently he is the Managing Director of Seba, a non-profit NGO.
- ii. Dr. Rafique Uddin Ahmed, Agricultural and Environmental Standards Analyst, Consultant of GTZ, a non-profit NGO.

<sup>46</sup> The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

GATS Four Mode of Supply			
Mode		Criteria	Supplier Presence
Mode 1	Cross-border supply	1. Service delivered within the territory of the Member, from the territory of another Member.	1. Service supplier not present within the territory of the Member.
Mode 2	Consumption abroad	2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member.	
Mode 3	Commercial presence	3. Service delivered within the territory of the Member, through the commercial presence of the supplier.	2. Service supplier present within the territory of the Member.
Mode 4	Presence of a natural person	4. Service delivered within the territory of the Member, with supplier present as a natural person.	

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.

- iii. Mr. Aminul Hasan, Agricultural and Environmental Standards Analyst,  
Consultant of Seba.

The following results were obtained with regards to the generic set of hypotheses. On some issues, there were divided opinions while some were disagreed by all. However, all the three experts commonly opined on some issues which generated the basis of some new hypotheses. All the conclusions based on their interview are given below, mentioning the status of the hypotheses, followed by the newly emerged hypotheses:

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
Tariff rationalization at WTO will be beneficial to Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	If tariff is rationalized then all the countries will have to pay similar amount of tariff. But since the product pattern is different for different countries it will create a bigger difficulty. Benefits accruing to countries with dissimilar products/import-export bases and similar tariff will not be rational.	Dropped
Subsidies by advanced countries in agriculture are harmful for the Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	This hypothesis if implemented will create problem for the imported items by the LDCs. As many items, especially raw materials, are being imported from the developed countries, if the subsidies provided by the developed countries are withdrawn, the product cost for import will rise which will affect the product cost for the LDCs.	Dropped
Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	Subsidies provided to domestic agriculture by the advanced countries ensures production in low cost. Thus there is virtually little (if any) chance for the LDCs to penetrate the market with similar product. Thus it will be bad for the export of our production.	Retained
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Summary of comments: No	Summary of comments: No	Summary of comments: No	Being supportive of the LDC's initiatives to remove agricultural subsidies in the WTO is not the surety of our benefit because of differentiation of the product categories. Different LDCs are exporting different product and their interest to remove agricultural subsidies by the developed countries are different according to their product expertise.	Dropped
Subsidies reduction at the WTO would be	Summary of comments:	Summary of	Summary of	Subsidies reduction at the WTO would not be beneficial for the Bangladesh industrial sector because	Dropped

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
beneficial for the Bangladesh industrial sector	No	comments: No	comments: No/Yes	then the cost of the raw material i.e. the input for our industrial production like fertilizer, seeds etc will charge a higher price. This in turn will increase the price of the product (through increasing cost of production) making the market un-competitive for Bangladesh.	
By analyzing the differential trading patterns, Bangladesh can take the advantage of a different (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	By analyzing the differential trading patterns, Bangladesh can definitely take the advantage of a different (reduced) allowable subsidies' by producing the items in which it can be competitive and can be economically beneficial. The production pattern in which Bangladesh has competitive advantage need to be sought out. The categories of item for export in different trading pattern may not be same as the market may behave differently in the different stages. So Bangladesh can reorient its production pattern to be benefited in accordance with the nature of the market.	Retained
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Summary of comments: No	Summary of comments: No	Summary of comments: No	Bangladesh needs a coherent policy for the Singapore Mode IV issues because any cross border trade, consumption abroad, commercial presence or presence of neutral person is important for immediate export requirement. Basing on the mode-4 policy more effective and action oriented WTO policy can be formulated covering all aspect of product and service export.	Dropped
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Summary of comments: Yes	Summary of comments: No	Summary of comments: Yes	Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture based on the de-subsidization stages of the developed countries in order to ensure that it does not loose financially. The policy should be guided by the competitive advantage that Bangladesh will be able to achieve in different phases and also linking the agriculture production	Retained

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
				pattern with mode -4.	
Issues Suggested for focus	Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.			All the experts were in favor of emphasizing on the Commitments for the gradual withdrawal of agricultural subsidies but should not merely tend to align Bangladesh with other LDCs because different LDCs will have interest on different products of their own advantages. So they will try to remove agricultural subsidies only with the items they export and their product expertise.	included as modified hypothesis
	Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products			The experts opined that the negotiation on gradual withdrawal of subsidies should be synchronized with the gradual enhancement of agricultural production pattern and capabilities in which Bangladesh remains competitive. Basing on that advance marketing campaign for those products can enhance export success. This can be found out through scenario analysis.	included as modified hypothesis
	Block activities alongside countries with similar agricultural production patterns			It was opined that block activities of the countries with similar agricultural production may strengthen the negotiation to be implemented. Thus the countries with similar product exporters should be found out and blocked to reinforce WTO negotiation policy.	included as modified hypothesis
	Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern			The experts also came to the conclusion of finance from advanced nations to secure continued support in enhancing the agricultural production pattern by supplying seed, raw materials and technology to increase production capacity.	included as modified hypothesis

### 3.2 Modified Hypothesis

Following the discussion from original eight sets of hypotheses three are retained and more four new hypotheses are introduced. The modified hypotheses are as follows.

- i. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- ii. By analyzing the differential trading patterns, Bangladesh can take the advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- iii. Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture in order not to lose financially.
- iv. Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.
- v. Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products.
- vi. Block activities alongside countries with similar agricultural production patterns.
- vii. Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern.

### 3.4 Modified Research Pattern

It is found from the discussion points above that even under the changed paradigm of hypotheses/notions, the problem statement do not necessarily change (as the problem statement itself was designed in the most generic format). Nevertheless, the analytical pattern/framework changes considerably with the introduction of the new hypotheses-sets and dropping five of the original eight sets.

As such, the study now focuses on:

- i. Scenario analysis for finding the agricultural products where Bangladesh holds comparative advantages
- ii. Viability analysis/testing for selected products for production/exports under the different regimes – as would be found during stage (i)
- iii. Finding avenues for advanced agricultural marketing / financing options
- iv. Specific WTO negotiation strategy that Bangladesh would follow with regards to linking agricultural production patterns with Mode – 4, specifically, movement of service / personnel (i.e., should gaining positions in GATS Mode-4 be a consideration to give in on agricultural subsidies)
- v. Selection of blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

### 3.5 Methodology

A detailed qualitative secondary research has been undertaken to validate the research proposition. However, a primary qualitative survey had also been employed to modify the research parameters and consequent hypotheses.

The main research framework will comprise of two simultaneous processes, i.e.:

- a. Scenario analysis of the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market

- b. Bangladesh's stake in agricultural produces and primary survey on finding the appropriate niche/strategy for the development of a vibrant international trading pattern for the agricultural sector.

The survey will be of Door-to-Door with the executives of WTO cell of Ministry of Foreign Affairs, Ministry of Commerce, and Ministry of Agriculture. Telephone-interviews will also supplement the executive survey in order to conduct the survey with the experts.

Some information will be collected from farmer's level from selected regions of Bangladesh, which are highest production location of select agro produces.

Farmers will be covered by selective sampling method from high production areas of select agro produces (from Specific Objective 1 & 2) in Bangladesh and information from the farmers on Cost of Production, Yield Rate and impact of de-subsidization of Agro inputs will be collected through checklist method.

### 3.6 Major Findings

The research aims to ascertain the following end results:

- d. The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- e. Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
- f. Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.

## 4.0 Theoretical Model

### 4.1 The Problem Statement

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports)<sup>47</sup>; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions<sup>48</sup>.

### 4.2 Constructs and Concepts

<i>Constructs</i>	<i>Definition</i>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies

<sup>47</sup> For a more diplomatic coverage of the issues, ideas and data have been drawn from "Borders, Trade and Welfare" by James E. Anderson (Boston College) and Eric van Wincoop (Federal Reserve Bank of New York), prepared for the Brookings Trade Forum 2001 on Globalization: Issues and Implications, May 10-11, 2001. The results of the paper (Anderson and van Wincoop, 2001) show that border barriers are large and inhibit much trade. In the paper it is shown that further economic integration can very substantially increase world trade and welfare. Also of significance are the resources drawn from Anderson, James E. and Eric van Wincoop, 2001, "Gravity with Gravitas: A Solution to the Border Puzzle". National Bureau of Economic Research Working Paper 8079.

<sup>48</sup> Ideas and imperatives heavily drawn from writings of Alessandra Casella (Department of Economics, Columbia University) and James E. Rauch (Department of Economics, University of California, San Diego); "Anonymous Market And Group Ties In International Trade" February 1999. Both authors are also affiliated with the NBER (and Casella with the CEPR). In this paper, the writers develop a model of trade that reflects the difficulty of introducing one's product in a foreign market. Access to local sources that can provide information about the market would facilitate entry, and in our set-up a minority of individuals has such preferential ties, reflecting for example the existence of coethnic bonds or membership in a business group. We analyze the aggregate volume of trade without ties, the use of ties versus the anonymous market by group members, the value of the ties to the overall economy and to the group, and the consequences of the ties for non-members.

<b>Constructs</b>	<b>Definition</b>
	allocation at WTO
<i>Financial Loss Through WTO</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets</i>	Different market-opening opportunities and change in production-location facilities

#### 4.3 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

#### 4.4 The Conditions

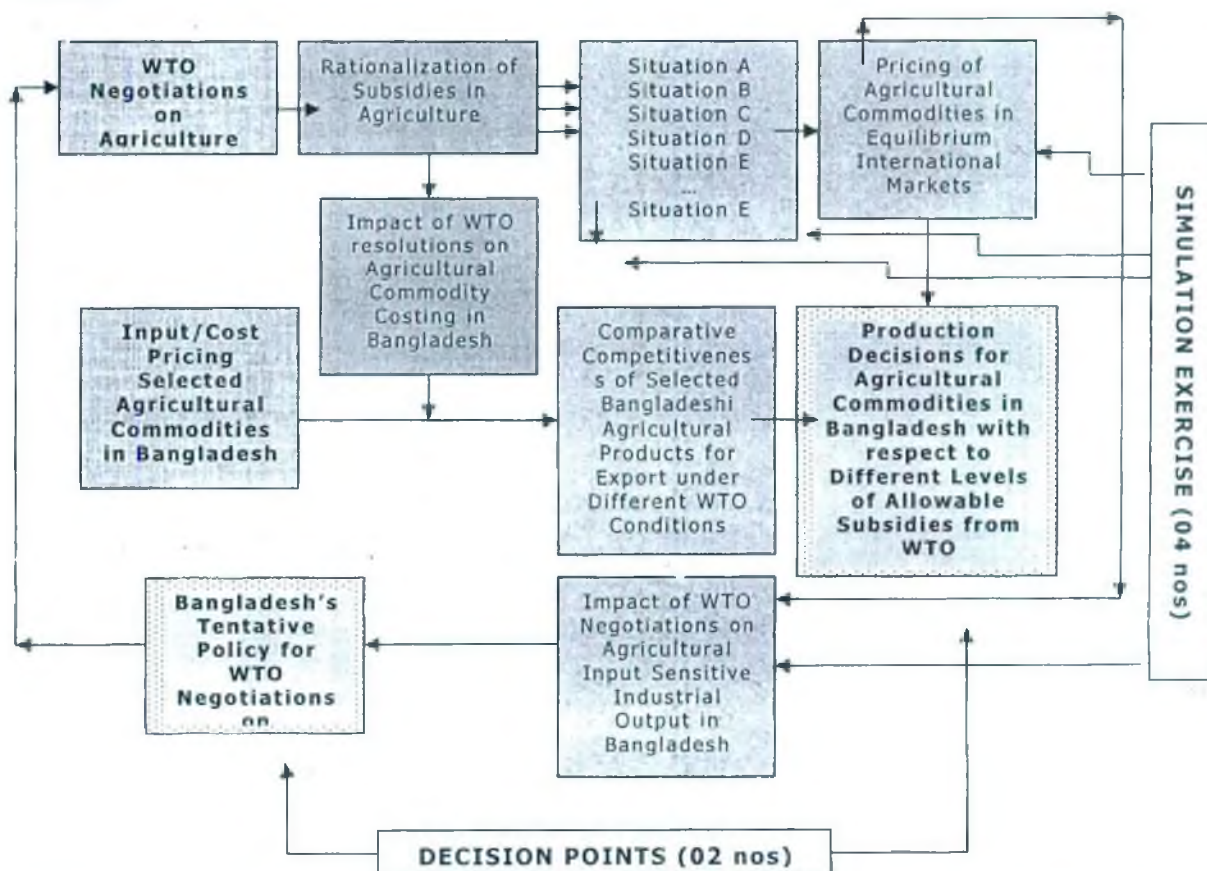
The necessary conditions are:

- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- iv. Production sensitivity to inputs will remain valid for the time period projected.



#### 4.5 The Functional Relationship

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

#### 5.0 Objective

To find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4.

#### 5.1 Specific Objective

- i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- ii. To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- iii. To find the avenues for advanced agricultural marketing / financing options.

- iv. To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode – 4.
- v. To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

## 5.2 Scope of Research

Within the time (30 Days) and budget allocated the scope of the research work will be to analyze the scenario for the different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh.

The specific scopes of the research are as follows.

- i. Current composition of the agricultural produces for export
- ii. Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- iii. Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.
- iv. Specific negotiation strategy for WTO on agricultural subsidies
- v. Specific tactics for implementation of the above strategy (iv)
- vi. Impact of making the block of countries in different stages of de-subsidization

However, as the project is a two-year long M. Phil. dissertation, only scope (i), (ii), and (iii) will be covered, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) and their respective marketing strategies will be identified in the first stage, within the next 30 days.

## 6.0 Sampling Methods

Only experts will be consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents will be approached. Therefore, convenience sampling method will be used.

## 7.0 Significance of the Study

For a small and non-significant<sup>49</sup> country like Bangladesh the only way out is to build on our expertise and experience in niches we already have some mastery on. Admit it, if anything positive is there, for which ones of these positive things does the outside world know us? The answer is simple - number one, Micro-Credit<sup>50</sup>, number two, UN Peacekeeping, and number three, we forgot. If we want to build on our expertise, we need to know what we actually know. We need to combine and integrate our learning in all fields that we have ever operated in and harvest the synergies that we can derive from there on.

Making informed decisions and planning judiciously are the only two ways that can help the cause. Like President A P J Abul Kalam of India had said, we need virtuous Leaders, Wise Officers, and Learned Teachers. This paper, as I duly expect, can ultimately contribute to the formation of a more pro-active strategy for Bangladesh's

<sup>49</sup> Non-significant – purely in the sense that the advanced community mostly don't regard Bangladesh for anything other than its nuisance value, despite having so many potentials to contribute to the world community – simply because we do not know how to project ourselves in a concerted manner

<sup>50</sup> And organizations like BRAC, Grameen, Proshika, ASA

performance in the United Nations peace efforts, where the country presumably already has made its mark as one of the top-most troops contributors. But is the UN itself anything less than a powerful men's club. Otherwise, why does China forestall Chapter VII enforcement in Sudan ? Why is there armed intervention without the sanction of the Security Council ? ... only for greater control over resources ?

The study is significant to the different levels of concerned bodies and intelligentsia of the country due to different causes. The causes are apparent from the debriefings available on the barriers to international trade. This section depicts only the specific points to be highlighted.

### **7.1 Significance to Diplomatic Endeavors**

The findings of the report are anticipated to help the policy makers and players arrive at a positive focus with regards to the environment and settings where investments and returns to materialize will be easier. It is expected that the results of the research will significantly help the established Non-Governmental entities of the country who allege of the unavailability of policy measures required, to find alternative ways to proliferate into world affairs alongside their current role in the country.

### **7.2 Significance to Literature**

Policy frameworks, especially the effective ones, are very uncommon in Bangladesh when it comes to Foreign Affairs and our participation in multilateral bodies like the WTO. This paper is expected to have a proper insight into the nature of better and more innovative ways to contribute to structural arrangements for international trade, i.e. if the infrastructure can be reoriented for ventures to run smoothly through a combined effort of the business community, civil society organizations, and the diplomatic agents. Also, it is expected to add a different dimension to the existing literature by infusing a fresh presentation of useful data in the most organized form ever created - on WTO - in the country. It uses the quantitative SWOT analysis in the principle analysis section. This is unique in the form and is used only for the second time in the administrative history of the country (the first one was when one of the authors had prepared a paper for the Bangladesh Foreign Service Academy in May 2006).

### **7.3 Significance to Society and Government**

Development concerns are supposed to be at the heart of the current World Trade Organisation (WTO) negotiations. The current negotiations are called the "Development Round" and this underlines the importance of achieving a positive outcome for developing countries. The Doha Ministerial Declaration November 2001 recognizes the importance of the development dimension of the Round, stating in the second paragraph: "International trade can play a major role in the promotion of economic development and the alleviation of poverty. We recognise the need for all our peoples to benefit from the increased opportunities and welfare gains that the multilateral trading system generates."

The principle that trade can reduce poverty, but that developing countries face challenges making trade work for development, should be a core theme of the trade and development policy of the developed countries - which is, unfortunately not the case. It is believed that the current round of negotiations in WTO represents the single best opportunity to realize the development potential of trade by addressing the harmful distortions in the international trading system. Reform of trade-distorting practices in agriculture in particular, will be of significant net benefit to

developing countries. There are also potentially big gains for developing countries in the areas of services and non-agricultural market access.

We may recognize that trade will not solve all the problems faced by developing countries, but believes that developed economies must ensure that the opportunity to benefit from globalization is available to everyone. The development aspects of the Doha Development Agenda range from specific issues identified by developing countries as priorities; the provision of special and differential treatment within individual negotiations, and broader objectives including improved market access and the provision of technical assistance.

SDT is a concept which recognises that developing countries face specific challenges as a result of liberalisation. SDT includes provisions that allow for lower cuts and longer timeframes for reducing tariffs and agricultural domestic and export subsidies, and fewer obligations and reduced commitments for adherence to negotiated agreements. In addition, the Doha Round will probably see the creation of targeted new instruments as part of the SDT package, such as the "special products" category (products important for food security and rural development) and a new special agricultural safeguard for developing countries. In the Doha Round it has been accepted that LDCs will be exempt from having to make any new reduction commitments. Improved market access for agricultural products holds the promise of substantial benefits for developing countries, particularly given their comparative advantage in this area. At the same time, developing countries have some concerns relating to the impact on food security and rural development of opening their own markets for certain products. It is expected that SDT provisions will be designed to take account of these concerns. Under non-agricultural market access, sectors of significance include textiles, clothing and footwear, forestry and fisheries. These are all important industries for developing countries.

Services trade is also important to many developing countries. Many services, including infrastructure services and services incidental to agriculture facilitate growth, while services such as environmental services can, if managed properly, improve quality of life. In addition, developing countries have their own export interests in services ranging from construction to education, with a particular emphasis on services provided via the temporary entry of service-suppliers into the country where the service is delivered. These exports also contribute to growth in neighbouring developing countries.

The use of trade-distorting subsidies – both "domestic support" measures and export subsidies – significantly distorts the global trading system. The main users of these measures are large developed countries. Trade-distorting domestic support encourages over-production in the subsidising country; this surplus is often then exported (using export subsidies) for less than the cost of production, which has the effect of displacing and/or reducing the world price for many of the agricultural commodities that developing countries trade. This system also means that subsidisers are reluctant to open their markets to efficient producers such as those in developing countries, since this would undermine farm incomes in the subsidising country. A three-pronged approach will be important to achieving a positive development outcome:

- i. Substantial reductions in the use of trade-distorting subsidies
- ii. Elimination of export subsidies
- iii. An ambitious package to open agricultural markets (tempered with SDT targeted to situations of real need).

Many developing countries face domestic and supply-side constraints when seeking to maximize the opportunities that come from trade liberalization. Continued and

improved trade-related technical assistance and capacity building is a vital component of trade and development.

We can always hope for an ambitious outcome in the Doha Round. There is considerable overlap between the objectives of developing countries and of the developed ones in the Round, particularly in the areas of agricultural market access, the elimination of export subsidies and trade-distorting domestic support.

However, this paper will, specifically, try to find out, if:

- i. International trade (specifically in agricultural produces) has a positive effect on poverty reduction and improves long-term economic growth in developing countries, and
- ii. A successful outcome to the Doha Round will promote development through improving market access for all products – including those important to developing countries, especially agriculture and textiles – and through the elimination of export subsidies and substantially reducing trade-distorting domestic support

It is important for the WTO to find ways to address the converging issues of trade with labor and the environment in a way that does not encumber the trade system with new, extraneous requirements. There is room to improve the manner in which the WTO interfaces with other international institutions, such as the International Labor Organization and the World Bank. However, it is important that trade agreements not be used as the primary mechanism to enforce alleged abuses on environmental or labor matters. There are more appropriate and effective means and organization through which to pursue these remedies. The business community also has a vital interest in the outcome of WTO negotiations because the WTO's rules are the framework within which business will conduct its activities.

From this paper, we will try to establish that the government should:

- i. Aggressively negotiate on behalf of the country in the new round of multilateral trade negotiations. Priority areas are market access, business facilitation, investment, agricultural export subsidies and trade remedy systems.
- ii. Seek out and take full account of the expertise and advice of business houses as negotiations in the Doha round proceed.
- iii. Renew efforts to strengthen the WTO as the rules-based international institution responsible for overseeing the operation of the multilateral trading system. This includes ensuring all WTO members respect the decisions of WTO dispute panels so that the primacy of the WTO system is maintained.
- iv. Work within the WTO context to ensure that developing countries not only have the capacity needed to enjoy the full benefits of the WTO system, but also have the capacity to fulfill their obligations under WTO agreements.

## **8.0 Limitation**

The research will not include the following in the discussion pattern:

- i. Details of agricultural products' breakdown (minute varieties/ variations)
- ii. Changing market/physical conditions with respect to extraneous factors like – global warming, regional/international conflicts, human settlement patterns, etc. These will be considered given (constant) for the limited time frame proposed.

Also, a research is only as good as its assumptions. This project is based on a few important assumptions, which would prove fatal in case of non-happening of the assumptions in the reality. Here is a list of the limiting factors of the research project's conclusions drawn from the responses observed.

a. The scope of the research.

The scope of the research is defined for the agricultural production units only. It is assumed that, these are the units to be affected more severely with agricultural subsidies. Also, the industry average is expected to be calculated on the basis of the same assumptions as is stated here.

b. Sampling technique.

Although probability based techniques have been used all through the report, it is theoretically not possible. Because, the convenience sampling does not eliminate the choice biases. And as a result, does not ensure that, the variations are due to chance errors only.

c. Analysis techniques.

- i. The analysis techniques to be used in the preparation of the consolidated findings are based on assigning the concepts the same weights. This has an inherent problem for the overall attitude of the people about the constructs and concepts under consideration.
- ii. The model presented in the paper is based on an assumption that, the people answering the questions are reasonably rational people. But this might be wrong, as the level of reasoning is not the same as for different strata of the respondents.
- iii. The study holds that, the logic behind the people's perception would remain constant over the long run. But this might not be the case, as the time frame aspect is not covered in the report. So, if the people's attitude some how changes over time, the entire work of the research has to be redesigned. And the forecasts would change also.

These are some of the most important limitations baring the performance of the research financings to take the form of a theory.

## 9.0 Time and Financial Budget

### 9.1 Financial Involvement

The study is expected to be covered (the first part; within 30 days) under the following budgetary allocation from the group-members:

i. Conveyance	=	BDT 3,000/=
ii. Conducting FGDs	=	BDT 3,000/=
iii. Report preparation and presentation	=	BDT 1,500/=
iv. Internet and other data/information	=	BDT 3,000/=
	<b>Total</b>	= BDT 10.500/=

## 9.2 Time Frame

The project is organized in the following schedule:

- I. The problem defined [March 01 – May 24]
- II. The operational definition of the different concepts under study defined [May 24 – June 05]
- III. The analysis technique decided upon [June 05]
- IV. The data collection instrument designed and pre-tested [June 05 – June 12]  
  
UNDEFINED TIME LAG [June 12 – June 16]
- V. The information collected through extensive interviews [June 16 – June 24]
- VI. Assorting information in order of organizational strata based on the number of employees [June 24 – June 26]
- VII. Organizing information as per the directives of the instructor of the course [June 29].

### 10.0 Deliverables

- 10.1 Report (Structure)
- 10.2 Questionnaire (Filled in)
- 10.3 Data Sheet
- 10.4 Code Sheet (Questionnaire Manuals)

For Final Report

<b>ANNEX 8:</b>	<b>TERM PAPER FOR RESEARCH METHODOLOGY</b>	<b>10 JULY 2007</b>	<b>215</b>
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# **AGRICULTURAL SUBSIDIES**

**IMPACT ANALYSIS AND COMBAT TECHNIQUES FOR BANGLADESH  
IN THE WORLD TRADE ORGANIZATION**

TERM PAPER FOR THE MARKETING RESEARCH COURSE  
IBA, DHAKA UNIVERSITY  
SPRING 2007

# AGRICULTURAL SUBS DIES

## IMPACT ANALYSIS AND COMBAT TECHNIQUES FOR BANGLADESH IN THE WORLD TRADE ORGANIZATION

TERM PAPER FOR THE MARKETING RESEARCH COURSE

Prepared for:

**Professor Dr. Syed Ferhat Anwar**  
Instructor: Marketing Research

Prepared by:

Roll No.	Name	Program/Batch
M. Phil. Applicant	Syed Muntasir Mamun	M. Phil. Program
52	Mohammed Reza Ahmed Khan	MBA 35(E)
15	Junaed Anwar	MBA 38(E)
32	Irshadur Rahman	MBA 39(D)

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

Tuesday, July 10, 2007

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Tuesday, July 10, 2007

Institute of Business Administration  
University of Dhaka  
Dhaka 1000

**Professor Dr. Syed Ferhat Anwar**  
Instructor  
Research Methods

Subject: Submission of the term paper

Revered Professor,

With profound respect, we submit the "Agricultural Subsidies - Impact Analysis and Combat Techniques for Bangladesh in the World Trade Organization" – as the term paper for the course on Marketing Research (Research Methodology). The paper has been prepared in accordance with the instructions provided in the class. However, any authentication and clarification will be provided on demand.

Thank you sir, for your time and kind attention.

With the best of wishes and regards,

Syed Muntasir Mamun, M. Phil. Program  
Mohammed Reza Ahmed Khan, Roll No: 52, MBA 35(E)  
Junaed Anwar, Roll No: 15, MBA 38(E)  
Irshadur Rahman, Roll No: 32, MBA 39(D)

**TABLE OF CONTENTS**

TABLE OF CONTENTS .....	4
LIST OF FIGURES .....	7
LIST OF ANNEXES .....	7
LIST OF ACCRONYMS .....	8
Executive Summary .....	10
1.0 Background .....	12
2.0 Literature Review .....	16
2.1 Introduction on Agricultural Trade: Short Primer .....	16
2.1.1 Trade policies prior to the WTO .....	17
2.1.2 Uruguay Round agricultural negotiations .....	18
2.1.3 Introduction to the Agreement on Agriculture .....	18
2.1.4 Relationship with other WTO Agreements .....	18
2.1.5 Product coverage .....	18
2.1.6 Rules and commitments .....	19
2.1.7 Implementation period .....	19
2.1.8 Committee on Agriculture .....	19
2.2 Market access .....	19
2.2.1 Schedule of tariff concessions .....	19
2.2.2 The prohibition of non-tariff border measures .....	20
2.2.3 Special treatment .....	20
2.2.4 The special safeguard provisions .....	21
2.2.5 Notification obligations .....	21
2.3 Domestic support .....	21
2.3.1 The Green Box .....	22
a. Government service programmes .....	22
b. Direct payments to producers .....	22
c. Other exempt measures .....	22
d. Developmental measures .....	22
2.3.2 Blue Box .....	23
2.3.3 De minimis .....	23
2.3.4 Reduction commitments .....	23
a Aggregate Measurement of Support .....	23
b Equivalent Measurement of Support .....	24
2.3.5 Notification obligations .....	24
2.4 Export competition/subsidies .....	24
2.4.1 Reduction commitments .....	25
a Definition of measures .....	25
b Product categories .....	25
c Rates of cut .....	25
2.4.2 Products with no specific reduction commitment .....	25
2.4.3 Anti-circumvention .....	26
2.4.4 Notification obligations .....	26
2.5 On Agricultural Production Pattern and Distortion .....	26
2.6 A Primer on Doha Development Round .....	28
2.7 Other Issues of Relevance to Agriculture .....	37
2.7.1 Export restrictions .....	37
2.7.2 Peace clause .....	37
2.7.3 Resolving disputes .....	37
2.7.4 Continuation clause .....	37
2.8 Summary of Elements for Negotiation .....	38
2.8.1 Market Access .....	38
2.8.2 Domestic support .....	38
2.8.3 Export subsidies .....	39
2.8.4 Export prohibitions and restrictions .....	39
2.8.5 Other aspects .....	39
2.8.6 Sanitary and phytosanitary measures .....	40
3.0 Qualitative Study .....	40
3.1 The Suggested Hypotheses .....	40
3.2 Key Informant Interviews .....	40
3.2 Modified Hypothesis .....	45
3.4 Modified Research Pattern .....	45
3.5 Methodology .....	45
3.6 Major Findings .....	46
4.0 Theoretical Model .....	46
4.1 The Problem Statement .....	46
4.2 Constructs and Concepts .....	46
4.3 The Proposition .....	45
4.4 The Conditions .....	47
4.5 The Functional Relationship .....	47
5.0 Objective .....	47
5.1 Specific Objectives .....	48
i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages. ....	48

ii.	To test the viability for selected products for exports in different stages of de-subsidization in the WTO.....	48
iii.	To find the avenues for advanced agricultural marketing / financing options.....	48
iv.	To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode – 4.....	48
v.	To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.....	48
5.2	Scope of Research.....	48
6.0	Sampling Methods.....	48
7.0	Significance of the Study.....	48
7.1	Significance to Diplomatic Endeavors.....	49
7.2	Significance to Literature.....	49
7.3	Significance to Society and Government.....	49
8.0	Limitation.....	51
9.0	Time and Financial Budget.....	51
9.1	Financial Involvement.....	51
9.2	Time Frame.....	52
10.0	The Survey Instrument.....	52
11.0	Research Findings.....	52
11.1	Combined Average Selection Ranking for Products (Data tables appended at Annex 3).....	52
11.2	Respondent Type.....	53
11.3	Comments on if Bangladesh Should Specialize as an Agro-Commodity Exporter.....	53
11.4	Response Matrix on The biggest threat to agro-commodity export from Bangladesh.....	54
11.5	On the onus of agricultural sector development.....	54
11.6	On prioritizing development initiatives.....	55
11.7	Specific methods to prioritize in agro-commodity development.....	55
11.8	Bangladesh's biggest competitors in agro-products.....	55
11.9	Interpretation of Commodities Analysis.....	55
11.9.1	Tobacco (Data tables appended at Annex 4).....	55
11.9.1.1	Bangladesh should specialize as an agro-commodity exporter.....	55
11.9.1.2	Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements).....	56
11.9.1.3	Preferential Ranking for Developing Production Possibilities under this Category.....	56
11.9.1.4	Production process improvements should prioritize in (100 points to be divided):.....	57
11.9.1.4.1	The WTO experts.....	57
11.9.1.4.2	The Agro Marketing Experts.....	57
11.9.1.4.3	The Exporters.....	57
11.9.1.4.4	The Farmers.....	57
11.9.1.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order):.....	57
11.9.2	Jute (Data tables appended at Annex 5).....	57
11.9.2.1	Bangladesh should specialize as an agro-commodity exporter.....	57
11.9.2.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements).....	58
11.9.2.3	Preferential Ranking for Developing Production Possibilities under this Category.....	59
11.9.2.4	Production process improvements should prioritize in (100 points to be divided):.....	59
11.9.2.4.1	The WTO experts.....	59
11.9.2.4.2	The Agro Marketing Experts.....	59
11.9.2.4.3	The Exporters.....	59
11.9.2.4.4	The Farmers.....	59
11.9.2.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order):.....	60
11.9.3	Tea (Data tables appended at Annex 6).....	60
11.9.3.1	Bangladesh should specialize as an agro-commodity exporter.....	60
11.9.3.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements).....	61
11.9.3.3	Preferential Ranking for Developing Production Possibilities under this Category.....	61
11.9.3.4	Production process improvements should prioritize in (100 points to be divided):.....	61
11.9.3.4.1	The WTO experts.....	61
11.9.3.4.2	The Agro Marketing Experts.....	61
11.9.3.4.3	The Exporters.....	62
11.9.3.4.4	The Farmers.....	62
11.9.3.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order):.....	62
11.9.4	Maize (Data tables appended at Annex 7).....	62
11.9.4.1	Bangladesh should specialize as an agro-commodity exporter.....	62
11.9.4.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements).....	63
11.9.4.3	Preferential Ranking for Developing Production Possibilities under this Category.....	63
11.9.4.4	Production process improvements should prioritize in (100 points to be divided):.....	64
11.9.4.4.1	The WTO experts.....	64
11.9.4.4.2	The Agro Marketing Experts.....	64

11.9.4.4.3	The Exporters .....	64
11.9.4.4.4	The Farmers .....	64
11.9.4.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	64
11.9.5	Tomato (Data tables appended at Annex 8) .....	65
11.9.5.1	Bangladesh should specialize as an agro-commodity exporter .....	65
11.9.5.2	Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	65
11.9.5.3	Production process improvements should prioritize in (100 points to be divided): .....	66
11.9.5.3.1	The WTO experts .....	66
11.9.5.3.2	The Agro Marketing Experts .....	66
11.9.5.3.3	The Exporters .....	66
11.9.5.3.4	The Farmers .....	66
11.9.5.4	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	67
11.9.6	Okra (Data tables appended at Annex 9) .....	67
11.9.6.1	Bangladesh should specialize as an agro-commodity exporter .....	67
11.9.6.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	67
11.9.6.3	Preferential Ranking for Developing Production Possibilities under this Category .....	68
11.9.6.4	Production process improvements should prioritize in (100 points to be divided): .....	68
11.9.6.4.1	The WTO experts .....	68
11.9.6.4.2	The Agro Marketing Experts .....	68
11.9.6.4.3	The Exporters .....	68
11.9.6.4.4	The Farmers .....	68
11.9.6.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	69
11.9.7	Aromatic Rice (Data tables appended at Annex 10) .....	69
11.9.7.1	Bangladesh should specialize as an agro-commodity exporter .....	69
11.9.7.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	70
11.9.7.3	Preferential Ranking for Developing Production Possibilities under this Category .....	70
11.9.7.4	Production process improvements should prioritize in (100 points to be divided): .....	70
11.9.7.4.1	The WTO experts .....	70
11.9.7.4.2	The Agro Marketing Experts .....	71
11.9.7.4.3	The Exporters .....	71
11.9.7.4.4	The Farmers .....	71
11.9.7.4.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	71
11.9.8	Mushroom (Data tables appended at Annex 11) .....	71
11.9.8.1	Bangladesh should specialize as an agro-commodity exporter .....	71
11.9.8.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	72
11.9.8.3	Preferential Ranking for Developing Production Possibilities under this Category .....	72
11.9.8.4	Production process improvements should prioritize in (100 points to be divided): .....	73
11.9.8.4.1	The WTO experts .....	73
11.9.8.4.2	The Agro Marketing Experts .....	73
11.9.8.4.3	The Exporters .....	73
11.9.8.4.4	The Farmers .....	73
11.9.8.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	73
11.9.9	Potato (Data tables appended at Annex 12) .....	73
11.9.9.1	Bangladesh should specialize as an agro-commodity exporter .....	73
11.9.9.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	74
11.9.9.3	Preferential Ranking for Developing Production Possibilities under this Category .....	74
11.9.9.4	Production process improvements should prioritize in (100 points to be divided): .....	75
11.9.9.4.1	The WTO experts .....	75
11.9.9.4.2	The Agro Marketing Experts .....	75
11.9.9.4.3	The Exporters .....	75
11.9.9.4.4	The Farmers .....	75
11.9.9.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	75
11.9.10	Sweet potato (Data tables appended at Annex 13) .....	76
11.9.10.1	Bangladesh should specialize as an agro-commodity exporter .....	76
11.9.10.2	Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements) .....	76
11.9.10.3	Preferential Ranking for Developing Production Possibilities under this Category .....	76
11.9.10.4	Production process improvements should prioritize in (100 points to be divided): .....	77
11.9.10.4.1	The WTO experts .....	77
11.9.10.4.2	The Agro Marketing Experts .....	77
11.9.10.4.3	The Exporters .....	77
11.9.10.4.4	The Farmers .....	77
11.9.10.5	Attaining competitive efficiency would result from combinations of (ranking in preferential order): .....	77
12.0	Conclusion .....	78

13.0	Future Courses of Study.....	78
14.0	References.....	78

**LIST OF FIGURES**

Figure 1	: Measurement of Support.....	23
----------	-------------------------------	----

**LIST OF ANNEXES**

Annex 1	:	The survey instrument
Annex 2	:	Product selection matrices
Annex 3	:	Data tables for questionnaire page 1
Annex 4	:	Data tables for questionnaire page 2 : Tobacco
Annex 5	:	Data tables for questionnaire page 2 : Jute
Annex 6	:	Data tables for questionnaire page 2 : Tea
Annex 7	:	Data tables for questionnaire page 2 : Maize
Annex 8	:	Data tables for questionnaire page 2 : Tomato
Annex 9	:	Data tables for questionnaire page 2 : Okra
Annex 10	:	Data tables for questionnaire page 2 : Aromatic Rice
Annex 11	:	Data tables for questionnaire page 2 : Mushroom
Annex 12	:	Data tables for questionnaire page 2 : Potato
Annex 13	:	Data tables for questionnaire page 2 : Sweet Potato

**LIST OF ACRONYMS**

- i. ACP: African, Caribbean and Pacific Countries
- ii. AMS: Aggregate Measure of Support, the preferred calculation of domestic support used for reduction commitments
- iii. AoA: Agreement on Agriculture
- iv. ATPSM: Agriculture Trade Policy Simulation Model
- v. c.i.f.: cost, insurance, freight (included in the price)
- vi. CAEMC: Central Africa Economic and Monetary Community
- vii. CAFOD: Catholic Agency for Overseas Development
- viii. CAP: Common Agricultural Policy
- ix. CARLs: Countries with Abundant Rural Labor
- x. CEEC: Central and Eastern European Countries
- xi. CGE: Computable General Equilibrium
- xii. CGIAR: Consultative Group on International Agricultural Research
- xiii. CIS: Commonwealth of Independent States
- xiv. CME: Coordinated Market Economies
- xv. CMEA: Common Market of East Asia
- xvi. COMESA: Common Market for Eastern and Southern Africa
- xvii. CPI: Consumer Price Index
- xviii. DFID: Department for International Development (UK)
- xix. EAC: Commission for East African Cooperation
- xx. ECOWAS: Economic Community of West African States
- xxi. EMS: Equivalent Measure of Support, used when AMS is not practicable
- xxii. EPR: Effective protection rate
- xxiii. EU: European Union
- xxiv. f.o.b.: free on board (price, excluding insurance and freight)
- xxv. FAO: Food and Agriculture Organization
- xxvi. FDI: Foreign Direct Investment
- xxvii. FTA: Free Trade Area
- xxviii. GATT 1947: The text of GATT as used until amended by the WTO Agreements which came into force in 1995
- xxix. GATT 1994: The General Agreement on Tariffs and Trade, as revised in 1994, which is part of the WTO Agreements. GATT 1994 includes GATT 1947 together with amendments.
- xxx. GATT: The General Agreement on Tariffs and Trade, established in 1947. The abbreviation is used for both the legal text and the institution
- xxxi. GMB: Grain Marketing Board
- xxxii. GTAP: Global Trade Analysis Programme
- xxxiii. H-O: Heckscher-Ohlin
- xxxiv. IBRD: International Bank for Reconstruction and Development
- xxxv. IDA: International Development Agency
- xxxvi. IFAD: International Fund for Agricultural Development
- xxxvii. IMF: International Monetary Fund
- xxxviii. IOC: Indian Ocean Commission
- xxxix. LAC: Latin American and Caribbean
- xl. LDC: Least Developed Country
- xli. LIC: Low Income Countries
- xl. LIFDC: Low-Income Food-Deficit Countries
- xl. LME: Liberal Market Economy
- xl. LMIC: Lower Middle-Income Countries
- xl. MERCOSUR: Mercado Común del Sur (common market of Argentina, Brazil, Paraguay, Uruguay)
- xlvi. MFN: Most-favoured nation, in the WTO, the principle of treating trading partners equally
- xlvii. MNC: Multinational Corporation
- xlviii. MTO: Multilateral Trade Organization — the proposed name of the new organization that eventually became the WTO, used during Uruguay Round negotiations (appears in negotiating documents such as "Modalities" for agricultural commitments)
- xl. NAEX: Net Agricultural Exporting
- I. NAFTA: North American Free Trade Agreement
- ii. NAIM: Net Agricultural Importing
- iii. NFEX: Net Food Exporting
- liii. NFIM: Net Food Importing
- liv. NGO: Non-Governmental Organization
- lv. NIS: Newly Independent States
- lvi. NPR: Nominal Protection Rate



lvii.	NTB: Non-Tariff Barriers
lviii.	OECD: Organization for Economic Cooperation and Development
lix.	OPK: Operasi Pasar Khusus (targeted rice subsidy programme)
lx.	PMB: Paddy Marketing Board
lxi.	PPI: Producer price index
lxii.	PSE: Producer Support Estimate
lxiii.	QR: Quantitative Restriction
lxiv.	RIFF: Regional Integration Facilitation Forum, formerly the Cross-Border initiative (CBI)
lxv.	RTA: Regional Free Trade Agreement
lxvi.	RUNS: Rural-Urban-North-South Model
lxvii.	SACU: Southern Africa Customs Union
lxviii.	SAL: Structural Adjustment Loan
lxix.	SAM: Social Accounting Matrix
lxx.	SAP: Structural Adjustment Programme
lxxi.	SAPRIN: Structural Adjustment Participatory Review International Network.
lxxii.	SECAL: Sectoral Adjustment Loan
lxxiii.	SME: Small and Medium Enterprise
lxxiv.	SOFI: State of Food Insecurity
lxxv.	SPS: Sanitary and phytosanitary (measures)
lxxvi.	SSA: Sub-Saharan Africa
lxxvii.	SSG: Special Safeguard
lxxviii.	STE: State Trading Enterprise
lxxix.	TNC: Transnational Corporation
lxxx.	TQ: Tariff-quota
lxxxii.	TRQ: Tariff-rate-quota, same as TQ
lxxxii.	UMIC: Upper Middle Income Countries
lxxxiii.	UMRs: Usual marketing requirements, a system in FAO principles for food aid
lxxxiv.	UNCTAD: United Nations Conference on Trade and Development
lxxxv.	UNDP: United Nations Development Programme
lxxxvi.	UR: Uruguay Round
lxxxvii.	USDA: United States Department of Agriculture
lxxxviii.	WB: World Bank
lxxxix.	WCA: Washington Consensus on Agriculture
xc.	WFM: World Food Model
xcii.	WFS: World Food Summit
xcii.	WTO: The World Trade Organization, established as the successor to the GATT on 1 January 1995

## Executive Summary

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports) ; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions .

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- (i) Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:
  - a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- (ii) Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

The necessary conditions are:

- (i) Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- (ii) WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- (iii) Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- (iv) Production sensitivity to inputs will remain valid for the time period projected.

The objectives of the research are to find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4.

Specific objectives include:

- (i) To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- (ii) To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- (iii) To find the avenues for advanced agricultural marketing / financing options.
- (iv) To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode – 4.
- (v) To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

Within the time (30 Days) and budget allocated the scope of the research work analyzed the scenario for the different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh. The specific scopes of the research are as follows:

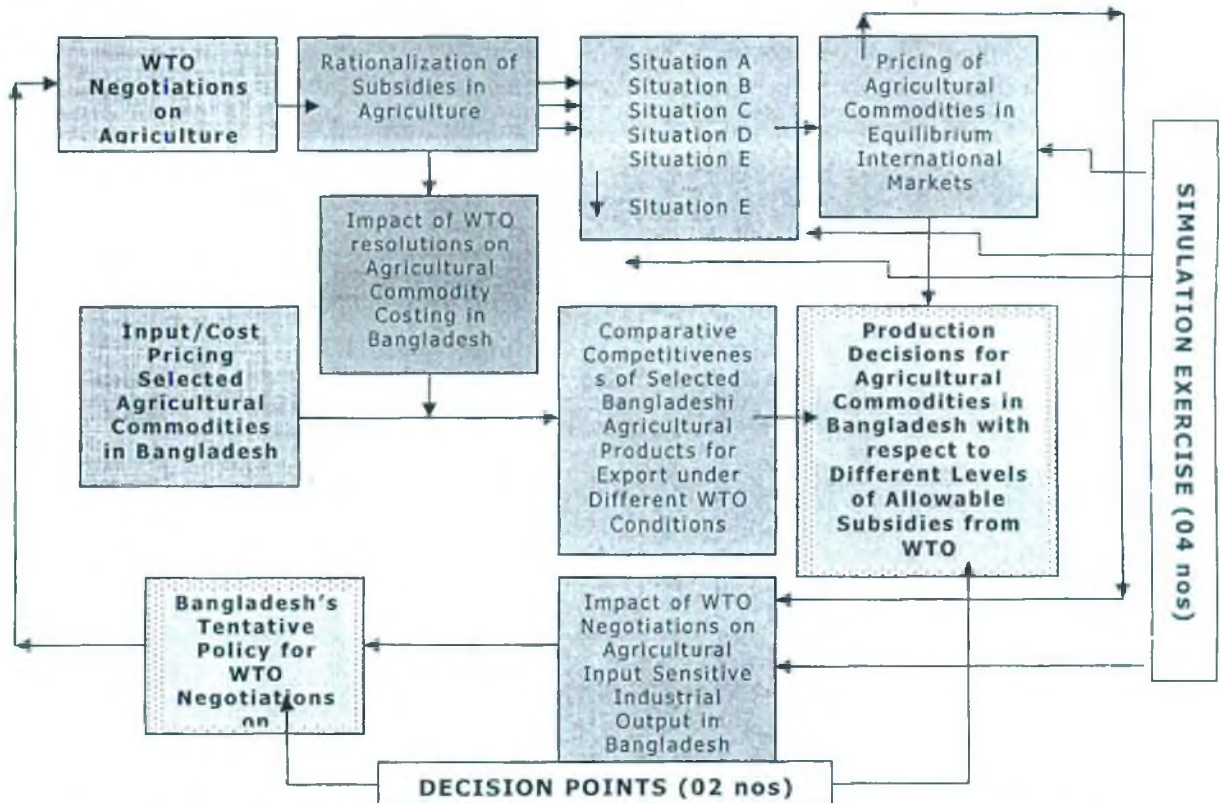
- (i) Current composition of the agricultural produces for export
- (ii) Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- (iii) Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.

- (iv) Specific negotiation strategy for WTO on agricultural subsidies
- (v) Specific tactics for implementation of the above strategy (iv)
- (vi) Impact of making the block of countries in different stages of de-subsidization

However, as the project is a two-year long M. Phil. dissertation, only scope (i), (ii), and (iii) have been covered for the purpose of this paper, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) and their respective marketing strategies have been identified in the first stage, within the stipulated 30 days.

Only experts have been consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents have been approached. Therefore, convenience sampling method has been used.

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

The research aims to ascertain the following end results:

- a. The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- b. Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
- c. Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.

**Agricultural Subsidies**  
**Impact Analysis and Combat Techniques for Bangladesh**  
**In the World Trade Organization**

TERM PAPER FOR THE MARKETING RESEARCH COURSE

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**1.0 Background**

A great deal of attention is currently being paid to the discussion of the reform of global agricultural trade. In the year 2000, the WTO initiated a new round of trade negotiations on agriculture and services. According to the Doha mandate adopted on 14 November 2001, the WTO members committed themselves to substantially improve market access, to reduce (with a view to phasing out) all forms of export subsidies and to substantially reduce trade-distorting domestic support. Furthermore, it was also agreed that non-trade concerns and special and differential treatment for developing countries should become an integral feature throughout the negotiations. In February 2003 a first attempt to agree on modalities, the so-called Harbinson Paper, was presented to the WTO members and revised after intensive discussion. Based on the resulting Harbinson 1½ paper<sup>1</sup>, the Doha Ministerial Declaration requested WTO members to agree upon formulas and other modalities by 31 March 2003 at the latest. But negotiators missed this deadline. While the US and the Cairns Group considered the tariff reductions of the Harbinson 1½ paper as too low and preferred the Swiss formula, the EU considered the liberalization proposals as too far reaching. Together with 75 other WTO members (friends of the Uruguay formula) the EU pleaded for a repetition of the Uruguay round of agriculture and especially for the implementation of the Uruguay formula for tariff reduction (Brockmeier & Salamon, 2004). After 31 March 2003, negotiators selected a number of controversial issues and aimed at achieving a framework agreement at the ministerial conference, taking place in Cancún, on 11-14 September 2003. The EU and the US were the first to come forward with a draft. The joint US-EU text suggested a blended formula under which the tariffs were subdivided into three groups. The tariffs of the first group were categorized as duty free, while the tariffs of the second group were to be reduced by an average with a minimum reduction per product (the Uruguay round formula). The third group of tariffs was supposed to be reduced by the Swiss formula.

After the failure of Cancún a new negotiation process started at the beginning of 2004. On 16 July 2004, the chairman of the agricultural committee, Tim Grosser, presented a new proposal on modalities for negotiations on agricultural trade. An amended version of the Grosser text was then presented and adopted in a revised form by the WTO General Council on 31 July 2004 as part of the Doha Work Program or Oshima-text. Although it seemed as if the disputing parties had reached an agreement, the outcome of the negotiations is still highly uncertain. In contrast to the former papers, the content of this recently adopted proposal is very vague. It contains (almost exclusively) qualitative information about tariff cuts, the abolition of exports subsidies, etc., but does not make any concrete statement regarding the time horizon or magnitude of the protection cuts. Nor does the more or less nebulous consistency of the Doha Work Program July package help to resolve the most important issue of market access: What kind of tiered formula will be used to cut down the import tariffs? What effect does a tiered formula, such as the Harbinson formula, have in contrast to a more flexible one, such as the Swiss formula? How will the preferential treatment of the developing countries be achieved?

In all, the Doha Work Program comprised an overall cut of all trade-distorting domestic support according to a tiered formula. Under this formula, higher levels of trade-distorting domestic support would be subject to deeper cuts to achieve a harmonized result. For all developed countries a down payment of 20% during the first year of the implementation period would be made. The cut would be based on binding rates. Furthermore, a reduction of the *de minimis* loophole would be negotiated and the criteria for the green box would be reviewed. The blue box support should not exceed 5% of the average total value of agricultural production during a historical reference period that has not yet been specified.

On export competition, the Doha Work Program assured the elimination of all forms of export subsidies. Moreover, all export measures with effects equivalent to export subsidies would be eliminated, such as export credits, export credit guarantees or insurance programs with repayment periods beyond 180 days. Export credits of less than 180 days and trade distorting practices of state trading enterprises (STES) would be subject to strict disciplines. Moreover, concrete disciplines would be imposed on food aid that is used for commercial displacement. A substantial reduction in market access

barriers would be achieved through a tiered approach with deeper cuts in higher tariffs. The reduction commitments would be made from binding tariff rates applicable to all members other than the least developed countries (LDCs). Countries could self-select sensitive products that would be treated in a more flexible way. As compensation, the TRQs of sensitive products have to be expanded. For developing countries, special and differential treatment is provided. They would be accorded longer implementation periods, lower tariff and subsidy cuts and special concessions for their market access. Furthermore, trade with tropical products would be fully liberalized and the erosion of trade preferences would be addressed. LDCs do not have to lower their tariffs or their domestic farm support. Developed countries and capable developing countries should provide duty- and quota-free market access for LDC products

Situations attained heights of complexity during the Sixth Ministerial in Hong Kong in 2005.

During the run-up to the Hong Kong Ministerial, five clusters of negotiating issues were expected to be addressed. These were: (i) Agriculture, (ii) Non-Agriculture Market Access (NAMA), (iii) Services (GATS), (iv) Rules, and (v) "Development" provisions. Considering the slow pace of progress in negotiations in Geneva, ambition levels were lowered to three core areas of market access, i.e. in the area of agriculture, industrial goods and services. In November 2005, WTO members acknowledged the fact that progress in negotiations were far from achieving an agreement in Hong Kong in a manner that could fashion a detailed framework for subsidy and tariff cuts on Agriculture and NAMA.

In this backdrop, it was hoped that in Hong Kong, members would strive to deliver at least a "Development Package" focusing on duty-free and quota-free market access for all exports from all LDCs.

Despite protests by the major Civil Society Organizations, the developed countries, particularly the United States and the European Union, tried to use the Hong Kong Ministerial to aggressively push forward their agenda of opening markets in developing countries for the interests of their corporations while at the same time maintaining the First-World's age-old status quo in favor of Subsidies. Every one concerned with the study of economics (no matter how blunt the statement sounds) underscored that the positions taken by major developed countries at the Hong Kong Ministerial conference (sequenced after similar conferences under the Doha Round of Trade Talks) are seriously undermining development interests by continuing with the Dead-weight losses generated from artificial interventions in the markets and prices of especially agricultural products.

It is generally perceived by most in the Third World that The WTO rules have perpetuated an unfair trading system, which favors rich countries and their corporations, while laying developing countries open to ever more pressures to liberalize when their farmers and firms are not in a position to compete in the global economy. This is because the rules are inherently inequitable, and because the local firms are too weak to face the onslaught of giant foreign firms. Especially in the latest round of trade-talks demands and concerns of the developing countries have repeatedly been sidelined. In fact it appears that pressures were put on some developing countries during the Ministerial not to resist the market-opening proposals of the developed countries.

Anti-WTO proponents say that results of the unfair trading system include the loss of livelihoods and incomes of small farmers, loss of jobs due to de-Industrialization in many countries, continued obstacles to access to markets in rich countries and continuous decline in commodity prices and the poverty that is linked to that. Particularly affected are women in farming and working communities in developing countries. The Hong Kong Ministerial meeting, coming at a strategically important moment in the Doha negotiations, might have had the potential to correct some of the imbalances and turn the corner towards development. But it looks – at least from the Bangladesh perspective that as if the potential for doing something positive has faded or disappeared.

Agriculture remains the sector containing most trade distortions and the Uruguay Round's promise of liberalization in the rich countries has yet to be fulfilled. In the current negotiations the offers by the US, EU and other developed countries proposals were grossly inadequate and unless these offers are improved significantly, there will be little (if any) real cuts in domestic support, which goes to production for export. The end date for export subsidies is yet to be fixed, though they should have been eliminated long ago. While developed countries stubbornly refuse to deal with dumping or end their protection, developing countries are being pressured to reduce drastically their own agricultural

tariffs, thus laying their small farmers open to more unfair competition from artificially cheapened import.

The inclusion of trade in services in the Uruguay Round came about because of the promise by the developed countries to the developing countries that they would reduce their protectionist measures in the Agriculture. This promise has not been fulfilled. However the EU is leading the charge of developed countries by making outrageous demands on developing countries to further open their markets in industrial goods and services. Developed countries, led by the EU, have made unacceptable proposals on services that would fundamentally change the GATS architecture to remove the flexibilities and policy space currently available to developing countries. These include qualitative benchmarking, sectoral initiatives, and mandatory participation in plurilateral negotiations. These changes would lead to conditions where developing countries will be less and less able to choose whether to liberalize and if so in which sectors, to what extent and at which time. The viability of local services firms will be threatened.

In NAMA (non agricultural market access), developing countries are being asked to accept the drastic "Swiss formula" with a low coefficient of 10 to 15, implying that all tariffs will drop to below 10%. This will cut the industrial tariffs of developing countries very steeply. It will threaten the survival of domestic industries and the jobs of millions of workers. It will also threaten the prospects of domestic industrial development in affected developing countries, with massive job losses and unemployment.

To make matters worse, attempts are also being made by the major developed countries to offset the embarrassment of not achieving progress in modalities, by putting on a "spin" that the developing countries, or at least the LDCs, are getting some benefits in advance through a "development package." This package looks unlikely to contain any real benefits of significance to developing countries, some of them containing promises of aid which is in the form of loans. This is a "face saving" exercise to disguise the fact that the Doha negotiations have not lived up to their "development" name but instead have taken an anti-development turn.

Developing Countries have tried to defend themselves by following that the major developed countries (broadly speaking):

- i. Stop pressuring the developing countries to further liberalize their agriculture, industrial goods and services sectors and withdraw their demands to do the same;
- ii. Allow developing countries to take necessary measures to protect their domestic firms and farms so as to enable the developing countries to have their own policy space to meet their sustainable development objectives.
- iii. Substantially increase their offers in agriculture by committing to cut total trade-distorting domestic subsidies to levels below the current or planned applied levels, and agree to serious disciplines on the Green Box subsidies so that overall domestic support is really decreased; agree to end all export subsidies by 1 January 2010 or earlier; immediately end cotton export subsidies and eliminate domestic support for cotton by 2006.
- iv. Permanently withdraw proposals for numerical targets and benchmarking in services and withdraw Annex C on services, especially its clause on mandatory participation in plurilateral negotiations, and its clauses on modal and sectoral negotiations and the framework on government procurement.
- v. Allow developing countries the flexibility to choose whether and to what extent to liberalize their industrial sectors.
- vi. Agree to genuine development measures, including resolving the Special and Differential proposals and the implementation proposals of developing countries as soon as possible and at least before the settlement of the market access issues; and the inclusion of genuine and effective SDT provisions in the negotiations in agriculture, NAMA and services.
- vii. Agree to an assessment of the impact of their proposals on employment, gender, environment and natural resources, poverty and equity.

Only seven steps, but then, only seven almost insurmountable obstacles.

As the results are coming in, slowly, gradually, Bangladesh is increasingly being sidelined even in the LDC forum with the widening divergence of opinions and stand in the Textile sector (which, for all practical purpose, in the bread earner of the country these days). So, what remains to be done is to formulate our own policy to fight the onslaught of Globalization in its home grounds, i.e., attaining competitive efficiency ourselves.

Bangladesh's primary offensive interest in the context of Hong Kong was Market Access in the areas industrial goods, services and agricultural commodities. Secondary priorities had been in improving the Special and Differential Treatment (S&DT) provisions, reducing trade distortion in cotton, ensuring food aid discipline, identifying and prohibiting harmful fisheries subsidies, and increasing real assistance for trade related supply-side capacities.

Agriculture negotiations are related to three pillars: domestic support, market access and export subsidies. As agreed under paragraph 45 of the July Framework agreement, LDCs including Bangladesh are exempted from any tariff reduction commitment. Member countries, which are not in a position to provide duty-free and quota-free market access, shall provide market access for at least 97 percent of products originating from LDCs by 2008 or no later than the start of the implementation period. It is not yet clear how agricultural commodities will be selected for the exclusion list comprising 3 percent of the tariff lines. This depended on outcomes of further negotiations held in Geneva by April 2006 – which, however, failed, if not, miserably failed.

On the issue of export subsidies, an end date for all export subsidies in agriculture by 2013 has been agreed though. This was a major contentious issue between the EU and the developing countries. This was perceived to be a major success of the G20 countries. However, the elimination of export subsidies has limited value considering the fact that the share of export subsidies is only 3.5 percent of the overall agricultural support provided by the EU. On the issue of domestic support, it was agreed that there would be three bands for tariff reductions in Final Bound total AMS; in the overall cut in trade-distorting domestic support, there would be higher linear cuts in higher bands. However, the level of cuts would be decided later.

It has to be noted that the Hong Kong Declaration provided a consensus on cotton issue. It was agreed that all forms of export subsidies for cotton would be eliminated by developed countries by 2006. LDCs will be provided duty-free and quota-free market access for cotton exports from the commencement of implementation date (scheduled to be agreed – and was not – by April 2006), although they were already enjoying such preferential access. What is important is that the issue of domestic support which was not in the Revision-2 text, but was included through an amendment during the Closing Session. At the closing session members agreed that trade distorting domestic subsidies for cotton production be reduced more ambitiously than under whatever general formula is agreed, and that it should be implemented over a shorter period of time than is generally applicable. The members committed to give priority in the negotiations to reach such an outcome.

On the issue of Food Aid, it was agreed that disciplines on in-kind food aid, monetization and re-exports would be made, so that there was no loophole for continuing export subsidization. The disciplines on export credits, export credit guarantees or insurance programmes, exporting state trading enterprises and food aid was supposed to have been completed (which, it was not) by 30 April 2006 as part of the modalities.

The issue of discipline in food aid remains essentially unsettled although the text mentions that the level of food aid and interests of the net food importing countries will be safeguarded. This is expected to take care of food aid receiving countries. Bangladesh and other net food importing countries will need to carefully follow the negotiations on this issue.

What comes next as an alternative trade-pattern gradually unfolds; it is NAMA (Non-Agricultural Market Access) that we have to look into. That is, we have to look for alternate items in trading. What comes to mind naturally is to develop the indigenous production sector, in which, we may still have some comparative advantage left to fight in a globalized planet (no matter how weird the word may sound).

But what do all these mean after all for Bangladesh? The considerations are three fold, i.e.:

- a. The impact of sustained agricultural subsidies by the developed countries on the production and pricing of agricultural commodities in Bangladesh (for exports)
- b. The probable impact of de-subsidized (phase-wise) trade patterns in agricultural commodities on the industrial output of Bangladesh
- c. Avenues for mitigating trade imbalances for Bangladesh by taking advantages of the existing subsidies pattern.

Unfortunately, Bangladesh does not yet have any coherent WTO policy on agricultural subsidies and trade in agricultural commodities.

From Submission-1

## 2.0 Literature Review

### 2.1 Introduction on Agricultural Trade: Short Primer

The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies. The first pillar of the AoA is "domestic support". The AoA structures domestic support (subsidies) into three categories or "boxes": a Green Box, an Amber Box and a Blue Box. The Green Box contains fixed payments to producers for environmental programs, so long as the payments are "decoupled" from current production levels. The Amber Box contains domestic subsidies that governments have agreed to reduce but not eliminate. The Blue Box contains subsidies which can be increased without limit, so long as payments are linked to production-limiting programs<sup>1</sup>. The AoA's domestic support system currently allows Europe and the USA to spend \$380 billion every year on agricultural subsidies alone. "It is often still argued that subsidies are needed to protect small farmers but, according to the World Bank, more than half of EU support goes to 1% of producers while in the US 70% of subsidies go to 10% of producers, mainly agribusinesses"<sup>2</sup>. The effect of these subsidies is to flood global markets with below-cost commodities, depressing prices and undercutting producers in poor countries – a practice known as dumping<sup>3</sup>.

"Market access" is the second pillar of the AoA, and refers to the reduction of tariff (or non-tariff) barriers to trade by WTO member-states. The 1995 AoA required tariff reductions of: (i) 36% average reduction by developed countries, with a minimum per tariff line reduction of 15% over five years; and (ii) 24% average reduction by developing countries with a minimum per tariff line reduction of 10% over nine years. Least Developed Countries (LDCs) were exempted from tariff reductions, but either had to convert non-tariff barriers to tariffs—a process called tariffification—or "bind" their tariffs, creating a "ceiling" which could not be increased in future<sup>4</sup>.

"Export subsidies" is the third pillar of the AoA. The 1995 AoA required developed countries to reduce export subsidies by at least 35% (by value) or by at least 21% (by volume) over the five years to 2000.

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. While the volume of world agricultural exports has substantially increased over recent decades, its rate of growth has lagged behind that of manufactures, resulting in a steady decline in agriculture's share in world merchandise trade. In 1998, agricultural trade accounted for 10.5 per cent of total merchandise trade — when trade in services is taken into account, agriculture's share in global exports drops to 8.5 per cent. However, with respect to world trade agriculture is still ahead of sectors such as mining products, automotive products, chemicals, textiles and clothing or iron and steel. Among the agricultural goods traded internationally, food products make up almost 80 per cent of the total. The other main category of agricultural products is raw materials. Since the mid-1980s, trade in

<sup>1</sup> Text of the Agreement on Agriculture

<sup>2</sup> Institute for Agriculture and Trade Policy, Agreement on Agriculture Basics 2003.

<sup>3</sup> Institute for Agriculture and Trade Policy, WTO Agreement on Agriculture: A Decade of Dumping, Feb 2005.

<sup>4</sup> This section of the paper is influenced by the article, "Multinational Enterprises and New Trade Theory: Evidence for the Convergence Hypothesis", by S. Barrios, H. Görg and E. Strobl (Research Paper 2000/19; Centre for Research on Globalization and Labor Markets, School of Economics, University of Nottingham; collected from the net resources of the University). The article denotes that according to the 'convergence hypothesis' multinational companies will tend to displace national firms and trade as total market size increases and as countries converge in relative size, factor endowments, and production costs. Using a recent model developed by Markusen and Venables (1998) as a theoretical framework, the authors explicitly develop empirical measures to proxy bilateral FDI between two countries and address their properties with regard to the convergence hypothesis. Using a panel of data of country pairs over the years 1985-96 the authors econometrically test for the relationship between convergence and bilateral FDI. The results provide some empirical support for the convergence hypothesis. Overall market size tends to increase, while differences in market size tend to reduce bilateral MNE activity. While the role of differences in relative endowments of human or physical capital skilled workers is not clear from the results, R&D intensity, which serves to proxy the importance of firm level scale economies, and a common language in home and host country significantly increase bilateral MNE activity. The authors have also found that for many cases transportation costs, contrary to the convergence hypothesis, are negative determinants, although these findings are in line with similar findings in the literature. Breaking down the sample into EU and non-EU pairs it is found that a large number of results in aggregate still hold, although, given the small sample size, particularly for EU country pairs, these results must be viewed with some caution.



processed and other high value agricultural products has been expanding much faster than trade in the basic primary products such as cereals. Agricultural trade remains in many countries an important part of overall economic activity and continues to play a major role in domestic agricultural production and employment. The trading system plays also a fundamentally important role in global food security, for example by ensuring that temporary or protracted food deficits arising from adverse climatic and other conditions can be met from world markets<sup>5</sup>.

### 2.1.1 Trade policies prior to the WTO

Although agriculture has always been covered by the GATT, prior to the WTO there were several important differences with respect to the rules that applied to agricultural primary products as opposed to industrial products. The GATT 1947 allowed countries to use export subsidies on agricultural primary products whereas export subsidies on industrial products were prohibited. The only conditions were that agricultural export subsidies should not be used to capture more than an "equitable share" of world exports of the product concerned (Article XVI:3 of GATT). The GATT rules also allowed countries to resort to import restrictions (e.g. import quotas) under certain conditions, notably when these restrictions were necessary to enforce measures to effectively limit domestic production (Article XI:2(c) of GATT). This exception was also conditional on the maintenance of a minimum proportion of imports relative to domestic production. However, in practice many non-tariff border restrictions were applied to imports without any effective counterpart limitations on domestic production and without maintaining minimum import access. In some cases this was achieved through the use of measures not specifically provided for under Article XI. In other cases it reflected exceptions and country-specific derogations such as grandfather clauses, waivers and protocols of accession. In still other cases non-tariff import restrictions were maintained without any apparent justification. The result of all this was a proliferation of impediments to agricultural trade, including by means of import bans, quotas setting the maximum level of imports, variable import levies, minimum import prices and non-tariff measures maintained by state trading enterprises. Major agricultural products such as cereals, meat, dairy products, sugar and a range of fruits and vegetables have faced barriers to trade on a scale uncommon in other merchandise sectors. In part, this insulation of domestic markets was the result of measures originally introduced following the collapse of commodity prices in the 1930s Depression. Furthermore, in the aftermath of the Second World War many governments were concerned primarily with increasing domestic agricultural production so as to feed their growing populations. With this objective in mind and in order to maintain a certain balance between the development of rural and urban incomes, many countries, particularly in the developed world, resorted to market price support — farm prices were administratively raised. Import access barriers ensured that domestic production could continue to be sold. In response to these measures and as a result of productivity gains, self-sufficiency rates rapidly increased. In a number of cases, expanding domestic production of certain agricultural products not only replaced imports completely but resulted in structural surpluses. Export subsidies were increasingly used to dump surpluses onto the world market, thus depressing world market prices. On the other hand, this factor, plus the effects of overvalued exchange rates, low food price policies in favor of urban consumers and certain other domestic measures, reduced in a number of developing countries the incentive for farmers to increase or even maintain their agricultural production levels<sup>6</sup>.

<sup>5</sup> Paragraph encouraged by article titled, "Five Simple Principles for World Trade" by Dani Rodrik (November 22, 1999) retrieved from his internet database. Dani Rodrik is professor of international political economy at Harvard's John F. Kennedy School of Government. The article notes that (i) Trade is a means to an end, not an end in itself; (ii) Trade rules have to allow for diversity in national institutions and standards; (iii) Non-democratic countries cannot count on the same trade privileges as democratic ones; (iv) Countries have the right to protect their own social arrangements and institutions; but that ... (v) they do not have the right to impose their institutional preferences on others.

<sup>6</sup> Inspired by the article, "Strategic Trade, Competitive Industries and Agricultural Trade Disputes" by Kyle Bagwell and Robert W. Staiger (February, 2001). The article notes that the primary predictions of strategic-trade theory are not restricted to imperfectly-competitive markets. Indeed, these predictions emerge in a natural three-country extension of the traditional theory of trade policy in competitive markets, once the theory is augmented to allow for politically motivated governments, so that the sign of export policy may be converted from tax to subsidy. This suggests that the ongoing agricultural trade disputes may be best interpreted from the perspective of strategic-trade theory. In fact, these disputes may offer the most important example yet of strategic-trade theory. The writers have presented a model of strategic trade (modified from Brander, J. and B. Spencer, 1985, Export Subsidies and Market Share Rivalry; *Journal of International Economics* 18, 83-100.) that applies for markets with competitive characteristics. We have argued as well that the model predicts quite well the broad features of the agricultural trade disputes, which are perhaps the most important trade disputes in recent decades. The writers conclude with some final thoughts as regards the treatment of export subsidies in GATT and now the WTO. The model suggests that exporting countries prefer a limit on export subsidies in order to stem the rivalry in subsidies that otherwise occurs.

### 2.1.2 Uruguay Round agricultural negotiations

In the lead-up to the Uruguay Round negotiations, it became increasingly evident that the causes of disarray in world agriculture went beyond import access problems which had been the traditional focus of GATT negotiations. To get to the roots of the problems, disciplines with regard to all measures affecting trade in agriculture, including domestic agricultural policies and the subsidization of agricultural exports, were considered to be essential. Clearer rules for sanitary and phytosanitary measures were also considered to be required, both in their own right and to prevent circumvention of stricter rules on import access through unjustified, protectionist use of food safety as well as animal and plant health measures. The agricultural negotiations in the Uruguay Round were by no means easy — the broad scope of the negotiations and their political sensitivity necessarily required much time in order to reach an agreement on the new rules, and much technical work was required in order to establish sound means to formalize commitments in policy areas beyond the scope of prior GATT practice. The Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures were negotiated in parallel, and a Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-developed and Net Food-importing Developing Countries also formed part of the overall outcome.

### 2.1.3 Introduction to the Agreement on Agriculture

The Agreement on Agriculture, (the "Agreement"), came into force on 1 January 1995. The preamble to the Agreement recognizes that the agreed long-term objective of the reform process initiated by the Uruguay Round reform programme is to establish a fair and market-oriented agricultural trading system. The reform programme comprises specific commitments to reduce support and protection in the areas of domestic support, export subsidies and market access, and through the establishment of strengthened and more operationally effective GATT rules and disciplines. The Agreement also takes into account non-trade concerns, including food security and the need to protect the environment, and provides special and differential treatment for developing countries, including an improvement in the opportunities and terms of access for agricultural products of particular export interest to these Members.

### 2.1.4 Relationship with other WTO Agreements

In principle, all WTO agreements and understandings on trade in goods apply to agriculture, including the GATT 1994 and WTO agreements on such matters as customs valuation, import licensing procedures, pre-shipment inspection, emergency safeguard measures, subsidies and technical barriers to trade. However, where there is any conflict between these agreements and the Agreement on Agriculture, the provisions of the Agreement on Agriculture prevail. The WTO Agreements on Trade in Services and on Trade-Related Aspects of Intellectual Property rights are also applicable to agriculture.

### 2.1.5 Product coverage

The Agreement defines in its Annex 1 agricultural products by reference to the harmonized system of product classification — the definition covers not only basic agricultural products such as wheat, milk and live animals, but the products derived from

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Importing countries and the world as a whole lose if exporting countries are successful in this endeavor. From this perspective, the perplexing manner in which GATT and the WTO treat export subsidies may represent conflicting consequences that restrictions on export subsidies have for exporting and importing governments. To the extent that the prohibition of export subsidies has been effective, this policy may correspond to a victory for exporting governments at the expense of importing government - and world - welfare. At a broader level, it is clear that no simple approach toward export subsidization could ever satisfy all goals. Perhaps, as Jackson (Jackson, J., 1997, *The World Trading System: Law and Policy of International Economic Relations*, 2nd edition (The MIT Press, Cambridge), pp. 298-99) emphasizes, if the costs and benefits of a subsidization program are kept within national borders, and thus not shifted onto trading partners, then the program should not be a matter of concern for the WTO. But while this may be a sound principle, cross-border effects are indeed expected when export subsidies are used. And these effects are complicated, too, cutting in different ways in different scenarios: the consumers in importing countries may be inclined to send a "note of thanks;" the import-competing firms in these countries may be harmed; and competing exporters from other countries are also likely to be harmed. The paper's dominant model describes a trading pattern under which overall government welfare increases when the subsidization program is enhanced. But other trading patterns could carry different conclusions. In this perplexing setting, the authors point out that theoretical models, motivated in terms of actual export-subsidy disputes, are of particular value. Such models can clarify the key cost-shifting effects and thereby contribute importantly toward a better understanding of the appropriate manner in which to treat export subsidies within the WTO. This paper is intended as a step in this general direction.

them such as bread, butter and meat, as well as all processed agricultural products such as chocolate and sausages. The coverage also includes wines, spirits and tobacco products, fibers such as cotton, wool and silk, and raw animal skins destined for leather production. Fish and fish products are not included, nor are forestry products.

#### **2.1.6 Rules and commitments**

The Agreement on Agriculture establishes a number of generally applicable rules with regard to trade-related agricultural measures, primarily in the areas of market access, domestic support and export competition. These rules relate to country-specific commitments to improve market access and reduce trade-distorting subsidies which are contained in the individual country schedules of the WTO Members and constitute an integral part of the GATT.

#### **2.1.7 Implementation period**

The implementation period for the country-specific commitments is the six-year period commencing in 1995. However, developing countries have the flexibility to implement their reduction and other specific commitments over a period of up to 10 years. Members had the choice of implementing their concessions and commitments on the basis of calendar, marketing (crop) or fiscal years. A WTO Member's implementation year for tariff reductions may thus differ from the one applied to export subsidy reductions. For the purpose of the peace clause, the implementation period is the nine-year period commencing in 1995.

#### **2.1.8 Committee on Agriculture**

The Agreement established a Committee on Agriculture. The Committee oversees the implementation of the Agreement on Agriculture and affords Members the opportunity of consulting on any matter relating to the implementation of commitments, including rule-based commitments. For this purpose, the Committee usually meets four times per year. Special meetings can be convened if necessary.

### **2.2 Market access**

Under the reform programme, members have converted their non-tariff measures to equivalent bound tariffs. Some additional market access is provided through tariff rate quotas, and the tariffs are being reduced. Contingency protection is provided through special safeguards, and transparency works through notifications.

On the market access side, the Uruguay Round resulted in a key systemic change: the switch from a situation where a myriad of non-tariff measures impeded agricultural trade flows to a regime of bound tariff-only protection plus reduction commitments. The key aspects of this fundamental change have been to stimulate investment, production and trade in agriculture by (i) making agricultural market access conditions more transparent, predictable and competitive, (ii) establishing or strengthening the link between national and international agricultural markets, and thus (iii) relying more prominently on the market for guiding scarce resources into their most productive uses both within the agricultural sector and economy-wide.

In many cases, tariffs were the only form of protection for agricultural products before the Uruguay Round — the Round led to the "binding" in the WTO of a maximum level for these tariffs. For many other products, however, market access restrictions involved non-tariff barriers. This was frequently, though not only, the case for major temperate zone agricultural products. The Uruguay Round negotiations aimed to remove such barriers. For this purpose, a "tariffication" package was agreed which, amongst other things, provided for the replacement of agriculture-specific non-tariff measures with a tariff which afforded an equivalent level of protection. The tariffs resulting from the tariffication process account, on average of the developed country Members, for around one fifth of the total number of agricultural tariff lines. For the developing country Members, this share is considerably smaller. Following the entry into force of the Agreement on Agriculture, there is now a prohibition on agriculture-specific non-tariff measures, and the tariffs on virtually all agricultural products traded internationally are bound in the WTO.

#### **2.2.1 Schedule of tariff concessions**

Each WTO Member has a "schedule" of tariff concessions covering all agricultural products. These concessions are an integral part of the results of the Uruguay Round, are

formally annexed to the Marrakesh Protocol [cross-reference] and have become an integral part of the GATT 1994 [cross-reference]. The schedule sets out for each individual agricultural product, or, in some cases agricultural products defined more generally, the maximum tariff that can be applied on imports into the territory of the Member concerned. The tariffs in the schedules include those that resulted from the tariffication process, which, in many cases, are considerably higher than industrial tariffs, reflecting the incidence of agriculture-specific non-tariff measures prior to the WTO. Many developing countries have bound their previously unbound tariffs at "ceiling" levels, i.e. at levels higher than the applied rates prior to the WTO. Developed country Members have agreed to reduce, over a six-year period beginning in 1995, their tariffs by 36 per cent on average of all agricultural products, with a minimum cut of 15 per cent for any product. For developing countries, the cuts are 24 and 10 per cent, respectively, to be implemented over ten years. Those developing country Members which bound tariffs at ceiling levels did not, in many cases, undertake reduction commitments. Least-developed country Members were required to bind all agricultural tariffs, but not to undertake tariff reductions.

As part of the tariffication package, WTO Members were required to maintain, for tariffied products, current import access opportunities at levels corresponding to those existing during the 1986-88 base period. Where such "current" access had been less than 5 per cent of domestic consumption of the product in question in the base period, an (additional) minimum access opportunity had to be opened on a most-favoured-nation basis. This was to ensure that in 1995, current and minimum access opportunities combined represented at least 3 per cent of base-period consumption and are progressively expanded to reach 5 per cent of that consumption in the year 2000 (developed country Members) or 2004 (developing country Members), respectively. The current and minimum access opportunities are generally implemented in the form of tariff quotas. In case of minimum access, the applicable duty was required to be low or minimal, low that is either in absolute terms or, at least, in relation to the "normal" ordinary customs duty that applies to any imports outside the tariff quota. These tariff quotas, including the applicable tariff rates and any other conditions related to the tariff quotas, are specified in the schedules of the WTO Members concerned. While the vast majority of tariff quotas in agriculture have their origin in the Uruguay Round negotiations, a number of such commitments were the result of accessions to the WTO. As on July 1999, 37 Members have tariff quotas specified in their schedules. In total, there are 1374 individual tariff quotas. These tariff quotas constitute binding commitments as opposed to autonomous tariff quotas which Members may establish at any time, for example, in order to stabilize the domestic price after a poor harvest.

### **2.2.2 The prohibition of non-tariff border measures**

Article 4.2 of the Agreement on Agriculture prohibits the use of agriculture-specific non-tariff measures. Such measures include quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing procedures, voluntary export restraint agreements and non-tariff measures maintained through state-trading enterprises. All similar border measures other than "normal customs duties" are also no longer permitted. Although Article XI:2(c) of the GATT [cross-reference] continues to permit non-tariff import restrictions on fisheries products, it is now inoperative as regards agricultural products because it is superseded by the Agreement on Agriculture. However, Article 4.2 of the Agreement on Agriculture does not prevent the use of non-tariff import restrictions consistent with the provisions of the GATT or other WTO agreements which are applicable to traded goods generally (industrial or agricultural). Such measures include those maintained under balance-of-payments provisions (Articles XII and XVIII of GATT), general safeguard provisions (Article XIX of GATT and the related WTO agreement), general exceptions (Article XX of GATT), the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Technical Barriers to Trade or other general, non-agriculture-specific WTO provisions.

### **2.2.3 Special treatment**

The Agreement on Agriculture contains a "special treatment" clause (Annex 5), under which four countries were permitted, subject to strictly circumscribed conditions, to maintain non-tariff border measures on certain products during the period of tariff reductions (with the possibility of extending the special treatment, subject to further negotiations). As one of the conditions, market access in the form of progressively increasing import quotas has to be provided for the products concerned. The products and countries concerned are: rice in the case of Japan, Korea and the Philippines; and cheese

and sheepmeat in the case of Israel. As of 1 April 1999, Japan has ceased to apply special treatment.

#### **2.2.4 The special safeguard provisions**

As a third element of the tariffication package, Members have the right to invoke for tariffied products the special safeguard provisions of the Agreement on Agriculture (Article 5), provided that a reservation to this effect ("SSG") appears beside the products concerned in the relevant Member's schedule. The right to make use of the special safeguard provisions has been reserved by 38 Members, and for a limited number of products in each case. The special safeguard provisions allow the imposition of an additional tariff where certain criteria are met. The criteria involve either a specified surge in imports (volume trigger), or, on a shipment by shipment basis, a fall of the import price below a specified reference price (price trigger). In case of the volume trigger, the higher duties only apply until the end of the year in question. In case of the price trigger, any additional duty can only be imposed on the shipment concerned. The additional duties cannot be applied to imports taking place within tariff quotas.

#### **2.2.5 Notification obligations**

The bound agricultural tariffs and the tariff quota commitments are contained in Members' schedules. There is no requirement for Members to notify their tariffs to the Committee on Agriculture. Applied tariffs are, however, to be submitted to other bodies of the WTO, including the Committee on Market Access and in the context of the Trade Policy Review mechanism.

Members with tariff quotas and the right to use the special safeguard provisions are required to make both ad hoc and annual notifications to the Committee on Agriculture. At the beginning of the implementation period, an "up-front" notification was due, setting out how each tariff quota is to be administered. Such notifications disclose, for example, if imports are permitted on a "first-come-first-served" basis or if import licenses are used — and in the latter case, an indication of who is able to obtain a license and how they are allocated. An ad hoc notification is required if the method of allocation under any tariff quota changes. At the end of each year, a notification of the quantity of imports entering under each tariff quota is required (tariff quota fill).

Members with the right to use the special safeguard provisions must notify its first use in order to allow its trading partners to establish the parameters of the special safeguard action, such as the volume or price used to trigger the special safeguard action. In the case of the price trigger, an upfront notification of the relevant reference prices has also been possible. In addition, an annual summary notification of the use of the special safeguard is required.

### **2.3 Domestic support**

The present rules and commitments on agriculture are often called the "Uruguay Round reform programme" — they were negotiated in the Uruguay Round and they include reductions in subsidies and protection as well as other disciplines on the trade. The agricultural package of the Uruguay Round has fundamentally changed the way domestic support in favor of agricultural producers was treated under the GATT 1947. A key objective has been to discipline and reduce domestic support while at the same time leaving great scope for governments to design domestic agricultural policies in the face of, and in response to, the wide variety of the specific circumstances in individual countries and individual agricultural sectors. The approach agreed upon is also aimed at helping ensure that the specific binding commitments in the areas of market access and export competition are not undermined through domestic support measures. The main conceptual consideration is that there are basically two categories of domestic support — support with no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures). For example, government provided agricultural research or training is considered to be of the former type, while government buying-in at a guaranteed price ("market price support") falls into the latter category. Under the Agreement on Agriculture, all domestic support in favor of agricultural producers is subject to rules. In addition, the aggregate monetary value of Amber Box measures is, with certain exceptions, subject to reduction commitments as specified in the schedule of each WTO Member providing such support.

### 2.3.1 The Green Box

The Agreement on Agriculture sets out a number of general and measure-specific criteria which, when met, allow measures to be placed in the Green Box (Annex 2). These measures are exempt from reduction commitments and, indeed, can even be increased without any financial limitation under the WTO. The Green Box applies to both developed and developing country Members but in the case of developing countries special treatment is provided in respect of governmental stockholding programmes for food security purposes and subsidized food prices for urban and rural poor. The general criteria are that the measures must have no, or at most minimal, trade-distorting effects or effects on production. They must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and must not have the effect of providing price support to producers.

#### a. Government service programmes

The Green Box covers many government service programmes including general services provided by governments, public stockholding programmes for food security purposes and domestic food aid -as long as the general criteria and some other measure-specific criteria are met by each measure concerned. The Green Box thus provides for the continuation (and enhancement) of programmes such as research, including general research, research in connection with environmental programmes, and research programmes relating to particular products; pest and disease control programmes, including general and product-specific pest and disease control measures; agricultural training services and extension and advisory services; inspection services, including general inspection services and the inspection of particular products for health, safety, grading or standardization purposes; marketing and promotion services; infrastructural services, including electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, etc; expenditures in relation to the accumulation and holding of public stocks for food security purposes; and expenditures in relation to the provision of domestic food aid to sections of the population in need. Many of the regular programmes of governments are thus given the "green light" to continue.

#### b. Direct payments to producers

The Green Box also provides for the use of direct payments to producers which are not linked to production decisions, i.e. although the farmer receives a payment from the government, this payment does not influence the type or volume of agricultural production ("decoupling"). The conditions preclude any linkage between the amount of such payments, on the one hand, and production, prices or factors of production in any year after a fixed base period. In addition, no production shall be required in order to receive such payments. Additional criteria to be met depend on the type of measure concerned which may include: decoupled income support measures; income insurance and safety-net programmes; natural disaster relief; a range of structural adjustment assistance programmes; and certain payments under environmental programmes and under regional assistance programmes.

#### c. Other exempt measures

In addition to measures covered by the Green Box, two other categories of domestic support measures are exempt from reduction commitments under the Agreement on Agriculture (Article 6). These are certain developmental measures in developing countries and certain direct payments under production-limiting programmes. Furthermore, so-called de minimis levels of support are exempted from reduction.

#### d. Developmental measures

The special and differential treatment under the Green Box aside, the type of support that fits into the developmental category are measures of assistance, whether direct or indirect, designed to encourage agricultural and rural development and that are an integral part of the development programmes of developing countries. They include investment subsidies which are generally available to agriculture in developing country Members, agricultural input subsidies generally available to low-income or resource-poor producers in developing country Members, and domestic support to producers in developing country Members to encourage diversification from growing illicit narcotic crops.

### 2.3.2 Blue Box

Direct payments under production limiting programmes (often referred to as "Blue Box" measures) are exempt from commitments if such payments are made on fixed areas and yield or a fixed number of livestock. Such payments also fit into this category if they are made on 85 per cent or less of production in a defined base period. While the Green Box covers decoupled payments, in the case of the Blue Box measures, production is still required in order to receive the payments, but the actual payments do not relate directly to the current quantity of that production.

### 2.3.3 De minimis

All domestic support measures in favor of agricultural producers that do not fit into any of the above exempt categories are subject to reduction commitments. This domestic support category captures policies, such as market price support measures, direct production subsidies or input subsidies. However, under the de minimis provisions of the Agreement there is no requirement to reduce such trade-distorting domestic support in any year in which the aggregate value of the product-specific support does not exceed 5 per cent of the total value of production of the agricultural product in question. In addition, non-product specific support which is less than 5 per cent of the value of total agricultural production is also exempt from reduction. The 5 per cent threshold applies to developed countries whereas in the case of developing countries the de minimis ceiling is 10 per cent.

### 2.3.4 Reduction commitments

Twenty-eight Members (counting the EC as one) had non-exempt domestic support during the base period and hence reduction commitments specified in their schedules. The reduction commitments are expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which includes all product-specific support and non-product-specific support in one single figure. Members with a Total AMS have to reduce base period support by 20 per cent over 6 years (developed country Members) or 13 per cent over 10 years (developing country Members). In any year of the implementation period, the Current Total AMS value of non-exempt measures must not exceed the scheduled Total AMS limit as specified in the schedule for that year. In other words, the maximum levels of such support are bound in the WTO.

In the case of Members with no scheduled reduction commitments, any domestic support not covered by one or another of the exception categories outlined above, must be maintained within the relevant "product-specific" and "non-product-specific" de minimis levels.

#### a Aggregate Measurement of Support

Figure 1 : Measurement of Support

<p>Example: Calculation of the current total AMS Member X (developed country), year Y</p> <p><b>Wheat:</b></p> <ul style="list-style-type: none"> <li>&gt; Intervention price for wheat = \$255 per tonne</li> <li>&gt; Fixed external reference price (world market price) = \$110 per tonne</li> <li>&gt; Domestic production of wheat = 2,000,000 tonnes</li> <li>&gt; Value of wheat production = \$510,000,000</li> <li>&gt; Wheat AMS (AMS 1)</li> <li>    <math>(\\$255 - \\$110) \times 2,000,000 \text{ tonnes} = \\$290,000,000</math></li> <li>(de minimis level = \$25,500,000)</li> </ul> <p><b>Barley</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for barley = \$3,000,000</li> <li>&gt; Value of barley production = \$100,000,000</li> <li>&gt; Barley AMS (AMS 2) = \$3,000,000</li> <li>(de minimis level = \$5,000,000)</li> </ul> <p><b>Oilseeds:</b></p> <ul style="list-style-type: none"> <li>&gt; Deficiency payments for oilseeds = \$13,000,000</li> <li>&gt; Fertilizer subsidy = \$1,000,000</li> <li>&gt; Value of oilseeds production = \$250,000,000</li> <li>&gt; Oilseeds AMS (AMS 3) = \$14,000,000</li> <li>(de minimis level = \$12,500,000)</li> </ul> <p><b>Support not specific to products</b></p> <ul style="list-style-type: none"> <li>&gt; Generally available interest rate subsidy = \$4,000,000</li> <li>&gt; Value of total agricultural production = \$860,000,000</li> <li>&gt; Non-product specific AMS (AMS 4) = \$4,000,000</li> <li>(de minimis level = \$43,000,000)</li> </ul> <p><b>Current total AMS (AMS 1 + AMS 3) = \$304,000,000</b></p>
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Price support measures have been the most important type of policy measure within the non-exempt category. Price support can be provided either through administered prices (involving transfers from consumers) or through certain types of direct payments from governments. For the purpose of Current Total AMS calculations, price support is generally measured by multiplying the gap between the applied administered price and a specified fixed external reference price ("world market price") by the quantity of production eligible to receive the administered price. Calculation details are specified in Annexes 3 and 4 of the Agreement on Agriculture and also incorporated into Members' schedules by way of references to Supporting Material. For each product, the implicit subsidy of price support measures is added to other product-specific subsidies — a product-specific fertilizer subsidy, for example — to arrive at a product-specific AMS which is then evaluated against the applicable de minimis threshold. Non-product-specific subsidies are calculated separately and, as in the former case, are included in the Current Total AMS only if they exceed the relevant de minimis level. The example in the box illustrates the calculation of the Current Total AMS for a developed country (5 per cent de minimis threshold) in year Y.

**b**                    **Equivalent Measurement of Support**

Where it is not practicable to calculate a product-specific AMS as set out in the Agreement, provisions are made of an "Equivalent Measurement of Support" (EMS). The EMS is generally calculated on the basis of budgetary outlays — the money spent by governments to support a product, for example, rather than market price support calculated with respect to a fixed external reference price.

**2.3.5**                **Notification obligations**

All Members must notify the Committee on Agriculture the extent of their domestic support measures. This requires a listing of all measures that fit into the exempt categories: the Green Box, developmental measures, direct payments under production limiting programmes (Blue Box) and de minimis levels of support. In addition, where the existence of measures requires it, AMS calculations must be undertaken by Members that have scheduled domestic support reduction commitments and the Current Total AMS must be notified. Where a Member without such scheduled commitments has support measures which are not covered by one or other of the exempt categories, a notification must be made showing that such non-exempt support is within the relevant de minimis levels. Special formats have been developed by the Committee on Agriculture in order to facilitate compliance with the notification obligations. The requirement to notify is annual, except in the case of least-developed country Members which are only required to notify every other year. Developing country Members can also request the Committee to set aside the annual notification requirement for measures other than those falling into the Green Box or the developmental or Blue Box categories. In addition to the annual notification obligations, all Members must notify any modifications of existing or any introduction of new measures in the exempt categories. These notifications too are examined by the Committee on Agriculture on a regular basis. As most Members do not have domestic support measures other than those falling into the exempt categories, the annual notification requirements are in many cases not particularly burdensome. However, they are effective in providing a basis for policy discussions within the Committee on Agriculture and they also serve a useful purpose domestically in enabling governments to maintain an annual overview of support to their agricultural sectors.

**2.4**                    **Export competition/subsidies**

The core of the reform programme on export subsidies are the commitments to reduce subsidized export quantities, and the amount of money spent subsidizing exports. The Agriculture Agreement also looks at anti-circumvention questions. The proliferation of export subsidies in the years leading to the Uruguay Round was one of the key issues that were addressed in the agricultural negotiations. While under the GATT 1947 export subsidies for industrial products have been prohibited all along, in the case of agricultural primary products such subsidies were only subject to limited disciplines (Article XVI of GATT) which moreover did not prove to be operational.

The right to use export subsidies is now limited to four situations: (i) export subsidies subject to product-specific reduction commitments within the limits specified in the schedule of the WTO Member concerned; (ii) any excess of budgetary outlays for export subsidies or subsidized export volume over the limits specified in the schedule which is covered by the "downstream flexibility" provision of Article 9.2(b) of the Agreement on Agriculture; (iii) export subsidies consistent with the special and differential treatment



provision for developing country Members (Article 9.4 of the Agreement); and (iv) export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture. In all other cases, the use of export subsidies for agricultural products is prohibited (Articles 3.3, 8 and 10 of the Agreement).

#### **2.4.1 Reduction commitments**

##### **a Definition of measures**

Under the Agreement on Agriculture export subsidies are defined as referring to "subsidies contingent on export performance, including the export subsidies listed in detail in Article 9 of [the] Agreement". As specified in more detail in Article 9.1 of the Agreement, this list covers most of the export subsidy practices which are prevalent in the agricultural sector, notably:

- i. Direct export subsidies contingent on export performance;
- ii. Sales of non-commercial stocks of agricultural products for export at prices lower than comparable prices for such goods on the domestic market;
- iii. Producer financed subsidies such as government programmes which require a levy on all production which is then used to subsidize the export of a certain portion of that production;
- iv. Cost reduction measures such as subsidies to reduce the cost of marketing goods for export: this can include upgrading and handling costs and the costs of international freight, for example;
- v. Internal transport subsidies applying to exports only, such as those designed to bring exportable produce to one central point for shipping; and
- vi. Subsidies on incorporated products, i.e. subsidies on agricultural products such as wheat contingent on their incorporation in export products such as biscuits.

All such export subsidies are subject to reduction commitments, expressed in terms of both the volume of subsidized exports and the budgetary outlays for these subsidies.

##### **b Product categories**

The reduction commitments are shown in the schedules of WTO Members on a product-specific basis. For this purpose, the universe of agricultural products was initially divided into 23 products or product groups, such as wheat, coarse grains, sugar, beef, butter, cheese and oilseeds. Some Members took commitments on a more disaggregated level. The volume and budgetary outlay commitments for each product or group of products specified in a Member's schedule are individually binding. The reduction commitments on "incorporated products" (last item in the Article 9 list) are expressed in terms of budgetary outlays only. The ceilings specified in the schedules must be respected in each year of the implementation period although limited "over-shooting" in the second to fifth year of implementation is permitted ("downstream flexibility"). By the last year of the implementation period, Members must be within their final export subsidy ceilings.

##### **c Rates of cut**

Developed country Members are required to reduce, in equal annual steps over a period of 6 years, the base-period volume of subsidized exports by 21 per cent and the corresponding budgetary outlays for export subsidies by 36 per cent. In the case of developing country Members, the required cuts are 14 per cent over 10 years with respect to volumes, and 24 per cent over the same period with respect to budgetary outlays. Developing countries may, during the implementation period, make use of a special and differential treatment provision of the Agreement (Article 9.4) which allows them to grant marketing cost subsidies and internal transport subsidies, provided that these are not applied in a manner that would circumvent export subsidy reduction commitments. All in all, 25 Members (counting the EC as one) have export subsidy reduction commitments specified in their schedules, with a total of 428 individual reduction commitments.

#### **2.4.2 Products with no specific reduction commitment**

The Agreement on Agriculture prohibits the use of Article 9.1 export subsidies on any agricultural product which is not subject to a reduction commitment as specified in the relevant part of the Member's schedule (with the exception, during the implementation, period of those benefiting from special and differential treatment).

### 2.4.3 Anti-circumvention

In addition to the provisions directly related to the reduction commitments, the Agreement on Agriculture contains provisions which are designed to prevent the use of export subsidies that are not specifically listed in Article 9 of the Agreement in such a way as to circumvent reduction on other export subsidy commitments (Article 10). The anti-circumvention provisions include a definition of food aid in order that transactions claimed to be food aid, but not meeting the criteria in the Agreement, cannot be used to undermine commitments. Food aid that meets the specified criteria is not considered to be subsidized export hence is not limited by the Agreement on Agriculture. The Agreement also calls for the development of internationally agreed disciplines on export credits and similar measures in recognition that such measures could also be used to circumvent commitments. Any Member which claims that any quantity exported in excess of a reduction commitment level is not subsidized must establish that no export subsidy, whether listed in Article 9 or not, has been granted in respect of the quantity of exports in question.

### 2.4.4 Notification obligations

All Members must notify the Committee on Agriculture annually with respect to export subsidies. For the vast majority of Members — those without reduction commitments — this involves only a statement to the effect that export subsidies on agricultural products have not been used (or a listing of those measures that may be used by developing country Members under Article 9.4 of the Agreement if this has been the case). For Members with reduction commitments in their schedules, the annual notification must contain the annual use of subsidies in terms of both volume and budgetary outlays. In addition, as part of the anti-circumvention provisions, Members must notify the use of food aid on an annual basis if such aid is granted. Likewise, total exports of agricultural products must be notified by Members with reduction commitments as well as by a number of other "significant exporters" as defined by the Committee. As in other areas, the export subsidy notifications form part of the basis for reviewing the progress in the implementation of the commitments by the Committee on Agriculture.

## 2.5 On Agricultural Production Pattern and Distortion

President Bush once tried to say, "Fool me once, shame on you. Fool me twice, shame on me." Paul Wolfowitz, as in his new job as president of the World Bank, some experts prefer to think that he is actually baffling the entire intellectual community by pitching the line that a new WTO agreement is the best way to help the world's poor<sup>7</sup> - when he maintains that protectionist barriers and subsidies in rich countries, especially in agriculture, are hugely harmful to the world's poor. It is to be noted that Mr. Paul Wolfowitz claims that if these barriers were removed, it would provide enormous benefits to the world's poor<sup>8</sup>.

The standard economic models don't provide a basis for great hopes about a new WTO agreement. One recent analysis showed that the worldwide gains would be \$54 billion a year. This might sound impressive, until one starts to realize that it is equal to approximately 0.1 percent of world income. According to this model, approximately 1.9 percent of the gains would go to the world's poor, or close to \$2 billion a year. With 1 billion poor people, this translates into an average gain of \$2 a year. Even this might be too optimistic. Some of the world's poor might end up as losers from a WTO agreement.

<sup>7</sup> Ideas drawn from Global Policy Forum online resource titled, "The WTO and the World's Poor" by Dean Baker on "truthout" on July 12, 2006

<sup>8</sup> World trade talks collapsed in Geneva (in July 2004) over America's and Europe's refusal to cut the billions of dollars they provide in support to their agricultural sector. As developing countries contemplate the ruin this spells for their farmers, John Madeley looks into the reasons behind the North's tragic intransigence. They employ less than two per cent of the workforce in their industrialised countries and their contribution to the national economies is rapidly declining. Yet, they receive a level of government support which verges on the bizarre and is causing no end of annoyance to the governments and people of the poorest countries of the world. Indeed, some say, it is a protection racket that was chiefly responsible for the recent collapse of the world trade talks. Welcome to the world of Northern 'farming', a phrase used loosely to describe the whole of the agricultural sector - from small farmers to the largest agricultural multinationals - in the world's richest countries. Government support to farmers in the so-called 'rich countries club' - the 30 who belong to the Paris-based Organisation for Economic Co-operation and Development (OECD) - totalled an astounding Eur 225 billion (US\$283 billion) in 2005, some 29 per cent of farm income. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

Cutting back subsidies to rich country farmers could be good news to the farmers who compete with them in the developing world, but it is surely bad news to consumers of these crops. They will have to pay more for their food. Some developing countries are net importers of agricultural products. They will end up as losers because they will be paying higher prices for their imports, with little or no gain on their exports<sup>9</sup>.

The standard models also assume that the work force will remain fully employed. In the real world, workers who lose their jobs in the agricultural sector in developing countries may not be able to simply find new employment elsewhere<sup>10</sup>. The mass displacement in Mexico's agricultural sector that followed in the wake of NAFTA has been one of the factors driving immigration into the United States<sup>11</sup>.

The standard models also employ a bit of economic chicanery<sup>12</sup>. They assume that the tariff revenue that developing countries lose when they cut their tariffs is made up from a "lump sum" tax. Lump sum taxes can be a useful modeling tool, but they don't actually exist in the world. A lump sum tax means that the government effectively sucks money out of the economy to pay its bills.

Using lump sum taxes in trade models is dishonest, because lump sum taxes do not lead to economic distortions. Real world taxes, like income taxes, sales taxes, or value-added

<sup>9</sup> An OECD study on the agricultural policies of member-states shows that the most heavily protected farmers in 2005 were in Switzerland, where 68 per cent of farmers' income came in government support, Norway (64 per cent), Korea (63 per cent), Japan (56 per cent) and European Union (EU) countries (32 per cent). Most of the support – more than half – was in the form of measures to boost the prices of farm products. These include import tariffs, export subsidies and domestic output subsidies, which "badly distort production, markets and trade", says the study. And it's not the small Northern farmer who is the main beneficiary – the support goes mostly to those who have the largest farms. In the European Union, 80 per cent of the money goes to 20 per cent of enterprises, often large agri-businesses. The day the Doha talks broke down the US agriculture secretary admitted 60 per cent of US farmers receive "virtually nothing" from the US Farm Bill. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>10</sup> Why do governments of Northern countries protect agriculture so heavily? And why are they so reluctant to change? Why does the sector, which accounts for a tiny percentage of their national earnings, have such hold over governments? "Agricultural policy reform is difficult to achieve, perhaps in part because those who fear they would lose are able to block or water down reform initiatives," says the OECD study. In Britain groups such as the Countryside Alliance and the National Farmers Union – which consists mostly of large-scale farmers – have often had considerable influence in government circles. Farmers score well with the public and this in turn influences policy. Popular radio programmes portray British farmers as guardians of the environment. "The strong European farming lobby has successfully tapped into an emotional strain among the public," says Christopher Stevens of the Overseas Development Institute, a London-based thinktank. Many people in Europe therefore go along with the view that a high level of government support for farming is necessary. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>11</sup> In Europe much of the money is channelled through the EU's Common Agricultural Policy (CAP). The single biggest gainer is the British dairy trading company, Fayrefield Foods, which received support totalling more than £22 million (\$40.7m) over 2004 and 2005, according to data obtained by the campaign group farmsubsidy.org. The £10 million claimed by Fayrefield Foods in 2004 was worth almost 10 per cent of its turnover – and dwarfed its profits, which were less than £1 million. The export arm of Dairy Crest, another well-known British brand, received a similar amount from CAP. Nestle, the Swiss food giant whose practices over marketing baby milk substitutes in the developing world have long been controversial, received more than £7 million. Some farm supports even find their way to those who are not the intended beneficiaries – such as large banks that service the agricultural sector. And some of the support to farmers and agribusiness in the North encourages overproduction and dumping – selling below the cost of production – on the world market. This can ruin the livelihoods of countless small-scale farmers in developing countries. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

<sup>12</sup> The gainers naturally oppose any changes to the hand that feeds them. When EU governments announced reforms in CAP in June 2003, large-scale farmers strongly opposed a proposal for a ceiling on payments. The reforms de-linked a certain percentage of farm subsidies from production. So EU farmers receive direct payments – de-linked from how much they produce, or whether they produce at all. The reforms were about the way farmers are paid, not lowering levels of overall support. They are most unlikely to stop over-production and dumping, say international aid and development agencies who have examined the reform proposals. And three years on, some EU governments at least seem to recognise that the reforms they hailed as sweeping are nothing of the kind. The UK government has spoken of the need "to urgently tackle the scandal and waste of the CAP". Yet real reduction in levels of EU support has failed to materialise. EU ministers did agree in December 2005 to start a review of CAP in 2008, five years earlier than previously agreed, but France made it clear that it did favour any change before 2013. Farmers in countries with large rural areas such as France and Ireland are especially vocal in their defence of CAP, and have forced their governments not to yield to calls for reforms. Yet even in France, agriculture employs only 4 per cent of the workforce and contributes just 3 per cent to national income. Some say culture, history and tradition are powerful obstacles to change: "fundamental to our identity" is how the French trade minister Christine Lagarde describes farming. (From Global Policy Forum online resource "The Enduring Racket: Why the Rich Won't Budge on 'Farm' Subsidies" by John Madeley; Panos London; July 28, 2006)

taxes all lead to economic distortions - meaning that they reduce income. In other words, if the models assumed that the lost tariff revenue from a WTO agreement was made up through any real world tax, the projected gains would be even less than 0.1 percent of income<sup>13</sup>. In short, there is little reason to believe that the world's poor stand much to gain from a new WTO agreement<sup>14</sup>.

It wouldn't be difficult to design policies to aid the world's poor, if anyone cared. For starters, we could exempt them from US-type patent and copyright protections. This would mean that poor countries could always import generic versions of any drug, saving themselves both money and/or the time needed to arrange lower cost shipments from the drug industry. This could potentially save millions of lives as well. Exempting poor countries from patent and copyright rules would save developing countries money on everything from computers and software to books and recorded music and videos. The gains from this policy would vastly exceed even the most optimistic projections of gains from a new WTO agreement.

Of course, Paul Wolfowitz has told us that approving a new WTO agreement is essential for the world's poor. The problem is that there just is no evidence to support this claim. While it may be no easier to know his true motive for promoting a WTO agreement than it is to know Wolfowitz's true motive for promoting the invasion of Iraq, we should not get fooled again<sup>15</sup>.

## 2.6 A Primer on Doha Development Round

The Ministerial Conference is the apex body of the WTO. The biennial Ministerial Conferences are the most important events of WTO regime and the world of multilateral trade. The first two WTO Ministerial Conferences in Singapore (1996)<sup>16</sup> and Geneva (1998) did not have large agendas and little to decide because they were held in the aftermath of the Uruguay Round (1986-94), the most comprehensive round of MTNs under the aegis of the General Agreement of Tariffs and Trade (GATT). Therefore, they succeeded. However, the 3rd one held in Seattle (1999) imploded ignominiously and that in Cancún (2003) collapsed among acrimonious disagreements and confusion (Das, 2003). The inconclusive end of the Cancún Ministerial essentially eliminated the prospects of Doha Round ending by January 1, 2005, the scheduled completion date. As opposed to them, the 4th Ministerial Conference held in Doha, Qatar (2001), succeeded with a mandate for a new

<sup>13</sup> Michael Hart of the Britain-based Small and Family Farms Alliance points out that while agriculture in Britain contributes only about 1 per cent to national income, farms cover almost 80 per cent of Britain's land. "The tourist industry rides on the back of the agricultural landscape," says Hart. "If land is not farmed it will return to wilderness." But the OECD study argues that high levels of support are not necessary to ensure the quality of the environment and prosperity in rural areas. CAP, and other Northern government support programmes like the US Farm Act, have thwarted progress in WTO talks on ending subsidies. The failure of the US and EU to make significant concessions on farm supports was largely responsible for the suspension of the WTO's Doha round in July. Along with continued international pressure, it will take a radical shift in domestic public opinion in the North to get them to change their position.

<sup>14</sup> On the other hand, for example, India's position on farm subsidies is a consequence of the current crisis in the country's agriculture sector. More than half of India's one billion-plus population depends on agriculture though the sector's share in the national GDP has declined to 20 percent from 40 percent over the last decade. In recent years, India's agricultural production has been increasing by less than two percent a year whereas the economy as a whole has been growing by eight percent. India's federal agriculture minister Sharad Pawar confirmed in May that between 1993 and 2003, at least 100,000 farmers had killed themselves because of their inability to repay loans. The Indian media continues to regularly report on suicides in the Vidarbha region in the western part of the country, where 655 farmers have killed themselves mostly by consuming pesticides, in the last two months alone. Prime Minister Manmohan Singh recently visited the region to commiserate with farmers. Pawar has gone on record stating that as many as 16,000 farmers continue to commit suicide each year in 32 vulnerable districts in western and southern India in the provinces of Maharashtra, Andhra Pradesh, Karnataka and Kerala. "The Indian government's decision to refuse to negotiate further on the issue of farm subsidies was a correct one," said Dhar. "What was on offer in the negotiations was way below our minimum expectations. No deal is better than a bad deal," he said, adding that the total quantum of farm subsidies given by the developed OECD (Organization of Economic Cooperation and Development) countries works out to 340 billion US dollars a year or almost a billion dollars a day. Retrieved from Global Policy Forum online resource "Rare Unity Against West's Farm Subsidies" by Paranjay Guha Thakurta (Inter Press Service; July 27, 2006)

<sup>15</sup> However, the U.S. has come in for severe criticism in India and elsewhere for its intransigence on the issue of reducing subsidies to its farmers. ActionAid's international director John Samuel was quoted on Wednesday in an IPS report saying: "The interests of 90 percent of poor farmers were being threatened for the sake of 2 per cent of the rich farmers." He said that the deadlock marked only a "semicolon in the process of multilateral world trade talks, not a full stop".

<sup>16</sup> The most important contribution of the Singapore Ministerial Conference was the addition of four "new" issues to the agenda of the World Trade organization (WTO), which were subsequently christened the Singapore issues. They were (1) investment, (2) competition, (3) transparency in government procurement, and (4) trade facilitation.

round of MTNs from the WTO members. This Ministerial Conference had to succeed due to several reasons. One of them was the September 11 terrorist attack in New York. At this point in time, the global community sorely needed a tangible symbol of success of cooperation and solidarity. Besides, a failure in Doha—on the heels of the debacle in Seattle—would have been a serious setback to the multilateral trade regime and put it under a question mark. It could have resulted in long-lasting, if not permanent damage, to the multilateral trading system. Many developing economies were less enthusiastic about a fresh round of MTNs essentially because they were having difficulties in implementing the recommendations of the Uruguay Round. Development objective was made an intrinsic part of it for the first time. The skepticism of the developing economies was allayed by promises in the area of development. The round was assigned a pro-development mandate, with integration of the developing economies into the multilateral trading system as one of its objectives. The WTO secretariat labeled it the "Doha Development Agenda" or the DDA, the official title of the round. At the time of its launch, it was billed as more than another round of MTNs. A total of 149 WTO members participated in the sixth Ministerial Conference held in Hong Kong SAR in mid-December 2005. If success is defined as lack of failure, it was a success. Candidly speaking, if it was not a failure, it did not achieve much of substance and was not a success either. Mattoo (2006) described the Doha Round as "a stagnant whole"; it is hard to take issue with this assessment. Disappointing as it was, the fact that it did not collapse was its valuable accomplishment. While it did not energize the Doha Round negotiations in any notable manner, it did not leave the MTNs eviscerated.

The Framework Agreement, or the so-called July Package, or the July Framework Agreement of 2004 (WTO, 2004) was the most important event preceding the Hong Kong Ministerial, which provided a firm step forward in the form of a framework for negotiations<sup>17</sup>. Retaining an element of continuity since the launch of the Doha Round, it reiterated the importance of development as a corner stone of the on-going MTNs as well as stressed the pressing need for reform in agricultural trade. Notwithstanding the July Framework Agreement, the MTNs were indubitably stagnating. In view of the disparity of positions among the large trading economies and country groups, major participants had forewarned months before the Conference to keep expectations from the Hong Kong Ministerial low, rendering them easy to meet. Therefore, the Ministerial Conference commenced on a less sanguine note and kept its objectives so low that they can be achieved without difficulty. The targeted low-level equilibrium was indeed achieved at Hong Kong where few bold decisions were taken. Many long-awaiting decisions were put off for the future. Success in Hong Kong was possible and could have been achieved by thoughtful, pragmatic and clairvoyant negotiations on the one hand and political will of the member governments on the other.

Although there were a host of important areas under negotiations, trade in agriculture was, and continues to be, the primary. It was also the most contentious issue, which had succeeded in casting a pall of stagnation over the Doha Round of MTNs. The most important secondary issues included industrial tariffs, services and development. The area known as the rules was the other important, if controversial, issue under negotiations. Very little of value was achieved in these areas in Hong Kong. The harvest of decisions taken was meager because most of the politically difficult decisions were shelved for 2006. That negotiations on agricultural are as important as they are politically sensitive was evident in the Cancún Ministerial Conference also, where the developing economies, led by the Group-of-Twenty (G-20), had made it clear that further progress in the MTNs was not possible without industrial economies agreeing to lower their agricultural subsidies, particularly on cotton. The acrimonious disarray in Cancún was followed by an intense period of negotiations, which culminated in July 2004, providing an outline regarding how the Doha agreement can be restructured. This resulted in the above-noted July Framework Agreement<sup>18</sup>.

<sup>17</sup> Ideas and figures drawn from Hong Kong Ministerial of the Doha Round of Multilateral Trade Negotiations: Achieving A Low-Level Equilibrium by Dilip K. Das. It is important to note that Dr. Dilip K. Das was educated at the Graduate Institute of International Studies, University of Geneva, Switzerland. A professor of International trade and international finance and banking, he was associated with Webster College Geneva; ESSEC, Paris; INSEAD, Fontainebleau, France; The Australian National University, Canberra; Graduate School of Business, University of Sydney, Sydney. He has published extensively on International trade, International finance, International business and globalization related issues. His most recent books include Regionalism in Global Trade, Edward Elgar, Boston, USA, 2004 and The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses. Palgrave Macmillan Ltd. Houndmills, Hampshire, UK. 2005. He presently works as a Toronto-based consultant to multilateral organizations.

<sup>18</sup> Developing countries led by Indonesia, India, and China issued a strong message to the World Economic Forum under way here that they will not allow attempts to dilute the agricultural negotiations in the Doha Round of trade talks by certain industrialised countries, especially the United States.

In negotiations on trade in agriculture, there are three principal areas of negotiations, namely, export subsidies, domestic support and market access. In the so-called Framework Agreement of July 2004, members had agreed to eliminate export subsidies on farm exports, albeit no deadline was agreed (Das, 2005)<sup>19</sup>. The core achievement in Hong Kong was agreement on a date, end of 2013, for the elimination of export subsidies. The EU, which accounted for 90 percent of these subsidies, accepted this date. The US, the developing economies—both the G-20 and the Group-of-Ninety (G-90)—and the Cairns Group had unsuccessfully tried to move this date back to 2010, but the EU took an intransigent stand<sup>20</sup>. The MTNs had languished since 2001 because of impasse over the politically sensitive agricultural issues. They had impeded negotiations in the other areas of MTNs as well. Therefore, in the interest of progress in the MTNs, the 2013 had to be reluctantly accepted. What was more disappointing was that negotiations on market access, or tariffs on agricultural products, and trade-distorting domestic support payment completely failed to make progress. These were more difficult areas of negotiations in agriculture than export subsidies. Any decision on them was deferred for 2006.

The US pledged to end export subsidies to its cotton farmers. Cotton exports are of special interest to farmers in Benin, Burkina Faso, Mali, Chad and Senegal, referred to as the Cotton-4. All of them were low-income least-developed countries (LDCs) and had stringently protested against the US subsidies for years. Ironically, the US was obliged to repeal them because it was challenged by Brazil on this issue in the WTO. In early 2005, the dispute settlement panel had given an adverse ruling. The US Congress was expected to repeal the subsidy within days of this promise. Once the final agreement is reached and implementation of the Doha Round recommendations begins, these countries would be provided duty-free, quota-free access of their cotton exports.

Regarding the non-agricultural market access (NAMA), the Hong Kong declaration made small progress, albeit left specifics of the modality decision to be taken between April and July 2006, which for all appearances seemed an unrealistic target<sup>21</sup>. The Hong Kong declaration locked in the progress of the Framework Agreement of July 2004 and members agreed to reduce or eliminate tariff peaks, high tariffs and tariff escalation. The so-called Swiss formula for slashing industrial tariff was adopted which, for a given set of parameters, cuts higher tariff rates proportionately more than the lower tariff rates. As no coefficients were mentioned in the declaration, the agreement was made mild. Mention of a higher coefficient for the industrial economies and lower one for the developing economies in the agreement would have made the NAMA related declaration more consequential.

Of the 50 LDCs, 32 are members of the WTO. According to the Hong Kong declaration, these members would be provided duty-free and quota-free market access for most—at least 97 percent of tariff lines—of their export products by 2008, or no later than the start of the implementation period. There is a probability of excluding sugar and textiles from this concession to the TDCs. A small undertaking on “aid for trade” is also a part of the Hong Kong proposal. This is an offer to assist small developing economies lack the infrastructure for trade. They also lose out due to competition. The industrial economies offered them deals in the area of capacity building and debt relief. Pledges for aid for trade were made by the EU, Japan and the US. One analyst regarded them as a mere bauble, a trivial give away (Halle, 2006)<sup>22</sup>. In the services trade the Hong Kong declaration set the deadline for negotiations, requiring member countries to make offers to open their markets in financial services, telecommunications, computer and related services, distribution, and energy services by July 2006 and final offers by October 2006. The agreement in Hong Kong established little in this important area of negotiations. Stalemate in services negotiations continued.

The opportunity that the Doha Round offers to the global economy, particularly the trading economies, is that of multilateral, non-preferential, legally-binding partial liberalization. A reasonably successful Hong Kong Ministerial would have resulted in

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<sup>19</sup> Das, Dillip K. 2005. *The Doha Round of Multilateral Trade Negotiations: Arduous Issues and Strategic Responses*. Houndmills, Hampshire, UK. Palgrave Macmillan Ltd.

<sup>20</sup> The Group-of-Ninety (G-90) is a large group of diverse developing economies and includes the emerging-market economies (EMEs), the newly-industrialized economies (NIEs) on the one hand and the low-income developing economies like the least-developed countries (LDCs) and the African, Caribbean and Pacific (ACP) countries on the other.

<sup>21</sup> The term modality implies schedules, formulas and other criteria for implementing tariff and subsidy reduction rates as well as the time table.

<sup>22</sup> Halle, M. 2006. “Is Let’s Make a Deal Now Dead at the WTO?” IISD Commentary. Geneva. International Institute of Sustainable Development. January 6.

welfare gains for the global economy, and its different regions and sub-regions. Estimates of gains from partial reforms promised under the Doha Round *inter alia* were made by Anderson et al (2006) and Anderson and Martin (2006)<sup>23</sup>. The principal conclusions of these empirical studies, that utilized a newly released database on protection and the latest version of the World Banks Linkage model, are as follows<sup>24</sup>:

- If one were to take under consideration merely the static benefits, potential gains from liberalization of trade under the Doha Round are large. In addition, there will be dynamic gains stemming from increased scale economies and competition, which is value-creating.
- While the developing economies' share of the global GDP is 20 percent, their gains from the Doha Round liberalization will be 30 percent of the total. This would lead to 0.8 percent rise in welfare in the developing economies, compared to 0.6 percent rise in the welfare in the industrial economies.
- Complete liberalization of merchandise trade would result in 45 percent of the global welfare gains going to developing economies. Their welfare could increase as much as 1.2 percent compared to an increase of 0.6 percent rise for the industrial economies.
- The proportion of welfare gains going to the developing economies is higher because their tariff barriers are relatively higher. Reforms would lead to higher efficiency gains in the developing economies. Also, their agricultural and textile exports face much higher tariffs in the industrial economies' markets than do exports from the industrial economies.
- Reforms and liberalization by the developing economies in their own economies will be as meaningful in terms of economic benefits as those in the industrial economies. By delaying reforms in their own economies, the developing economies will fail to realize the full potential gains from the Doha Round.
- Trade in agricultural products is the newest frontier of trade liberalization. This sector still suffers the stigma of the highest bound tariffs and largest subsidies, and needs large cuts in both.
- Trade liberalization in agriculture is of crucial importance, although importance of agriculture in the global GDP has been on a decline. Trade liberalization measures in agriculture will have far reaching implications for developing economies as well as the global economy. Approximately two-thirds of the total gains from the Doha Round are likely to come from agricultural liberalization, compared to almost a quarter from textiles and apparel and a tenth from other merchandise trade liberalization<sup>25</sup>.

<sup>23</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2006. "Market and Welfare Implications of the Doha Round Scenario" In K. Anderson and W. Martin (eds.) *Agricultural Trade Reform and the Doha Development Agenda*, London and Washington Palgrave Macmillan Ltd and the World Bank. pp. 333-399. Anderson, K. and W. J. Martin. 2006. "Agriculture, Trade reform and the Doha Agenda" In Anderson, K. and W. J. Martin (eds) *Agricultural Trade Reform and the Doha Agenda*. London and Washington. Palgrave Macmillan Ltd and the World Bank. pp. 3-35.

<sup>24</sup> Please refer to the WTO text on Hong Kong Ministerial No: WT/MIN(05)/W/3, issued on 7 December 2005 to see how these expectations were flouted in a virtually inactive/inconclusive set of declarations (to be) made at the aftermath of the HK meeting.

<sup>25</sup> Ideas and concepts heavily drawn from the article, "The Politics of Trade Liberalization in the Presence of FDI Incentives", by Andréa M. Mächler (Swiss National Bank; Last Revised: July 14, 2000). The paper examines whether inward FDI incentives can soften the political constraints associated with trade liberalization. After introducing the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996), the paper traces the effects of FDI incentives on the politically sustainable equilibrium level of trade protection. In particular, the paper shows that FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they inhibit the process of trade liberalization when labor is the main influential political force. Welfare implications are also considered.

One of the major contributions of this paper is to introduce the role of capital inflows into the political economy of trade framework pioneered by Grossman and Helpman (1994, 1995 and 1996). While their maximization technique is borrowed for use in the paper, the author has modified it to analyze the interactions between the equilibrium levels of FDI incentives and of trade protection. In particular, how the presence of one policy instrument (FDI incentives) influences the equilibrium level of another policy (trade protection) is highlighted. According to the model presented in the paper, FDI incentives reduce the politically sustainable level of trade protection when capital-owners are politically organized, while they exacerbate the process of trade liberalization when labor is the main influential political force. This dichotomy, which arises from the conflicting interests pursued by the lobby groups, highlights how important it is for the government to understand the economic and political motivations of the lobby groups if it wants to promote an environment conducive to free trade. In particular, the results of the paper suggest that the domestic capital owners favor an FDI tax, while the labor union always lobbies for a higher level of trade protection. In equilibrium, when the two interest groups lobby over both policies, the government is in a better position to implement trade liberalization. If, however, one of the interest groups (say, the labor union) is particularly prominent on the political stage, it may be harder for the government to override its lobbying exports and hence, to liberalize trade.

Finally, the model suggests that the highest levels of policy intervention occur when special interest groups participate in the lobbying process, when these groups represent a relatively small fraction of

Broadly speaking, there are substantive gains from liberalization of merchandise trade in the Doha Round of MTNs, particularly that in agricultural trade. The on-going MTNs are likely to culminate in partial trade reforms of the multilateral trade regime. The old assessment of global gains from partial trade reforms was \$400 billion in 2015, which was computed with the help of the World Bank's LINKAGE model (WB, 2004). Revised estimates of global gains have been scaled down to \$290 billion in 2015 (van der Mensbrugghe, 2004)<sup>26</sup>. There were three reasons for this difference in the two estimates. First, a new Global Trade Analysis Project (GTAP) dataset was used to compute the second estimates, which had a different base year from the earlier computations. The bench mark of the earlier estimates was 1997, while that for the more recent ones was 2001. The new data set also incorporated the trade policy reforms undertaken between 1997 and 2001. It also reflected the non-reciprocal tariff preferences, which the previous data set did not incorporate. Second, the new data set successfully reflected the transformations that came about in the global economy, particularly the changing value of the dollar vis-à-vis other major currencies after 1997 and rising importance of several Asian economies as traders of global significance. Third, the new bench mark also included major global economies developments like China's WTO accession and liberalization commitments, implementation of the Uruguay Round commitments, of which dismantling of the multi-fiber agreement (MFA) was an important part, and the expansion of EU from 15 to 25 members that took place in May 2004. Together these developments have had an appreciable impact over the multilateral trade regime and the global economy. The value of welfare gains stemming from them was estimated to be \$70 billion to the global economy in 2015. As they were incorporated into the new baseline, they cannot be expected to make a renewed contribution to the estimates of welfare gains from the on-going round of MTNs.

Using a global model, Anderson et al (2005)<sup>27</sup> estimated potential consequences from a successful Doha Round agreement. According to their estimates, it could annually generate income gains for the global economy between \$95 billion and \$126 billion. While making these estimates, it was assumed that no exemptions were being made for sensitive and special agricultural products. Agriculture trade liberalization was found to have the largest impact. Reforms in this one sector will be responsible for 60 percent of the total gains from merchandise trade liberalizations. On the whole, larger income gains were estimated to go to the industrial economies because they were assumed to undertake more aggressive trade reforms in the Doha Round. As the developing economies suffer from a large binding overhang, and negotiations are based on bound tariffs, not applied tariffs, the reforms undertaken by them will only have a minor impact in terms of genuine liberalization of the trade regime<sup>28</sup>. Given this scenario, the industrial economies would achieve between 40 percent and 45 percent of what they could under full merchandise trade reforms. Similarly, the developing economies will achieve approximately 20 percent of what could be achieved under full merchandise trade reforms. Adding these gains, total global welfare gains that are likely to be achieved come to one-third of those from freeing global merchandise trade totally.

Developing economies have more to gain from full elimination of merchandise trade barriers. As trade reforms engender positive externalities in the form of improved productivity in the economy, the gains to developing economies could increase up to \$200 billion in 2015 (Anderson et al, 2005)<sup>29</sup>. The state of MTNs at the time of the Hong Kong Ministerial Conference clearly indicated that liberalization measures adopted in agriculture and manufactures can be realistically expected to be modest, albeit improvements in the market access in agricultural market in the industrial economies is well within the realm of possibility. Empirical evidence is available to show that trade liberalization contributes

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the population and when the government places a relatively large weight on political contributions. This suggests that if a country's political framework does not restrain the government from pursuing mostly political rather than economic objectives, it would be socially optimal to substitute the government's discretionary powers over trade policy with a commitment to free trade. The paper is a must read for understanding some of the basic tenets of the entire research project that we have undertaken.

<sup>26</sup> van der Mensbrugghe, D. 2004. "Linkage Technical Reference Document: Version 6.0". Washington DC. The World Bank. Available on the Internet at <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1100792545130/LinkageTechNote.pdf>.

<sup>27</sup> Anderson, K., W. J. Martin and D. van der Mensbrugghe. 2005. "Global Impact of the Doha Scenario on Poverty". Washington DC. The World Bank. (mimeo).

<sup>28</sup> The term binding overhang needs to be explained. A country may decide to apply tariff rate of 20 percent on the import of a good, but it may keep the bound tariff at 50 percent. The WTO rules allow this country to raise its tariff rate to 50 percent if it so decides. The difference between the bound tariffs and applied tariffs is known as the "binding overhang".

<sup>29</sup> Ibid



to poverty alleviation<sup>30</sup>. Also, estimates of impact of trade liberalization under the DDA on poverty came to a positive result. This was essentially due to the fact that the existing pattern of global protection favors skilled labor and capital relative to unskilled workers. Therefore, reduction or elimination of barriers in merchandise trade would lift the unskilled wages, the primary source of income for many of the world's poor. In real terms this wage increase was found to be modest. Hertel and Winters (2006)<sup>31</sup> show that the poorest in the developing economies can potentially benefit most from the liberalization endeavors during the Doha Round of MTNs. However, that was found to be conditional. For the poor to benefit, the liberalization targets "under the DDA have to be ambitious if the round is to have a measurable impact". Only deep tariff cuts would have poverty friendly impact. Even then the "near-term poverty impacts are likely to be mixed" (Hertel and Winters, 2005)<sup>32</sup>. If the developing economies decide not to take reform measures, the estimated poverty impact would decline markedly. Notwithstanding this pessimism, the long-term impact of the DDA on poverty reduction is more definite and pronounced.

However, a quagmire around agriculture has evolved. Although a declining sector of the global economy, it still employs a large proportion—54 percent—of work force in the developing economies<sup>33</sup>. Not freeing trade in agriculture from barriers works basically against the interest of the developing economies<sup>34</sup>. Also, it cannot be ignored that majority of the poor in the developing economies live in the rural areas. It is widely acknowledged that poverty is essentially a rural phenomenon in the developing economies. Therefore, if the final outcome of the MTNs has to be pro-poor, trade in agriculture will need to be an area of exclusive attention. Liberalization of agricultural trade would gradually change market shares of countries and country groups and eventually reflect the comparative advantage of countries and country-groups in multilateral trade<sup>35</sup>.

The articles of agreements of the GATT-1947 had some regulations for trade in agriculture, but they made several exceptions and had loopholes, which were freely exploited by the Contracting Parties (CPs). Consequently, agriculture became one of the most distorted areas of multilateral trade. Industrial economies increasingly subsidized their farm sector and trade—which was permissible—and erected trade barriers. So much so that trade in agriculture was virtually outside the ambit of the GATT system until the Uruguay Round (1986-94). It was not easy to bring it under the multilateral trade regime like merchandise trade. After enormous and long drawn-out efforts, the Uruguay Round Agreement on Agriculture (URAA) was instrumental in drawing agricultural trade within the sphere of the multilateral trade regime. These efforts not only contributed to slowing down of the negotiations in the Uruguay Round but also prolonged it. The URAA imposed new disciplines on trade in agricultural products. The new rules were implemented between 1995 and 2000. Under the URAA industrial economies committed to (i) reducing

<sup>30</sup> See, for instance Dollar and Kraay (2004), Winters (2004) and Winters, McCulloch and McKay (2004).

<sup>31</sup> Hertel, T.W. and L.A. Winters, 2006. Poverty and the WTO: Impacts of the Doha Development Agenda. London and Washington Palgrave Macmillan Ltd and the World Bank.

<sup>32</sup> Hertel, T.W. and L.A. Winters, 2005. "Poverty Impacts of a WTO Agreement: Synthesis and Overview in Hertel and Winters (eds.) Putting Development Back into the Doha Agenda: Poverty Impact of a WTO Agreement. Washington DC, The World Bank, pp. 3-28.

<sup>33</sup> HK Ministerial text denotes "On domestic support, we note in particular that there is a working hypothesis of three bands for developed countries for reductions in Final Bound Total AMS and in the overall cut in trade-distorting domestic support with higher linear cuts in higher bands. In addition, developed countries in the lower bands with high relative levels of Final Bound Total AMS will make an additional effort in AMS reduction. We also note that there has been some convergence concerning the reductions in Final Bound Total AMS, the overall cut in trade-distorting domestic support and in both product-specific and non product-specific de minimis limits". (Paragraph 5 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>34</sup> "We recall our agreement to ensure the parallel elimination of all forms of export subsidies, and disciplines on all export measures with equivalent effect by a credible end date. We note emerging convergence on some elements of disciplines with respect to export credits, export credit guarantees or insurance programmes with repayment periods of 180 days and below, as well as on some aspects of exporting state trading enterprises, and on some elements regarding the disciplines on food aid necessary to eliminate commercial displacement." (Paragraph 6 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

<sup>35</sup> "On market access, we note in particular the progress made on ad valorem equivalents and that there is a working hypothesis for four bands for structuring tariff cuts. We also note that there have been some recent movements on the designation and treatment of Special Products and elements of the Special Safeguard Mechanism (SSM)". (Paragraph 7 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"On special and differential treatment, we note in particular the consensus that exists in the Framework on several issues in all three pillars of domestic support, export competition and market access and that some progress has been made on other special and differential treatment issues." (Paragraph 8 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

"However, we recognize that much remains to be done in order to establish modalities and to conclude the negotiations. Therefore, we agree to intensify work on all outstanding issues. In particular, we are resolved to establish modalities no later than [...] and to submit comprehensive draft Schedules based on these modalities no later than [...]" (Paragraph 9 WTO Draft Text WT/MIN(05)/W/3, issued on 7 December 2005)

domestic support to agriculture, (ii) reducing export subsidies and (iii) improving access to their markets. These were referred to as the "three pillars" of the agreement. As progressive liberalization of agricultural trade was a long-term process, the WTO members committed to continue negotiations on it under the so-called "built-in agenda". This was the mandate of the WTO Agreement of April 1994. Accordingly, the agricultural negotiations began in January 2000.

Since the URAA agricultural trade has continued to grow, but ironically more slowly than the pre-URAA period and more slowly than non-agricultural trade (OECD, 2005a)<sup>36</sup>. While trade in agriculture came within the domain of the multilateral regulations, the URAA failed to deliver significant multilateral liberalization in agricultural trade (Messerlin, 2002)<sup>37</sup>. Developing economies complained that on the whole the URAA did not work as intended and that they did not get a fair deal. Evidence supported their gripe that tariff cuts by the developing economies were significantly deeper than what was agreed to by the industrial economies (Finger and Winters, 2002)<sup>38</sup>. In addition, they had to commit to costly commitments that were embodied in the Sanitary and Phytosanitary (SPS) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements. Some of the requirements for the developing economies under the SPS agreements are more stringent than those for the industrial economies. Given this background of malcontent, higher market access commitments were sought by the developing economies in the Doha Round from the industrial economies.

As expected, the Doha Round began with high expectations of reforms in agricultural trade, but members did not agree on the first draft on modalities which was presented in February 2003. The Cairns Group found the draft unambitious, conversely the EU, Japan, Norway and Switzerland found it not only overly ambitious but also unbalanced in terms of the three pillars of negotiations. Among many disagreements and contretemps in the 5th Ministerial Conference, held in Cancún, were the sectoral initiative taken by the Cotton-4 opposing cotton subsidies in the industrial economies because they depressed cotton revenues in the West African countries by \$250 million per year (Section 3). The demand of the Cotton-4 countries was met in the Hong Kong Ministerial. Before the Cancún Ministerial, the EU and the US agreed on a broad framework for negotiating agricultural trade liberalization and presented a joint framework paper on agricultural negotiations, which was found to be weak by many members. It was followed by counter-proposal by the G-20. This framework paper was more ambitious than the EU-US framework paper, particularly in the areas of export subsidies and domestic farm support. There were significant differences in the two framework papers and deep disagreements regarding how to proceed. A veritable negotiations log-jam was created.

After intense negotiations, an elaborate "Framework for Establishing Modalities in Agriculture" was prepared and made into an Annex of the Framework Agreement July 2004. This Annex was the most significant part of the Framework Agreement and was structured around the three pillars. Members had decided upon a framework to eliminate all forms of export subsidies as well as render better discipline on export credit and exporting state trading enterprises. Regarding the trade distorting farm subsidies, it was agreed in the Framework Agreement that the new discipline will include deeper cuts in farm subsidies in countries which have the highest levels of subsidies. "Progressive tariff reductions" was also a part of the Framework Agreement. However, the timeframe of implementation was left without mention.

The industrial economies dominated the global trade in agriculture when the Doha Round was launched, as they did at the time of the Hong Kong Ministerial. While developing economies exporters have more market access opportunities in agriculture than in textiles and clothing, even at the time of the Hong Kong Ministerial their exports faced high tariffs in the industrial economies. While average tariff rates faced by agricultural exports from the developing economies are 15.6 percent in the industrial economies, they are 9.3 percent for textiles and apparel exports and 2.5 percent for the other manufacturers (Anderson and Martin, 2006)<sup>39</sup>. Producer support estimates (PSE) for the Organization for Economic Cooperation and Development (OECD) economies were almost the same in 2001-

<sup>36</sup> Organization for Economic Cooperation and Development (OECDa). "Tackling Trade in Agriculture". Policy Brief, November.

<sup>37</sup> Messerlin, P.A. 2002. "Agriculture In the Doha Agenda". Paper presented at the World Bank Roundtable on Policy Research in Preparation for the 5th Ministerial Conference in Cancún in Cairo, during May 20-21.

<sup>38</sup> Finger, J.M. and L.A. Winters. 2002. "Reciprocity in the WTO" in B. Hoekman, A. Mattoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC. The World Bank.

<sup>39</sup> OECD (2005b) buttresses this point using producer support statistics for the 1986-2004 period.

03 as in 1986-88, hovering around \$240 billion annually (Anderson and Martin, 2006)<sup>40</sup>. Agricultural tariffs are high in the developing economies as well, therefore, this sector a fortiori deserves special attention in the on-going Doha Round negotiations<sup>41</sup>.

Three months before the Hong Kong Ministerial Conference, the US had made a proposal for deep cuts in both, but the EU made a weak counter-proposal which would have resulted in little additional market access to what is currently available. Differences in positions were wide and agreement on trade in agriculture was not reached in the Hong Kong Ministerial, but some progress was made in the year and a half since the Cancún Ministerial, which led to narrowing of differences. However, negotiations were nowhere near deciding on modalities.

Therefore, a new schedule was agreed in Hong Kong for continuing negotiations in 2006 and resolve the unfinished agenda by the end of the year. Going by the past experience, this target appears unattainable<sup>44</sup>.

<sup>40</sup> Producer Support Estimate (PSE) is defined as the annual monetary value of gross transfer from consumers and tax payers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on the farm production or income.

<sup>41</sup> As of January 2007, Trade ministers of the G33 are demanding flexibility to moderate the impact of imports of some farm products such as rice, pulses (legumes), and sugar on its farmers, and will work with World Trade Organisation members to ensure development is part of the multilateral trade negotiations. World leaders - including British Prime Minister Tony Blair, Brazil's President Luiz Inácio Lula da Silva, South Africa's President Thabo Mbeki, among others stepped up their efforts at the World Economic Forum's 37th annual meeting for a speedy conclusion to the stalled "Doha Development Round", but differences cropped up over how to intensify the talks and who should make the first move to break the deadlock.

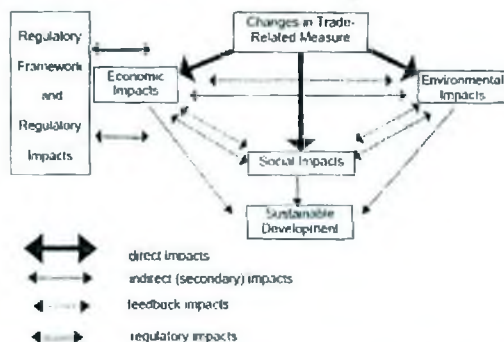
<sup>42</sup> In July, the WTO director general suspended the negotiations after trade ministers of the G6 (United States, European Union, Brazil, India, Australia, and Japan) failed to agree on the magnitude of reduction commitments for farm subsidies and tariffs. The leaders reportedly insisted that all members must strive for an early conclusion of the Doha trade negotiations (launched at the 4th WTO ministerial conference in the Qatari capital, in 2001), stating that a failure to arrive at an agreement bodes poorly for the global trade system. During a closed-door meeting of leaders convened by the WEF on Friday, in which the WTO chief Pascal Lamy chaired the discussion, the Indian trade minister said many developing countries would prefer a formal resumption of trade talks, arguing that they want a "credible" outcome from the Doha Development Agenda.

<sup>43</sup> At the core of the stalemate in the Doha farm trade package is whether the United States is ready to cut what some call its trade-distorting domestic subsidies to a level below 15 billion dollars, and accept clear discipline to ensure that there is no concentration of subsidy payments for certain products. In October 2005, the United States had proposed that it would reduce its agricultural subsidies to a level above 22 billion dollars, but almost all members rejected the U.S. proposal on the ground that it allowed no material change in its current subsidy payments. The United States, for example, spent little over 11 billion dollars last year on farm subsidies. Consequently, the EU, Brazil, India, Canada and others insisted that the U.S. demands to spend on its domestic subsidies well over its current actual subsidy payments leave farmers in other countries at disadvantage. In fact, the U.S. subsidies for cotton were found to have depressed global cotton prices, harming the interests of four West African cotton-producing countries: Benin, Chad, Burkina Faso, and Mali. The ongoing intensive consultations between Washington and Brussels to find what they are calling a "landing zone" for a palatable agreement in the Doha farm package is facing difficulties on account of differences on how big the reductions of farm subsidies should be. U.S. Trade Representative Susan Schwab has repeatedly said that Washington is committed to curbing its farm subsidies, provided there is real market access for U.S. farm products into industrialised countries, such as the EU, Japan, and Switzerland, and developing countries like India, China, and Indonesia. Washington had maintained that the flexibilities sought by the G33 members, through what are known as special products and special safeguard mechanisms, would constitute a loophole to deny market access for U.S. products. Arguing that trade liberalisation is all about opening markets as new trade flows provide an opportunity for all countries, the United States had demanded steep cuts in import tariffs for both farm and industrial products. Many developing countries have rejected the U.S. demands to pry open their farm markets on the grounds that they have specific livelihood and rural development concerns that cannot be sacrificed overnight.

<sup>44</sup> Ideas expressed and initiated in this section are heavily drawn from "The Implications of Trade and Investment Liberalization for Sustainable Development: Review of Literature; Final Report", Prepared by Colin Kirkpatrick, Clive George, and Serban S. Scriciu; Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester for the Department for Environment, Food and Rural Affairs; 19th May 2004. This study was undertaken at the request of the UK Department for Environment, Food and Rural Affairs, United Kingdom. Its purpose was to provide a comprehensive and critical review of the literature relating to the implications for sustainable development, in particular the environmental and social dimensions, of the greater liberalization of international trade and investment flows. The study has examined the likely effects of trade liberalization and greater investment flows on sustainable development, which is considered to have three aspects, namely economic, social and environmental. The study primarily focuses on the environmental and social dimensions of sustainable development, and examines whether these potential impacts of trade and investment liberalization are likely to be positive. In making this assessment, the study has taken into consideration both their direct (positive and negative) impacts and indirect consequences. In the course of the literature review, over 200 studies have been selected for inclusion in the report. Some of these studies have been of a theoretical nature but most have been empirical studies. Based on these studies, the assessment of the potential impact of trade and investment liberalization on sustainable development is organized around the following cross cutting effects:

• Scale effects: the impact of increased levels of trade, investment and economic activity on environmental and social outcomes.

- **Structural effects:** the implications for environmental and social outcomes of the structural adjustment within and between economies that occur as the pattern of resource use (production and consumption) shifts in response to trade or investment liberalization.
  - **Technology effects:** environmental or social outcomes arising from greater access to new technologies, which in general tend to produce less pollution and use fewer resources than their predecessors.
  - **Location effects:** the environmental and social implications of shifts in production and consumption between countries, and possibly shifts within countries.
  - The integration of environmental (and social) considerations (or lack of it) into global and regional trade and investment institutions and frameworks.
- Key Findings mention that:
- Much of the literature on the consequences of trade liberalization is focused on one dimension of sustainable development and seldom provides an integrated analysis of the economic, environmental and social effects of greater trade and investment flows.
  - The methodologies used in the empirical studies are very diverse. There are potential difficulties if the use of different methods, in the same situations, leads to apparently different findings. This highlights the importance of clarifying the methodology used in each study and its principal assumptions when interpreting its findings.
  - Much of the economic analysis of trade liberalization uses a combination of classical trade and welfare theory to deduce, under idealized market conditions, that trade liberalization will lead to increased economic welfare and 'optimal' environmental quality. However, in imperfect market conditions, 'win-win' outcomes are not guaranteed. In real world situations, both negative and positive effects should be expected. 'Win-win' outcomes may be potentially realizable, but whether this is achieved in practice may depend on the nature and extent of the flanking and other supporting measures that are taken.
  - The findings of the empirical studies, though they differ in detail, reach the same conclusions and are consistent with the findings reached in the theoretical studies. Although there are often potential, aggregate economic welfare gains to be made from trade liberalization and increased foreign investment inflows, these are not necessarily shared by all countries and all socio-economic groups within these countries. Further, a significant number of the cases reviewed contain examples where the environmental (and social impacts) are negative, where existing environmental and social protection measures are insufficiently effective. As in the case of the theoretical studies, flanking and other supporting measures assume a potentially pivotal role, if trade liberalization is expected to deliver an overall positive contribution to sustainable development.
  - The review of the literature provides support for the conclusion that most 'win-win' outcomes for sustainable development are conditional upon the application of appropriate flanking and other supporting measures. Formal appraisals of flanking measures for trade policies are not well developed. However, certain types of environmental policy instruments that may be used have been appraised in other policy contexts and these may be adapted for use in the trade policy area.
  - The responsibility and authority for adopting and implementing the different flanking and other supporting measures varies. Only some of these lie with the WTO. The remainder fall within the competence of other international organizations, including the multilateral environmental agreements, or more commonly, with national and local government authorities supported by their social partners. Effective co-operation between different government ministries and different international institutions is very important, and in the case of developing countries, financial and other forms of external support are needed to assist the poorer countries to participate fully in the trade and sustainable development process.



The theoretical and empirical evidence that has been reviewed in this study confirms that while trade and investment liberalization may be a necessary condition for continued growth and hence provide one of the cornerstone policies in promoting sustainable development, it is not a sufficient one. To ensure that trade and investment liberalization contributes to sustainable development in developed and developing countries, sound social and environmental policies are needed, both at the national and international level. This requires the development of appropriate regulatory frameworks. The robustness of environmental and social policies and institutions, including the adequacy of supporting regulatory instruments, are important determinants of the environmental and social impacts of trade and investment liberalization. The paper concludes that trade and investment liberalization impacts on the environment in many different ways. In many situations – possibly the majority – both the economy and the environment may benefit but only if certain preconditions are met. These preconditions are established by implementing a set of policies that will allow for 'win-win' outcomes to be realized. The aim of key policies such as those outlined above is to ensure that any negative repercussions that greater trade and investment liberalization might have on environmental performance are minimized as much as possible and that any eventual positive impacts are maximized. The objectives of such policies may conflict with the principles underlying trade and investment liberalization, as they are intended to promote environmentally sustainable development rather than simply economic efficiency and growth. How environmental policy-making relates to multilateral trade and investment policies is an ongoing and contested area for international discussion and negotiation within and outside the WTO (Jha V. (2002) 'Environment, Regulation and the WTO' in B. Hoekman, A. Maitoo and P. English (eds) Development, Trade and the WTO: A Handbook. Washington DC: World Bank; Sampson, G. P. and Chambers, W.B. (2002) Trade, Environment, and the Millennium, United

## 2.7 Other Issues of Relevance to Agriculture

The main reduction commitments are in market access, domestic support and export subsidies. But the Agriculture Agreement contains other provisions, including export restrictions, a "peace clause", dispute settlement and further negotiations.

### 2.7.1 Export restrictions

The Agreement on Agriculture requires Members which consider to institute new export restrictions on foodstuffs to give due consideration to the effects of such restrictions on importing Members' food security. Members, except developing country Members which are not net exporters of the product concerned, must notify the Committee on Agriculture before introducing new export restrictions on foodstuffs and consult with affected Members if so requested. This requirement — increased reliability of access to world market supply — is a corollary for the opening of markets which is required by the market access provisions of the Agreement and the related specific commitments undertaken by Members.

### 2.7.2 Peace clause

The Agreement in Agriculture contains a "due restraint" or "peace clause" which regulates the application of other WTO agreements to subsidies in respect of agricultural products (Article 13). The provisions provide that Green Box domestic support measures cannot be the subject of countervailing duty action or other subsidy action under the WTO Agreement on Subsidies and Countervailing Measures, nor can they be subject to actions based on non-violation nullification or impairment of tariff concessions under the GATT. Other domestic support measures which are in conformity with the provisions of the Agreement on Agriculture may be the subject of countervailing duty actions, but due restraint is to be exercised by Members in initiating such investigations. Further, in so far as the support provided to individual products does not exceed that decided in the 1992 marketing year, these measures are exempt from other subsidy action or nullification or impairment action. Export subsidies conforming to the Agreement on Agriculture are, to the extent relevant, covered by corresponding provisions.

The peace clause remains in effect for a period of nine years.

### 2.7.3 Resolving disputes

In the case of disputes involving provisions of the Agreement on Agriculture, the general WTO dispute settlement procedures apply. Nevertheless, the Agreement also provides for certain mechanisms that can be used by Members to address their concerns without recourse to these procedures. In particular, the review process of the Committee on Agriculture provides a forum for discussion and consultation. This process is mainly based on the notifications and on a provision (Article 18.6) allowing any Member to raise at any time any matter relevant to the implementation of the commitments under the reform programme as set out in the Agreement. There is also a counter-notification provision. Furthermore, the Working Procedures of the Committee allow Members to request the Chairperson to mediate in concerns that may arise between them. The use of instruments under the auspices of the Committee on Agriculture does not, however, prevent any Member from seeking formal dispute settlement at any time.

### 2.7.4 Continuation clause

The commitments taken under the Agreement on Agriculture and within the Members' schedules are part of an ongoing process. Already at the conclusion of the Uruguay Round, Members agreed to hold further negotiations on agriculture commencing one year before the end of the six-year implementation period (Article 20). These negotiations will

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Nations University Press). Irrespective of the institutional structures that evolve, multilateral trade policy and environmental policy-making need to jointly address issues in a balanced and coherent manner, which recognizes that trade liberalization and environmental protection are each means for achieving the end goal of global sustainable development. Policies on economic development and environmental (and social) protection should be designed and implemented in conjunction with each other, thereby avoiding the separation of trade liberalization policy from environmental policy. In other words, the more integrated environmental and trade policies are, the more sustainable economic growth will be (Panayotou, 2000). Moreover, it is crucial in the case of developing countries that besides effective cooperation between various institutions and governments, substantial additional financial and technical assistance is provided to enable the poorer nations to engage effectively in this process of enhancing understanding and strengthening policy coordination in the areas of trade, environment and development.

examine what further commitments are necessary to achieve the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform. The negotiations are also to take into account factors such as the experience gained during the implementation period, the effects of Uruguay Round reduction commitments on world trade in agriculture, non-trade concerns, special and differential treatment to developing country Members and the objective to establish a fair and market-oriented agricultural trading system.

## 2.8 Summary of Elements for Negotiation

This summary provides an overview of key elements of the Agreement on Agriculture and the related commitments<sup>45</sup>.

### 2.8.1 Market Access

<b>Instrument</b>	<b>What it says or deals with</b>	
Article 4.2	Prohibition on the use of restrictions on imports other than tariffs;	
Article 4.1 and Schedules	All tariffs bound;	
Article 5	Special agriculture safeguard mechanism against import volume surges or import price declines below a trigger level (limited to "tariffied" products and not applicable to imports under related tariff quota commitments);	
Schedules	Tariffs resulting from conversion of non-tariff border measures under negotiating modalities ("tariffication") plus pre-existing tariffs on all other agricultural products to be reduced;	
Schedules	Implementation of current and minimum access opportunity commitments in respect of tariffied products.	
	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Average tariff reductions of 36% (minimum 15%) over 6 years.	Average tariff reductions of 24% (minimum 10%) over 10 years; Where "ceiling bindings" commitments undertaken reductions not required except on ad hoc basis; Least developed not required to undertake reduction commitments.

### 2.8.2 Domestic support

<b>Instrument</b>	<b>What it says or deals with</b>
Article 6, 7 and Annex 2	Policies divided into two groups; (i) permitted policies (Green Box), (ii) other policies included in the Aggregate Measure of Support (AMS) subject to reduction commitments (Amber Box);
Article 6.5	Decoupled direct payments associated with production limiting programmes (Blue Box) not in Green Box but excluded from AMS.

<sup>45</sup> On the reasons why need detailed discourse on trade and trade liberalizations, the article titled, "Trade Wars: The Exaggerated Impact of Trade in Economic Debate" by Richard B. Freeman (paper subsequently published in *The World Economy*, Vol.27, No.1, 2004) was consulted. Among other issues, the article notes that trade has been at the heart of economic debates about globalization in the past decade. Proponents of Washington Consensus (WC) style globalization have touted the benefits of trade and open capital markets to developing countries and warned of the dangers of global labor standards. Opponents of WC style globalization have worried that trade with developing countries lowers employment and wages in advanced countries and create a race to the bottom in poor countries. The referenced paper shows that both proponents and opponents of WC style globalization have exaggerated the effects of trade and of trade treaties on economic outcomes. It is argued that: 1) trade and widely debated trade treaties have had modest often indiscernible impacts on labor and other economic outcomes, and that in the US at least immigration has affected national factor proportions more than trade, 2) international capital flows have created as much harm as good in developing countries, and thus need to be more carefully regulated and monitored; 3) trade and labor standards are complements in the global economy, so that improvements in one create pressures for improvements in the other.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 6.2	De minimis provision allows exclusion of support less than 5% of output value from AMS;	Developing countries allowed to use some types of investment and input subsidies under certain conditions;
Article 6.4(a) and (b)	Total AMS support to be reduced by 20% over 6 years.	De minimis provision allows exclusion from AMS of product-specific and non-product specific support less than 10% of respective current output value;
Schedules		Total AMS support to be reduced by 13.3% over 10 years;
Schedules		Least-developed countries must bind AMS support level if applicable but not required to reduce it.

### 2.8.3 Export subsidies

<b>Instrument</b>	<b>What it says or deals with</b>
Article 9	Definition of export subsidies subject to reduction;
Article 10	Other export subsidies subject to anti-circumvention provisions which include disciplines relating to food aid;
Article 3.3	Prohibition on the use of export subsidies on products not subject to reduction commitments.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Schedules	Distinct reduction commitments on both volume (21%) and budgetary outlays (36%) over six years;	Two-thirds of the reduction required for developed countries over ten years;
Article 11	For incorporated/processed products budgetary outlays only (36%).	
Article 9.4		Exception during the implementation period in respect of certain marketing and internal transportation subsidies.

### 2.8.4 Export prohibitions and restrictions

<b>Instrument</b>	<b>What it says or deals with</b>
Article 12	Requirement for advance notice and obligation to consult on request and supply information in case of new export restrictions on foodstuffs.

	<b>Developed Countries</b>	<b>Developing Countries</b>
Article 12.2		Exception for developing countries that are net-exporters of the foodstuff concerned.

### 2.8.5 Other aspects

<b>Instrument</b>	<b>What it says or deals with</b>
Article 13	Peace Clause;

- Article 17 WTO Committee on Agriculture given the task of overseeing the implementation of the Agreement and related commitments;
- Article 16 Marrakesh Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.

### 2.8.6 Sanitary and phytosanitary measures

Instrument	What it says or deals with
Article 14	Separate Agreement: Reaffirms right to countries to set their own health and safety standards provided they are justified on scientific grounds and do not result in arbitrary or unjustified barriers to trade; encourages use of international standards; includes certain special and differential treatment provisions

## 3.0 Qualitative Study

### 3.1 The Suggested Hypotheses

The following hypotheses were put forward as relevant points for decision to the participants of the Key Informants Interviews:

- i. Tariff rationalization at WTO will bring economic benefits to Bangladesh.
- ii. Subsidies by advanced countries in agriculture are harmful to the Bangladesh economy.
- iii. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- iv. Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO.
- v. Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector.
- vi. By analyzing the differential trading patterns, Bangladesh can take advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- vii. Bangladesh needs a coherent WTO policy with regards to agricultural subsidies in line with the Singapore GATS Mode-4 issues<sup>46</sup>.

### 3.2 Key Informant Interviews

<sup>46</sup> The GATS agreement covers "four modes of supply" for the delivery of services in cross-border trade:

GATS Four Mode of Supply			
Mode		Criteria	Supplier Presence
Mode 1	Cross-border supply	1. Service delivered within the territory of the Member, from the territory of another Member.	1. Service supplier not present within the territory of the Member.
Mode 2	Consumption abroad	2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member.	2. Service supplier present within the territory of the Member.
Mode 3	Commercial presence	3. Service delivered within the territory of the Member, through the commercial presence of the supplier.	2. Service supplier present within the territory of the Member.
Mode 4	Presence of a natural person	4. Service delivered within the territory of the Member, with supplier present as a natural person.	2. Service supplier present within the territory of the Member.

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

1. (Mode 1) Cross border trade, which is defined as delivery of a service from the territory of one country into the territory of other country
2. (Mode 2) Consumption abroad - this mode covers supply of a service of one country to the service consumer of any other country
3. (Mode 3) Commercial presence - which covers services provided by a service supplier of one country in the territory of any other country, and
4. (Mode 4) Presence of natural persons - which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country.



These seven generic sets of hypotheses were tested at the individual expert level. The KIIs were conducted with the following experts.

- i. Mr. Kazi Borhan Amin Raj, Agriculture/Leather Expert and Consultant, Presently he is the Managing Director of Seba, a non-profit NGO.
- ii. Dr. Rafique Uddin Ahmed, Agricultural and Environmental Standards Analyst, Consultant of GTZ, a non-profit NGO.
- iii. Mr. Aminul Hasan, Agricultural and Environmental Standards Analyst, Consultant of Seba.

The following results were obtained with regards to the generic set of hypotheses. On some issues, there were divided opinions while some were disagreed by all. However, all the three experts commonly opined on some issues which generated the basis of some new hypotheses. All the conclusions based on their interview are given below, mentioning the status of the hypotheses, followed by the newly emerged hypotheses:

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
Tariff rationalization at WTO will be beneficial to Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	If tariff is rationalized then all the countries will have to pay similar amount of tariff. But since the product pattern is different for different countries it will create a bigger difficulty. Benefits accruing to countries with dissimilar products/import-export bases and similar tariff will not be rational.	Dropped
Subsidies by advanced countries in agriculture are harmful for the Bangladesh economy	Summary of comments: No	Summary of comments: No	Summary of comments: Yes	This hypothesis if implemented will create problem for the imported items by the LDCs. As many items, especially raw materials, are being imported from the developed countries, if the subsidies provided by the developed countries are withdrawn, the product cost for import will rise which will affect the product cost for the LDCs.	Dropped
Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	Subsidies provided to domestic agriculture by the advanced countries ensures production in low cost. Thus there is virtually little (if any) chance for the LDCs to penetrate the market with similar product. Thus it will be bad for the export of our production.	Retained
Bangladesh should be supportive of the LDC initiatives to remove agricultural subsidies in the WTO	Summary of comments: No	Summary of comments: No	Summary of comments: No	Being supportive of the LDC's initiatives to remove agricultural subsidies in the WTO is not the surety of our benefit because of differentiation of the product categories. Different LDCs are exporting different product and their interest to remove agricultural subsidies by the developed countries are different according to their product expertise.	Dropped
Subsidies reduction at the WTO would be beneficial for the Bangladesh industrial sector	Summary of comments: No	Summary of comments: No	Summary of comments: No/Yes	Subsidies reduction at the WTO would not be beneficial for the Bangladesh industrial sector because then the cost of the raw material i.e. the input for our industrial production like fertilizer, seeds etc will charge a higher price. This in turn will increase the price of the product (through increasing cost of production) making the market un-competitive for Bangladesh.	Dropped
By analyzing the differential trading patterns, Bangladesh can take the advantage of a different (reduced) allowable subsidies' regime at WTO for	Summary of comments: Yes	Summary of comments: Yes	Summary of comments: Yes	By analyzing the differential trading patterns, Bangladesh can definitely take the advantage of a different (reduced) allowable subsidies' by producing the items in which it can be competitive and can be economically beneficial. The production pattern in which Bangladesh has competitive	Retained

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
reorienting its agricultural production pattern				advantage need to be sought out. The categories of item for export in different trading pattern may not be same as the market may behave differently in the different stages. So Bangladesh can reorient its production pattern to be benefited in accordance with the nature of the market.	
Bangladesh needs a coherent WTO policy more than it needs a policy for the Singapore Mode IV issues	Summary of comments: No	Summary of comments: No	Summary of comments: No	Bangladesh needs a coherent policy for the Singapore Mode IV issues because any cross border trade, consumption abroad, commercial presence or presence of neutral person is important for immediate export requirement. Basing on the mode-4 policy more effective and action oriented WTO policy can be formulated covering all aspect of product and service export.	Dropped
Bangladesh needs to formulate a WTO policy with regards to agriculture in order not to lose financially.	Summary of comments: Yes	Summary of comments: No	Summary of comments: Yes	Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture based on the de-subsidization stages of the developed countries in order to ensure that it does not lose financially. The policy should be guided by the competitive advantage that Bangladesh will be able to achieve in different phases and also linking the agriculture production pattern with mode -4.	Retained
Issues Suggested for focus	Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.			All the experts were in favor of emphasizing on the Commitments for the gradual withdrawal of agricultural subsidies but should not merely tend to align Bangladesh with other LDCs because different LDCs will have interest on different products of their own advantages. So they will try to remove agricultural subsidies only with the items they export and their product expertise.	Included as modified hypothesis
	Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products			The experts opined that the negotiation on gradual withdrawal of subsidies should be synchronized with the gradual enhancement of agricultural production pattern and capabilities in which Bangladesh remains competitive. Basing on that advance marketing campaign for those products can enhance export success. This can be found out through scenario analysis.	Included as modified hypothesis
	Block activities alongside countries with similar agricultural production patterns			It was opined that block activities of the countries with similar agricultural production may strengthen the negotiation to be implemented. Thus the countries with similar product exporters should be found out and blocked to reinforce WTO negotiation policy.	Included as modified hypothesis

Issues	Mr. Kazi Borhan Amin Raj	Dr. Rafique Uddin Ahmed	Mr. Aminul Hasan	Remarks	Status of the Hypothesis
	Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern			The experts also came to the conclusion of finance from advanced nations to secure continued support in enhancing the agricultural production pattern by supplying seed, raw materials and technology to increase production capacity.	Included as modified hypothesis

### 3.2 Modified Hypothesis

Following the discussion from original eight sets of hypotheses three are retained and more four new hypotheses are introduced. The modified hypotheses are as follows.

- i. Subsidies provided to domestic agriculture by the advanced countries are harmful for the development of the Bangladesh agriculture.
- ii. By analyzing the differential trading patterns, Bangladesh can take the advantage of a differentiated (reduced) allowable subsidies' regime at WTO for reorienting its agricultural production pattern.
- iii. Bangladesh needs to formulate a comprehensive WTO policy with regards to agriculture in order not to lose financially.
- iv. Emphasis on the commitments for the gradual withdrawal of agricultural subsidies not aligning Bangladesh with other LDCs.
- v. Spatial negotiation on gradual withdrawal of subsidies in synchronization with gradual enhancement of agricultural production capacities and advanced marketing campaigns for selected/niche products.
- vi. Block activities alongside countries with similar agricultural production patterns.
- vii. Financing from advanced nations to secure continued support from the developed world for the enhancement of agricultural production pattern.

### 3.4 Modified Research Pattern

It is found from the discussion points above that even under the changed paradigm of hypotheses/notions, the problem statement do not necessarily change (as the problem statement itself was designed in the most generic format). Nevertheless, the analytical pattern/framework changes considerably with the introduction of the new hypotheses-sets and dropping five of the original eight sets.

As such, the study now focuses on:

- i. Scenario analysis for finding the agricultural products where Bangladesh holds comparative advantages
- ii. Viability analysis/testing for selected products for production/exports under the different regimes – as would be found during stage (i)
- iii. Finding avenues for advanced agricultural marketing / financing options
- iv. Specific WTO negotiation strategy that Bangladesh would follow with regards to linking agricultural production patterns with Mode – 4, specifically, movement of service / personnel (i.e., should gaining positions in GATS Mode-4 be a consideration to give in on agricultural subsidies)
- v. Selection of blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

### 3.5 Methodology

A detailed qualitative secondary research has been undertaken to validate the research proposition. However, a primary qualitative survey had also been employed to modify the research parameters and consequent hypotheses.

The main research framework comprised of two simultaneous processes, i.e.:

- a. Scenario analysis of the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- b. Bangladesh's stake in agricultural produces and primary survey on finding the appropriate niche/strategy for the development of a vibrant international trading pattern for the agricultural sector.

The survey was Door-to-Door with the executives of WTO cell of Ministry of Foreign Affairs, Ministry of Commerce, and Ministry of Agriculture. Telephone-interviews will also supplement the executive survey in order to conduct the survey with the experts.

Some information was collected from farmer's level from selected regions of Bangladesh, which are highest production location of select agro produces.

Farmers were covered by selective sampling method from high production areas of select agro produces (from Specific Objective 1 & 2) in Bangladesh and information from the farmers on Cost of Production, Yield Rate and impact of de-subsidization of Agro inputs were collected through checklist method.

### 3.6 Major Findings

The research aimed to ascertain the following end results:

- d. The impact on the world agricultural commodity prices on the basis of different levels of (spatiotemporal) withdrawal of subsidies in the world market
- e. Appropriate Bangladeshi agricultural products (for export) at different levels of withdrawal of agricultural subsidies
- f. Appropriate marketing niche/strategy for the development of international trade in agricultural commodities under differentiated subsidies regime in the WTO.

### 4.0 Theoretical Model

#### 4.1 The Problem Statement

Under differentiated and negatively distorted trade subsidization in the World Trade Organization, it is implied that Bangladesh would lose financially if agricultural subsidies provided by the industrially developed countries are not "properly" addressed through the WTO for - (a) decisions of production and pricing of agricultural commodities in Bangladesh (for exports)<sup>47</sup>; (b) analysis of the impact of de-subsidized trade patterns in agricultural commodities (phase-wise; in the international market) on the domestic industrial output; (c) analysis of opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions<sup>48</sup>.

#### 4.2 Constructs and Concepts

<i>Constructs</i>	<i>Definition</i>
<i>Bangladesh</i>	The economy of Bangladesh; tariff rationalization and subsidies allocation at WTO
<i>Financial Loss</i>	Slurry growth of GDP of Bangladesh; opportunity cost of not producing at either the optimal cost/optimal composition
<i>Through WTO</i>	Strategy to be taken by the Government by means of bloc-activities and negotiations in WTO; issues for supporting and opposing at the WTO
<i>Production and Pricing Decisions</i>	What agricultural commodities to produce and in what prices targeting export markets
<i>De-subsidized Trade Patterns</i>	Multiple-scenario analysis for trade under different conditions of agricultural subsidies provided by the developed countries. The scenario will be designed under different conditions of gradual reduction in agricultural subsidies
<i>Domestic Industrial Output</i>	Input composition and pricing of elements for the domestic industrial composition
<i>Opportunities in International Markets</i>	Different market-opening opportunities and change in production-location facilities

#### 4.3 The Proposition

The research proposition in the backdrop of such a wide-ranging agricultural negotiation framework is rather straightforward, with two major area divisions, i.e.:

- i. Production and pricing of agricultural commodities in Bangladesh (for exports), with respect to:

<sup>47</sup> For a more diplomatic coverage of the issues, ideas and data have been drawn from "Borders, Trade and Welfare" by James E. Anderson (Boston College) and Eric van Wincoop (Federal Reserve Bank of New York), prepared for the Brookings Trade Forum 2001 on Globalization: Issues and Implications, May 10-11, 2001. The results of the paper (Anderson and van Wincoop, 2001) show that border barriers are large and inhibit much trade. In the paper it is shown that further economic integration can very substantially increase world trade and welfare. Also of significance are the resources drawn from Anderson, James E. and Eric van Wincoop, 2001, "Gravity with Gravitas: A Solution to the Border Puzzle". National Bureau of Economic Research Working Paper 8079.

<sup>48</sup> Ideas and imperatives heavily drawn from writings of Alessandra Casella (Department of Economics, Columbia University) and James E. Rauch (Department of Economics, University of California, San Diego); "Anonymous Market And Group Ties In International Trade" February 1999. Both authors are also affiliated with the NBER (and Casella with the CEPR). In this paper, the writers develop a model of trade that reflects the difficulty of introducing one's product in a foreign market. Access to local sources that can provide information about the market would facilitate entry, and in our set-up a minority of individuals has such preferential ties, reflecting for example the existence of coethnic bonds or membership in a business group. We analyze the aggregate volume of trade without ties, the use of ties versus the anonymous market by group members, the value of the ties to the overall economy and to the group, and the consequences of the ties for non-members.

- a. Situational analysis under different de-subsidized trade patterns/conditions in agricultural commodities (phase-wise; in separate – most plausible logical combinations; in the international market; under WTO regime)
  - b. Impact assessment on the domestic industrial output; and
  - c. Opportunities for Bangladeshi agricultural commodities in the international markets under different situational conditions (i.e., WTO trade negotiations on agricultural commodities and withdrawal of tariff/non-tariff barriers).
- ii. Preparation of WTO agenda for Bangladesh with respect to agricultural commodities.

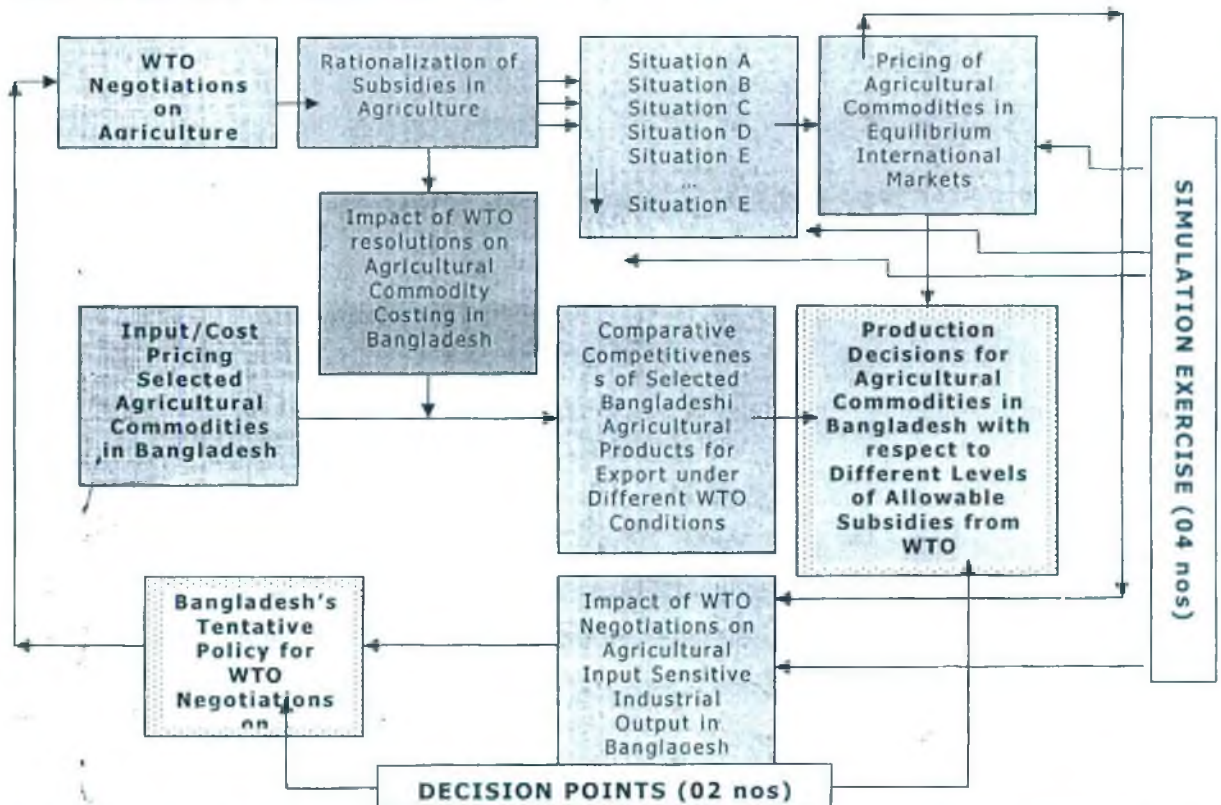
#### 4.4 The Conditions

The necessary conditions are:

- i. Sovereign and other administrative pre-conditions will remain static, if not unchanged, during the entire course of this specific study; as well as for the projected time frame.
- ii. WTO negotiations will follow a logical and sequential pattern with respect to formulation and execution of resolutions.
- iii. Necessary domestic pre-conditions (governance, legal framework, multilateral negotiation systems, regional participation, etc) will prevail for the execution of a coherent WTO policy.
- iv. Production sensitivity to inputs will remain valid for the time period projected.

#### 4.5 The Functional Relationship

Given the backdrop of negotiations in Agriculture, the functional relationships are as follows:



Basically this is what we are looking at, i.e., 4 (four) simulation exercise with respect to the current flow of negotiations in the World Trade Organization, and 2 (two) decision points, which would give us concrete and consolidated understanding about - (i) what our production strategy in agriculture should look like under the changed subsidization schedule, and (ii) what our stance in WTO should look like with regard to the impact of de-coupling and other subsidies withdrawal measures.

#### 5.0 Objective

To find comparatively competitive agricultural produces and their marketing strategies under different stages of de-subsidization selecting suitable block/countries to strengthen bargain

power and to link agricultural subsidies negotiation pattern of Bangladesh with negotiations on GATS Mode-4.

### **5.1 Specific Objectives**

- i. To analyze the scenario for finding the agricultural products where Bangladesh holds comparative advantages.
- ii. To test the viability for selected products for exports in different stages of de-subsidization in the WTO.
- iii. To find the avenues for advanced agricultural marketing / financing options.
- iv. To find specific WTO negotiation strategy that Bangladesh would follow for linking agricultural production patterns with Mode - 4.
- v. To select the blocks/countries with similar production patterns that would enable Bangladesh to pursue its domestic agricultural intent at a greater international level.

### **5.2 Scope of Research**

Within the stipulated time (30 Days) and budget allocated the scope of the research work analyzed the scenario for different stages of de-subsidization and basing on the analysis suggesting a comprehensive policy for WTO negotiation on agricultural products and recommending product pattern with the opportunities for exporting which are economically beneficial for Bangladesh.

The specific scopes of the research are as follows.

- i. Current composition of the agricultural produces for export
- ii. Spatiotemporal projection for world prices of agricultural commodities with WTO de-subsidization in agricultural subsidies
- iii. Situation analysis for advanced marketing in agricultural commodities where Bangladesh has comparative advantage basing on above findings.
- iv. Specific negotiation strategy for WTO on agricultural subsidies
- v. Specific tactics for implementation of the above strategy (iv)
- vi. Impact of making the block of countries in different stages of de-subsidization

However, as the project is a two-year long M. Phil. dissertation, only scope (i), (ii), and (iii) were covered, i.e., only specific agricultural produces (which hold a competitive/comparative advantage under an evolving WTO subsidies pattern) and their respective marketing strategies were identified in the first stage, within the stipulated 30 days.

### **6.0 Sampling Methods**

Only experts were consulted for policy perspectives. However, for finding the marketing niche / appropriate strategy for agricultural produces, a host of respondents were approached. Therefore, convenience sampling method was employed.

### **7.0 Significance of the Study**

For a small and non-significant<sup>49</sup> country like Bangladesh the only way out is to build on our expertise and experience in niches we already have some mastery on. Admit it, if anything positive is there, for which ones of these positive things does the outside world know us? The answer is simple - number one, Micro-Credit<sup>50</sup>, number two, UN Peacekeeping, and number three, we forgot. If we want to build on our expertise, we need to know what we actually know. We need to combine and integrate our learning in all fields that we have ever operated in and harvest the synergies that we can derive from there on.

Making informed decisions and planning judiciously are the only two ways that can help the cause. Like President A P J Abul Kalam of India had said, we need virtuous Leaders, Wise Officers, and Learned Teachers. This paper, as I duly expect, can ultimately contribute to the

<sup>49</sup> Non-significant - purely in the sense that the advanced community mostly don't regard Bangladesh for anything other than its nuisance value, despite having so many potentials to contribute to the world community - simply because we do not know how to project ourselves in a concerted manner

<sup>50</sup> And organizations like BRAC, Grameen, Proshika, ASA



formation of a more pro-active strategy for Bangladesh's performance in the United Nations peace efforts, where the country presumably already has made its mark as one of the top-most troops contributors. But is the UN itself anything less than a powerful men's club. Otherwise, why does China forestall Chapter VII enforcement in Sudan? Why is there armed intervention without the sanction of the Security Council? ... only for greater control over resources?

The study is significant to the different levels of concerned bodies and intelligentsia of the country due to different causes. The causes are apparent from the debriefings available on the barriers to international trade. This section depicts only the specific points to be highlighted.

### **7.1 Significance to Diplomatic Endeavors**

The findings of the report are anticipated to help the policy makers and players arrive at a positive focus with regards to the environment and settings where investments and returns to materialize will be easier. It is expected that the results of the research will significantly help the established Non-Governmental entities of the country who allege of the unavailability of policy measures required, to find alternative ways to proliferate into world affairs alongside their current role in the country.

### **7.2 Significance to Literature**

Policy frameworks, especially the effective ones, are very uncommon in Bangladesh when it comes to Foreign Affairs and our participation in multilateral bodies like the WTO. This paper is expected to have a proper insight into the nature of better and more innovative ways to contribute to structural arrangements for international trade, i.e. if the infrastructure can be reoriented for ventures to run smoothly through a combined effort of the business community, civil society organizations, and the diplomatic agents. Also, it is expected to add a different dimension to the existing literature by infusing a fresh presentation of useful data in the most organized form ever created - on WTO - in the country. It uses the quantitative SWOT analysis in the principle analysis section. This is unique in the form and is used only for the second time in the administrative history of the country (the first one was when one of the authors had prepared a paper for the Bangladesh Foreign Service Academy in May 2006).

### **7.3 Significance to Society and Government**

Development concerns are supposed to be at the heart of the current World Trade Organisation (WTO) negotiations. The current negotiations are called the "Development Round" and this underlines the importance of achieving a positive outcome for developing countries. The Doha Ministerial Declaration November 2001 recognizes the importance of the development dimension of the Round, stating in the second paragraph: "International trade can play a major role in the promotion of economic development and the alleviation of poverty. We recognise the need for all our peoples to benefit from the increased opportunities and welfare gains that the multilateral trading system generates."

The principle that trade can reduce poverty, but that developing countries face challenges making trade work for development, should be a core theme of the trade and development policy of the developed countries - which is, unfortunately not the case. It is believed that the current round of negotiations in WTO represents the single best opportunity to realize the development potential of trade by addressing the harmful distortions in the international trading system. Reform of trade-distorting practices in agriculture in particular, will be of significant net benefit to developing countries. There are also potentially big gains for developing countries in the areas of services and non-agricultural market access.

We may recognize that trade will not solve all the problems faced by developing countries, but believe that developed economies must ensure that the opportunity to benefit from globalization is available to everyone. The development aspects of the Doha Development Agenda range from specific issues identified by developing countries as priorities; the provision of special and differential treatment within individual negotiations, and broader objectives including improved market access and the provision of technical assistance.

SDT is a concept which recognises that developing countries face specific challenges as a result of liberalisation. SDT includes provisions that allow for lower cuts and longer timeframes for reducing tariffs and agricultural domestic and export subsidies, and fewer obligations and reduced commitments for adherence to negotiated agreements. In addition, the Doha Round will probably see the creation of targeted new instruments as part of the SDT package, such as the "special products" category (products important for food security and rural development) and a new special agricultural safeguard for developing countries. In the Doha Round it has been accepted that LDCs will be exempt from having to make any new reduction commitments.

Improved market access for agricultural products holds the promise of substantial benefits for developing countries, particularly given their comparative advantage in this area. At the same time, developing countries have some concerns relating to the impact on food security and rural development of opening their own markets for certain products. It is expected that SDT provisions will be designed to take account of these concerns. Under non-agricultural market access, sectors of significance include textiles, clothing and footwear, forestry and fisheries. These are all important industries for developing countries.

Services trade is also important to many developing countries. Many services, including infrastructure services and services incidental to agriculture facilitate growth, while services such as environmental services can, if managed properly, improve quality of life. In addition, developing countries have their own export interests in services ranging from construction to education, with a particular emphasis on services provided via the temporary entry of service-suppliers into the country where the service is delivered. These exports also contribute to growth in neighbouring developing countries.

The use of trade-distorting subsidies – both “domestic support” measures and export subsidies – significantly distorts the global trading system. The main users of these measures are large developed countries. Trade-distorting domestic support encourages over-production in the subsidising country: this surplus is often then exported (using export subsidies) for less than the cost of production, which has the effect of displacing and/or reducing the world price for many of the agricultural commodities that developing countries trade. This system also means that subsidisers are reluctant to open their markets to efficient producers such as those in developing countries, since this would undermine farm incomes in the subsidising country. A three-pronged approach will be important to achieving a positive development outcome:

- i. Substantial reductions in the use of trade-distorting subsidies
- ii. Elimination of export subsidies
- iii. An ambitious package to open agricultural markets (tempered with SDT targeted to situations of real need).

Many developing countries face domestic and supply-side constraints when seeking to maximize the opportunities that come from trade liberalization. Continued and improved trade-related technical assistance and capacity building is a vital component of trade and development.

We can always hope for an ambitious outcome in the Doha Round. There is considerable overlap between the objectives of developing countries and of the developed ones in the Round, particularly in the areas of agricultural market access, the elimination of export subsidies and trade-distorting domestic support.

However, this paper will, specifically, try to find out, if:

- i. International trade (specifically in agricultural produces) has a positive effect on poverty reduction and improves long-term economic growth in developing countries, and
- ii. A successful outcome to the Doha Round will promote development through improving market access for all products – including those important to developing countries, especially agriculture and textiles – and through the elimination of export subsidies and substantially reducing trade-distorting domestic support

It is important for the WTO to find ways to address the converging issues of trade with labor and the environment in a way that does not encumber the trade system with new, extraneous requirements. There is room to improve the manner in which the WTO interfaces with other international institutions, such as the International Labor Organization and the World Bank. However, it is important that trade agreements not be used as the primary mechanism to enforce alleged abuses on environmental or labor matters. There are more appropriate and effective means and organization through which to pursue these remedies. The business community also has a vital interest in the outcome of WTO negotiations because the WTO's rules are the framework within which business will conduct its activities.

From this paper, we will try to establish that the government should:

- i. Aggressively negotiate on behalf of the country in the new round of multilateral trade negotiations. Priority areas are market access, business facilitation, investment, agricultural export subsidies and trade remedy systems.
- ii. Seek out and take full account of the expertise and advice of business houses as negotiations in the Doha round proceed.

- iii. Renew efforts to strengthen the WTO as the rules-based international institution responsible for overseeing the operation of the multilateral trading system. This includes ensuring all WTO members respect the decisions of WTO dispute panels so that the primacy of the WTO system is maintained.
- iv. Work within the WTO context to ensure that developing countries not only have the capacity needed to enjoy the full benefits of the WTO system, but also have the capacity to fulfill their obligations under WTO agreements.

## 8.0 Limitation

The research does not include the following in the discussion pattern:

- i. Details of agricultural products' breakdown (minute varieties/variations)
- ii. Changing market/physical conditions with respect to extraneous factors like - global warming, regional/International conflicts, human settlement patterns, etc. These will be considered given (constant) for the limited time frame proposed.

Also, a research is only as good as its assumptions. This project is based on a few important assumptions, which would prove fatal in case of non-happening of the assumptions in the reality. Here is a list of the limiting factors of the research project's conclusions drawn from the responses observed.

- a. The scope of the research.

The scope of the research is defined for the agricultural production units only. It is assumed that, these are the units to be affected more severely with agricultural subsidies. Also, the industry average is expected to be calculated on the basis of the same assumptions as is stated here.

- b. Sampling technique.

Although probability based techniques have been used all through the report, it is theoretically not possible. Because, the convenience sampling does not eliminate the choice biases. And as a result, does not ensure that, the variations are due to chance errors only.

- c. Analysis techniques.

- i. The analysis techniques used in the preparation of the consolidated findings are based on assigning the concepts the same weights. This has an inherent problem for the overall attitude of the people about the constructs and concepts under consideration.
- ii. The model presented in the paper is based on an assumption that, the people answering the questions are reasonably rational people. But this might be wrong, as the level of reasoning is not the same as for different strata of the respondents.
- iii. The study holds that, the logic behind the people's perception would remain constant over the long run. But this might not be the case, as the time frame aspect is not covered in the report. So, if the people's attitude some how changes over time, the entire work of the research has to be redesigned. And the forecasts would change also.

These are some of the most important limitations barring the performance of the research financings to take the form of a theory.

## 9.0 Time and Financial Budget

### 9.1 Financial Involvement

The study was covered (the first part; within 30 days) under the following budgetary allocation from the group-members:

i. Conveyance	=	BDT 3,000/=
ii. Conducting FGDs	=	BDT 3,000/=
iii. Report preparation and presentation	=	BDT 1,500/=
iv. Internet and other data/information	=	BDT 3,000/=
<b>Total</b>	=	<b>BDT 10,500/=</b>

## 9.2 Time Frame

The project is organized in the following schedule:

- I. The problem defined [March 01 – May 24]
- II. The operational definition of the different concepts under study defined [May 24 – June 05]
- III. The analysis technique decided upon [June 05]
- IV. The data collection instrument designed and pre-tested [June 05 – June 12]
- UNDEFINED TIME LAG [June 12 – June 16]
- V. The information collected through extensive interviews [June 16 – June 24]
- VI. Assorting information in order of organizational strata based on the number of employees [June 24 – June 26]
- VII. Organizing information as per the directives of the instructor of the course [June 29].

## 10.0 The Survey Instrument

The research survey instrument is appended in annex 1.

## 11.0 Research Findings

### 11.1 Combined Average Selection Ranking for Products (Data tables appended at Annex 3)

A detailed listing of combined averages based on the following control data parameters:

- i. Financial Lucrativeness
- ii. Marketing Opportunities
- iii. Supply side efficiency
- iv. Logistic support
- v. Packaging superiority
- vi. Advertising campaign effectiveness
- vii. Forward Linkages
- viii. Technical Expertise

Detailed supplementary statistics (product wise) appended in Annex 2.

Average	Agro-Commodity	Financial Lucrativeness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Advertising effectiveness
4.13	Currants and gooseberries	4	4.4	3.4	4.4	5	
4.13	Tomatoes	3	4	5	5	4	
4.05	Rapeseed and Mustard seed	3	4	3.8	4.4	3.6	
4.00	Onions (inc. shallots)	4	3.2	4.2	4.2	4.4	
3.95	Cereals, nec	4	4	3.4	4.2	5	
3.93	Legum. veg., nec	4	4	3.4	4	5	
3.88	Soybeans	3	4	3.8	4.6	3.6	
3.83	Lemons and limes	3	4	4.8	3.2	2.8	
3.83	Sunflower seed	3	4	5	5	4	
3.80	Groundnuts	3	4	4.8	3.2	2.6	
3.75	Ginger	4	3.8	2.8	3.8	5	
3.70	Sorghum	4	4	4	3	3.4	
3.68	Citrus fruit, nec	4	3.2	3.4	4.2	5	
3.55	Cauliflowers and broccoli	1	2.6	5	3.2	4.4	
3.50	Beans, dry	1	2.6	3.4	4	4.8	
3.50	Maize	4	2.8	1.8	3.4	5	
3.45	Pumpkins, squash and gourds	4	4	4	3	3.8	
3.38	Bananas	1	2	3	4	5	
3.38	Barley	4	4	4	2	2	
3.38	Potatoes	3	4	3.8	2	3.6	
3.38	Wheat	3	4	5	5	2	
3.36	Yams	3	4	5	5	2	

Average	Agro-Commodity	Financial Lucrativeness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Adv ca effe.
3.33	Pineapples	4	1.6	4.8	3	4.4	
3.30	Pepper (Piper spp.)	1	2.8	4	3.8	4.2	
3.28	Cabbages and other brassicas	4	3.6	3.6	2.6	2	
3.25	Mushrooms and truffles	3	1.6	4	2.6	3	
3.23	Beans, green	3	4.2	4.4	4.2	2	
3.23	Peas, green	3	4.8	2.6	2	2.4	
3.18	Cassava (fresh and dried)	3	4.2	3.6	4	2.6	
3.15	Chillies and peppers, green	1	3.8	4.2	3.2	1.2	
3.13	Tea and Maté	4	4	4	2	1	
3.13	Watermelons	4	4	4	2	1	
3.03	Sugar Cane and Sugar crops, nec	4	4	3.4	1.2	1	
3.00	Papayas	3	1.6	3.2	3.2	2.8	
3.00	Sweet potatoes	1	2	3	4	3	
3.00	Vegetables, nec (Inc. okra)	1	2	3	4	3	
2.93	Cucumbers and gherkins	1	3.8	4.2	2.6	1.2	
2.93	Eggplants (aubergines)	3	2.6	2	2.4	2.8	
2.80	Coconuts (Incl. copra)	3	2.2	2	2.4	2.8	
2.58	Oilseeds, nec	1	4.4	3.2	1.6	1.6	
2.58	Pulses, nec	1	2	1.8	3.8	2	
2.50	Chillies and peppers, dry	3	2.2	2	1.6	2.8	
2.43	Garlic	1	2.2	4.2	2.6	1.2	
2.43	Spinach	1	2	1.8	2.8	1.8	
2.35	Rice, paddy	1	2	1.8	2.8	1.8	
2.15	Lettuce and chlcory	1	2.2	3.2	2.2	1.2	
2.00	Guavas, mangoes, mangosteens	1	1.6	2.6	2.2	1.8	

### 11.2 Respondent Type

WTO Experts:	05
Agro-Commodities/Marketing Experts:	05
Agro-Product Exporters:	05
Farmers:	05

### 11.3 Comments on if Bangladesh Should Specialize as an Agro-Commodity Exporter

<u>Respondent Type and Response Statistics</u>	<u>Interpretation</u>
<p><b>WTO Experts</b>                      Mean: 3                      Standard Error: 0.316227766                      Median: 3                      Mode: 3                      Standard Deviation: 0.707106781                      Sample Variance: 0.5                      Kurtosis: 2                      Skewness: 0                      Range: 2                      Minimum: 2                      Maximum: 4                      Sum: 15                      Count: 5                      Largest(1): 4                      Smallest(1): 2                      Confidence Level(95.0%): 0.877990852</p>	<p>WTO experts seem to be of an opinion indifferent to the extreme values. The experts maintain a starkly neutral position to the notion that Bangladesh should specialize as an agro-commodity exporter. Not surprisingly the groups under study maintain reasonably similar positions as with regards to all the products and commodities categories under study. However, as is the case, the standard deviation is 0.71, which makes the mean all the more significant as to the indifference signified in the responses recorded and the observations made. Informal discussions suggest that the WTO experts would prefer other sectors of the economy, i.e., the service sector, specifically, implementation of the GATS Mode IV elements as a far superior method for reaping benefits of the WTO regime ... which happens to be the inner core of analysis for the research project.</p>
<p><b>Agro-Commodities/Marketing Experts</b>                      Mean: 1.4                      Standard Error: 0.244948974                      Median: 1                      Mode: 1                      Standard Deviation: 0.547722558                      Sample Variance: 0.3                      Kurtosis: -3.333333333                      Skewness: 0.608580619</p>	<p>The Agro-Commodities / Marketing Experts maintain significantly higher position in terms of their optimism with the prospects for the agro-commodities and exports abroad. The standard deviation for the category is also small - implying centrality of the results for the optimism expressed with the option from the commodities/marketing experts. Invariably, the experts suggested strong opinions for the development of the sector with proper care.</p>

<b>Respondent Type and Response Statistics</b>	<b>Interpretation</b>
Range: 1 Minimum: 1 Maximum: 2 Sum: 7 Count: 5 Largest(1): 2 Smallest(1): 1 Confidence Level(95.0%): 0.680088789	
<b>Agro-Product Exporters</b> Mean: 1 Standard Error: 0 Median: 1 Mode: 1 Standard Deviation: 0 Sample Variance: 0 Kurtosis: #DIV/0! Skewness: #DIV/0! Range: 0 Minimum: 1 Maximum: 1 Sum: 5 Count: 5 Largest(1): 1 Smallest(1): 1 Confidence Level(95.0%): 0	The exporters, as expected, expressed their strong support for a better future with agro-commodities under all possible WTO regimes. Incidentally, all expressed univocal stand-points for the option at point 1, which happens to be the highest agreement in consideration. Standard deviation is also zero, making the significance of the projections made by the exporter statistically significant for the research.
<b>Farmers</b> Mean: 2.666666667 Standard Error: 0.251976315 Median: 3 Mode: 3 Standard Deviation: 0.975900073 Sample Variance: 0.952380952 Kurtosis: -0.646153846 Skewness: -0.275879444 Range: 3 Minimum: 1 Maximum: 4 Sum: 40 Count: 15 Largest(1): 4 Smallest(1): 1 Confidence Level(95.0%): 0.540435928	Farmers' opinions significantly varied with that of the exporters and agro-commodities experts. Co-incidentally, they matched rather with the WTO experts. Informal discussions suggested that to the farmers, it was not a potential for the future that mattered. Rather, it was the cash generating potential that provided the allurements to the choice of profession / product / sector for service. To the farmers, incidentally, old generation industrial implements accorded higher significance than the possibilities of earning more / better than they were at the present time context. Incidentally, the standard deviation is also 0.98, which provides significant variations compared to other forms of answer types observed and recorded from the three other respondent types.

#### 11.4 Response Matrix on The biggest threat to agro-commodity export from Bangladesh

On the biggest threat to agro-commodities export from Bangladesh, different respondent groups identified different issue preferences from the noted response options. The WTO Experts identified "Absence of superior technological know-how" as the major impediment towards the development of the agricultural commodities export from Bangladesh. The second in order of importance to the group were, "Absence of superior agricultural management techniques" and "Absence of dependable and affordable financing mechanisms".

On the other hand, to the agro-commodities experts, "Absence of factor endowments to produce competitive products" and the "Absence of forward marketing channels" appeared to be the more significant issues to be resolved for expediting development in the agricultural sector of the country.

To the exporter group of respondents as well, the "Absence of agricultural management techniques" and the "Absence of forward marketing channels" were the more important issues for immediate resolution with regards to the development of the sector, while to the farmer group of respondents, "Absence of dependable financing mechanism", "Natural calamities" and "Absence of agricultural management techniques" appear in order of significance for resolution in order to develop the agricultural sector for export in both the short and long runs.

#### 11.5 On the onus of agricultural sector development

To all groups, the onus of development of the agricultural sector is on the private sector. However, to the farmers group of respondents, both the Government and the Private Sector rank high and close to the Private Sector in sharing the responsibilities with respect to the development of the agricultural sector in Bangladesh.

### 11.6 On prioritizing development initiatives

To the WTO experts, "Forward Marketing" and "Product Quality Improvement" were the more important elements in order of priority for the development of the agricultural sector. So was the case with the Agro/Marketing Experts and Exporters. However, with the farmers group of respondents, a separate element of ease of financing came up in the prioritized list of instruments for the development of the agricultural sector.

### 11.7 Specific methods to prioritize in agro-commodity development

To the WTO Experts, "Advanced Agro-Commodities Processing" and "Ease of Financing" came up on top for the list of development initiatives of the country. So was the case with the agro-commodities / marketing experts. However, for the exporters group of respondents, product financing secured the second position with the top-most remaining the same. For the Farmers group of respondents, "Advanced Product Processing", "Production Financing", and advanced technological feats, such as "Genetic Engineering" produced higher value responses.

### 11.8 Bangladesh's biggest competitors in agro-products

To the WTO Experts, the Sub-Saharan Africa and other African Regions held superior potentials for competing with. Same was true for all other groups.

### 11.9 Interpretation of Commodities Analysis

#### 11.9.1 Tobacco (Data tables appended at Annex 4)

##### 11.9.1.1 Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are indifferent with the question with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Agro Marketing Experts strongly agrees with the question with minimum standard deviation which implies they think in favor of specializing as an agro-commodity exporter.

The Exporters strongly agrees with the question with the minimum standard deviation which implies they think must be specialize as an agro-commodity exporter.

The Farmers are indifferent with the question with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

As a global phenomena tobacco production is diverting to the developing countries for many situational factors like from increased control and restrictions on both the supply and consumption sides in the developed countries to ensured and comparatively higher return (as most of the production volumes are controlled by established tobacco companies with registered farmers) for mostly the developing countries.

The analysis reported in **Tobacco Supply, Demand and Trade by 2010: Policy Options and Adjustment** suggests that modest global action to restrict consumption of tobacco would result in a slowing in growth, but not a contraction, of consumption

Tobacco demand at the world level, during the period to 2010, is increasing but at much lower rates than in previous periods This increase is expected in spite of declining tobacco consumption on a per adult basis by as much as 10 percent between 1998 and 2010 in the baseline scenario and by as much as 20 percent under an aggressive anti-smoking and anti-tobacco policy.

According to the projection results made by FAO, the expansion of demand in the developing countries is expected to drive the tobacco economy of the world. Production of tobacco leaf responds to demand trends and is increasing in countries where demand is increasing, production costs are low, and there are no production restrictions, as well as in countries with good transportation systems and access to the international market. Hence, some further shift of tobacco leaf production towards developing countries is expected.

From social and purely physiological point of consideration cost of smoking is higher than the benefit thus prompts for stricter control on both the supply and demand sides. But from a purely economic point of view most of the farmers of developing countries specially one like Bangladesh lack competitive alternative crops to tobacco neither they have needed support policies. Again,

quality of tobacco produced in Bangladesh can meet global standard a proof of which is the increase in volume export of tobacco. Now, to take the global market opportunity besides controlling local consumption Bangladesh can set some strategy for export oriented tobacco production. The trend analysis conducted by FAO shows slower increase in global tobacco consumption supportive to increase production especially for export.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tobacco as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

Source: 1

The second of two volumes to be published from the FAO project **Tobacco Supply, Demand and Trade by 2010: Policy Options and Adjustment**

#### **11.9.1.2 Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** with a mean of 18 and standard deviation of 3.74 which implies the response has moderate consistency.

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Transportation and communications** with standard deviation of 3.74 which implies that this response also has moderate consistency.

Among the alternatives Exporters gave the most emphasis on both **Transportation and communications** and **Quality Seed Development** with standard deviation of 4 and the later 4.84 which implies that may or may not specialize as an agro-commodity exporter.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications** with standard deviation of 2.06 which implies that may or may not specialize as an agro-commodity exporter. And then they opined that next point to be emphasized is the Quality seed Development.

For export when quality is almost ensured for the long experience held collectively in tobacco cultivation and curing, naturally next most important factors would be transportation and communication and that is reflected in the responses of all the categories with moderate consistency for the lower level of standard deviation..

#### **11.9.1.3 Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production. Then the option for **Introducing product variety** is ranked to be looked into with the minimum standard deviation which implies they think that may or may not specialize as an agro-commodity exporter.



To develop production possibilities of Tobacco each of the category of respondents concerted for Block Activities along with LDCs in WTO to reduce subsidies (by Advanced countries) and the second ranking goes for **Providing more domestic agricultural subsidies from respondents other than farmers who opt for introducing product varieties** as the second most important factor.

**11.9.1.4 Production process improvements should prioritize in (100 points to be divided):**

**11.9.1.4.1 The WTO experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**11.9.1.4.2 The Agro Marketing Experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**11.9.1.4.3 The Exporters**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean- 26, SD-5.4)

**11.9.1.4.4 The Farmers**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.14)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-25.3, SD-5.16)

All of the respondent categories concerted for Ensuring timely and adequate inputs supply as the first priority to improve the production process, whereas the Introduction of superior transportation system is ranked as second priority.

**11.9.1.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export services' is ranked as second priority. Very low level of standard deviation shows strong consistency among the responses.

**11.9.2 Jute (Data tables appended at Annex 5)**

**11.9.2.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specialized in Jute as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the 'strongly agreed' extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter with Jute.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Jute as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Farmers and the WTO experts are neutral to the proposition that **Bangladesh should specialize in jute as an agro-commodity exporter but the Agro Marketing Experts and the Exporters strongly agreed to the proposition.**

In the 1960s, petroleum-based synthetics entered the market, competing with jute for practically all of its uses. World trade in jute and jute goods declined absolutely from 1.8 million tons in 1970 to 1.5 million tons in 1982. Despite some major year-to-year swings, prices fell precipitously through the mid-1980s. Prices were too low to cover the costs of production, but the government nonetheless deemed it essential to subsidize growers and industry and ensure the continued existence of as large a foreign market as possible. Ironically, Bangladesh's indispensable foreign exchange earner was thus itself a drain on the economy. There have been enormous year-to-year fluctuations both of producer prices and of production. An extreme example occurred between FY 1984 and FY 1986. Carry-over stocks had been run down since the previous production surge in FY 1980, and serious floods in 1984 resulted in unanticipated production losses. The price doubled to US\$600 per ton at the export level, which triggered the traditional response of farmers; they planted much more of their land in jute, and between one year and the next production rose more than 50 percent, from 5.1 million bales in FY 1985 to 8.6 million bales the following year. History proved true to itself yet again when export prices then fell by 50 percent at the export level and by more than 30 percent at the farm-gate level. The drop would have been even greater had the government not intervened.

Some hope for a better future has been placed in cooperation among jute-producing countries through the International Jute Organization, based in Dhaka. Member countries in 1988 were the producing countries of Bangladesh, Bhutan, China, India, Nepal, and Thailand and more than twenty consuming countries, including the United States. The goals of the fledgling International Jute Organization were appropriately modest to begin with, centering on better dissemination of basic information, coordination of agricultural and industrial research and of economic studies, and steps toward coordination of marketing. It remained to be seen in mid-1988 whether this poorly financed new organization, representing the first feeble effort at a coordinated approach to the problems of jute, would be effective in arresting its long decline as an important international commodity. Moreover, world wide growing consciousness about superiority of natural products and the greening effort in every aspect can instigate the global market of jute flourish again.

#### **11.9.2.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 20 with standard deviation of 10.

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Quality Seed Development** as the mean is 28 with standard deviation of 8.94.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications**(Mean = 20, SD=21.2) and then **Transportation and communications**(Mean = 18, SD=8.36) as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality Seed Development (Mean – 22, SD-16.56)** and **Transportation and communications (Mean – 19.3, SD-7.98)** as their 2<sup>nd</sup> preference.

The respondents suggested varied opinion with comparatively higher standard deviation indicating less consistency in responses about identifying the major impediments in achieving superior export values in this category (Jute).

#### 11.9.2.3 Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3, SD- 2.44) as the most preferred possibilities for development production. Then they ranked **providing more domestic agricultural subsidies** (Mean – 3.2, SD- 2.16) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3, SD- 1.8) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.

The Farmers have ranked **more domestic agricultural subsidies** (Mean – 2.6, SD- 1.7) as the most preferred possibilities for development production. Then the option for **introducing product variety** (Mean – 3.4, SD- 1.9) is ranked.

To develop production possibilities of Jute each of the category of respondents except Farmers concerted for Block Activities along with LDCs in WTO to reduce subsidies (by Advanced countries) and the second ranking goes for **Providing more domestic agricultural subsidies**. **The farmers ranked Providing more domestic agricultural subsidies as the first and introducing product variety as the second most important factor.**

#### 11.9.2.4 Production process improvements should prioritize in (100 points to be divided):

##### 11.9.2.4.1 The WTO experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-11.4)

**When first preference is consistent along responses with low standard deviation, second preference lost the ground for very large SD**

##### 11.9.2.4.2 The Agro Marketing Experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-7)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)  
The above two preferences moderate consistency along responses

##### 11.9.2.4.3 The Exporters

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-10.95)

##### 11.9.2.4.4 The Farmers

1st Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-6.32)

Consistent responses with comparatively lower SD

In short, about jute, the responses have wider dispersion from the mean value for most of the category of responders except farmers and choice of preference is same for all the category of respondents.

**11.9.2.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- .54) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.44) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency in jute except Exporters who ranked 'Government supported export services' as the first priority, whereas 'Government supported export services' is ranked as second priority by all the respondents except exporters who ranked 'Anti-Corruption drive in the power/utilities sector' as second in priority. High consistency in the responses of farmers is observed as the SD is '0'.

**11.9.3 Tea (Data tables appended at Annex 6)**

**11.9.3.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized in Tea as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Tea as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Tea emerged as an important foreign exchange earner of Bangladesh. The country's average export of tea per year is about 26 million kg of value of \$36 million. The USSR, Poland, Egypt and Pakistan emerged as major markets for Bangladesh's teas. The tea sector contributes about 0.8% of the GDP in Bangladesh. About 0.15 million people are directly employed in the tea industry, which constitutes about 3.3 percent of the country's total employment.

With the improvement of the rural economic environment, steady population growth as well as the emergence of an economically stable middle class the domestic consumption may reach approximately 55 m.kgs by 2010.

In this context what effect the recent duty free access of Pakistan to Bangladesh tea will have on our tea industry remains to be seen. It is already apparent that though prices have gone up the total volume of our exports has not risen. This duty free access will ensure that our prices are once again out of line with International prices. Those export markets that had been developed in recent year are already looking for alternative sources. With continued pressure from domestic

demand it is unlikely that Pakistan will be able to purchase their target of 10 thousand tons per annum from Bangladesh. If we cannot ensure sufficient quantity of tea in the country in keeping with the increase of consumption in the domestic sector, it can lead to import of tea from other origins. Considering all of the above along with our research findings there is a need for increasing production to meet the local demand as well an opportunity to capture export market of Tea.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tea as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

#### **11.9.3.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Quality Seed Development** as the mean is 32 with standard deviation of 10.9

Among the alternatives the Agro Marketing Experts gave the most emphasis on **Quality Seed Development** as the mean is 28 with standard deviation of 8.3.

Among the alternatives Exporters gave the most emphasis on both **Quality Seed Development** as the mean is 30 with standard deviation of 10.

Among the alternatives The Farmers gave the most emphasis on **Quality Seed Development (Mean – 23, SD-13.45)**.

Though every respondent identified Quality Seed Development as the major Impediments in achieving superior export values in this category; each type of responses have higher value of SD implying low consistency in responses.

#### **11.9.3.3 Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- 1.09) as the most preferred possibilities for development production. Then they **Introducing production process improvements** (Mean – 2.4, SD- 2.1) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 1.9) is ranked.

The Farmers have ranked **Introducing product** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2.09) as the next preference.

Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) is ranked first by every respondent except farmers who ranked Introducing Product.

#### **11.9.3.4 Production process improvements should prioritize in (100 points to be divided):**

##### **11.9.3.4.1 The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-7)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-15)

##### **11.9.3.4.2 The Agro Marketing Experts**

1st Preference - Introducing advanced production engineering (Mean-34, SD-15.1)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-16)

#### **11.9.3.4.3 The Exporters**

1st Preference - Introducing advanced production engineering (Mean-32, SD-13)

#### **11.9.3.4.4 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28.66, SD-10.6)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-6.32)

WTO experts and Farmers concerted for Ensuring timely and adequate inputs supply as the first priority to improve the production process, whereas the Introduction of superior transportation system is ranked as second priority. Whereas, Agro Marketing Experts and the Exporters ranked Introducing advanced production engineering

#### **11.9.3.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.6, SD- 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 3.2, SD- 1.09) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- 0.83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.4, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.06, SD- 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.5, SD- 1.08) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export services' is ranked as second priority. Level of standard deviation shows strong consistency among the responses.

#### **11.9.4 Maize (Data tables appended at Annex 7)**

##### **11.9.4.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Maize currently occupies only about 3000 hectares, and a significant market for the grain has yet to develop (Karim, 1992). It is consumed principally as a green cob either roasted or boiled with some spices. It is considered an inferior grain, and most consumers are not aware of its potential uses in cooking. Evidence suggests that income elasticities of demand for maize are low, even negative for middle and upper income groups. Maize may therefore be a suitable 'inferior good' for inclusion in food distribution programmes. As in the case of wheat, the use of maize in ration shops may ultimately promote its use in the wider population and, at the same time enhance the ability to target the poor in the short run. Industrial uses of maize have also not been optimally developed. With the emergence of an industrial poultry sector in Bangladesh, the market for maize is certain to strengthen. Throughout the world, maize is the preferred grain for industrial poultry production because of its balance of energy, protein, fiber, and micronutrients. Typically it represents more than 60 per cent of the composition of mixed feeds for poultry. The largest poultry producer in the country is importing maize from India to meet his requirements.

Disincentives to production are associated with poor productivity. Maize yields currently average only 0.8 metric tons per hectare, pointing to farmers' use of few inputs. These yields are only half of those of India, Pakistan and Thailand. Results from farm demonstration plots, however, reveal that maize can grow very well in Bangladesh in all seasons. World Bank (June 30, 1995), According to an economic analysis of intensive maize production assuming use of improved composite varieties, maize can be sufficiently competitive and profitable to compete with irrigated boro rice. Survey data show that maize has stronger net financial returns than rice or wheat in both summer and winter seasons, and financial returns are even greater under demonstration plot conditions, suggesting a very large potential for improving on-farm productivity. However, these results assume that maize is sold primarily as green cob rather than grain. By comparison, the hypothetical analyses based on maize grain sales show substantially lower financial returns (World Bank, 1993). Composite maize shows financial profitability on the order of current returns to boro rice, but if hybrid maize is used, economic and financial returns are substantially more attractive. Despite the ex ante nature of this analysis, potentially attractive maize production technologies do exist which can be introduced into Bangladesh farm systems. That they are currently not used is because these technologies have not been made available to farmers.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tea as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition.

#### **11.9.4.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Absence of genetic modifications** as the mean is 20 with standard deviation of 21.2. Then **Transportation and communications** mean is 18 with standard deviation of 8.36

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 26, SD-13.4)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Advanced product processing (Mean – 18, SD-21.6)** and then **Transportation and communications (Mean – 16, SD-11)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean – 19.3, SD-7.98)** and **Absence of genetic modifications (Mean – 18.66, SD-9.15)** as their 2<sup>nd</sup> preference.

Varied responses are with higher SD implying lower consistency along respondents.

#### **11.9.4.3 Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- .83) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Providing more domestic agricultural subsidies** (Mean – 1.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 1.8, SD- 0.83) is ranked.

The Exporters have ranked **Introducing production process improvements** (Mean – 2.6, SD- 2.07) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 2.05) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.8, SD- 1.8) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 3.3, SD- 2.5) is ranked.

Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) is ranked first by WTO experts and farmers they ranked **Introducing production process improvements as the second preference.**

**11.9.4.4 Production process improvements should prioritize in (100 points to be divided):**

**11.9.4.4.1 The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-31, SD-2.2)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-29, SD-8.9)

**11.9.4.4.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply(Mean-34, SD-8.9)

2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**11.9.4.4.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**11.9.4.4.4 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-6.76)

2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-26, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among the responses of WTO experts and the farmers. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

**11.9.4.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1 SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.4, SD- 0.54) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 1.8, SD- .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.



The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.73, SD- 2.3) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 3.2, SD- 1.7) as the next preference for attaining competitive efficiency.

All of the respondent categories concerted for 'Anti-Corruption drive in the power/utilities sector' as the first priority for attaining competitive efficiency, whereas 'Government supported export services' is ranked as second priority. Level of standard deviation shows strong consistency among the responses.

#### **11.9.5 Tomato (Data tables appended at Annex 8)**

##### **11.9.5.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with this issue having a Mean of 3 and standard deviation of 0.7 which implies that the idea of being specialized as an agro-commodity exporter was neither supported nor opposed by the WTO exporters.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the 'Strongly Agree' extremity and the standard deviation being 0.5 which doesn't shift the opinion beyond 'Agree' level. So they believe that Bangladesh should specialize as an agro-commodity exporter.

The Exporters unanimously expressed strong agreement with the question, since the Mean 1 denotes 'Strongly Agree' and a Standard deviation of 0 implies their unity in opinion making their response consistent.

Though the Farmers are more likely to be neutral about the Bangladesh's specialization as an agro-commodity exporter, but there is some inclination towards agreeing on the issue as can be seen from the Mean of 2.67 which implies their partial support to the idea of being specialized as an agro-commodity exporter. However, a standard deviation of 0.9 tends to make their response slightly inconsistent.

Global tomato production (processing and fresh) has increased 291 percent since 1961, reaching 108 million metric tons in Calendar Year (CY) 2002, while yield increased 64 percent, reaching an average of 36 tons per hectare. Most of the production growth occurred in Asia, which accounted for 50 percent of global production in 2002. According to FAO data, global trade of tomatoes and tomato products has increased by 33 percent to \$4.2 billion from 1991 to 2001. The growth in global tomato and tomato products trade is due to increased shipments of fresh tomatoes, which accounted for 74 percent of the total export value in 2001. Exports of tomato paste and tomato juice have remained relatively stable in terms of export value. [*September 2003 FAS/USDA*]

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in tomato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

##### **11.9.5.2 Major impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives the WTO Experts emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category.

The Agro Marketing Experts also emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category.

Among the alternatives the Exporters emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 17.8, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also

mentioned transport and communication (Mean= 18, SD=8.4) as the second impediments in achieving superior export values in this category. The Farmers also emphasized most on the Quality Seed development with the highest Mean (Mean=22) among the alternatives. But a standard deviation of 16.6, due to one extreme value, implies that the choice is varied to some extent among the respondents. They also mentioned transport and communication (Mean= 19, SD=7.4) as the second impediments in achieving superior export values in this category.

All the respondents identified Quality Seed development as the major impediments in achieving superior export values in this category and transport and communication as the second major impediments a higher level of SD implies lower level of consistency among responses.

### **Q3-Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Agro Marketing Experts also opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Exporters have have opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). Next option in this regard was **Providing more domestic agricultural subsidies** with a Mean of 3.4 and SD of 1.9.

The Farmers also opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production (Mean=2.6, SD=1.67). They however ranked **Introducing product variety** as the second option for developing Production Possibilities under this Category with a Mean of 3.4 and SD of 1.9.

All the respondents opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production and **Providing more domestic agricultural subsidies** as the second preference a higher level of SD implies lower level of consistency among responses. Only the farmers opined for **Introducing Product Varieties** as the second preference.

### **11.9.5.3 Production process improvements should prioritize in (100 points to be divided):**

#### **11.9.5.3.1 The WTO experts**

Ensuring timely and adequate inputs supply with a mean value of 32 and an SD value of 4.5 is the first priority and the second Introducing superior transportation system with a mean of 26 and SD of 5.5

#### **11.9.5.3.2 The Agro Marketing Experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

#### **11.9.5.3.3 The Exporters**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-4.4)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

#### **11.9.5.3.4 The Farmers**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-6.76)  
2<sup>nd</sup> Preference - Introducing superior transportation system (Mean-25.3, SD-5.16)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among the responses other than farmers. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

#### 11.9.5.4 Attaining competitive efficiency would result from combinations of (ranking in preferential order):

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All the respondents identified '**Anti-Corruption drives in the power/utilities sector**' and '**Government supported export services**' as the first and secondly ranked combination from which competitive efficiency would result. All the responses are highly consistent with '0' SD.

#### 11.9.6 Okra (Data tables appended at Annex 9)

##### 11.9.6.1 Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Okra as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency.

##### 11.9.6.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 18 with standard deviation of 8. Then **Quality seed developments** mean is 16 with standard deviation of 5.4

Among the alternatives the Agro Marketing Experts the most emphasis on both **Absence of genetic modifications (Mean – 20, SD-14.1)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean – 18, SD-4.4)** and then **Transportation and communications (Mean – 18, SD-8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean – 22.6, SD-10.99)** and **Quality seed developments (Mean – 18, SD-13)** as their 2<sup>nd</sup> preference.

With the above findings the interpretation can be summarized that for successful production and export of Okra 'Quality seed developments' is the major impediments and Transportation and communications as the next major impediments that Bangladesh should work on.

#### **11.9.6.3 Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 1.4, SD- .89) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 2.6 SD- 2.3) as the next preference.

The Agro Marketing Experts have ranked **Introducing product variety** (Mean – 3, SD- 1.5) as the most preferred possibilities for development production. Then the option for ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have ranked **Introducing production process improvements** (Mean – 3, SD- 1.5) as the most preferred possibilities for development production. Then the option for **Easing financing mechanism** (Mean – 3.4, SD- 2.3) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.5, SD- 1.6) as the most preferred possibilities for development production. Then the option for **Introducing product variety** (Mean – 3.7, SD- 2.5) is ranked.

From the above data we can come to the conclusion that 'Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)' should be most preferred area that Bangladesh should start working. The second ranking is given to 'providing more domestic agricultural subsidies which is also should be looked into for the widespread production of the Okra and be competitive in the world market.

#### **11.9.6.4 Production process improvements should prioritize in (100 points to be divided):**

##### **11.9.6.4.1 The WTO experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-34, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-22, SD-8.9)

##### **11.9.6.4.2 The Agro Marketing Experts**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-22, SD-5.4)

##### **11.9.6.4.3 The Exporters**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-32, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

##### **11.9.6.4.4 The Farmers**

Ist Preference - Ensuring timely and adequate inputs supply (Mean-27, SD-6.76)  
2<sup>nd</sup> Preference - Introducing superior transportation system (Mean-21, SD-6.32)

From the above data we can see that 'Ensuring timely and adequate inputs supply' and 'Introducing superior transportation system' are the two major areas for improvement in order to be Okra a successful product and foreign earning tools for Bangladesh.

**11.9.6.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2 SD- .44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- 0.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

From the above study we can see that the major two points that Bangladesh should solve are the 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' for Okra to give the best output.

**11.9.7 Aromatic Rice (Data tables appended at Annex 10)**

**11.9.7.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specialized as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specialized as an agro-commodity is partially supported.

To evaluate the export potential of specialty rice, financial and economic analyses have been performed based upon rapid reconnaissance surveys with several farmers currently growing these varieties. Financial analyses results suggest that kataribhog yields marginally higher financial returns per hectare than does common HYV aman rice, however, returns to kaligira are substantially lower than returns to common HYV. Moreover, benefit-cost ratios are also well below the control crop levels. This suggests that there is little incentive to produce kaligira at current farmgate prices. An evaluation further downstream in the market chain shows a substantial improvement in incentives for kaligira, although no policy is known to create this incentive. This implies either that there remain substantial rents in the market which constrain farmer production of specialty rice, or that the farmgate prices used in the market constrain farmer production of specialty rice, or that the farmgate prices used in the analysis are too low.

The net economic returns to specialty rices are also substantially positive; they suggest that both varieties can be produced very competitively for export, given the actual price of these products in overseas markets. Moreover, the economic returns per hectare for kaligira are nearly identical to returns to aman production of HYV common rice for domestic consumption, while those for kataribhog are considerably above HYV aman. In a second analysis, the economic attractiveness of each variety is compared to the international price of basmati, aromatic rice with worldwide

recognition. In this scenario, net economic returns to kaligira fall but remain substantially positive (Taka 8,935 per hectare), while the competitiveness of kataribhog improves.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in aromatic rice as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

#### 11.9.7.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Transportation and communications** as the mean is 20 with standard deviation of 10.

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 26, SD-8.9)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications (Mean – 20, SD-21.21)** and then **Transportation and communications (Mean – 18, SD-8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 22, SD-16.5)** and **Transportation and communications (Mean – 19.3, SD-7.9)** as their 2<sup>nd</sup> preference.

All of the above responses shows higher SD implying very lower consistency among responses.

#### 11.9.7.3 Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3, SD- 2.4) as the most preferred possibilities for development production. Then they ranked **Providing more domestic agricultural subsidies** (Mean – 3.2 SD- 2.1) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.4, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Introducing production process improvements** (Mean – 3.2, SD- 0.83) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 2.07) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 2.05) is ranked.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.8, SD- 1.8) as the most preferred possibilities for development production. Then the option for **Introducing product variety** (Mean – 3.4, SD- 2.5) is ranked.

All the respondents opined **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** as the most preferred possibilities for development production but with better consistency in te responses of Agro Marketing Expert and farmers. **Providing more domestic agricultural subsidies** though opined by **WTO Experts and exporters** as the second preference a higher level of SD implies lower level of consistency among responses. But responses from Agro Market Exporter identified with comparatively higher consistency (low SD). Only the farmers opined for **Introducing Product Varieties** as the second preference though with higher SD.

#### 11.9.7.4 Production process improvements should prioritize in (100 points to be divided):

##### 11.9.7.4.1 The WTO experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)

#### 11.9.7.4.2 The Agro Marketing Experts

1st Preference - Ensuring timely and adequate inputs supply(Mean-30, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-5.4)

#### 11.9.7.4.3 The Exporters

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Merging individual farm units to form agricultural conglomerates (Mean-18, SD-4.474)

#### 11.9.7.4.4 The Farmers

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-24, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

#### 11.9.7.4.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):

The WTO Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2 SD- .44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .44) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Government supported export services** (Mean – 1.6, SD- 0.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.6, SD- 0.8) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

All the respondents except Exporters identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result. Mainly, responses from farmers are highly consistent with '0' SD.

The exporters ranked 'Government supported export services' as the first and 'Anti-Corruption drives in the power/utilities sector' as second.

### 11.9.8 Mushroom (Data tables appended at Annex 11)

#### 11.9.8.1 Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion

beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Mashroom as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency.

#### 11.9.8.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 17 with standard deviation of 4.4. Then **Transportation and communications** mean is 16 with standard deviation of 8.9

Among the alternatives the Agro Marketing Experts the most emphasis on both **Production process deficiencies (Mean -17, SD-6.7)** and then **Transportation and communications (Mean - 18, SD-9.7)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Absence of genetic modifications (Mean - 15, SD-9.3)** and then **Quality seed developments (Mean - 13, SD-9.7)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Transportation and communications (Mean - 19.3, SD-7.98)** and **Quality seed developments (Mean - 15, SD-7.3)** as their 2<sup>nd</sup> preference.

With the above findings the interpretation can be summarized that 'Quality seed developments' is the major impediments and Transportation and communications as the next major impediments that Bangladesh should work on.

#### 11.9.8.3 Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Introducing product variety (Mean - 3, SD- 1.5)** as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) (Mean - 3.4 SD- 2.3)** as the next preference.

The Agro Marketing Experts have **Introducing product variety (Mean - 3.4, SD- 1.5)** as the most preferred possibilities for development production. Then they ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) (Mean - 3.6 SD- 2.3)** as the next preference.

The Exporters have **Introducing product variety (Mean - 2.4, SD- 1.5)** as the most preferred possibilities for development production. Then they ranked **Product quality improvement (Mean - 3.2 SD- 2.3)** as the next preference.

The Farmers have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) (Mean - 3.5, SD- 1.6)** as the most preferred possibilities for development production. Then the option for **Introducing production process improvements (Mean - 3.7, SD- 2.5)** is ranked.

From the above data it can be inferred that almost all the respondents ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) as the most preferred one meaning that Bangladesh should start the block activities to reduce agricultural subsidy. The second ranking is given to providing more domestic agricultural subsidies by Agro Market Experts and Exporters which should be looked into for the widespread production of the Mashroom and be competitive in the world market.



**11.9.8.4 Production process improvements should prioritize in (100 points to be divided):**

**11.9.8.4.1 The WTO experts**

1st Preference - Merging individual farm units to form agricultural conglomerates (Mean-24, SD-2.2)

2<sup>nd</sup> Preference- Ensuring timely and adequate inputs supply (Mean-19, SD-8.9)

**11.9.8.4.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply(Mean-34, SD-8.9)

2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**11.9.8.4.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**11.9.8.4.4 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-24, SD-6.76)

2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-20, SD-6.32)

From the above data we can deduce that 'Ensuring timely and adequate inputs supply' should be the foremost job that is required for Mashroom production a success. Secondly 'Introducing superior transportation system' need to be attended to make the product easy to transport for export.

**11.9.8.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Scientific management of the input-supply chains** (Mean – 3 SD- 1.5) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Superior forward marketing initiatives** (Mean – 3.8, SD- 1.5) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 3, SD- 2.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Ensuring easy and low-cost financing** (Mean – 3.2, SD- 2.2) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2, SD- 0) as the next preference for attaining competitive efficiency.

From the above study we can see that all the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the most important aspect that The Government should look at to make the Mashroom production and export a success.

**11.9.9 Potato (Data tables appended at Annex 12)**

**11.9.9.1 Bangladesh should specialize as an agro-commodity exporter**

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Potato is suitable as a security crop in times of rice shortages due to its high carbohydrate content contributing to improved food security. It is also used as a vegetable by various income groups of the country. Since it is a short duration crop, its increased use can reduce the pressure on rice and wheat. Considering the production potential of the crop, potato production is projected to grow to 2.43 million Mt in 2001/2002. The increased production is expected to come from expansion in cropped area and increase in yield per hectare. To this end, true potato seed technology need to be encouraged and adopted.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in potato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

#### **11.9.9.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)**

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 32 with standard deviation of 10.9.9. Then **Transportation and communications** mean is 18 with standard deviation of 8.3

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 28, SD-8.3)** and then **Transportation and communications(Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean – 30, SD-10)** and then **Transportation and communications(Mean – 18, SD-8.3)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 23, SD-13.45)** and **Transportation and communications (Mean – 18.66, SD-9.15)**as their 2<sup>nd</sup> preference.

All the respondents identified Quality seed developments as the Major Impediments in achieving superior export values in this category only consistency among responses is found better among the respondents of WTO experts but second choice of Transportation and communications has moderate consistency.

#### **11.9.9.3 Preferential Ranking for Developing Production Possibilities under this Category**

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- .83) as the most preferred possibilities for development production. Then they ranked **Introducing production process improvements** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Farmers have ranked **Introducing product variety** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then the option for **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2) is ranked.

All the respondents except farmers ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) whereas, farmers ranked 'Introducing product variety'. The second ranking is given to **providing more domestic agricultural subsidies by Agro Market Experts and Exporters.**

**11.9.9.4 Production process improvements should prioritize in (100 points to be divided):**

**11.9.9.4.1 The WTO experts**

1st Preference - Ensuring timely and adequate inputs supply (Mean-31, SD-2.2)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-29, SD-8.9)

**11.9.9.4.2 The Agro Marketing Experts**

1st Preference - Ensuring timely and adequate inputs supply(Mean-34, SD-8.9)

2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

**11.9.9.4.3 The Exporters**

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)

2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

**11.9.9.4.4 The Farmers**

1st Preference - Ensuring timely and adequate inputs supply(Mean-32, SD-6.76)

2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-26, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

**11.9.9.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):**

The WTO Experts have ranked **Government supported export** (Mean – 2.6 SD- 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Ensuring easy and low-cost financing** (Mean – 3.2, SD- 1) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.4, SD- 0.89) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.06, SD- 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.5, SD- 1.3) as the next preference for attaining competitive efficiency.

All the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result.

The WTO expert ranked 'Government supported export services' as the first and '**Ensuring easy and low-cost financing**' as second.

### 11.9.10 Sweet potato (Data tables appended at Annex 13)

#### 11.9.10.1 Bangladesh should specialize as an agro-commodity exporter

The WTO Experts are neutral with the question as the mean is 3 with standard deviation 0.7 which implies that the idea of being specializes as an agro-commodity was neither supported nor opposed.

The Agro Marketing Experts agrees with the question since the Mean of 1.4 is much close to the strongly agreed extremity and the standard deviation of 0.5 which does not shift the opinion beyond agree level. So, they think Bangladesh must be specialized as an agro-commodity exporter.

The Exporters unanimously express strong agreement with the question as the Mean is 1 with nil standard deviation implies that they think Bangladesh must be specialized in Sweet Potato as an agro-commodity exporter.

The Farmers are neutral inclined to agree with the question as the mean is 2.67 with standard deviation 0.9 which implies that the idea of Bangladesh being specializes as an agro-commodity is partially supported.

Sweet potato is considered as a subsistence as well as a poor people's food. Hence, its production will be encouraged on marginal lands, homestead areas, roadsides and elsewhere as a low input crop to ensure its continued availability to, and affordability by low income consumers. Sweet potato production is projected to be 0.66 million Mt in the terminal year of the Fifth Plan.

Though our research findings shows that the WTO Experts and farmers are neutral about the specialization in Sweet Potato as an agro-commodity exporter, agro marketing experts and exporters are in agreement with the proposition with higher level of consistency implied from low SD.

#### 11.9.10.2 Major Impediments in achieving superior export values in this category (100 points to be divided amongst the elements)

Among the alternatives The WTO Experts gave the most emphasis on **Quality seed developments** as the mean is 32 with standard deviation of 10.9. Then **Transportation and communications** mean is 18 with standard deviation of 8.36

Among the alternatives the Agro Marketing Experts the most emphasis on both **Quality seed developments (Mean – 28, SD-13.4)** and then **Transportation and communications (Mean – 18, SD-8.36)** as their 2<sup>nd</sup> preference.

Among the alternatives Exporters gave the most emphasis on both **Quality seed developments (Mean – 30, SD-21.6)** and then **Transportation and communications (Mean – 18, SD-11)** as their 2<sup>nd</sup> preference.

Among the alternatives The Farmers gave the most emphasis on **Quality seed developments (Mean – 23, SD-13)** and **Transportation and communications (Mean – 18.66, SD-9.4)** as their 2<sup>nd</sup> preference.

All the respondents identified 'Quality seed developments' as the major impediments and Transportation and communications as the next major impediments.

#### 11.9.10.3 Preferential Ranking for Developing Production Possibilities under this Category

The WTO Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.2, SD- .83) as the most preferred possibilities for development production. Then they ranked **Introducing production process improvements** (Mean – 2.4 SD- 1.5) as the next preference.

The Agro Marketing Experts have ranked **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Exporters have **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 2.6, SD- 0.54) as the most preferred possibilities for development production. Then the option for **Providing more domestic agricultural subsidies** (Mean – 3.4, SD- 0.83) is ranked.

The Farmers have ranked **Introducing product variety** (Mean – 3.6, SD- 1.9) as the most preferred possibilities for development production. Then the option for **Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries)** (Mean – 3.6, SD- 2) is ranked.

All the respondents except farmers ranked Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries) whereas, farmers ranked 'Introducing product variety'. The second ranking is given to providing more domestic agricultural subsidies by Agro Market Experts and Exporters whereas WTO experts ranked 'Introducing production process improvements'

#### 11.9.10.4 Production process improvements should prioritize in (100 points to be divided):

##### 11.9.10.4.1 The WTO experts

1st Preference - Ensuring timely and adequate inputs supply (Mean-30, SD-2.2)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-24, SD-8.9)

##### 11.9.10.4.2 The Agro Marketing Experts

1st Preference - Ensuring timely and adequate inputs supply(Mean-34, SD-8.9)  
2<sup>nd</sup> Preference- Introducing advanced production engineering (Mean-26, SD-5.4)

##### 11.9.10.4.3 The Exporters

1st Preference - Ensuring timely and adequate inputs supply (Mean-28, SD-8.9)  
2<sup>nd</sup> Preference- Introducing superior transportation system (Mean-26, SD-5.4)

##### 11.9.10.4.4 The Farmers

1st Preference - Ensuring timely and adequate inputs supply(Mean-28, SD-6.76)  
2<sup>nd</sup> Preference -Introducing superior transportation system (Mean-24, SD-6.32)

All the respondents preferred 'Ensuring timely and adequate inputs supply' firstly but higher consistency is found among mainly the responses from WTO experts. Whereas, 'Introducing superior transportation system' is preferred secondly with moderate consistency.

#### 11.9.10.5 Attaining competitive efficiency would result from combinations of (ranking in preferential order):

The WTO Experts have ranked **Government supported export services** (Mean – 2.6 SD- 1.9) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Ensuring easy and low-cost financing** (Mean – 3.2, SD- 1) as the next preference for attaining competitive efficiency.

The Agro Marketing Experts have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1.2, SD- 0.44) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.2, SD- .83) as the next preference for attaining competitive efficiency.

The Exporters have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 1, SD- 0) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.4, SD- 0.89) as the next preference for attaining competitive efficiency.

The Farmers have ranked **Anti-Corruption drives in the power/utilities sector** (Mean – 2.06, SD- 1.86) as the most preferred possibilities for attaining competitive efficiency. Then they ranked **Government supported export services** (Mean – 2.5, SD- 1.83) as the next preference for attaining competitive efficiency.

All the respondents except WTO expert identified 'Anti-Corruption drives in the power/utilities sector' and 'Government supported export services' as the first and secondly ranked combination from which competitive efficiency would result.

The WTO expert ranked 'Government supported export services' as the first and 'Ensuring easy and low-cost financing' as second.

## 12.0 Conclusion

The research findings support the notion that Bangladesh can claim its position as an agro-commodities exporter under a stable WTO regime. However, the recommendations put forward in the individual product/commodity analysis would assist in the resolution of the minor glitches that the agricultural sector is facing at this moment – arising out of primarily three reasons:

- (a) Technological inferiority
- (b) Management inefficiency and absence of advanced marketing focus/control
- (c) Input unavailability.

## 13.0 Future Courses of Study

It would be advisable to continue with the other advanced objectives of the main research project with a view to cross-correlate the viability of the agricultural products under different WTO regimes and price structures and also to delineate the production-possibility frontier for the production of agricultural commodities.

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ANNEX 9:	PRIMARY SURVEY DATA ANALYSIS TABLES	APPENDICES FOLLOW	297
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# **PRIMARY SURVEY DATA ANALYSIS TABLES**

<b>APPENDIX 1:</b>	<b>COMBINED AVERAGE SELECTION RANKINGS FOR PRODUCTS / RESPONDENT TYPE / BANGLADESH SCENARIO / SWOT / DEVELOPMENT AGENDA</b>	<b>COMPLETE WITH ANALYSIS AND SUPPLEMENTARY DATA TABLES</b>	<b>298</b>
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### 1. Combined Average Selection Ranking for Products

A detailed listing of combined averages based on the following control data parameters:

- i. Financial Lucrativeness
- ii. Marketing Opportunities
- iii. Supply side efficiency
- iv. Logistic support
- v. Packaging superiority
- vi. Advertising campaign effectiveness
- vii. Forward Linkages
- viii. Technical Expertise

Detailed supplementary statistics (product wise) appended in Annex 2.

Average	Agro-Commodity	Financial Lucrativeness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Advertising campaign effectiveness	Forward Linkages	Technical Expertise
4.13	Currants and gooseberries	4	4.4	3.4	4.4	5	4.6	4.2	3
4.13	Tomatoes	3	4	5	5	4	4	3	5
4.05	Rapeseed and Mustard seed	3	4	3.8	4.4	3.6	4.4	4.2	5
4.00	Onions (inc. shallots)	4	3.2	4.2	4.2	4.4	4	5	3
3.95	Cereals, nec	4	4	3.4	4.2	5	3.4	4.6	3
3.93	Legum. veg., nec	4	4	3.4	4	5	4.2	3.8	3
3.88	Soybeans	3	4	3.8	4.6	3.6	4.6	2.4	5
3.83	Lemons and limes	3	4	4.8	3.2	2.8	3.8	4	5
3.83	Sunflower seed	3	4	5	5	4	2.2	2.4	5
3.80	Groundnuts	3	4	4.8	3.2	2.6	3.8	4	5
3.75	Ginger	4	3.8	2.8	3.8	5	4.2	3.4	3
3.70	Sorghum	4	4	4	3	3.4	3.2	5	3
3.68	Citrus fruit, nec	4	3.2	3.4	4.2	5	3	3.6	3
3.55	Cauliflowers and broccoli	1	2.6	5	3.2	4.4	5	4.2	3
3.50	Beans, dry	1	2.6	3.4	4	4.8	5	4.2	3
3.50	Maize	4	2.8	1.8	3.4	5	4	4	3
3.45	Pumpkins, squash and gourds	4	4	4	3	3.8	3.6	2.2	3
3.38	Bananas	1	2	3	4	5	5	4	3
3.38	Barley	4	4	4	2	2	3	5	3
3.38	Potatoes	3	4	3.8	2	3.6	1.8	3.8	5
3.38	Wheat	3	4	5	5	2	1	2	5

Average	Agro-Commodity	Financial Lucrative- ness	Marketing Opportunities	Supply side efficiency	Logistic support	Packaging superiority	Advertising campaign effectiveness	Forward Linkages	Technical Expertise
3.38	Yams	3	4	5	5	2	1	2	5
3.33	Pineapples	4	1.6	4.8	3	4.4	3.8	2	3
3.30	Pepper (Piper spp.)	1	2.8	4	3.8	4.2	4	3.6	3
3.28	Cabbages and other brassicas	4	3.6	3.6	2.6	2	2.8	4.6	3
3.25	Mushrooms and truffles	3	1.6	4	2.6	3	4.2	2.6	5
3.23	Beans, green	3	4.2	4.4	4.2	2	1	2	5
3.23	Peas, green	3	4.8	2.6	2	2.4	1.8	4.2	5
3.18	Cassava (fresh and dried)	3	4.2	3.6	4	2.6	1.2	1.8	5
3.15	Chillies and peppers, green	1	3.8	4.2	3.2	1.2	4.2	4.6	3
3.13	Tea and Maté	4	4	4	2	1	2	5	3
3.13	Watermelons	4	4	4	2	1	2	5	3
3.03	Sugar Cane and Sugar crops, nec	4	4	3.4	1.2	1	2.6	5	3
3.00	Papayas	3	1.6	3.2	3.2	2.8	3.8	1.4	5
3.00	Sweet potatoes	1	2	3	4	3	4	4	3
3.00	Vegetables, nec (inc. okra)	1	2	3	4	3	4	4	3
2.93	Cucumbers and gherkins	1	3.8	4.2	2.6	1.2	3	4.6	3
2.93	Eggplants (aubergines)	3	2.6	2	2.4	2.8	3.8	1.8	5
2.80	Coconuts (incl. copra)	3	2.2	2	2.4	2.8	3.4	1.6	5
2.58	Oilseeds, nec	1	4.4	3.2	1.6	1.6	2	3.8	3
2.58	Pulses, nec	1	2	1.8	3.8	2	4	3	3
2.56	Chillies and peppers, dry	3	2.2	2	1.6	2.8	1.8	1.6	5
2.43	Garlic	1	2.2	4.2	2.6	1.2	1.4	3.8	3
2.43	Spinach	1	2	1.8	2.8	1.8	3	4	3
2.35	Rice, paddy	1	2	1.8	2.8	1.8	3	3.4	3
2.15	Lettuce and chicory	1	2.2	3.2	2.2	1.2	2	2.4	3
2.00	Guavas, mangoes, mangoosteens	1	1.6	2.6	2.2	1.8	1.4	2.4	3

## 2. Respondent Type

WTO Experts:

05

Agro-Commodities/Marketing Experts:

05

Agro-Product Exporters:

05

Farmers:

05

3. Comments on if Bangladesh Should Specialize as an Agro-Commodity Exporter

<b>Respondent Type and Response Statistics</b>	<b>Interpretation</b>
<p><b>WTO Experts</b>                      Mean: 3                      Standard Error: 0.316227766                      Median: 3                      Mode: 3                      Standard Deviation: 0.707106781                      Sample Variance: 0.5                      Kurtosis: 2                      Skewness: 0                      Range: 2                      Minimum: 2                      Maximum: 4                      Sum: 15                      Count: 5                      Largest(1): 4                      Smallest(1): 2                      Confidence Level(95.0%): 0.877990852</p>	<p>WTO experts seem to be of an opinion indifferent to the extreme values. The experts maintain a starkly neutral position to the notion that Bangladesh should specialize as an agro-commodity exporter. Not surprisingly the groups under study maintain reasonably similar positions as with regards to all the products and commodities categories under study. However, as is the case, the standard deviation is 0.71, which makes the mean all the more significant as to the indifference signified in the responses recorded and the observations made. Informal discussions suggest that the WTO experts would prefer other sectors of the economy, i.e., the service sector, specifically, implementation of the GATS Mode IV elements as a far superior method for reaping benefits of the WTO regime ... which happens to be the inner core of analysis for the research project.</p>
<p><b>Agro-Commodities/Marketing Experts</b>                      Mean: 1.4                      Standard Error: 0.244948974                      Median: 1                      Mode: 1                      Standard Deviation: 0.547722558                      Sample Variance: 0.3                      Kurtosis: -3.33333333                      Skewness: 0.608580619                      Range: 1                      Minimum: 1                      Maximum: 2                      Sum: 7                      Count: 5                      Largest(1): 2                      Smallest(1): 1                      Confidence Level(95.0%): 0.680088789</p>	<p>The Agro-Commodities / Marketing Experts maintain significantly higher position in terms of their optimism with the prospects for the agro-commodities and exports abroad. The standard deviation for the category is also small – implying centrality of the results for the optimism expressed with the option from the commodities/marketing experts. Invariably, the experts suggested strong opinions for the development of the sector with proper care.</p>
<p><b>Agro-Product Exporters</b>                      Mean: 1                      Standard Error: 0                      Median: 1                      Mode: 1                      Standard Deviation: 0                      Sample Variance: 0                      Kurtosis: #DIV/0!                      Skewness: #DIV/0!                      Range: 0                      Minimum: 1                      Maximum: 1                      Sum: 5</p>	<p>The exporters, as expected, expressed their strong support for a better future with agro-commodities under all possible WTO regimes. Incidentally, all expressed univocal stand-points for the option at point 1, which happens to be the highest agreement in consideration. Standard deviation is also zero, making the significance of the projections made by the exporter statistically significant for the research.</p>



Respondent Type and Response Statistics	Interpretation
<p>Count: 5                      Largest(1): 1                      Smallest(1): 1                      Confidence Level(95.0%): 0</p> <p><b>Farmers</b>                      Mean: 2.666666667                      Standard Error: 0.251976315                      Median: 3                      Mode: 3                      Standard Deviation: 0.975900073                      Sample Variance: 0.952380952                      Kurtosis: -0.646153846                      Skewness: -0.275879444                      Range: 3                      Minimum: 1                      Maximum: 4                      Sum: 40                      Count: 15                      Largest(1): 4                      Smallest(1): 1                      Confidence Level(95.0%): 0.540435928</p>	<p>Farmers' opinions significantly varied with that of the exporters and agro-commodities experts. Co-incidentally, they matched rather with the WTO experts. Informal discussions suggested that to the farmers, it was not a potential for the future that mattered. Rather, it was the cash generating potential that provided the allotment to the choice of profession / product / sector for service. To the farmers, incidentally, old generation industrial implements accorded higher significance than the possibilities of earning more / better than they were at the present time context. Incidentally, the standard deviation is also 0.98, which provides significant variations compared to other forms of answer types observed and recorded from the three other respondent types.</p>

**4. Response Matrix on The biggest threat to agro-commodity export from Bangladesh**

On the biggest threat to agro-commodities export from Bangladesh, different respondent groups identified different issue preferences from the noted response options. The WTO Experts identified "Absence of superior technological know-how" as the major impediment towards the development of the agricultural commodities export from Bangladesh. The second in order of importance to the group were, "Absence of superior agricultural management techniques" and "Absence of dependable and affordable financing mechanisms". On the other hand, to the agro-commodities experts, "Absence of factor endowments to produce competitive products" and the "Absence of forward marketing channels" appeared to be the more significant issues to be resolved for expediting development in the agricultural sector of the country. To the exporter group of respondents as well, the "Absence of agricultural management techniques" and the "Absence of forward marketing channels" were the more important issues for immediate resolution with regards to the development of the sector, while to the farmer group of respondents, "Absence of dependable financing mechanism", "Natural calamities" and "Absence of agricultural management techniques" appear in order of significance for resolution in order to develop the agricultural sector for export in both the short and long runs.

**5. On the onus of agricultural sector development**

To all groups, the onus of development of the agricultural sector is on the private sector. However, to the farmers group of respondents, both the Government and the Private Sector rank high and close to the Private Sector in sharing the responsibilities with respect to the development of the agricultural sector in Bangladesh.

**6. On prioritizing development initiatives**

To the WTO experts, "Forward Marketing" and "Product Quality Improvement" were the more important elements in order of priority for the development of the agricultural sector. So was the case with the Agro/Marketing Experts and Exporters. However, with the farmers group of respondents, a separate element of ease of financing came up in the prioritized list of instruments for the development of the agricultural sector.

**7. Specific methods to prioritize in agro-commodity development**

To the WTO Experts, "Advanced Agro-Commodities Processing" and "Ease of Financing" came up on top for the list of development initiatives of the country. So was the case with the agro-commodities / marketing experts. However, for the exporters group of respondents, product financing secured the second position with the top-most remaining the same. For the Farmers group of respondents, "Advanced Product Processing", "Production Financing", and advanced technological feats, such as "Genetic Engineering" produced higher value responses.

**8. Bangladesh's biggest competitors in agro-products**

To the WTO Experts, the Sub-Saharan Africa and other African Regions held superior potentials for competing with. Same was true for all other groups.





Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
1	Abdullah Al-Mamun	1001	B	
2	Abdullah Al-Mamun	1002	B	
3	Abdullah Al-Mamun	1003	B	
4	Abdullah Al-Mamun	1004	B	
5	Abdullah Al-Mamun	1005	B	
6	Abdullah Al-Mamun	1006	B	
7	Abdullah Al-Mamun	1007	B	
8	Abdullah Al-Mamun	1008	B	
9	Abdullah Al-Mamun	1009	B	
10	Abdullah Al-Mamun	1010	B	
11	Abdullah Al-Mamun	1011	B	
12	Abdullah Al-Mamun	1012	B	
13	Abdullah Al-Mamun	1013	B	
14	Abdullah Al-Mamun	1014	B	
15	Abdullah Al-Mamun	1015	B	
16	Abdullah Al-Mamun	1016	B	
17	Abdullah Al-Mamun	1017	B	
18	Abdullah Al-Mamun	1018	B	
19	Abdullah Al-Mamun	1019	B	
20	Abdullah Al-Mamun	1020	B	
21	Abdullah Al-Mamun	1021	B	
22	Abdullah Al-Mamun	1022	B	
23	Abdullah Al-Mamun	1023	B	
24	Abdullah Al-Mamun	1024	B	
25	Abdullah Al-Mamun	1025	B	
26	Abdullah Al-Mamun	1026	B	
27	Abdullah Al-Mamun	1027	B	
28	Abdullah Al-Mamun	1028	B	
29	Abdullah Al-Mamun	1029	B	
30	Abdullah Al-Mamun	1030	B	
31	Abdullah Al-Mamun	1031	B	
32	Abdullah Al-Mamun	1032	B	
33	Abdullah Al-Mamun	1033	B	
34	Abdullah Al-Mamun	1034	B	
35	Abdullah Al-Mamun	1035	B	
36	Abdullah Al-Mamun	1036	B	
37	Abdullah Al-Mamun	1037	B	
38	Abdullah Al-Mamun	1038	B	
39	Abdullah Al-Mamun	1039	B	
40	Abdullah Al-Mamun	1040	B	
41	Abdullah Al-Mamun	1041	B	
42	Abdullah Al-Mamun	1042	B	
43	Abdullah Al-Mamun	1043	B	
44	Abdullah Al-Mamun	1044	B	
45	Abdullah Al-Mamun	1045	B	
46	Abdullah Al-Mamun	1046	B	
47	Abdullah Al-Mamun	1047	B	
48	Abdullah Al-Mamun	1048	B	
49	Abdullah Al-Mamun	1049	B	
50	Abdullah Al-Mamun	1050	B	
51	Abdullah Al-Mamun	1051	B	
52	Abdullah Al-Mamun	1052	B	
53	Abdullah Al-Mamun	1053	B	
54	Abdullah Al-Mamun	1054	B	
55	Abdullah Al-Mamun	1055	B	
56	Abdullah Al-Mamun	1056	B	
57	Abdullah Al-Mamun	1057	B	
58	Abdullah Al-Mamun	1058	B	
59	Abdullah Al-Mamun	1059	B	
60	Abdullah Al-Mamun	1060	B	
61	Abdullah Al-Mamun	1061	B	
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63	Abdullah Al-Mamun	1063	B	
64	Abdullah Al-Mamun	1064	B	
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66	Abdullah Al-Mamun	1066	B	
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88	Abdullah Al-Mamun	1088	B	
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94	Abdullah Al-Mamun	1094	B	
95	Abdullah Al-Mamun	1095	B	
96	Abdullah Al-Mamun	1096	B	
97	Abdullah Al-Mamun	1097	B	
98	Abdullah Al-Mamun	1098	B	
99	Abdullah Al-Mamun	1099	B	
100	Abdullah Al-Mamun	1100	B	















<b>APPENDIX 2:</b>	<b>PRODUCT ANALYSIS TABLES: TOBACCO</b>		<b>312</b>
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Report submitted to the Hon'ble Director of Forests, Dhaka, on 10th September 1979, in relation to the forest management of the area.

Prepared for the Director of Forests, Dhaka, on 10th September 1979, in relation to the forest management of the area.

Sl. No.	Name of the Forest	Area (Acres)	Type of Forest	Forest Management		Forest Condition		Forest Production		Forest Conservation	
				Planted	Native	Good	Poor	Yield	Quality	Preserved	Protected
1	Forest 1	100	Teak	10	90	80	20	100	100	100	100
2	Forest 2	25	Sal	5	20	15	10	100	100	100	100
3	Forest 3	10	Teak	0	10	0	10	100	100	100	100
4	Forest 4	10	Sal	10	0	10	0	100	100	100	100
5	Forest 5	10	Teak	10	0	10	0	100	100	100	100
6	Forest 6	10	Sal	10	0	10	0	100	100	100	100
7	Forest 7	10	Teak	10	0	10	0	100	100	100	100
8	Forest 8	10	Sal	10	0	10	0	100	100	100	100
9	Forest 9	10	Teak	10	0	10	0	100	100	100	100
10	Forest 10	10	Sal	10	0	10	0	100	100	100	100

Sl. No.	Name of the Forest	Area (Acres)	Type of Forest	Forest Management		Forest Condition		Forest Production		Forest Conservation	
				Planted	Native	Good	Poor	Yield	Quality	Preserved	Protected
11	Forest 11	10	Teak	10	0	10	0	100	100	100	100
12	Forest 12	10	Sal	10	0	10	0	100	100	100	100
13	Forest 13	10	Teak	10	0	10	0	100	100	100	100
14	Forest 14	10	Sal	10	0	10	0	100	100	100	100
15	Forest 15	10	Teak	10	0	10	0	100	100	100	100
16	Forest 16	10	Sal	10	0	10	0	100	100	100	100
17	Forest 17	10	Teak	10	0	10	0	100	100	100	100
18	Forest 18	10	Sal	10	0	10	0	100	100	100	100
19	Forest 19	10	Teak	10	0	10	0	100	100	100	100
20	Forest 20	10	Sal	10	0	10	0	100	100	100	100



National Research Institute for Developmental Psychology (NRI) - Bangladesh										National Research Institute for Developmental Psychology (NRI) - Bangladesh									
Year	Month	Day	Time	Location	Activity	Duration	Participants	Observers	Notes	Year	Month	Day	Time	Location	Activity	Duration	Participants	Observers	Notes
2010	Jan	15	10:00	Room 101	Group Discussion	1.5h	10	2	Initial discussion on research objectives.	2010	Jan	15	10:00	Room 101	Group Discussion	1.5h	10	2	Initial discussion on research objectives.
2010	Jan	16	10:00	Room 101	Group Discussion	1.5h	10	2	Continuation of discussion on research objectives.	2010	Jan	16	10:00	Room 101	Group Discussion	1.5h	10	2	Continuation of discussion on research objectives.
2010	Jan	17	10:00	Room 101	Group Discussion	1.5h	10	2	Final discussion on research objectives.	2010	Jan	17	10:00	Room 101	Group Discussion	1.5h	10	2	Final discussion on research objectives.
2010	Jan	18	10:00	Room 101	Group Discussion	1.5h	10	2	Summary of research objectives.	2010	Jan	18	10:00	Room 101	Group Discussion	1.5h	10	2	Summary of research objectives.
2010	Jan	19	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	19	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	20	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	20	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	21	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	21	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	22	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	22	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	23	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	23	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	24	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	24	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	25	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	25	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	26	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	26	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	27	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	27	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	28	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	28	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	29	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	29	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	30	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	30	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.
2010	Jan	31	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.	2010	Jan	31	10:00	Room 101	Group Discussion	1.5h	10	2	Final summary of research objectives.







**Abstracts of papers presented at the 19th Annual Meeting of the Bangladesh Association of Agricultural Librarians and Documentalists (BALAD) 2019, Dhaka, Bangladesh, 14-15 December 2019.**

Sl. No.	Author	Title	Abstract
1	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
2	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
3	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.

**Abstracts of papers presented at the 19th Annual Meeting of the Bangladesh Association of Agricultural Librarians and Documentalists (BALAD) 2019, Dhaka, Bangladesh, 14-15 December 2019.**

Sl. No.	Author	Title	Abstract
4	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
5	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
6	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.

Sl. No.	Author	Title	Abstract
7	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
8	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
9	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.

Sl. No.	Author	Title	Abstract
10	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
11	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.
12	Dr. Md. Masud Raza	Digitization of the Bangladesh National Archives	The National Archives of Bangladesh is a vast repository of historical documents. The digitization of these documents is a crucial step towards preserving the nation's heritage and making it accessible to the public. This paper discusses the challenges and solutions involved in the digitization process.



<b>APPENDIX 3:</b>	<b>PRODUCT ANALYSIS TABLES: JUTE</b>		<b>320</b>
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Table 1: Summary of the study area and the study period. The table lists various parameters such as Area, Location, and Time, with corresponding values and units.

Parameter	Value	Unit
Area	100	km <sup>2</sup>
Location	Dhaka	
Time	1990-2000	Year

Table 2: Summary of the study area and the study period. The table lists various parameters such as Area, Location, and Time, with corresponding values and units.

Parameter	Value	Unit
Area	100	km <sup>2</sup>
Location	Dhaka	
Time	1990-2000	Year

Table 3: Summary of the study area and the study period. The table lists various parameters such as Area, Location, and Time, with corresponding values and units.

Parameter	Value	Unit
Area	100	km <sup>2</sup>
Location	Dhaka	
Time	1990-2000	Year

Table 4: Summary of the study area and the study period. The table lists various parameters such as Area, Location, and Time, with corresponding values and units.

Parameter	Value	Unit
Area	100	km <sup>2</sup>
Location	Dhaka	
Time	1990-2000	Year

Prepared by: [Name] | Date: [Date] | Page: [Page]

Year	Month	Day	Time	Location	Activity	Remarks
1970	Jan	1	10:00	Library	Reading	...
1970	Jan	2	10:00	Library	Reading	...
1970	Jan	3	10:00	Library	Reading	...
1970	Jan	4	10:00	Library	Reading	...
1970	Jan	5	10:00	Library	Reading	...
1970	Jan	6	10:00	Library	Reading	...
1970	Jan	7	10:00	Library	Reading	...
1970	Jan	8	10:00	Library	Reading	...
1970	Jan	9	10:00	Library	Reading	...
1970	Jan	10	10:00	Library	Reading	...
1970	Jan	11	10:00	Library	Reading	...
1970	Jan	12	10:00	Library	Reading	...
1970	Jan	13	10:00	Library	Reading	...
1970	Jan	14	10:00	Library	Reading	...
1970	Jan	15	10:00	Library	Reading	...
1970	Jan	16	10:00	Library	Reading	...
1970	Jan	17	10:00	Library	Reading	...
1970	Jan	18	10:00	Library	Reading	...
1970	Jan	19	10:00	Library	Reading	...
1970	Jan	20	10:00	Library	Reading	...
1970	Jan	21	10:00	Library	Reading	...
1970	Jan	22	10:00	Library	Reading	...
1970	Jan	23	10:00	Library	Reading	...
1970	Jan	24	10:00	Library	Reading	...
1970	Jan	25	10:00	Library	Reading	...
1970	Jan	26	10:00	Library	Reading	...
1970	Jan	27	10:00	Library	Reading	...
1970	Jan	28	10:00	Library	Reading	...
1970	Jan	29	10:00	Library	Reading	...
1970	Jan	30	10:00	Library	Reading	...
1970	Jan	31	10:00	Library	Reading	...

Prepared by: [Name] | Date: [Date] | Page: [Page]

Year	Month	Day	Time	Location	Activity	Remarks
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1970	Jan	2	10:00	Library	Reading	...
1970	Jan	3	10:00	Library	Reading	...
1970	Jan	4	10:00	Library	Reading	...
1970	Jan	5	10:00	Library	Reading	...
1970	Jan	6	10:00	Library	Reading	...
1970	Jan	7	10:00	Library	Reading	...
1970	Jan	8	10:00	Library	Reading	...
1970	Jan	9	10:00	Library	Reading	...
1970	Jan	10	10:00	Library	Reading	...
1970	Jan	11	10:00	Library	Reading	...
1970	Jan	12	10:00	Library	Reading	...
1970	Jan	13	10:00	Library	Reading	...
1970	Jan	14	10:00	Library	Reading	...
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1970	Jan	27	10:00	Library	Reading	...
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1970	Jan	31	10:00	Library	Reading	...





— 3214 —

Program of Postgraduate Studies, Dhaka University, Dhaka, Bangladesh

Sl. No.	Name	Grade	Year	Subject	Grade	Year	Subject	Grade	Year	Subject	Grade
1	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
2	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
3	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
4	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
5	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
6	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
7	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
8	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
9	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
10	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B

Sl. No.	Name	Grade	Year	Subject	Grade	Year	Subject	Grade	Year	Subject	Grade
11	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
12	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
13	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
14	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
15	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
16	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
17	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
18	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
19	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
20	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B

Program of Postgraduate Studies, Dhaka University, Dhaka, Bangladesh

Sl. No.	Name	Grade	Year	Subject	Grade	Year	Subject	Grade	Year	Subject	Grade
21	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
22	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
23	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
24	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
25	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
26	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
27	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
28	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
29	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
30	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B

Sl. No.	Name	Grade	Year	Subject	Grade	Year	Subject	Grade	Year	Subject	Grade
31	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
32	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
33	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
34	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
35	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
36	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
37	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
38	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
39	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B
40	Abdur Rahman	B	1970	English	B	1971	English	B	1972	English	B



Product: *Product name* *Product code* *Product description* *Product quantity* *Product price* *Product total*

Product	Quantity	Price	Total
Product 1	10	100	1000
Product 2	20	200	4000
Product 3	30	300	9000
Product 4	40	400	16000
Product 5	50	500	25000
Product 6	60	600	36000
Product 7	70	700	49000
Product 8	80	800	64000
Product 9	90	900	81000
Product 10	100	1000	100000

Product: *Product name* *Product code* *Product description* *Product quantity* *Product price* *Product total*

Product	Quantity	Price	Total
Product 1	10	100	1000
Product 2	20	200	4000
Product 3	30	300	9000
Product 4	40	400	16000
Product 5	50	500	25000
Product 6	60	600	36000
Product 7	70	700	49000
Product 8	80	800	64000
Product 9	90	900	81000
Product 10	100	1000	100000

Product	Quantity	Price	Total
Product 1	10	100	1000
Product 2	20	200	4000
Product 3	30	300	9000
Product 4	40	400	16000
Product 5	50	500	25000
Product 6	60	600	36000
Product 7	70	700	49000
Product 8	80	800	64000
Product 9	90	900	81000
Product 10	100	1000	100000

Product	Quantity	Price	Total
Product 1	10	100	1000
Product 2	20	200	4000
Product 3	30	300	9000
Product 4	40	400	16000
Product 5	50	500	25000
Product 6	60	600	36000
Product 7	70	700	49000
Product 8	80	800	64000
Product 9	90	900	81000
Product 10	100	1000	100000

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Year	Month	Day	Time	Location	Event	Remarks
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1970	10	16	10:00	100	100	100
1970	10	17	10:00	100	100	100
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1970	10	31	10:00	100	100	100

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Year	Month	Day	Time	Location	Event	Remarks
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1970	11	29	10:00	100	100	100
1970	11	30	10:00	100	100	100

<b>APPENDIX 4:</b>	<b>PRODUCT ANALYSIS TABLES: TEA</b>		<b>328</b>
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Author:  Name:  Title:  Institution:  Country:  E-mail:  Phone:  Fax:  Address:  City:  State:  Zip:  Country:

Year	Issue	Volume	Page	Author	Title	Journal	Year	Issue	Volume	Page	Author	Title	Journal
1997	1	1	1-10	...	...	...	1997	1	1	1-10	...	...	...
1998	2	2	11-20	...	...	...	1998	2	2	11-20	...	...	...
1999	3	3	21-30	...	...	...	1999	3	3	21-30	...	...	...
2000	4	4	31-40	...	...	...	2000	4	4	31-40	...	...	...
2001	5	5	41-50	...	...	...	2001	5	5	41-50	...	...	...
2002	6	6	51-60	...	...	...	2002	6	6	51-60	...	...	...
2003	7	7	61-70	...	...	...	2003	7	7	61-70	...	...	...
2004	8	8	71-80	...	...	...	2004	8	8	71-80	...	...	...
2005	9	9	81-90	...	...	...	2005	9	9	81-90	...	...	...
2006	10	10	91-100	...	...	...	2006	10	10	91-100	...	...	...
2007	11	11	101-110	...	...	...	2007	11	11	101-110	...	...	...
2008	12	12	111-120	...	...	...	2008	12	12	111-120	...	...	...
2009	13	13	121-130	...	...	...	2009	13	13	121-130	...	...	...
2010	14	14	131-140	...	...	...	2010	14	14	131-140	...	...	...
2011	15	15	141-150	...	...	...	2011	15	15	141-150	...	...	...
2012	16	16	151-160	...	...	...	2012	16	16	151-160	...	...	...
2013	17	17	161-170	...	...	...	2013	17	17	161-170	...	...	...
2014	18	18	171-180	...	...	...	2014	18	18	171-180	...	...	...
2015	19	19	181-190	...	...	...	2015	19	19	181-190	...	...	...
2016	20	20	191-200	...	...	...	2016	20	20	191-200	...	...	...
2017	21	21	201-210	...	...	...	2017	21	21	201-210	...	...	...
2018	22	22	211-220	...	...	...	2018	22	22	211-220	...	...	...
2019	23	23	221-230	...	...	...	2019	23	23	221-230	...	...	...
2020	24	24	231-240	...	...	...	2020	24	24	231-240	...	...	...
2021	25	25	241-250	...	...	...	2021	25	25	241-250	...	...	...
2022	26	26	251-260	...	...	...	2022	26	26	251-260	...	...	...
2023	27	27	261-270	...	...	...	2023	27	27	261-270	...	...	...
2024	28	28	271-280	...	...	...	2024	28	28	271-280	...	...	...
2025	29	29	281-290	...	...	...	2025	29	29	281-290	...	...	...
2026	30	30	291-300	...	...	...	2026	30	30	291-300	...	...	...
2027	31	31	301-310	...	...	...	2027	31	31	301-310	...	...	...
2028	32	32	311-320	...	...	...	2028	32	32	311-320	...	...	...
2029	33	33	321-330	...	...	...	2029	33	33	321-330	...	...	...
2030	34	34	331-340	...	...	...	2030	34	34	331-340	...	...	...

Year	Issue	Volume	Page	Author	Title	Journal	Year	Issue	Volume	Page	Author	Title	Journal
1997	1	1	1-10	...	...	...	1997	1	1	1-10	...	...	...
1998	2	2	11-20	...	...	...	1998	2	2	11-20	...	...	...
1999	3	3	21-30	...	...	...	1999	3	3	21-30	...	...	...
2000	4	4	31-40	...	...	...	2000	4	4	31-40	...	...	...
2001	5	5	41-50	...	...	...	2001	5	5	41-50	...	...	...
2002	6	6	51-60	...	...	...	2002	6	6	51-60	...	...	...
2003	7	7	61-70	...	...	...	2003	7	7	61-70	...	...	...
2004	8	8	71-80	...	...	...	2004	8	8	71-80	...	...	...
2005	9	9	81-90	...	...	...	2005	9	9	81-90	...	...	...
2006	10	10	91-100	...	...	...	2006	10	10	91-100	...	...	...
2007	11	11	101-110	...	...	...	2007	11	11	101-110	...	...	...
2008	12	12	111-120	...	...	...	2008	12	12	111-120	...	...	...
2009	13	13	121-130	...	...	...	2009	13	13	121-130	...	...	...
2010	14	14	131-140	...	...	...	2010	14	14	131-140	...	...	...
2011	15	15	141-150	...	...	...	2011	15	15	141-150	...	...	...
2012	16	16	151-160	...	...	...	2012	16	16	151-160	...	...	...
2013	17	17	161-170	...	...	...	2013	17	17	161-170	...	...	...
2014	18	18	171-180	...	...	...	2014	18	18	171-180	...	...	...
2015	19	19	181-190	...	...	...	2015	19	19	181-190	...	...	...
2016	20	20	191-200	...	...	...	2016	20	20	191-200	...	...	...
2017	21	21	201-210	...	...	...	2017	21	21	201-210	...	...	...
2018	22	22	211-220	...	...	...	2018	22	22	211-220	...	...	...
2019	23	23	221-230	...	...	...	2019	23	23	221-230	...	...	...
2020	24	24	231-240	...	...	...	2020	24	24	231-240	...	...	...
2021	25	25	241-250	...	...	...	2021	25	25	241-250	...	...	...
2022	26	26	251-260	...	...	...	2022	26	26	251-260	...	...	...
2023	27	27	261-270	...	...	...	2023	27	27	261-270	...	...	...
2024	28	28	271-280	...	...	...	2024	28	28	271-280	...	...	...
2025	29	29	281-290	...	...	...	2025	29	29	281-290	...	...	...
2026	30	30	291-300	...	...	...	2026	30	30	291-300	...	...	...
2027	31	31	301-310	...	...	...	2027	31	31	301-310	...	...	...
2028	32	32	311-320	...	...	...	2028	32	32	311-320	...	...	...
2029	33	33	321-330	...	...	...	2029	33	33	321-330	...	...	...
2030	34	34	331-340	...	...	...	2030	34	34	331-340	...	...	...

Table 1: Analysis of the relationship between the dependent variable and the independent variables. The dependent variable is the number of publications per year. The independent variables are the number of articles, the number of books, and the number of book reviews.

Variable	Mean	Std. Dev.	Minimum	Maximum
Articles	10.5	3.2	0	25
Books	2.1	1.5	0	8
Book Reviews	1.8	1.2	0	6
Total Publications	14.4	4.5	0	39

Table 2: Analysis of the relationship between the dependent variable and the independent variables. The dependent variable is the number of publications per year. The independent variables are the number of articles, the number of books, and the number of book reviews.

Variable	Mean	Std. Dev.	Minimum	Maximum
Articles	11.2	3.5	0	28
Books	2.3	1.6	0	9
Book Reviews	1.9	1.3	0	7
Total Publications	15.4	4.8	0	44

Year	Articles	Books	Book Reviews	Total Publications
1970	12	3	2	17
1971	11	2	1	14
1972	13	4	3	20
1973	10	1	2	13
1974	14	3	2	19
1975	11	2	1	14
1976	12	3	2	17
1977	13	4	3	20
1978	10	1	2	13
1979	14	3	2	19
1980	11	2	1	14
1981	12	3	2	17
1982	13	4	3	20
1983	10	1	2	13
1984	14	3	2	19
1985	11	2	1	14
1986	12	3	2	17
1987	13	4	3	20
1988	10	1	2	13
1989	14	3	2	19
1990	11	2	1	14
1991	12	3	2	17
1992	13	4	3	20
1993	10	1	2	13
1994	14	3	2	19
1995	11	2	1	14
1996	12	3	2	17
1997	13	4	3	20
1998	10	1	2	13
1999	14	3	2	19
2000	11	2	1	14
2001	12	3	2	17
2002	13	4	3	20
2003	10	1	2	13
2004	14	3	2	19
2005	11	2	1	14
2006	12	3	2	17
2007	13	4	3	20
2008	10	1	2	13
2009	14	3	2	19
2010	11	2	1	14
2011	12	3	2	17
2012	13	4	3	20
2013	10	1	2	13
2014	14	3	2	19
2015	11	2	1	14
2016	12	3	2	17
2017	13	4	3	20
2018	10	1	2	13
2019	14	3	2	19
2020	11	2	1	14
2021	12	3	2	17
2022	13	4	3	20
2023	10	1	2	13
2024	14	3	2	19
2025	11	2	1	14

Year	Articles	Books	Book Reviews	Total Publications
1970	13	4	3	20
1971	12	3	2	17
1972	14	5	4	23
1973	11	2	1	14
1974	15	6	5	26
1975	12	3	2	17
1976	13	4	3	20
1977	14	5	4	23
1978	11	2	1	14
1979	15	6	5	26
1980	12	3	2	17
1981	13	4	3	20
1982	14	5	4	23
1983	11	2	1	14
1984	15	6	5	26
1985	12	3	2	17
1986	13	4	3	20
1987	14	5	4	23
1988	11	2	1	14
1989	15	6	5	26
1990	12	3	2	17
1991	13	4	3	20
1992	14	5	4	23
1993	11	2	1	14
1994	15	6	5	26
1995	12	3	2	17
1996	13	4	3	20
1997	14	5	4	23
1998	11	2	1	14
1999	15	6	5	26
2000	12	3	2	17
2001	13	4	3	20
2002	14	5	4	23
2003	11	2	1	14
2004	15	6	5	26
2005	12	3	2	17
2006	13	4	3	20
2007	14	5	4	23
2008	11	2	1	14
2009	15	6	5	26
2010	12	3	2	17
2011	13	4	3	20
2012	14	5	4	23
2013	11	2	1	14
2014	15	6	5	26
2015	12	3	2	17
2016	13	4	3	20
2017	14	5	4	23
2018	11	2	1	14
2019	15	6	5	26
2020	12	3	2	17
2021	13	4	3	20
2022	14	5	4	23
2023	11	2	1	14
2024	15	6	5	26
2025	12	3	2	17



3811

Year	Month	Day	Time	Location	Event	Remarks
1971	Jan	1	10:00	Library	Reading	...
1971	Jan	2	10:00	Library	Reading	...
1971	Jan	3	10:00	Library	Reading	...
1971	Jan	4	10:00	Library	Reading	...
1971	Jan	5	10:00	Library	Reading	...
1971	Jan	6	10:00	Library	Reading	...
1971	Jan	7	10:00	Library	Reading	...
1971	Jan	8	10:00	Library	Reading	...
1971	Jan	9	10:00	Library	Reading	...
1971	Jan	10	10:00	Library	Reading	...
1971	Jan	11	10:00	Library	Reading	...
1971	Jan	12	10:00	Library	Reading	...
1971	Jan	13	10:00	Library	Reading	...
1971	Jan	14	10:00	Library	Reading	...
1971	Jan	15	10:00	Library	Reading	...
1971	Jan	16	10:00	Library	Reading	...
1971	Jan	17	10:00	Library	Reading	...
1971	Jan	18	10:00	Library	Reading	...
1971	Jan	19	10:00	Library	Reading	...
1971	Jan	20	10:00	Library	Reading	...
1971	Jan	21	10:00	Library	Reading	...
1971	Jan	22	10:00	Library	Reading	...
1971	Jan	23	10:00	Library	Reading	...
1971	Jan	24	10:00	Library	Reading	...
1971	Jan	25	10:00	Library	Reading	...
1971	Jan	26	10:00	Library	Reading	...
1971	Jan	27	10:00	Library	Reading	...
1971	Jan	28	10:00	Library	Reading	...
1971	Jan	29	10:00	Library	Reading	...
1971	Jan	30	10:00	Library	Reading	...
1971	Jan	31	10:00	Library	Reading	...



<b>APPENDIX 5:</b>	<b>PRODUCT ANALYSIS TABLES: MAIZE</b>		<b>336</b>
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Map

This map shows the following locations: Dhaka, Chittagong, Comilla, Cox's Bazar, Feni, Khulna, Jessore, Barisal, Rajshahi, Moulvibazar, Sylhet, Tripura, Assam, West Bengal, Bangladesh.

Code	Location	Latitude	Longitude	Area	Population	Year
1	Dhaka	23.81	90.41	1461	10,000,000	1991
2	Chittagong	22.33	91.81	1461	3,500,000	1991
3	Comilla	23.48	90.98	1461	2,500,000	1991
4	Cox's Bazar	21.82	91.98	1461	1,500,000	1991
5	Feni	23.72	91.38	1461	1,000,000	1991
6	Khulna	22.85	89.55	1461	2,000,000	1991
7	Jessore	23.18	89.18	1461	1,500,000	1991
8	Barisal	22.72	90.32	1461	1,500,000	1991
9	Rajshahi	24.35	88.55	1461	2,000,000	1991
10	Moulvibazar	24.48	91.28	1461	1,500,000	1991
11	Sylhet	24.65	91.85	1461	2,000,000	1991
12	Tripura	23.82	91.28	1461	2,500,000	1991
13	Assam	25.58	91.52	1461	3,500,000	1991
14	West Bengal	22.58	88.28	1461	75,000,000	1991
15	Bangladesh	23.76	90.35	1461	110,000,000	1991

Map

This map shows the following locations: Dhaka, Chittagong, Comilla, Cox's Bazar, Feni, Khulna, Jessore, Barisal, Rajshahi, Moulvibazar, Sylhet, Tripura, Assam, West Bengal, Bangladesh.

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6	Khulna	22.85	89.55	1461	2,000,000	1991
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10	Moulvibazar	24.48	91.28	1461	1,500,000	1991
11	Sylhet	24.65	91.85	1461	2,000,000	1991
12	Tripura	23.82	91.28	1461	2,500,000	1991
13	Assam	25.58	91.52	1461	3,500,000	1991
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Code	Location	Latitude	Longitude	Area	Population	Year
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5	Feni	23.72	91.38	1461	1,000,000	1991
6	Khulna	22.85	89.55	1461	2,000,000	1991
7	Jessore	23.18	89.18	1461	1,500,000	1991
8	Barisal	22.72	90.32	1461	1,500,000	1991
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11	Sylhet	24.65	91.85	1461	2,000,000	1991
12	Tripura	23.82	91.28	1461	2,500,000	1991
13	Assam	25.58	91.52	1461	3,500,000	1991
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12	Tripura	23.82	91.28	1461	2,500,000	1991
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Year	Month	Day	Time	Location	Event	Remarks
1997	Jan	1	10:00	Library	Book launch	...
1997	Jan	15	11:00	Library	Book launch	...
1997	Jan	30	12:00	Library	Book launch	...
1997	Feb	1	13:00	Library	Book launch	...
1997	Feb	15	14:00	Library	Book launch	...
1997	Feb	28	15:00	Library	Book launch	...
1997	Mar	1	16:00	Library	Book launch	...
1997	Mar	15	17:00	Library	Book launch	...
1997	Mar	30	18:00	Library	Book launch	...
1997	Apr	1	19:00	Library	Book launch	...
1997	Apr	15	20:00	Library	Book launch	...
1997	Apr	30	21:00	Library	Book launch	...
1997	May	1	22:00	Library	Book launch	...
1997	May	15	23:00	Library	Book launch	...
1997	May	30	24:00	Library	Book launch	...
1997	Jun	1	25:00	Library	Book launch	...
1997	Jun	15	26:00	Library	Book launch	...
1997	Jun	30	27:00	Library	Book launch	...
1997	Jul	1	28:00	Library	Book launch	...
1997	Jul	15	29:00	Library	Book launch	...
1997	Jul	30	30:00	Library	Book launch	...
1997	Aug	1	31:00	Library	Book launch	...
1997	Aug	15	32:00	Library	Book launch	...
1997	Aug	30	33:00	Library	Book launch	...
1997	Sep	1	34:00	Library	Book launch	...
1997	Sep	15	35:00	Library	Book launch	...
1997	Sep	30	36:00	Library	Book launch	...
1997	Oct	1	37:00	Library	Book launch	...
1997	Oct	15	38:00	Library	Book launch	...
1997	Oct	30	39:00	Library	Book launch	...
1997	Nov	1	40:00	Library	Book launch	...
1997	Nov	15	41:00	Library	Book launch	...
1997	Nov	30	42:00	Library	Book launch	...
1997	Dec	1	43:00	Library	Book launch	...
1997	Dec	15	44:00	Library	Book launch	...
1997	Dec	30	45:00	Library	Book launch	...

**Abstract** presents a comprehensive review of the current state of research in the field of [unintelligible] and its implications for [unintelligible]. The study is organized into several sections, including an introduction, a literature review, a methodology section, and a discussion of the findings. The research is based on a thorough analysis of [unintelligible] and aims to provide a clear and concise overview of the current state of the field. The findings of the study are discussed in detail, and the implications for [unintelligible] are explored. The study concludes with a summary of the key findings and a list of references.

**Keywords:** [unintelligible], [unintelligible], [unintelligible], [unintelligible], [unintelligible].

**References:** [unintelligible], [unintelligible], [unintelligible], [unintelligible], [unintelligible].

Year	Author	Title	Journal	Volume	Issue	Page
2010	Smith, J.	The Impact of [unintelligible]	Journal of [unintelligible]	15	2	123-135
2011	Johnson, A.	Exploring the Role of [unintelligible]	International Review of [unintelligible]	22	3	456-470
2012	Williams, B.	Analysis of [unintelligible]	Journal of [unintelligible]	18	1	78-92
2013	Brown, C.	Comparative Study of [unintelligible]	Journal of [unintelligible]	20	4	567-580
2014	Green, D.	Investigating the Effects of [unintelligible]	Journal of [unintelligible]	16	3	234-248
2015	White, E.	Review of [unintelligible]	Journal of [unintelligible]	19	2	345-359
2016	Black, F.	Case Study on [unintelligible]	Journal of [unintelligible]	21	1	678-692
2017	Grey, G.	Theoretical Framework of [unintelligible]	Journal of [unintelligible]	17	4	101-115
2018	Blue, H.	Empirical Evidence on [unintelligible]	Journal of [unintelligible]	23	2	123-137
2019	Gold, I.	Policy Implications of [unintelligible]	Journal of [unintelligible]	24	3	245-259
2020	Silver, K.	Future Directions in [unintelligible]	Journal of [unintelligible]	25	1	345-359

**Abstract** discusses the current state of research in the field of [unintelligible] and its implications for [unintelligible]. The study is organized into several sections, including an introduction, a literature review, a methodology section, and a discussion of the findings. The research is based on a thorough analysis of [unintelligible] and aims to provide a clear and concise overview of the current state of the field. The findings of the study are discussed in detail, and the implications for [unintelligible] are explored. The study concludes with a summary of the key findings and a list of references.

**Keywords:** [unintelligible], [unintelligible], [unintelligible], [unintelligible], [unintelligible].

**References:** [unintelligible], [unintelligible], [unintelligible], [unintelligible], [unintelligible].

Year	Author	Title	Journal	Volume	Issue	Page
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2011	Johnson, A.	Exploring the Role of [unintelligible]	International Review of [unintelligible]	22	3	456-470
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2019	Gold, I.	Policy Implications of [unintelligible]	Journal of [unintelligible]	24	3	245-259
2020	Silver, K.	Future Directions in [unintelligible]	Journal of [unintelligible]	25	1	345-359

326

241

Production process department List of students in the month of April

Roll No.	Name	Section	Grade	Attendance	Remarks
101	Abdullah Khan	101	101	100	
102	Abdullah Khan	102	102	100	
103	Abdullah Khan	103	103	100	
104	Abdullah Khan	104	104	100	
105	Abdullah Khan	105	105	100	
106	Abdullah Khan	106	106	100	
107	Abdullah Khan	107	107	100	
108	Abdullah Khan	108	108	100	
109	Abdullah Khan	109	109	100	
110	Abdullah Khan	110	110	100	
111	Abdullah Khan	111	111	100	
112	Abdullah Khan	112	112	100	
113	Abdullah Khan	113	113	100	
114	Abdullah Khan	114	114	100	
115	Abdullah Khan	115	115	100	
116	Abdullah Khan	116	116	100	
117	Abdullah Khan	117	117	100	
118	Abdullah Khan	118	118	100	
119	Abdullah Khan	119	119	100	
120	Abdullah Khan	120	120	100	

Attendance sheet for the month of April

Roll No.	Name	Section	Grade	Attendance	Remarks
101	Abdullah Khan	101	101	100	
102	Abdullah Khan	102	102	100	
103	Abdullah Khan	103	103	100	
104	Abdullah Khan	104	104	100	
105	Abdullah Khan	105	105	100	
106	Abdullah Khan	106	106	100	
107	Abdullah Khan	107	107	100	
108	Abdullah Khan	108	108	100	
109	Abdullah Khan	109	109	100	
110	Abdullah Khan	110	110	100	
111	Abdullah Khan	111	111	100	
112	Abdullah Khan	112	112	100	
113	Abdullah Khan	113	113	100	
114	Abdullah Khan	114	114	100	
115	Abdullah Khan	115	115	100	
116	Abdullah Khan	116	116	100	
117	Abdullah Khan	117	117	100	
118	Abdullah Khan	118	118	100	
119	Abdullah Khan	119	119	100	
120	Abdullah Khan	120	120	100	

Attendance sheet for the month of April

Attendance sheet for the month of April

Roll No.	Name	Section	Grade	Attendance	Remarks
101	Abdullah Khan	101	101	100	
102	Abdullah Khan	102	102	100	
103	Abdullah Khan	103	103	100	
104	Abdullah Khan	104	104	100	
105	Abdullah Khan	105	105	100	
106	Abdullah Khan	106	106	100	
107	Abdullah Khan	107	107	100	
108	Abdullah Khan	108	108	100	
109	Abdullah Khan	109	109	100	
110	Abdullah Khan	110	110	100	
111	Abdullah Khan	111	111	100	
112	Abdullah Khan	112	112	100	
113	Abdullah Khan	113	113	100	
114	Abdullah Khan	114	114	100	
115	Abdullah Khan	115	115	100	
116	Abdullah Khan	116	116	100	
117	Abdullah Khan	117	117	100	
118	Abdullah Khan	118	118	100	
119	Abdullah Khan	119	119	100	
120	Abdullah Khan	120	120	100	

Roll No.	Name	Section	Grade	Attendance	Remarks
101	Abdullah Khan	101	101	100	
102	Abdullah Khan	102	102	100	
103	Abdullah Khan	103	103	100	
104	Abdullah Khan	104	104	100	
105	Abdullah Khan	105	105	100	
106	Abdullah Khan	106	106	100	
107	Abdullah Khan	107	107	100	
108	Abdullah Khan	108	108	100	
109	Abdullah Khan	109	109	100	
110	Abdullah Khan	110	110	100	
111	Abdullah Khan	111	111	100	
112	Abdullah Khan	112	112	100	
113	Abdullah Khan	113	113	100	
114	Abdullah Khan	114	114	100	
115	Abdullah Khan	115	115	100	
116	Abdullah Khan	116	116	100	
117	Abdullah Khan	117	117	100	
118	Abdullah Khan	118	118	100	
119	Abdullah Khan	119	119	100	
120	Abdullah Khan	120	120	100	

Publication of the Department of Applied Mathematics, Dhaka University, 1970 onwards is as follows:

Year	Volume	Issue	Page	Author	Journal
1970	1	1	1-10	...	...
1971	2	1	1-10	...	...
1972	3	1	1-10	...	...
1973	4	1	1-10	...	...
1974	5	1	1-10	...	...
1975	6	1	1-10	...	...
1976	7	1	1-10	...	...
1977	8	1	1-10	...	...
1978	9	1	1-10	...	...
1979	10	1	1-10	...	...
1980	11	1	1-10	...	...
1981	12	1	1-10	...	...
1982	13	1	1-10	...	...
1983	14	1	1-10	...	...
1984	15	1	1-10	...	...
1985	16	1	1-10	...	...
1986	17	1	1-10	...	...
1987	18	1	1-10	...	...
1988	19	1	1-10	...	...
1989	20	1	1-10	...	...
1990	21	1	1-10	...	...
1991	22	1	1-10	...	...
1992	23	1	1-10	...	...
1993	24	1	1-10	...	...
1994	25	1	1-10	...	...
1995	26	1	1-10	...	...
1996	27	1	1-10	...	...
1997	28	1	1-10	...	...
1998	29	1	1-10	...	...
1999	30	1	1-10	...	...
2000	31	1	1-10	...	...
2001	32	1	1-10	...	...
2002	33	1	1-10	...	...
2003	34	1	1-10	...	...
2004	35	1	1-10	...	...
2005	36	1	1-10	...	...
2006	37	1	1-10	...	...
2007	38	1	1-10	...	...
2008	39	1	1-10	...	...
2009	40	1	1-10	...	...
2010	41	1	1-10	...	...
2011	42	1	1-10	...	...
2012	43	1	1-10	...	...
2013	44	1	1-10	...	...
2014	45	1	1-10	...	...
2015	46	1	1-10	...	...
2016	47	1	1-10	...	...
2017	48	1	1-10	...	...
2018	49	1	1-10	...	...
2019	50	1	1-10	...	...
2020	51	1	1-10	...	...
2021	52	1	1-10	...	...
2022	53	1	1-10	...	...
2023	54	1	1-10	...	...
2024	55	1	1-10	...	...
2025	56	1	1-10	...	...

Publications of the Department of Applied Mathematics, Dhaka University, 1970 onwards is as follows:

Year	Volume	Issue	Page	Author	Journal
1970	1	1	1-10	...	...
1971	2	1	1-10	...	...
1972	3	1	1-10	...	...
1973	4	1	1-10	...	...
1974	5	1	1-10	...	...
1975	6	1	1-10	...	...
1976	7	1	1-10	...	...
1977	8	1	1-10	...	...
1978	9	1	1-10	...	...
1979	10	1	1-10	...	...
1980	11	1	1-10	...	...
1981	12	1	1-10	...	...
1982	13	1	1-10	...	...
1983	14	1	1-10	...	...
1984	15	1	1-10	...	...
1985	16	1	1-10	...	...
1986	17	1	1-10	...	...
1987	18	1	1-10	...	...
1988	19	1	1-10	...	...
1989	20	1	1-10	...	...
1990	21	1	1-10	...	...
1991	22	1	1-10	...	...
1992	23	1	1-10	...	...
1993	24	1	1-10	...	...
1994	25	1	1-10	...	...
1995	26	1	1-10	...	...
1996	27	1	1-10	...	...
1997	28	1	1-10	...	...
1998	29	1	1-10	...	...
1999	30	1	1-10	...	...
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2001	32	1	1-10	...	...
2002	33	1	1-10	...	...
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2006	37	1	1-10	...	...
2007	38	1	1-10	...	...
2008	39	1	1-10	...	...
2009	40	1	1-10	...	...
2010	41	1	1-10	...	...
2011	42	1	1-10	...	...
2012	43	1	1-10	...	...
2013	44	1	1-10	...	...
2014	45	1	1-10	...	...
2015	46	1	1-10	...	...
2016	47	1	1-10	...	...
2017	48	1	1-10	...	...
2018	49	1	1-10	...	...
2019	50	1	1-10	...	...
2020	51	1	1-10	...	...
2021	52	1	1-10	...	...
2022	53	1	1-10	...	...
2023	54	1	1-10	...	...
2024	55	1	1-10	...	...
2025	56	1	1-10	...	...

342

Department of Applied Mathematics, Dhaka University, Dhaka-1000

Author: Md. Masud Rana

Title: On the Solution of the System of Linear Equations

Year: 1987

Volume: 1

Issue: 1

Page: 1-10

ISSN: 1023-6198

UDC: 517.51

Keywords: Linear Equations, Solution, Matrix

Abstract: This paper discusses the solution of a system of linear equations using matrix methods. It covers the conditions for the existence and uniqueness of solutions, and provides a step-by-step procedure for finding the solution set.

1. Introduction

2. Preliminary Results

3. Solution of the System

4. Conclusion

5. References

6. Appendix

7. Bibliography

8. Index

9. Summary

10. Acknowledgements

11. Author's Address

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47. Home

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20. About Us

21. Contact Us

22. Feedback

23. Help

24. Search

25. Home

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29. Terms

30. Index

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45. Help

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47. Home

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<b>APPENDIX 6:</b>	<b>PRODUCT ANALYSIS TABLES: TOMATO</b>		<b>344</b>
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Year	Month	Day	Volume	Issue	Page	Author	Title	Journal	Year	Month	Day	Volume	Issue	Page	Author	Title	Journal	Year	Month	Day	Volume	Issue	Page	Author	Title	Journal	Year	Month	Day	Volume	Issue	Page	Author	Title	Journal	Year	Month	Day	Volume	Issue	Page	Author	Title	Journal
1971	12	15	1	1	1-10	...	...	...	1971	12	15	1	1	1-10	...	...	...	1971	12	15	1	1	1-10	...	...	...	1971	12	15	1	1	1-10	...	...	...	1971	12	15	1	1	1-10	...	...	...











Abstracts of theses submitted for the degree of M.A. in English

Author: Md. Masud Raza Khan

Title: *Shakespeare's Hamlet: A Study in the Psychology of the Hero*

Year: 1978

Supervisor: Prof. Dr. M. A. Rahman

Page: 100

Abstract: This thesis is a study of the psychology of the hero Hamlet in Shakespeare's play Hamlet. It is an attempt to understand the character of Hamlet as a person and as a hero. The author has tried to show that Hamlet is a complex character who is torn between his sense of duty and his personal feelings. He is a man who is too thoughtful and too sensitive to act. He is a man who is too idealistic and too moral to compromise. He is a man who is too noble and too brave to retreat. He is a man who is too great and too good to die. He is a man who is too human and too mortal to live. He is a man who is too much of a man to be a hero.

Abstracts of theses submitted for the degree of M.A. in English

Author: Md. Masud Raza Khan

Title: *Shakespeare's Hamlet: A Study in the Psychology of the Hero*

Year: 1978

Supervisor: Prof. Dr. M. A. Rahman

Page: 100

Abstract: This thesis is a study of the psychology of the hero Hamlet in Shakespeare's play Hamlet. It is an attempt to understand the character of Hamlet as a person and as a hero. The author has tried to show that Hamlet is a complex character who is torn between his sense of duty and his personal feelings. He is a man who is too thoughtful and too sensitive to act. He is a man who is too idealistic and too moral to compromise. He is a man who is too noble and too brave to retreat. He is a man who is too great and too good to die. He is a man who is too human and too mortal to live. He is a man who is too much of a man to be a hero.

Year	Month	Day	Time	Place	Event	Remarks
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1951	10	11	10:00	100	100	100
1951	10	12	10:00	100	100	100
1951	10	13	10:00	100	100	100
1951	10	14	10:00	100	100	100
1951	10	15	10:00	100	100	100
1951	10	16	10:00	100	100	100
1951	10	17	10:00	100	100	100
1951	10	18	10:00	100	100	100
1951	10	19	10:00	100	100	100
1951	10	20	10:00	100	100	100
1951	10	21	10:00	100	100	100
1951	10	22	10:00	100	100	100
1951	10	23	10:00	100	100	100
1951	10	24	10:00	100	100	100
1951	10	25	10:00	100	100	100
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1951	10	28	10:00	100	100	100
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1951	10	30	10:00	100	100	100
1951	10	31	10:00	100	100	100



<b>APPENDIX 7:</b>	<b>PRODUCT ANALYSIS TABLES: OKRA</b>		<b>352</b>
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প্রোগ্রামের বিভিন্ন অংশের নাম, তারিখ, স্থান, এবং প্রোগ্রামের পরিচালকের নাম।

ক্র.সং.	নাম	তারিখ	স্থান	প্রোগ্রামের পরিচালক
১	১৯৫১	১৯৫১	১৯৫১	১৯৫১
২	১৯৫২	১৯৫২	১৯৫২	১৯৫২
৩	১৯৫৩	১৯৫৩	১৯৫৩	১৯৫৩
৪	১৯৫৪	১৯৫৪	১৯৫৪	১৯৫৪
৫	১৯৫৫	১৯৫৫	১৯৫৫	১৯৫৫
৬	১৯৫৬	১৯৫৬	১৯৫৬	১৯৫৬
৭	১৯৫৭	১৯৫৭	১৯৫৭	১৯৫৭
৮	১৯৫৮	১৯৫৮	১৯৫৮	১৯৫৮
৯	১৯৫৯	১৯৫৯	১৯৫৯	১৯৫৯
১০	১৯৬০	১৯৬০	১৯৬০	১৯৬০

প্রোগ্রামের বিভিন্ন অংশের নাম, তারিখ, স্থান, এবং প্রোগ্রামের পরিচালকের নাম।

ক্র.সং.	নাম	তারিখ	স্থান	প্রোগ্রামের পরিচালক
১	১৯৬১	১৯৬১	১৯৬১	১৯৬১
২	১৯৬২	১৯৬২	১৯৬২	১৯৬২
৩	১৯৬৩	১৯৬৩	১৯৬৩	১৯৬৩
৪	১৯৬৪	১৯৬৪	১৯৬৪	১৯৬৪
৫	১৯৬৫	১৯৬৫	১৯৬৫	১৯৬৫
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১০	১৯৭০	১৯৭০	১৯৭০	১৯৭০







Year	Month	Day	Time	Location	Event	Remarks
1971	Jan	1	10:00 AM	Library	Reading	...
1971	Jan	2	10:00 AM	Library	Reading	...
1971	Jan	3	10:00 AM	Library	Reading	...
1971	Jan	4	10:00 AM	Library	Reading	...
1971	Jan	5	10:00 AM	Library	Reading	...
1971	Jan	6	10:00 AM	Library	Reading	...
1971	Jan	7	10:00 AM	Library	Reading	...
1971	Jan	8	10:00 AM	Library	Reading	...
1971	Jan	9	10:00 AM	Library	Reading	...
1971	Jan	10	10:00 AM	Library	Reading	...
1971	Jan	11	10:00 AM	Library	Reading	...
1971	Jan	12	10:00 AM	Library	Reading	...
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1971	Jan	14	10:00 AM	Library	Reading	...
1971	Jan	15	10:00 AM	Library	Reading	...
1971	Jan	16	10:00 AM	Library	Reading	...
1971	Jan	17	10:00 AM	Library	Reading	...
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1971	Jan	26	10:00 AM	Library	Reading	...
1971	Jan	27	10:00 AM	Library	Reading	...
1971	Jan	28	10:00 AM	Library	Reading	...
1971	Jan	29	10:00 AM	Library	Reading	...
1971	Jan	30	10:00 AM	Library	Reading	...
1971	Jan	31	10:00 AM	Library	Reading	...

<b>APPENDIX 8:</b>	<b>PRODUCT ANALYSIS TABLES: AROMATIC RICE</b>		<b>360</b>
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Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
1	ABU TALIB	101	B	
2	ABU TALIB	102	B	
3	ABU TALIB	103	B	
4	ABU TALIB	104	B	
5	ABU TALIB	105	B	
6	ABU TALIB	106	B	
7	ABU TALIB	107	B	
8	ABU TALIB	108	B	
9	ABU TALIB	109	B	
10	ABU TALIB	110	B	
11	ABU TALIB	111	B	
12	ABU TALIB	112	B	
13	ABU TALIB	113	B	
14	ABU TALIB	114	B	
15	ABU TALIB	115	B	
16	ABU TALIB	116	B	
17	ABU TALIB	117	B	
18	ABU TALIB	118	B	
19	ABU TALIB	119	B	
20	ABU TALIB	120	B	
21	ABU TALIB	121	B	
22	ABU TALIB	122	B	
23	ABU TALIB	123	B	
24	ABU TALIB	124	B	
25	ABU TALIB	125	B	
26	ABU TALIB	126	B	
27	ABU TALIB	127	B	
28	ABU TALIB	128	B	
29	ABU TALIB	129	B	
30	ABU TALIB	130	B	
31	ABU TALIB	131	B	
32	ABU TALIB	132	B	
33	ABU TALIB	133	B	
34	ABU TALIB	134	B	
35	ABU TALIB	135	B	
36	ABU TALIB	136	B	
37	ABU TALIB	137	B	
38	ABU TALIB	138	B	
39	ABU TALIB	139	B	
40	ABU TALIB	140	B	
41	ABU TALIB	141	B	
42	ABU TALIB	142	B	
43	ABU TALIB	143	B	
44	ABU TALIB	144	B	
45	ABU TALIB	145	B	
46	ABU TALIB	146	B	
47	ABU TALIB	147	B	
48	ABU TALIB	148	B	
49	ABU TALIB	149	B	
50	ABU TALIB	150	B	
51	ABU TALIB	151	B	
52	ABU TALIB	152	B	
53	ABU TALIB	153	B	
54	ABU TALIB	154	B	
55	ABU TALIB	155	B	
56	ABU TALIB	156	B	
57	ABU TALIB	157	B	
58	ABU TALIB	158	B	
59	ABU TALIB	159	B	
60	ABU TALIB	160	B	
61	ABU TALIB	161	B	
62	ABU TALIB	162	B	
63	ABU TALIB	163	B	
64	ABU TALIB	164	B	
65	ABU TALIB	165	B	
66	ABU TALIB	166	B	
67	ABU TALIB	167	B	
68	ABU TALIB	168	B	
69	ABU TALIB	169	B	
70	ABU TALIB	170	B	
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92	ABU TALIB	192	B	
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98	ABU TALIB	198	B	
99	ABU TALIB	199	B	
100	ABU TALIB	200	B	

Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
1	ABU TALIB	201	B	
2	ABU TALIB	202	B	
3	ABU TALIB	203	B	
4	ABU TALIB	204	B	
5	ABU TALIB	205	B	
6	ABU TALIB	206	B	
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35	ABU TALIB	235	B	
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54	ABU TALIB	254	B	
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57	ABU TALIB	257	B	
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94	ABU TALIB	294	B	
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97	ABU TALIB	297	B	
98	ABU TALIB	298	B	
99	ABU TALIB	299	B	
100	ABU TALIB	300	B	













<b>APPENDIX</b> <b>9:</b>	<b>PRODUCT</b> <b>ANALYSIS</b> <b>TABLES:</b> <b>MUSHROOM</b>		<b>368</b>
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How to cite this document: Dhaka University Institutional Repository. (2023). *Journal of the Bangladesh Veterinary Association*. Vol. 48, No. 1, pp. 1-10. Available at: <https://doi.org/10.3329/jbv.v48i1.53123>

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Year	Month	Day	Event	Location	Organized by	Participated by	Remarks
2013	Jan	10	Annual Meeting	Dhaka	BVAA	Members	Successful
2013	Feb	15	Workshop	Dhaka	BVAA	Members	Successful
2013	Mar	20	Conference	Dhaka	BVAA	Members	Successful
2013	Apr	25	Symposium	Dhaka	BVAA	Members	Successful
2013	May	30	Workshop	Dhaka	BVAA	Members	Successful
2013	Jun	05	Conference	Dhaka	BVAA	Members	Successful
2013	Jul	10	Symposium	Dhaka	BVAA	Members	Successful
2013	Aug	15	Workshop	Dhaka	BVAA	Members	Successful
2013	Sep	20	Conference	Dhaka	BVAA	Members	Successful
2013	Oct	25	Symposium	Dhaka	BVAA	Members	Successful
2013	Nov	30	Workshop	Dhaka	BVAA	Members	Successful
2013	Dec	05	Conference	Dhaka	BVAA	Members	Successful

Year	Month	Day	Event	Location	Organized by	Participated by	Remarks
2013	Jan	10	Annual Meeting	Dhaka	BVAA	Members	Successful
2013	Feb	15	Workshop	Dhaka	BVAA	Members	Successful
2013	Mar	20	Conference	Dhaka	BVAA	Members	Successful
2013	Apr	25	Symposium	Dhaka	BVAA	Members	Successful
2013	May	30	Workshop	Dhaka	BVAA	Members	Successful
2013	Jun	05	Conference	Dhaka	BVAA	Members	Successful
2013	Jul	10	Symposium	Dhaka	BVAA	Members	Successful
2013	Aug	15	Workshop	Dhaka	BVAA	Members	Successful
2013	Sep	20	Conference	Dhaka	BVAA	Members	Successful
2013	Oct	25	Symposium	Dhaka	BVAA	Members	Successful
2013	Nov	30	Workshop	Dhaka	BVAA	Members	Successful
2013	Dec	05	Conference	Dhaka	BVAA	Members	Successful

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After application is approved, transfer request should be submitted to the appropriate DPO (based on the business location) for approval. The request should be submitted to the appropriate DPO (based on the business location) for approval.

Approved Transfer to Dhaka University Institutional Repository (based on the business location) for approval. The request should be submitted to the appropriate DPO (based on the business location) for approval.

Year	Month	Day	Time	Location	Activity	Remarks
2018	Jan	1	10:00	Library	Reading	...
2018	Jan	2	11:00	Library	Reading	...
2018	Jan	3	12:00	Library	Reading	...
2018	Jan	4	13:00	Library	Reading	...
2018	Jan	5	14:00	Library	Reading	...
2018	Jan	6	15:00	Library	Reading	...
2018	Jan	7	16:00	Library	Reading	...
2018	Jan	8	17:00	Library	Reading	...
2018	Jan	9	18:00	Library	Reading	...
2018	Jan	10	19:00	Library	Reading	...
2018	Jan	11	20:00	Library	Reading	...
2018	Jan	12	21:00	Library	Reading	...
2018	Jan	13	22:00	Library	Reading	...
2018	Jan	14	23:00	Library	Reading	...
2018	Jan	15	24:00	Library	Reading	...
2018	Jan	16	25:00	Library	Reading	...
2018	Jan	17	26:00	Library	Reading	...
2018	Jan	18	27:00	Library	Reading	...
2018	Jan	19	28:00	Library	Reading	...
2018	Jan	20	29:00	Library	Reading	...
2018	Jan	21	30:00	Library	Reading	...
2018	Jan	22	31:00	Library	Reading	...

Year	Month	Day	Time	Location	Activity	Remarks
2018	Jan	23	00:00	Library	Reading	...
2018	Jan	24	01:00	Library	Reading	...
2018	Jan	25	02:00	Library	Reading	...
2018	Jan	26	03:00	Library	Reading	...
2018	Jan	27	04:00	Library	Reading	...
2018	Jan	28	05:00	Library	Reading	...
2018	Jan	29	06:00	Library	Reading	...
2018	Jan	30	07:00	Library	Reading	...
2018	Jan	31	08:00	Library	Reading	...
2018	Feb	1	09:00	Library	Reading	...
2018	Feb	2	10:00	Library	Reading	...
2018	Feb	3	11:00	Library	Reading	...
2018	Feb	4	12:00	Library	Reading	...
2018	Feb	5	13:00	Library	Reading	...
2018	Feb	6	14:00	Library	Reading	...
2018	Feb	7	15:00	Library	Reading	...
2018	Feb	8	16:00	Library	Reading	...
2018	Feb	9	17:00	Library	Reading	...
2018	Feb	10	18:00	Library	Reading	...
2018	Feb	11	19:00	Library	Reading	...
2018	Feb	12	20:00	Library	Reading	...
2018	Feb	13	21:00	Library	Reading	...
2018	Feb	14	22:00	Library	Reading	...
2018	Feb	15	23:00	Library	Reading	...
2018	Feb	16	24:00	Library	Reading	...
2018	Feb	17	25:00	Library	Reading	...
2018	Feb	18	26:00	Library	Reading	...
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2018	Feb	20	28:00	Library	Reading	...
2018	Feb	21	29:00	Library	Reading	...
2018	Feb	22	30:00	Library	Reading	...
2018	Feb	23	31:00	Library	Reading	...











Department of Applied Mathematics, Dhaka University, Dhaka-1000

Department of Applied Mathematics, Dhaka University, Dhaka-1000

Year	Month	Day	Time	Location	Event	Remarks
1960	Jan	1	10:00	Room 101	Exam	
1960	Jan	2	10:00	Room 101	Exam	
1960	Jan	3	10:00	Room 101	Exam	
1960	Jan	4	10:00	Room 101	Exam	
1960	Jan	5	10:00	Room 101	Exam	
1960	Jan	6	10:00	Room 101	Exam	
1960	Jan	7	10:00	Room 101	Exam	
1960	Jan	8	10:00	Room 101	Exam	
1960	Jan	9	10:00	Room 101	Exam	
1960	Jan	10	10:00	Room 101	Exam	
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1960	Jan	28	10:00	Room 101	Exam	
1960	Jan	29	10:00	Room 101	Exam	
1960	Jan	30	10:00	Room 101	Exam	
1960	Jan	31	10:00	Room 101	Exam	

Year	Month	Day	Time	Location	Event	Remarks
1960	Feb	1	10:00	Room 101	Exam	
1960	Feb	2	10:00	Room 101	Exam	
1960	Feb	3	10:00	Room 101	Exam	
1960	Feb	4	10:00	Room 101	Exam	
1960	Feb	5	10:00	Room 101	Exam	
1960	Feb	6	10:00	Room 101	Exam	
1960	Feb	7	10:00	Room 101	Exam	
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1960	Feb	14	10:00	Room 101	Exam	
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1960	Feb	26	10:00	Room 101	Exam	
1960	Feb	27	10:00	Room 101	Exam	
1960	Feb	28	10:00	Room 101	Exam	
1960	Feb	29	10:00	Room 101	Exam	
1960	Feb	30	10:00	Room 101	Exam	

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<b>APPENDIX 10:</b>	<b>PRODUCT ANALYSIS TABLES: POTATO</b>		<b>376</b>
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Sl. No.	Name of the Candidate	Registration No.	Grade	Remarks
1	ABU TALIB	1001	B	
2	ABU TALIB	1002	B	
3	ABU TALIB	1003	B	
4	ABU TALIB	1004	B	
5	ABU TALIB	1005	B	
6	ABU TALIB	1006	B	
7	ABU TALIB	1007	B	
8	ABU TALIB	1008	B	
9	ABU TALIB	1009	B	
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13	ABU TALIB	1013	B	
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18	ABU TALIB	1018	B	
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93	ABU TALIB	1093	B	
94	ABU TALIB	1094	B	
95	ABU TALIB	1095	B	
96	ABU TALIB	1096	B	
97	ABU TALIB	1097	B	
98	ABU TALIB	1098	B	
99	ABU TALIB	1099	B	
100	ABU TALIB	1100	B	

Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
1	ABU TALIB	1001	B	
2	ABU TALIB	1002	B	
3	ABU TALIB	1003	B	
4	ABU TALIB	1004	B	
5	ABU TALIB	1005	B	
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7	ABU TALIB	1007	B	
8	ABU TALIB	1008	B	
9	ABU TALIB	1009	B	
10	ABU TALIB	1010	B	
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12	ABU TALIB	1012	B	
13	ABU TALIB	1013	B	
14	ABU TALIB	1014	B	
15	ABU TALIB	1015	B	
16	ABU TALIB	1016	B	
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18	ABU TALIB	1018	B	
19	ABU TALIB	1019	B	
20	ABU TALIB	1020	B	
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73	ABU TALIB	1073	B	
74	ABU TALIB	1074	B	
75	ABU TALIB	1075	B	
76	ABU TALIB	1076	B	
77	ABU TALIB	1077	B	
78	ABU TALIB	1078	B	
79	ABU TALIB	1079	B	
80	ABU TALIB	1080	B	
81	ABU TALIB	1081	B	
82	ABU TALIB	1082	B	
83	ABU TALIB	1083	B	
84	ABU TALIB	1084	B	
85	ABU TALIB	1085	B	
86	ABU TALIB	1086	B	
87	ABU TALIB	1087	B	
88	ABU TALIB	1088	B	
89	ABU TALIB	1089	B	
90	ABU TALIB	1090	B	
91	ABU TALIB	1091	B	
92	ABU TALIB	1092	B	
93	ABU TALIB	1093	B	
94	ABU TALIB	1094	B	
95	ABU TALIB	1095	B	
96	ABU TALIB	1096	B	
97	ABU TALIB	1097	B	
98	ABU TALIB	1098	B	
99	ABU TALIB	1099	B	
100	ABU TALIB	1100	B	



Productivity of Agricultural Labour in Bangladesh

Author: Md. Shaukat Hossain, Md. Shaukat Hossain

Year: 1977, Volume: 1, Issue: 1, Pages: 1-10

Table 1: Productivity of Agricultural Labour in Bangladesh (1977)

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Output (kg/ha)	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
Labour (days/ha)	100	110	120	130	140	150	160	170	180	190	200
Productivity (kg/day)	15	14.5	14	13.8	13.6	13.4	13.2	13	12.8	12.6	12.5

Productivity of Agricultural Labour in Bangladesh (continued)

Author: Md. Shaukat Hossain, Md. Shaukat Hossain

Year: 1977, Volume: 1, Issue: 1, Pages: 1-10

Table 2: Productivity of Agricultural Labour in Bangladesh (continued) (1977)

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Output (kg/ha)	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600
Labour (days/ha)	150	160	170	180	190	200	210	220	230	240	250
Productivity (kg/day)	17.3	16.9	16.5	16.1	15.8	15.5	15.2	15	14.8	14.6	14.4

Table 3: Productivity of Agricultural Labour in Bangladesh (continued) (1977)

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Output (kg/ha)	3700	3800	3900	4000	4100	4200	4300	4400	4500	4600	4700
Labour (days/ha)	200	210	220	230	240	250	260	270	280	290	300
Productivity (kg/day)	18.5	18.1	17.7	17.4	17.1	16.8	16.5	16.3	16.1	15.9	15.7

Table 4: Productivity of Agricultural Labour in Bangladesh (continued) (1977)

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Output (kg/ha)	4800	4900	5000	5100	5200	5300	5400	5500	5600	5700	5800
Labour (days/ha)	250	260	270	280	290	300	310	320	330	340	350
Productivity (kg/day)	19.2	18.8	18.5	18.2	17.9	17.7	17.4	17.2	17	16.8	16.6





Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
1	ABU BAKAR	1001	B	
2	ABU HASAN	1002	C	
3	ABU JAFAR	1003	D	
4	ABU KHALID	1004	E	
5	ABU MANSUR	1005	F	
6	ABU NUR	1006	G	
7	ABU SAAD	1007	H	
8	ABU TALIB	1008	I	
9	ABU YOUSUF	1009	J	
10	ABU ZAYD	1010	K	
11	ABU ALI	1011	L	
12	ABU BAKR	1012	M	
13	ABU HASAN	1013	N	
14	ABU JAFAR	1014	O	
15	ABU KHALID	1015	P	
16	ABU MANSUR	1016	Q	
17	ABU NUR	1017	R	
18	ABU SAAD	1018	S	
19	ABU TALIB	1019	T	
20	ABU YOUSUF	1020	U	
21	ABU ZAYD	1021	V	
22	ABU ALI	1022	W	
23	ABU BAKR	1023	X	
24	ABU HASAN	1024	Y	
25	ABU JAFAR	1025	Z	

Sl. No.	Name of the Candidate	Roll No.	Grade	Remarks
26	ABU MANSUR	1026	A	
27	ABU NUR	1027	B	
28	ABU SAAD	1028	C	
29	ABU TALIB	1029	D	
30	ABU YOUSUF	1030	E	
31	ABU ZAYD	1031	F	
32	ABU ALI	1032	G	
33	ABU BAKR	1033	H	
34	ABU HASAN	1034	I	
35	ABU JAFAR	1035	J	
36	ABU KHALID	1036	K	
37	ABU MANSUR	1037	L	
38	ABU NUR	1038	M	
39	ABU SAAD	1039	N	
40	ABU TALIB	1040	O	
41	ABU YOUSUF	1041	P	
42	ABU ZAYD	1042	Q	
43	ABU ALI	1043	R	
44	ABU BAKR	1044	S	
45	ABU HASAN	1045	T	
46	ABU JAFAR	1046	U	
47	ABU KHALID	1047	V	
48	ABU MANSUR	1048	W	
49	ABU NUR	1049	X	
50	ABU SAAD	1050	Y	
51	ABU TALIB	1051	Z	

1382

<b>APPENDIX 11:</b>	<b>PRODUCT ANALYSIS TABLES: SWEET POTATO</b>		<b>384</b>
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Handwritten notes

Handwritten notes

Handwritten notes

Year	Month	Day	Event	Location	Time	Remarks
1970	Jan	1	...	...	...	...
1970	Jan	2	...	...	...	...
1970	Jan	3	...	...	...	...
1970	Jan	4	...	...	...	...
1970	Jan	5	...	...	...	...
1970	Jan	6	...	...	...	...
1970	Jan	7	...	...	...	...
1970	Jan	8	...	...	...	...
1970	Jan	9	...	...	...	...
1970	Jan	10	...	...	...	...
1970	Jan	11	...	...	...	...
1970	Jan	12	...	...	...	...
1970	Jan	13	...	...	...	...
1970	Jan	14	...	...	...	...
1970	Jan	15	...	...	...	...
1970	Jan	16	...	...	...	...
1970	Jan	17	...	...	...	...
1970	Jan	18	...	...	...	...
1970	Jan	19	...	...	...	...
1970	Jan	20	...	...	...	...
1970	Jan	21	...	...	...	...
1970	Jan	22	...	...	...	...
1970	Jan	23	...	...	...	...
1970	Jan	24	...	...	...	...
1970	Jan	25	...	...	...	...
1970	Jan	26	...	...	...	...
1970	Jan	27	...	...	...	...
1970	Jan	28	...	...	...	...
1970	Jan	29	...	...	...	...
1970	Jan	30	...	...	...	...
1970	Jan	31	...	...	...	...

Year	Month	Day	Time	Location	Event	Remarks
1971	Jan	1	10:00	Library	Meeting	...
1971	Jan	2	10:00	Library	Meeting	...
1971	Jan	3	10:00	Library	Meeting	...
1971	Jan	4	10:00	Library	Meeting	...
1971	Jan	5	10:00	Library	Meeting	...
1971	Jan	6	10:00	Library	Meeting	...
1971	Jan	7	10:00	Library	Meeting	...
1971	Jan	8	10:00	Library	Meeting	...
1971	Jan	9	10:00	Library	Meeting	...
1971	Jan	10	10:00	Library	Meeting	...
1971	Jan	11	10:00	Library	Meeting	...
1971	Jan	12	10:00	Library	Meeting	...
1971	Jan	13	10:00	Library	Meeting	...
1971	Jan	14	10:00	Library	Meeting	...
1971	Jan	15	10:00	Library	Meeting	...
1971	Jan	16	10:00	Library	Meeting	...
1971	Jan	17	10:00	Library	Meeting	...
1971	Jan	18	10:00	Library	Meeting	...
1971	Jan	19	10:00	Library	Meeting	...
1971	Jan	20	10:00	Library	Meeting	...
1971	Jan	21	10:00	Library	Meeting	...
1971	Jan	22	10:00	Library	Meeting	...
1971	Jan	23	10:00	Library	Meeting	...
1971	Jan	24	10:00	Library	Meeting	...
1971	Jan	25	10:00	Library	Meeting	...
1971	Jan	26	10:00	Library	Meeting	...
1971	Jan	27	10:00	Library	Meeting	...
1971	Jan	28	10:00	Library	Meeting	...
1971	Jan	29	10:00	Library	Meeting	...
1971	Jan	30	10:00	Library	Meeting	...
1971	Jan	31	10:00	Library	Meeting	...

Dhaka University Institutional Repository

Dhaka University Institutional Repository

Year	Month	Day	Event	Time	Location	Remarks
1974	Jan	1	...	...	...	...
1974	Jan	2	...	...	...	...
1974	Jan	3	...	...	...	...
1974	Jan	4	...	...	...	...
1974	Jan	5	...	...	...	...
1974	Jan	6	...	...	...	...
1974	Jan	7	...	...	...	...
1974	Jan	8	...	...	...	...
1974	Jan	9	...	...	...	...
1974	Jan	10	...	...	...	...
1974	Jan	11	...	...	...	...
1974	Jan	12	...	...	...	...
1974	Jan	13	...	...	...	...
1974	Jan	14	...	...	...	...
1974	Jan	15	...	...	...	...
1974	Jan	16	...	...	...	...
1974	Jan	17	...	...	...	...
1974	Jan	18	...	...	...	...
1974	Jan	19	...	...	...	...
1974	Jan	20	...	...	...	...
1974	Jan	21	...	...	...	...
1974	Jan	22	...	...	...	...
1974	Jan	23	...	...	...	...
1974	Jan	24	...	...	...	...
1974	Jan	25	...	...	...	...
1974	Jan	26	...	...	...	...
1974	Jan	27	...	...	...	...
1974	Jan	28	...	...	...	...
1974	Jan	29	...	...	...	...
1974	Jan	30	...	...	...	...
1974	Jan	31	...	...	...	...
1974	Feb	1	...	...	...	...
1974	Feb	2	...	...	...	...
1974	Feb	3	...	...	...	...
1974	Feb	4	...	...	...	...
1974	Feb	5	...	...	...	...
1974	Feb	6	...	...	...	...
1974	Feb	7	...	...	...	...
1974	Feb	8	...	...	...	...
1974	Feb	9	...	...	...	...
1974	Feb	10	...	...	...	...
1974	Feb	11	...	...	...	...
1974	Feb	12	...	...	...	...
1974	Feb	13	...	...	...	...
1974	Feb	14	...	...	...	...
1974	Feb	15	...	...	...	...
1974	Feb	16	...	...	...	...
1974	Feb	17	...	...	...	...
1974	Feb	18	...	...	...	...
1974	Feb	19	...	...	...	...
1974	Feb	20	...	...	...	...
1974	Feb	21	...	...	...	...
1974	Feb	22	...	...	...	...
1974	Feb	23	...	...	...	...
1974	Feb	24	...	...	...	...
1974	Feb	25	...	...	...	...
1974	Feb	26	...	...	...	...
1974	Feb	27	...	...	...	...
1974	Feb	28	...	...	...	...
1974	Feb	29	...	...	...	...
1974	Feb	30	...	...	...	...
1974	Mar	1	...	...	...	...
1974	Mar	2	...	...	...	...
1974	Mar	3	...	...	...	...
1974	Mar	4	...	...	...	...
1974	Mar	5	...	...	...	...
1974	Mar	6	...	...	...	...
1974	Mar	7	...	...	...	...
1974	Mar	8	...	...	...	...
1974	Mar	9	...	...	...	...
1974	Mar	10	...	...	...	...
1974	Mar	11	...	...	...	...
1974	Mar	12	...	...	...	...
1974	Mar	13	...	...	...	...
1974	Mar	14	...	...	...	...
1974	Mar	15	...	...	...	...
1974	Mar	16	...	...	...	...
1974	Mar	17	...	...	...	...
1974	Mar	18	...	...	...	...
1974	Mar	19	...	...	...	...
1974	Mar	20	...	...	...	...
1974	Mar	21	...	...	...	...
1974	Mar	22	...	...	...	...
1974	Mar	23	...	...	...	...
1974	Mar	24	...	...	...	...
1974	Mar	25	...	...	...	...
1974	Mar	26	...	...	...	...
1974	Mar	27	...	...	...	...
1974	Mar	28	...	...	...	...
1974	Mar	29	...	...	...	...
1974	Mar	30	...	...	...	...
1974	Mar	31	...	...	...	...
1974	Apr	1	...	...	...	...
1974	Apr	2	...	...	...	...
1974	Apr	3	...	...	...	...
1974	Apr	4	...	...	...	...
1974	Apr	5	...	...	...	...
1974	Apr	6	...	...	...	...
1974	Apr	7	...	...	...	...
1974	Apr	8	...	...	...	...
1974	Apr	9	...	...	...	...
1974	Apr	10	...	...	...	...
1974	Apr	11	...	...	...	...
1974	Apr	12	...	...	...	...
1974	Apr	13	...	...	...	...
1974	Apr	14	...	...	...	...
1974	Apr	15	...	...	...	...
1974	Apr	16	...	...	...	...
1974	Apr	17	...	...	...	...
1974	Apr	18	...	...	...	...
1974	Apr	19	...	...	...	...
1974	Apr	20	...	...	...	...
1974	Apr	21	...	...	...	...
1974	Apr	22	...	...	...	...
1974	Apr	23	...	...	...	...
1974	Apr	24	...	...	...	...
1974	Apr	25	...	...	...	...
1974	Apr	26	...	...	...	...
1974	Apr	27	...	...	...	...
1974	Apr	28	...	...	...	...
1974	Apr	29	...	...	...	...
1974	Apr	30	...	...	...	...
1974	May	1	...	...	...	...
1974	May	2	...	...	...	...
1974	May	3	...	...	...	...
1974	May	4	...	...	...	...
1974	May	5	...	...	...	...
1974	May	6	...	...	...	...
1974	May	7	...	...	...	...
1974	May	8	...	...	...	...
1974	May	9	...	...	...	...
1974	May	10	...	...	...	...
1974	May	11	...	...	...	...
1974	May	12	...	...	...	...
1974	May	13	...	...	...	...
1974	May	14	...	...	...	...
1974	May	15	...	...	...	...
1974	May	16	...	...	...	...
1974	May	17	...	...	...	...
1974	May	18	...	...	...	...
1974	May	19	...	...	...	...
1974	May	20	...	...	...	...
1974	May	21	...	...	...	...
1974	May	22	...	...	...	...
1974	May	23	...	...	...	...
1974	May	24	...	...	...	...
1974	May	25	...	...	...	...
1974	May	26	...	...	...	...
1974	May	27	...	...	...	...
1974	May	28	...	...	...	...
1974	May	29	...	...	...	...
1974	May	30	...	...	...	...
1974	May	31	...	...	...	...
1974	Jun	1	...	...	...	...
1974	Jun	2	...	...	...	...
1974	Jun	3	...	...	...	...
1974	Jun	4	...	...	...	...
1974	Jun	5	...	...	...	...
1974	Jun	6	...	...	...	...
1974	Jun	7	...	...	...	...
1974	Jun	8	...	...	...	...
1974	Jun	9	...	...	...	...
1974	Jun	10	...	...	...	...
1974	Jun	11	...	...	...	...
1974	Jun	12	...	...	...	...
1974	Jun	13	...	...	...	...
1974	Jun	14	...	...	...	...
1974	Jun	15	...	...	...	...
1974	Jun	16	...	...	...	...
1974	Jun	17	...	...	...	...
1974	Jun	18	...	...	...	...
1974	Jun	19	...	...	...	...
1974	Jun	20	...	...	...	...
1974	Jun	21	...	...	...	...
1974	Jun	22	...	...	...	...
1974	Jun	23	...	...	...	...
1974	Jun	24	...	...	...	...
1974	Jun	25	...	...	...	...
1974	Jun	26	...	...	...	...
1974	Jun	27	...	...	...	...
1974	Jun	28	...	...	...	...
1974	Jun	29	...	...	...	...
1974	Jun	30	...	...	...	...
1974	Jun	30	...	...	...	...









300

Year	Month	Day	Event	Location	Remarks
1971	Jan	1	...	...	...
1971	Jan	2	...	...	...
1971	Jan	3	...	...	...
1971	Jan	4	...	...	...
1971	Jan	5	...	...	...
1971	Jan	6	...	...	...
1971	Jan	7	...	...	...
1971	Jan	8	...	...	...
1971	Jan	9	...	...	...
1971	Jan	10	...	...	...
1971	Jan	11	...	...	...
1971	Jan	12	...	...	...
1971	Jan	13	...	...	...
1971	Jan	14	...	...	...
1971	Jan	15	...	...	...
1971	Jan	16	...	...	...
1971	Jan	17	...	...	...
1971	Jan	18	...	...	...
1971	Jan	19	...	...	...
1971	Jan	20	...	...	...
1971	Jan	21	...	...	...
1971	Jan	22	...	...	...
1971	Jan	23	...	...	...
1971	Jan	24	...	...	...
1971	Jan	25	...	...	...
1971	Jan	26	...	...	...
1971	Jan	27	...	...	...
1971	Jan	28	...	...	...
1971	Jan	29	...	...	...
1971	Jan	30	...	...	...
1971	Jan	31	...	...	...
1971	Feb	1	...	...	...
1971	Feb	2	...	...	...
1971	Feb	3	...	...	...
1971	Feb	4	...	...	...
1971	Feb	5	...	...	...
1971	Feb	6	...	...	...
1971	Feb	7	...	...	...
1971	Feb	8	...	...	...
1971	Feb	9	...	...	...
1971	Feb	10	...	...	...
1971	Feb	11	...	...	...
1971	Feb	12	...	...	...
1971	Feb	13	...	...	...
1971	Feb	14	...	...	...
1971	Feb	15	...	...	...
1971	Feb	16	...	...	...
1971	Feb	17	...	...	...
1971	Feb	18	...	...	...
1971	Feb	19	...	...	...
1971	Feb	20	...	...	...
1971	Feb	21	...	...	...
1971	Feb	22	...	...	...
1971	Feb	23	...	...	...
1971	Feb	24	...	...	...
1971	Feb	25	...	...	...
1971	Feb	26	...	...	...
1971	Feb	27	...	...	...
1971	Feb	28	...	...	...
1971	Feb	29	...	...	...
1971	Feb	30	...	...	...
1971	Mar	1	...	...	...
1971	Mar	2	...	...	...
1971	Mar	3	...	...	...
1971	Mar	4	...	...	...
1971	Mar	5	...	...	...
1971	Mar	6	...	...	...
1971	Mar	7	...	...	...
1971	Mar	8	...	...	...
1971	Mar	9	...	...	...
1971	Mar	10	...	...	...
1971	Mar	11	...	...	...
1971	Mar	12	...	...	...
1971	Mar	13	...	...	...
1971	Mar	14	...	...	...
1971	Mar	15	...	...	...
1971	Mar	16	...	...	...
1971	Mar	17	...	...	...
1971	Mar	18	...	...	...
1971	Mar	19	...	...	...
1971	Mar	20	...	...	...
1971	Mar	21	...	...	...
1971	Mar	22	...	...	...
1971	Mar	23	...	...	...
1971	Mar	24	...	...	...
1971	Mar	25	...	...	...
1971	Mar	26	...	...	...
1971	Mar	27	...	...	...
1971	Mar	28	...	...	...
1971	Mar	29	...	...	...
1971	Mar	30	...	...	...
1971	Mar	31	...	...	...
1971	Apr	1	...	...	...
1971	Apr	2	...	...	...
1971	Apr	3	...	...	...
1971	Apr	4	...	...	...
1971	Apr	5	...	...	...
1971	Apr	6	...	...	...
1971	Apr	7	...	...	...
1971	Apr	8	...	...	...
1971	Apr	9	...	...	...
1971	Apr	10	...	...	...
1971	Apr	11	...	...	...
1971	Apr	12	...	...	...
1971	Apr	13	...	...	...
1971	Apr	14	...	...	...
1971	Apr	15	...	...	...
1971	Apr	16	...	...	...
1971	Apr	17	...	...	...
1971	Apr	18	...	...	...
1971	Apr	19	...	...	...
1971	Apr	20	...	...	...
1971	Apr	21	...	...	...
1971	Apr	22	...	...	...
1971	Apr	23	...	...	...
1971	Apr	24	...	...	...
1971	Apr	25	...	...	...
1971	Apr	26	...	...	...
1971	Apr	27	...	...	...
1971	Apr	28	...	...	...
1971	Apr	29	...	...	...
1971	Apr	30	...	...	...
1971	Apr	30	...	...	...



<b>APPENDIX 12:</b>	<b>INSTRUMENT QUESTIONNAIRE</b>	<b>392</b>
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- Respondent Type: WTO Expert
- Agricultural Extension/Marketing Expert
- Farmer
- Exporter

**AGRICULTURAL COMMODITY DEVELOPMENT SEGMENT**

1. Bangladesh should specialize as an agro-commodity exporter

Strongly Agree  Agree  Indifferent  Disagree  Strongly Disagree

2. The biggest threat to agro-commodity export from Bangladesh is ...

(Please divide 100 points among the elements)

Absence of superior technological know-how : \_\_\_\_\_

Absence of dependable financing mechanism : \_\_\_\_\_

Absence of forward marketing channels : \_\_\_\_\_

Absence of factor endowments to produce competitive products : \_\_\_\_\_

Price competition from abroad : \_\_\_\_\_

Lack of quality yields : \_\_\_\_\_

Natural calamities : \_\_\_\_\_

Absence of agricultural management techniques : \_\_\_\_\_

Deficiency in diversification of the product mix : \_\_\_\_\_

3. The onus of agro-commodity market development is on:

(Please rank)

Government  Private sector  NGOs  Combination

□ □ □ □

4. The government should prioritize in ...

(Please divide 100 points among the elements)

Product differentiation : \_\_\_\_\_

Product quality improvement : \_\_\_\_\_

Easy financing : \_\_\_\_\_

Forward marketing : \_\_\_\_\_

Negotiations in WTO to reduce agricultural subsidies (by advanced countries): \_\_\_\_\_

5. Specific methods to prioritize in agro-commodity development include...

(Please divide 100 points among the elements)

Quality seed developments : \_\_\_\_\_

Genetic engineering : \_\_\_\_\_

Production process improvement : \_\_\_\_\_

Advanced product processing : \_\_\_\_\_

Production financing : \_\_\_\_\_

Export marketing channel development : \_\_\_\_\_

6. Bangladesh's biggest competitors in agro-products are:

(Please rank according to importance)

USA : \_\_\_\_\_

Canada and North America : \_\_\_\_\_

Brazil and Latin America : \_\_\_\_\_

EU and Eastern Europe : \_\_\_\_\_

Sub-Saharan Africa (SSA) : \_\_\_\_\_

Africa other than SSA : \_\_\_\_\_

Japan and China : \_\_\_\_\_

Southeast Asian countries : \_\_\_\_\_

Australia : \_\_\_\_\_

Central Asian countries : \_\_\_\_\_

Russia Federation : \_\_\_\_\_

**PRODUCT SPECIFIC INFORMATION**

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*Dhaka University Institutional Repository*

Product Name : Rice / Jute / Cereals / Cotton / Vegetables ...

Bangladesh can specialize in this product category as an exporter:

(Strongly Agree) 1  2  3  4  5  6  (Strongly Disagree)

Specializing in this product category will ensure continued strategic / financial benefits in the future:

(Strongly Agree) 1-----8 (Strongly Disagree)

What are the major impediments in achieving superior export values in this category (Please divide 100 points among the elements)

Quality seed developments : \_\_\_\_\_

Absence of genetic modifications : \_\_\_\_\_

Production process deficiencies : \_\_\_\_\_

Advanced product processing : \_\_\_\_\_

Production financing : \_\_\_\_\_

Export marketing channel development : \_\_\_\_\_

Indue price competitions from abroad : \_\_\_\_\_

Agricultural subsidies abroad : \_\_\_\_\_

Agricultural export quota abroad : \_\_\_\_\_

Transportation and communications : \_\_\_\_\_

What can be done to improve on Q1?

(Please rank in order of preference)

Introducing product variety : \_\_\_\_\_

Product quality improvement : \_\_\_\_\_

Using financing mechanism : \_\_\_\_\_

Setting up forward marketing channels : \_\_\_\_\_

Block activities along with LDCs in WTO to reduce agricultural subsidies (by advanced countries): \_\_\_\_\_

Providing more domestic agricultural subsidies : \_\_\_\_\_

Introducing production process improvements : \_\_\_\_\_

Production process improvements should prioritize in :

(Please divide 100 points among the elements)

Introducing advanced production engineering : \_\_\_\_\_

Introducing superior transportation system : \_\_\_\_\_

Ensuring timely and adequate inputs supply : \_\_\_\_\_

Merging individual farm units to form agricultural conglomerates : \_\_\_\_\_

Ensuring easy and low-cost financing : \_\_\_\_\_

Providing export consultancy : \_\_\_\_\_

Radical corruption from foreign transportation management : \_\_\_\_\_

Attaining competitive efficiency would result from combinations of :

(Please rank in order of preference)

Easy and low cost of financing : \_\_\_\_\_

Superior forward marketing initiatives : \_\_\_\_\_

Scientific management of the input-supply chains : \_\_\_\_\_

Larger and conglomeration of individual farms units : \_\_\_\_\_

Ensuring easy and low-cost financing : \_\_\_\_\_

Government supported export services : \_\_\_\_\_

Anti-Corruption drives in the power/utilities sector : \_\_\_\_\_