

**NEW TRENDS OF GLOBAL CONFLICTS AFTER THE COLD
WAR AND CHALLENGES FOR UN AS PEACE MAKER**

GIFT

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January 2010

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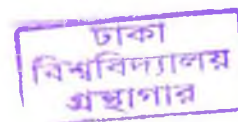
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This is to certify that Md Shah Alam (Reg – 180) has completed his M. Phil thesis “**New Trends of Global Conflicts After the Cold War and Challenges for UN as Peace Maker**” under my direct supervision. This is his original work. This thesis or any part of it has not been submitted anywhere for publication.

A handwritten signature in black ink, appearing to read 'Dr Dil Rowshan Zinnat Ara Nazneen'.

Dr Dil Rowshan Zinnat Ara Nazneen
Professor
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Dedicated to

My beloved Parents

PREFACE

On April 2004, I went to India for attending a peacekeeping course. While in the course, I was exposed to the various complexities of peacekeeping operations and a leaned faculty member was mentioning about the new trends of global conflicts which is making the peacekeeping operation very challenging. He mentioned that yet many things are not clear but research work can enlighten us to understand such complexities and challenges. That aroused my interest on the subject matter and I undertook this project of conducting research on this issue.

The end of cold war changed the pattern the global geopolitical and ideological rivalry that characterized NATO and WARSAW pact countries. This also changed the pattern of the strategic conflicts among the leading sovereign countries. This has given an opportunity to America to emerge as single greatest power in multi polar world at the end of 20th century. But gradually this equation of power is also crumbling due to emergence of many economically powerful countries, which are posing threat to the American sole supremacy. This has become possible as world economy is reshaping the power equation. As such the trends of conflicts are also reshaping. The new trends are emerging in various areas.

Armed conflicts peaked just after the cold war that is at the beginning of 90s among the third world countries and central Asian and Balkan states. After the cold war, the super powers loosened their influence on client states, which allowed them to function independently to settle their own conflicting issues that were earlier suppressed by them. During the cold war, these countries internal problems were fixed through pressure tactics. After 90s, armed conflicts are loosing their intensity. But new trends of conflicts in culture, economy, environment and demography are budding for the sake of self interest of the countries. These are becoming main driving factors for international relations among the nations. The outcome of the conflicts from

these issues must be faced squarely by world community and UN for sustainable peace.

As per Huntington's thesis, cultural conflicts among the civilizations will be a factor for world peace. Though Huntington's thesis is at times questionable but there is no scope of ignorance. The Western cultural domination on all other civilizations is a sure sign of conflicts. The very opinion of American ex President George W Bush during the Gulf War for their allies, "either you are with us or against us" is a threat to international peace and cohesion. This attitude is never liked by any allies. On the other hand, the value system among the civilizations also matters most on the cultural issues. The West never wanted the Islamic resurgence and current drive of Al Qaida by the West is the manifestation of their disliking. The other aspect is the religious and cultural conflict which has been historically marred by the power imbalance between Islam and West. Besides, the democracy of the West and the Islamic democracy have some basic differences, which is contentious.

The geopolitical importance of various countries is changing due to economical reasons. Now the relationship among the nations is economy driven. The world economy is dominated by very few countries of the world and their economy is depended on energy consumption. The developed countries are the energy hungry nations, where they want to make sure continuous energy supply for their economic need, which is also bringing conflicts. As the search for alternative energy is the order of the day, the developed countries are trying to reduce their dependency on the traditional energy usage. In addition, a small number of rich countries are enjoying the large share of global wealth keeping rest of population at poverty level because of ill distribution. As a result, inequality of the consumption is prevalent in the society. Though American economy is gradually declining in comparison of other economy as such exchange price of dollar is becoming unstable and volatile. On the other hand, global financial market is dependent on dollar, but the dollar is not dependant on anything like gold or precious metal. The recent American economic crisis which in turn affected the world economy shows the clear sign that world's present monetary system is

crumbling and not sustainable any more. In the same back drop, the influence of world monetary institutions are not viewed positively by the beneficiaries, because they are flawed by the influence of the developed countries or the donors of the funds, which is preventing to achieve the actual aim and objective of those institutions.

The global climate change due to human activities is going to make huge hue and cry at the present time. The recent unresolved termination of Copenhagen Summit on environment is another bright example how individual interest of the nation can jeopardize the global environmental issue. The increase of temperature due to the emission of carbon di oxide in the air is going to cause green house effect. This certainly will raise the sea level as such small island countries will be surely affected due to inundation of sea water and other natural calamities. This is going to cause shortage of water, spread different kind of disease, change of biodiversity of an ecosystem, extinction of various spices from earth, which will have greater damages on the condition of human living. An unstable climate will exacerbate some of the core drivers of conflict, such as migratory pressures and competition for resources. More so at present, developed and developing countries could not come to a consensus in the world highest climate summit to reduce carbon di oxide as this is going to hamper their present rate of economic development.

Another global conflicting area is the population. The world population is increasing in unprecedented rate. The 6 billion populations are not equally distributed geographically. Some cases, the most developed countries have less population in comparison to developing and poor countries considering their wealth and land. The developed countries will be facing difficulties to continue holding their present status if they fail to have the required no of people for the development of their economy. On the other hand, poor countries being over populated will face difficulties to feed them properly with the present economic status and the natural consequence will be migration. This is going to bring another set of conflicts to bring this population under some geographical area and naturalize those with their existing population.

As such UN as the headquarters of the member state or the world a whole is facing set of host of challenges from the above variables which needs to be solved. These challenges are needed to be identified clearly for greater cause of peace and amicable solution of all problems. As the American supremacy is reducing day by day and countries are questioning their legality of leading the world. As such an international body, like UN to be only legal entity to deal with the global conflicts. The trends of these conflicts are not very good sign for the world peace. UN should take accounts of all these anomalies and work together with the nation states to find viable solution of these problems as peacemaker.

Finally, I hope that the findings of this study will help policy makers, researchers, students and UN body to understand new trends of world conflicts after the cold war scenario and confront those challenges as a peacemaker.

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ACRONYMS

AGW	Anthropogenic Global Warming
APEC	Asia Pacific Economic Corporation
C4MIP	Climate Carbon Cycle Model International
CFC	Chlorofluorocarbon
CTG	Council for Trade
DOC	Dissolved Organic Carbon
ECOSOC	The Economic and Social Council
EPA	United States Environment Protection Agency
EU	European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
LDC	Least Developed Countries
ME	Middle East
NAM	Non Aligned Movement
NATO	North Atlantic Treaty Organization
OECD	Organization for Economic Co-Operation and Development
OPEC	Organization of Petroleum Exporting Countries
RAND	Research And Development
UCL	University College London
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNFCC	United Nations Framework Convention on Climate Change
USA	United States of America
USSR	United of Socialist Republic
WARSAW	Polish name, means belonging to Warsz
WHO	World Health Organization
WTO	World Trade Organization

Acknowledgement

I thank Almighty Allah for bestowing His infinite mercy and divine spirit to complete this assignment with sound health and mind. I would like to express my earnest gratitude to my supervisor Dr Dil Rowshan Zinnat Ara Nazneen, Political Science Department, University of Dhaka. Madam has been very kind to spare her valuable time in discussing with various issues related to research work. She extended her helping hand and continuous support while preparing the dissertation. Her continuous guidance and encouragement during the research work has given me the motivation to complete it. Without her support this huge work would not be possible to complete.

I would like to also thank Professor Dalem Ch Barman, the founder of peace and Conflict Department, University of Dhaka for his continuous encouragement and support. He encouraged me to discuss with him various issues related to research, which ultimately had good contribution on completing my research work.

I am really grateful to Pro VC of Cutting ton University of Liberia, who has been very kind to share his knowledge on the various conflicting issues of the world and developing my conceptual knowledge on the subject. While I was deployed in peacekeeping mission in Liberia, he used to discuss with me on the local conflicting issues which has some relevance on subject matter and provided various books on these issues.

Finally, I am also indebted to the various key personal of UN agencies of Liberia, for sharing their experience on various conflicting issues of local and global level, which enlightened me on the subject matter.

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Abstract

There are good numbers of conflicting issues in the world, which have direct influence on the global peace. Identification of those issues with future projection and their analysis can give lot of insights to mitigate them. The trend analysis of the global important issues like armed, cultural, economic, environmental and demographic conflicts can unearth host of challenges, which is making the world so unstable. After the cold war, the world witnessed the end of geopolitical and ideological rivalry that characterized the cold war period. In contrast to that, present world is the period of globalization and economy driven political system, which is not also beyond crisis. The differences among the developed and poor countries are so gigantic that it is easily distinguishable, if one compares the global wealth distribution among them. These differences are also visible in other areas of interest too. The study observed the trends of various conflicting issues on the variables mentioned above and identified emerging trends. The UN is confronting those new trends of challenges after the cold war. The study also made an attempt to single out those challenges and finally recommend measures to ameliorate them to make the world peaceful.

CHAPTER ONE

INTRODUCTION

1.1 Statement of the Problem

In the cold war era there existed a bipolar world, where maximum countries were grouped into NATO and WARSAW pact allies and rest of the countries joined in the NAM (Non Aligned Movement). The Cold War (1945–1991) was the continuance of political conflict, military tension, and economic competition existed preliminarily between the USSR and its satellite states, and the powers of the Western world, headed by the United States. The primary military forces never officially clashed directly, rather they kept alive the conflict through military coalitions, strategic conventional force deployments, a nuclear arms race, espionage, proxy wars, propaganda, and technological competition, such as the Space Race etc¹. After the end of cold war, the most dramatic change brought in is an end to the geopolitical and ideological rivalry that characterized the cold war period. As such the trends of conflicts are also reshaping everyday; the new trends are emerging on various issues. Identification of these trends is important in order to know the causes and effect of those said conflicts. Once we know the trend of the conflicts, surely we can infer challenges from there.

To identify global challenges on contentious issues, it is important to figure out the trends of conflicts that led us in this new time and changed situation. There are many contentious issues but a few are mentioned worthy. These are variables, which are affecting the nations directly for their strength and weaknesses in the world affairs. Among those variables, armed conflicts, cultural, economic, demographic and environmental conflicts are important ones by their own merits. These are variables around which host of other conflicts and Challenges comes from. These variables work as indicators which need to be considered in right time for preventing further conflicts among the nations.

Armed conflicts resurged at the beginning of 90s among the third world countries and Balkan states. Later on, on succeeding years, it started to stabilize. The resurgence took place basically on intrastate conflicts. But the frequency and dimension of inter state conflicts almost remained same. This indicate that earlier client states of super powers started facing problem with their internal affairs which derived from the ethnical and political problem. These crises were earlier suppressed by the super powers with the application of pressure tactics. As 'super powers favored' situations are also over, it led armed conflicts stabilizing

¹ Wikipedia.

gradually. But that does not mean the end of all conflicts. New trends of conflicts are budding amid to meet the countries individual interest. Another trend seems to be conspicuous: the trends of terrorism. Though as per statistics, intensity of the terrorism did not increase after the cold war but definitely it has changed context of terrorism. Especially fundamental terrorisms are on the rise. Al Qaida is a new group which emerged as a terrorist group in affecting the global peace and security. American crusade against Al Qaida after 1/11 has definitely brought new dimensions in conflict management. Many of the terrorist outfit is busted by them but still its influence is not eliminated. Though West is the target of this neo terrorist group, but interestingly the very group was incubated by the west during the cold war time. Assumed that, it is the fall out of the clandestine actions and activities, conducted by USA at the time of cold war regime. Currently ethnic diverse states are more prone to the interstate conflicts which are real challenges for a particular country as well as for UN.

Introduction of Huntington thesis on the clash of civilizations identifies cultural differences to be another major cause of this conflict. Every civilization has their own culture and one can not easily stand alone out of this cultural bindings. Though there is a lot of debate on Huntington's thesis and on its application in reality, but one can not ignore it altogether. The absolute domination of Western culture on all other cultures, through the process of globalization, is one of the causes of conflicts. On the other hand, the value system among the civilizations also matters in the global decision making issues. The west is mainly dominated by the Christians and didn't want an Islamic resurgence, which is very much reflected in action activities of the west at present time. The other aspect is the religious and cultural conflict which has been historically marred by the power imbalance between them. Besides, democracy of the west and the Islamic democracy have different explanations in application, which is also a focal point of contentions. More so, cultural conflicts seem to be stronger than any other conflicts at present.

On the other hand, post cold war political developments places greater emphasis on the dynamics of the world economy where market and geopolitical forces tended to form an alliance among the nations. Developed countries are focusing on primary resources or raw materials where their driving wheel of their economy is depended. Now a days, economical issues are the decisive indexes for making relationship among the nations. The geopolitical importance of various places is changing due to economical importance. Global relationship among the countries is now a dependent variable on the economic interest of the countries. The economy is playing a vital role in making new relationship among the countries, which is becoming vary much contentious. The world economy is dominated by very few countries of the world and their economy is depended on energy consumption. The developed countries are the energy hungry nations, where

they want to make sure a continuous energy supply for their economic need, which is also bringing in a new dimension of conflict. As the alternative energy requirement is the order of the day, developed countries are trying heart and soul to reduce their dependency on the traditional use of those sources of energy. On the other hand, modern technology is changing in every spheres and the nation state is expected to do better economically if they are in a possession of it. In addition, a small number of rich countries are enjoying the lion share of global wealth and rest of the world population is suffering from poverty because of the ill distribution of the world wealth. As a result, inequality of the consumption is prevalent in the society. Though American economy is gradually declining in comparison of the economy of other countries, but present capitalism is dependent on dollar, which is very volatile, as dollar is not dependant on anything like gold or precisions metal's reserve. The recent American economic crisis, which in turn affected the world economy, shows the clear sign that the present world monetary system need a strong review so that this economic recession does not come back in days to come. In the same back drop, the influence of the world monetary institution is not viewed positively, because they are flawed by the influence of the developed countries or the donors of the funds, which is preventing to achieve the actual aim and objective of those institutions making conflict among the donors and recipients.

Another global conflicting area is the population. The world population is increasing in unprecedented rate. The 6 billion populations are not equally distributed geographically. The most developed countries have less population in comparison to developing and underdeveloped countries considering their wealth and land. The developed countries will be facing difficulties to continue holding their present status if they fail to have the required no of people for the continuous development of their economy. On the other hand, poor countries being over populated will face difficulties to feed them properly with the present economic status and the natural consequence will be migration. This is going to bring another set of conflicts to bring this population under some geographical area and naturalize those with their existing population.

The global climatic change due to human activities is going to make huge hue and cry at present time. The recent abrupt termination of Copenhagen Summit without any future direction on environment is another bright example of how individual interest of the nations can jeopardize the global environmental issues. The increase of temperature due to the emission of carbon di oxide in the air is going to cause greenhouse effect. This effect will end in sea level raise as such small island countries will be surely affected due to inundation of sea water and other natural calamities. This is going to cause shortage of water, spread different

kind of diseases, bringing change in biodiversity of an ecosystem, extinction of various species from earth, which will have greater damages on the condition of human living. An unstable climate will exacerbate some of the core drivers of conflict, such as migratory pressures and competition for resources. More so, at present, developed and developing countries could not come to a consensus in the world highest climate summit to reduce the exhaust of carbon dioxide as this is going to hamper their present rate of economic development.

The world is facing host of conflict and challenges in post cold war era. To face global challenges one can not ignore the role of global leadership. After the cold war, the power equation and geopolitical importance of the various places are shifting due to many reasons. Though America emerged as supreme power of the world just after the end of cold war and there after, but power equation is changing gradually with the decaying power of America and with the emergence of new countries with their budding economy, role in world trade and other decision making matters over the world affairs. As such, days are coming soon, where leadership of America will be relegated to a level of any other powerful countries of the world. In a multi polar world, the concerted effort will be more important, where participation of other powerful nations will be important in decision making global context. In that pretext, role of UN will be more important than now. The success of UN in peacekeeping missions is quiet praise worthy after the cold war. This was possible with the changed scenario after the cold war. If this kind of consensus could be developed in other areas of world affairs than world could be more peaceful.

The challenges we face in the multi polar world, must be identified clearly for greater cause of world peace and amicable solution of all the problems. As the American supremacy is reducing day by day and countries are questioning their legitimacy of leading the world. As such an international body, like UN to be only legal entity to deal with the global conflicts. The trends of these conflicts are not very good sign for the world peace. UN should take accounts of all these anomalies and work together with the nation states to find a viable solution of these challenges.

1.2 Aim and Objective

The study aims to examine the present trends of global conflict in post cold war era from the important global issues and provide future projections. The study will also assess and infer challenges from those conflict projections, which can be mitigated the individual nation or international community or the UN- an accepted entity by all.

1.3 Research Question

In post cold war era, the world faces lot of conflicting situation from the important global issues. These issues are important for global peace and correct trend projection can present future impacts of those problems. Those conflict trends can be used as an indicator for assessing and inferring the challenges for mitigation before it gets further worse which can destabilize the world peace. From that perspective this research will try to answer the basic question: What are the present trends of global conflicts on important issues and what are the challenges, which needs mitigation by all the nations working together in the UN?

1.4 Research Hypothesis

The study will examine the present trends of global conflicts on the important issues to project future problem and impact on those on global peace. It will assess the challenges that emanate from those conflicting issues. Then it will re-examine the impact and challenges together to out line the recommendations for mitigation of those challenges for global peace. The study will take an analytical approach by projecting various data relating to the problem from various authentic sources to form trends and challenges of the conflicting issues.

1.5 Scope of Study

The study intends to analyze only important issues like armed, cultural, economic, demographic and environmental conflicts. These variables are important because independently each one can pose such challenges which can jeopardize the global peace. The study will only examine these variables to ascertain impacts of the conflicts and challenges there from. At the end, it will make a set of recommendations for each of the conflicting issues.

1.6 Significance of Study

UN is facing host of problems from armed, cultural, economic, demographic and environmental issues, which can destabilize the world peace. These issues are so important and significant that individually each issue can pose major threat to the global peace and harmony and challenges which needs special attention and mitigation measures. It is significant, if we really want UN centric globe, than inference from the conflict trends can help us to identify challenges and UN can take right measures for global peace and stability.

1.7 Limitation of Study

The research work was mainly conducted from the secondary sources such as books, articles and other publications and web sites from the UN and international agencies. But the local libraries could not provide contemporary data and literatures on the issues. Most of such data were collected from the web sites and pdf paper articles of concerned entity. Data on web sites frequently gets updated, as such at some point of time these might be also getting changed. Enough care has been taken so that only authentic web site's information is used. However, this research still lacks in depth studies in many aspects of these issues due to lack of available literature and time.

1.8 Organization of Study

Chapter one is designed to narrate statement of the problem, aim and objective, scope, research question and hypothesis and limitation etc. Chapter two discusses on the various armed conflicts after the cold war and analyzed the statistical data to identify the possible direction where these conflicts are leading us. The inter state, intrastate, ethnical and terrorism got main focus in the analysis of armed conflict to infer these conflicts and bring out possible challenges. Chapter three based on cultural issues. Culture has been conceptually discussed where Huntington's cultural thesis has been discussed to find it's viability in the present context. The value system of the culture has a great influence in decision making and cohesiveness with other cultures. This is a very good indicator which determines how conflicting issues can develop from there. On the other hand, religion and ideological belief of a civilization has influence on the conflicting issues. Chapter four presented various aspects of economical issues. Here a relationship has been established between the economic issues and geopolitical matter to find its dependence and conflicting issues. It also dealt with the disparity of wealth among the nations, where state of GDP, inflation, employment, trade volume, inequality of consumption and technological developments are examined to identify the sufferers. The performance of world monetary institutions is also examined to verify the effectiveness of those. Chapter five dealt with environmental issues of the world. The greenhouse effect will have multi dimensional fallout if those causes are not arrested well in time by all the nations together. An attempt has been made to pinpoint the causes of greenhouse effect and impact on global respect. Chapter six mainly highlighted the demographical issues. The present world demographical scenarios are discussed where present data is compared with past to infer how much people has increased and what kind of challenges are

emanating from there. The effect of demographical pressure and emigrational issues are discussed in thread bare to find the real world challenges. Chapter seven is basically identified and discussed the challenges altogether from the preceding chapters. The challenges have been considered in respect to the UN, so that all the nations have consensus in mitigating those challenges in the global perspective.

1.9 Literature Review

There are abundance of information on global armed conflicts, cultural issues, global economy and geopolitics, demographic scenario and environmental conflicts on the web and library as well. These literatures and many cases websites basically deals with a particular problem. Many UN web sites publish related report on important issues on the global perspective those have been utilized in this paper with latest updates. These reports were thoroughly consulted for their actual authenticity and those are listed in the Bibliography. Data from those sites were very insightful and could be applied successfully from the view point of analytical perspective. Wikipedia- the internet encyclopedia has been very useful for the definition and explanation of terms and concept of certain issues. Many presentation papers, research articles have been consulted for the base knowledge which has been listed accordingly. On the issue of armed conflicts yearly journal on Global Conflicts Trends, which measures systematic Peace on armed conflicts has been very useful for data presentations and locating the trends. Background paper on Trends in Conflicts 2010-2030 by professor Paul Rogers provided future projection of the conflicts. Bathany Lacina conducted study on civil conflicts after the cold war from the Centre of study of civil war, International Peace and Research Institute, OSLO(PRIO), Norway. Clashes of Civilizations and the remaking of world order by Samuel P Huntington provided basis of cultural conflict issue study. There are also useful presentation paper on various civilizations value system and ideology and research paper on religious conflicts which are listed in the Bibliography. Report on Economic Trends and Prospects by UNCTAD projected the global economic issues well. More so, report written by the National Intelligence Council, Washigton, DC, 20505 on Mapping of the Global Future highlighted future projection of the global economy that was published in 2004. On the other hand, paper written by Floyd Mann on the "IMF and World Bank are Major Causes of Poverty in Africa" provides insightful analytical view on the world monetary institutions. Report on "Long Term Global Demographic Trends, Reshaping the Global Geopolitical Landscape by the UN agency provides thread bare analysis on demographic issues. The report by RAND on population aging and security issues dynamics by the same organization analyzes impacts and demographic issues in the globe. Finally UN report on environment is a useful document for environmental analysis and trend identification. The contents of Wikipedia on "Greenhouse Effect" provide aftermath effect of Carbon di Oxide emissions. Report by the EPA (United States Environmental Protection Agency) provides their national trends on environment, which also considers global perspective.

CHAPTER - II

TRENDS OF ARMED CONFLICTS

2.1 Introduction

An armed conflict is defined by the Uppsala Conflict Data Project as a contested incompatibility that concerns government or territory or both where the use of armed force between two parties results in at least 25 battle related deaths. Of these two parties, at least one is the government of a state². They are divided into three categories: *Minor armed conflict*, where the number of battle-related deaths during the course of the conflict is at least 25 but below 1,000. Intermediate armed conflict, with more than 1,000 battle-related deaths recorded during the course of the conflict, but fewer than 1,000 in any given year. War with more than 1,000 battle related deaths in any given year. The last two categories are referred to together as major armed conflict.

On the other hand, two types of insecurity are usually distinguished: micro insecurity and macro insecurity. Micro insecurity refers to the fear that the individual will be the victim of crime or violence and macro insecurity refers to the fear that the state will be overthrown by insurrection³. While the two components of insecurity are important and interrelated, this study focuses only on one aspect of insecurity that is macro insecurity (armed conflicts). In that context, there is an increased feeling of insecurity in many parts of the world. There is a close relationship between the civil and interstate conflicts. The interstate conflicts data shows that after the cold war, this type of conflict has reduced dramatically (see Figure-1: Trends of Armed Conflict). But the civil conflict still persistent among the nations, especially the countries those are economically weak and democratically unstable, are the worst sufferer. Asia and Africa is worst sufferer at this time of the world. A wonderful revelation is felt in the analysis of the data of the predominantly Muslim religious background countries where these countries have become mostly affected in the ethnical conflicts. On the other hand, Al Qaida and

² Armed Conflict Webpage (<http://www.prio.no/cwp/ArmedConflict/>). 2003 Journal of Peace Research, vol. 40, no. 5, 2003, pp. 593–607 Sage Publications (London, Thousand Oaks, CA and New Delhi) www.sagepublications.com

³ Collier (1994)

Muslim Zihadi's are mostly blamed for the terror activity in the world. The Asia and some part of Africa are tormented with these kinds of activities.

The world could not come to a consensus for defining terrorism. UN made an attempt to bring all the nations together in a conference where lead nation's arrogance utterly foiled the effort. Dealing with undefined terrorism has created more difficulties. Now some countries defensive act leveled as terrorism when it is against the interest of other nations. Point is that what kind of filter you are using to level terror act is a question. But by and large world analysts and researchers have come to a general understanding of terrorism. Terrorism can here be understood as actions that inject fears and sentiments of humiliation and demand counter-actions. Terrorism is not a new Phenomenon. The Uppsala Conflict Data Project covers many of the most horrendous acts and intimidation campaigns in the period 1946–2002 with its normal definition of armed conflict. However, the concept of terrorism has become wider and now denotes a more imprecise form of violence. Traditionally connected to political action, the term 'terrorism' has recently been used to cover distinct different actions, such as criminal activities and gangsterism. Terrorism today is often directed against civilians and symbolic societal targets, as opposed to government targets. Terrorist acts in this wider sense, often carried out by actors disguised in civilian clothing, have often been connected with an escalation in armed conflict. The 11 September 2001 attacks and many other such suicide missions are illustrations of the damage that can be done by such actions⁴.

2.2 Civil and Interstate Conflicts

A civil war is a war between organized groups within a single nation state, or, less commonly, between two nations created from a formerly-united nation state. The aim of one side may be to take control of the nation or a region, to achieve

⁴ US State Department report, 2002.

independence for a region, or to change government policies. It is high-intensity conflict, often involving regular armed forces, that is sustained, organized and large-scale. Civil wars result in large numbers of casualties and the consumption of large resources⁵. On the other hand, we can define interstate conflict as 'a conflict between two or more governments'⁶.

The Cold War (1945-1989) provided a global network of material and ideological support that perpetuated civil wars, which were mainly fought in ex-colonial weak states, rather than the relatively strong states that were aligned with the Warsaw Pact and North Atlantic Treaty Organization. In some cases, superpowers would superimpose Cold War ideology onto local conflicts; while in others local actors using Cold War ideology would attract the attention of a superpower. Conversely, the end of the Cold War marked by the fall of the Berlin Wall in 1989 resulted in a reduction in the duration of Cold War civil wars⁷.

Despite the end of the Cold War, and reduction in the number of international wars, the intensity and frequency of civil wars in developing countries have increased unabated throughout the 1990s. The prospects of maintaining peace in various countries and regions of the developing world are also not very promising, given the underlining factors of civil conflict. Conflict theories attribute conflict and civil strife to complex inter linkages between economic, environmental, social, political, cultural and religious factors. The relative weight of those factors varies from one region to another, depending on the importance of that specific factor in initiating the conflict. The trend in the number of new

⁵ ' **Wikipedia**, Web-based, free-content encyclopedia, *Civil War*, viewed 21 November 2009, <http://en.wikipedia.org/wiki/Civil_war>

⁶ UPPSALA University website, UCDP Definition , viewed 21 November 2009
http://www.pcr.uu.se/research/UCDP/data_and_publications/definitions_all.htm

⁷ Nadir A.L. Mohammed, "Civil Conflicts, Crime and Violence", World Bank, Washington, D.C., 22-23 February, 1999. p. 2, 3.

conflicts can to some extent be explained by trends in factors those are mentioned in the following paragraph⁸:

The most notable political factors behind armed conflict in developing countries are the lack of power sharing, centralization of political administration, coup d'états, corruption of the ruling regimes, failure to promulgate permanent constitutions, and lack of respect for human rights and democratic rules.

Economic conditions have also been claimed to be among the most crucial factors behind armed conflicts in developing countries. Sluggish economic growth, increased poverty and skewed income distribution, lack of basic infrastructure and social services, wide regional differences, lack of access to agricultural land, and depletion of natural resources are the notable economic factors responsible for the emergence of civil wars. These economic factors result in increased despair, misery and frustration for people in marginalized communities and regions, and consequently, they initiate conflict in many parts of the developing world.

Environmental stress and competition over scarce natural resources as well as the inter linkages between environmental factors and economic conditions have been identified as factors behind the outbreak of civil wars in many parts of the developing world. Homer-Dixon (1990) argues that seven clusters of environmental problems (greenhouse warming, ozone depletion, deforestation, acid rain, degradation of land, overuse of water supplies, and depletion of fish stocks) will produce four categories of social effects (decrease in economic output, change in agricultural production, population displacement, and disruption

⁸ 'Global trends in armed conflict'. Centre for the study of civil war, International Peace Research Institute, Oslo (PRIO), viewed 21 Nov 2009, <
<http://www.regjeringen.no/nb/dep/ud/kampanjer/refleks/innsjill/engasjement/prio.html?id=492941>

of institutions and patterns of social behavior) which in turn lead to three types of conflict: frustration, group identity and structural conflicts⁹.

Frustration conflict occurs when people become hostile because they perceive either absolute deprivation or a widening gap between the achieved and the expected levels of satisfaction. Group identity conflict involves ethnic, religious and nationalistic factors as individuals feels the need for a sense of belonging that can be satisfied in a group when it acts or discriminates against another group. Structural conflicts are argued by Homer- Dixon to arise from the rational calculation of actors in the face of external (social or material) constraints.

Populous countries have more armed conflicts than small countries, but have fewer conflicts or casualties per capita than small countries. Countries with a large youth cohort (i.e. a large proportion of the population in the 15–24 year age group) have a high risk of internal conflict.

Countries in conflict-prone and non-democratic neighbourhoods have a heightened risk of conflict. Rebel groups often depend on sanctuaries outside the country's border and enjoy (tacit) support from rivaling neighbouring regimes, which are more easily obtained in an unstable environment and in areas with limited statehood. Conversely, a stable and democratic regional neighborhood helps economic growth and stimulates non-violent economic activities.

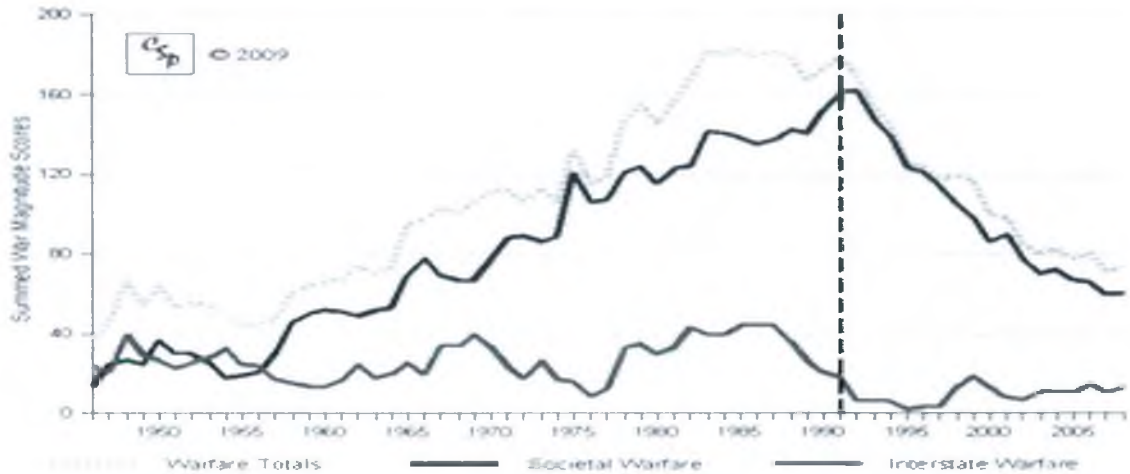
Ethnic differences are related to violent conflict, but may be less important as causes of large-scale civil war than often argued. However, societies where one ethnic group is dominant but minorities are sizeable are more conflict-prone – particularly when the politically marginalized groups reside in the periphery of the country.

The end of the Cold War, marked by the collapse of the Soviet Union in 1991, had an equally dramatic effect on the general level of armed conflict in the global

⁹ Homer-Dixon, Thomas F. 1991 “ On the threshold: Environmental Changes as Causes of Acute Conflict” *International security* 16 (Fall) K 76-116.

system (see the graph). The levels of both interstate and societal warfare declined dramatically through the 1990s and this trend continues in the early 2000s, falling over 60% from

Figure- 2.1: Global Trends in Armed Conflicts¹⁰, (1946-2008)



Source: Centre For Systemic Peace Website.

their peak levels. The points may be noted here are as follows:

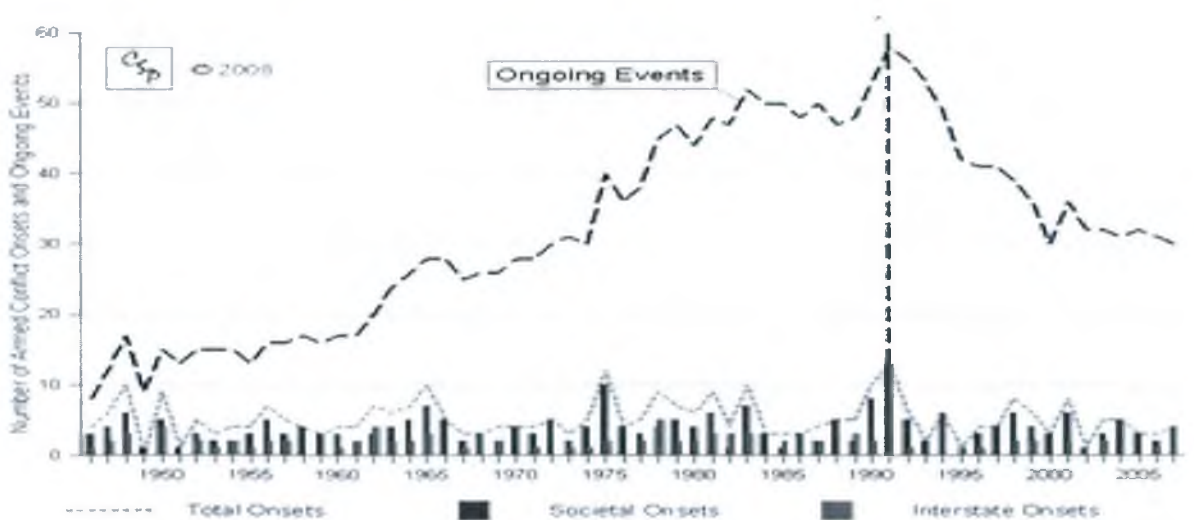
- a. Intrastate (civil) conflict is the most common form of armed conflict.
- b. Interstate conflicts have reduced drastically after the cold war and had always been in the low level.
- c. The number of armed conflicts trended upward until 1991-92, when it peaked. Since then the pattern has been a general trend of declining number of conflicts, although the trend has leveled out in recent years.
- d. Intrastate conflict is clearly the dominant form of armed conflict.

¹⁰ Centre for Systematic Peace website, Global Conflict Trend, Viewed 21 June 2009, <http://www.systemicpeace.org/conflict.htm>

2.3 Societal and Interstate Events

This perspective on global trends in armed conflict largely parallels the charted trends in war magnitude and number of states affected; however, this measure shows some evidence that the downward global trend in armed conflicts may be leveling off in the early years of the 21st Century. In early 2008, there are 24 states directly affected by On going wars (28 wars total, down from 30 at the end of 2006). Of these 24 states, half (12) are affected by protracted wars, that is, armed conflicts persisting for more

Figure-2.2: Global Trends in Armed Conflict Events¹¹, 1946-2007



Source: Centre For Systemic Peace Website

than ten years. These protracted societal conflicts include Afghanistan (30 years), Colombia (33), D.R.Congo (16), India (56), Iraq (28), Israel (43), Myanmar (60), Nigeria (11), Philippines (36), Somalia (20), Sri Lanka (25), Sudan (25), Turkey (24), and Uganda (37). These wars continue to defy concerted efforts to gain settlement or resolution. On average, during the contemporary period, interstate

¹¹ 'Centre for Systematic Peace website, Global Conflict Trend, Viewed 21 June 2009, <http://www.systemicpeace.org/conflict.htm>

wars lasted about 3 years; civil wars lasted just over 5 years; and ethnic wars lasted nearly 10 years.

2.4 Ethnical Conflicts

An ethnic conflict or ethnic war is a war between ethnic groups often as a result of ethnic nationalism. They are of interest because of the apparent prevalence since the Cold War and because they frequently result in war crimes such as genocide.¹² Ethnical conflicts describe a situation in which two or more actors pursue incompatible, yet from their individual perspective entirely just, goals. Ethnical conflicts are one particular form of such conflict: that in which the goals of at least one conflict party are defined in ethnic terms, and in which the primary fault line of confrontation is one of the ethnic distinctions. Whatever the concrete issues over which conflicts erupts, at least one of the conflict parties will explain its dissatisfaction in the ethnic terms- that is, one party to the conflict will claim that its distinct ethnic identity is the reason why its members can not realize their interests, why they do not have same right, or why their claims are not satisfied. Thus, ethnic conflicts are form of group conflict in which at least one of the parties involved interprets the conflicts, its causes, and potential remedies along an actually existing or perceived discriminating ethnic divide¹³.

Ethnic conflict is an elemental force in international politics and a major threat to regional security and stability. Ethnicity as a source of conflict has deep historic roots. Many such conflicts lay dormant, suppressed by the Soviet empire or overshadowed by the ideological competition of the cold war. Both protagonists in the cold war demonstrated unwarranted optimism about their ability to defuse ethnicity and ethnic conflict. Marxists believed that ethnicity would give way to "proletarian internationalism." Social class and economic welfare would

¹² 'Wikipedia, Web-based, free-content encyclopedia, *Ethnic Conflict*, viewed 21 November 2009, <http://en.wikipedia.org/wiki/Ethnic_conflict>

¹³ *Stefan Wolf, Ethnic Conflicts A Global Perspective, Oxford University Press Inc, Newyork, 2006.*

determine both self-identity and loyalty to political institutions that would transcend ethnic identification or religious affiliation¹⁴.

The demise of European communism and the Russian empire has unleashed 20th century's third wave of ethnic nationalism and conflict. The first came in the wake of the collapsing Ottoman, Russian, and Austro-Hungarian empires which came to a climax after World War I; the second followed the end of European colonialism after World War II. The third wave of ethnic-based conflict may transform international politics and confront the United States with new security challenges¹⁵. This is on going in the 21st century also.

The extent of the historic transformation underway since the cold war will be determined by the inter play of many trends. Ethnic conflicts are multidimensional and not easily understable if the particular local dynamics are not considered. Even people lived together for centuries but suddenly got involved in the ethnical conflicts among them. The best example is the Bosnia- Herzegovina ethnical conflict. This is a man made destruction which causes the suffering of another group of people. Though some of the ethnical conflicts have been resolved but many ethnical conflicts are sustained for long years. The hatred among the ethnic groups some time becomes so ferocious that with in short span of time, they killed millions. The dark part of ethnical conflicts is unimaginable. Though indicators for the ethnical conflicts can be traceable but resolving those are very complicated. Some of the ethnical conflicts are solved through the separating the group by making different states. This ethnical conflict after the cold war is still prevalent in the society, which is likely to create instability in the world peace.

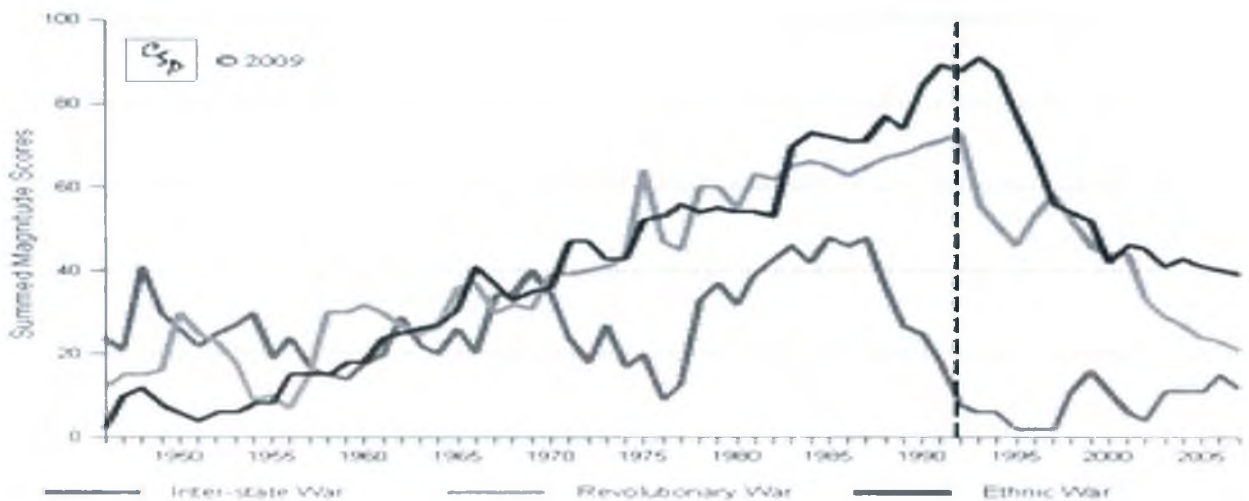
In order to more fully assess the impact and importance of ethnic conflict in the post-Cold War period it will be helpful to place that particular type of societal

¹⁴ Study paper published in Strategic Studies Institute of United States Army War College by Major General William A. Stoff, Dr. Gary L. Guertner. *Ethnic Conflict: Implications for the Army of the Future*, 4 March 1994.

¹⁵ Ted Robert Gurr, *Minorities at Risk: A Global View of Ethnopolitical Conflicts*, Washington, DC: United States Institute of Peace Press, 1993.

conflict into the larger context. The graph compares trends for three distinct types of warfare, ethnic, revolutionary, and interstate. The perceived "sudden rise" in ethnic wars in the 1990s appears to be a curious outcropping of the more general, systemic changes.

Figure-2.3:Trends of Ethnical Conflict, (1946-2007)



Source: Centre For Systemic Peace Website

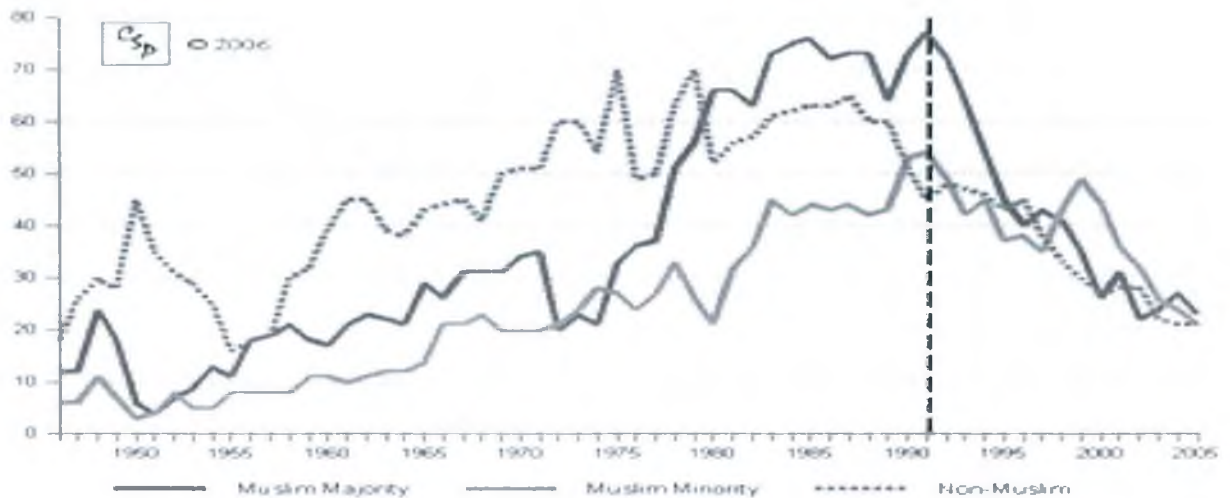
As the Cold War ideologies wax and wane in the late 1980s, the support they lend to both interstate and revolutionary intrastate wars is eroded and those types of warfare greatly diminish. Ethnic wars, which had previously paralleled the trend of revolutionary war, continue to rise through the late 1980s and early 1990s as separatists and other political entrepreneurs attempt to take advantage of the vast changes in political arrangements that accompanied the transformation of the post-Cold War world system. Also, notice that the long-term trend in ethnic warfare increases relatively smoothly as compared to the other warfare trends. As the goals of social identity conflicts are suffused with non-negotiable identity issues, these conflicts tend to persist and, so, are less susceptible to settlement

or resolution by warfare. Thus, ethnic warfare trends are less amenable to periodic fluctuation¹⁶.

2.5 Armed Conflicts in Muslim Countries

"War on Terrorism" since 9/11 al Qaeda attacks on the territorial isolation and icons of US global power, interest have often focused on discontent, hostility, and militancy in the "Muslim World." The question arises whether the general trend in armed conflict in the "Muslim World" differs from the trend in the "non-Muslim world." Figure 2.4 presents a graphic comparison of armed conflict trends in three subsets of the world's countries: 1) countries with Muslim majorities (red line); 2) countries with substantial Muslim minorities (greater than 5% of the population; green

Figure 2.4: Trends of Armed Conflicts in Muslim Countries



Source: Centre For Systemic Peace Website

¹⁶ 'Centre for Systemic Peace website, Global Conflict Trend, Viewed 21 June 2009, <http://www.systemicpeace.org/conflict.htm>

line); and 3) non-Muslim countries (purple dotted line). The Muslim majority countries account for about one-sixth the world's population. The Western democracies of Europe and North America have experienced very little armed conflict, on their territory, during the contemporary period and, so, this subset of countries and global population (about one-sixth) can be discounted from the trends graphs. The other two subsets represented in the graph account for roughly equal portions of the global population (about two-sixths each). With this in mind, we can see from the graphs that the armed conflict trend for Muslim majority countries (about one-half the population of non-Muslim/non-Western countries) runs at about one-half the magnitude for the non-Muslim countries until the late 1970s, making the two subsets roughly equal in levels of armed conflict during this period. However, the trend in Muslim majority countries increases very sharply in the late 1970s and early 1980s and very quickly surpasses the level for non-Muslim countries. On the other hand, armed conflict in the Muslim minority countries is substantially lower than that in the non-Muslim countries until the late 1980s, even though they are roughly comparable in population. All three trends have diminished in recent years and are now, in 2005, at roughly the same level (however, this means that the general level of warfare in Muslim majority countries is about double the level in the non-Muslim and Muslim minority countries when considered on a "per capita" basis)¹⁷.

2.6 Trends of Terrorism

The international community has never succeeded in developing an accepted comprehensive definition of terrorism. During the 1970s and 1980s, the United Nations attempts to define the term foundered mainly due to differences of opinion between various members about the use of violence in the context of conflicts over national liberation and self-determination. For this and for political reasons, many news sources (such as Reuters) avoid using this term, opting instead for less accusatory words like "bombers," "militants," etc. A government could be terrorist as well¹⁸. The word "terrorism" is politically and emotionally charged and this greatly compounds the difficulty of providing a precise definition.

¹⁷ Centre for Systematic Peace website, Global Conflict Trend, Viewed 21 June 2009, <http://www.systemicpeace.org/conflict.htm>

¹⁸ http://en.wikipedia.org/wiki/Definition_of_terrorism

A 2003 study by Jeffrey Record for the US Army quoted a source that counted 109 definitions of terrorism that covered a total of 22 different definitional elements.

The UN states that "The question of a definition of terrorism has haunted the debate among states for decades. A first attempt to arrive at an internationally acceptable definition was made under the League of Nations, but the convention drafted in 1937 never came into existence. The UN Member States still have no agreed-upon definition. Terminology consensus would, however, be necessary for a single comprehensive convention on terrorism, which some countries favour in place of the present 12 piecemeal conventions and protocols. The lack of agreement on a definition of terrorism has been a major obstacle to meaningful international countermeasures. Cynics have often commented that "one man's terrorist is another man's freedom fighter"¹⁹. Proposed definitions include:

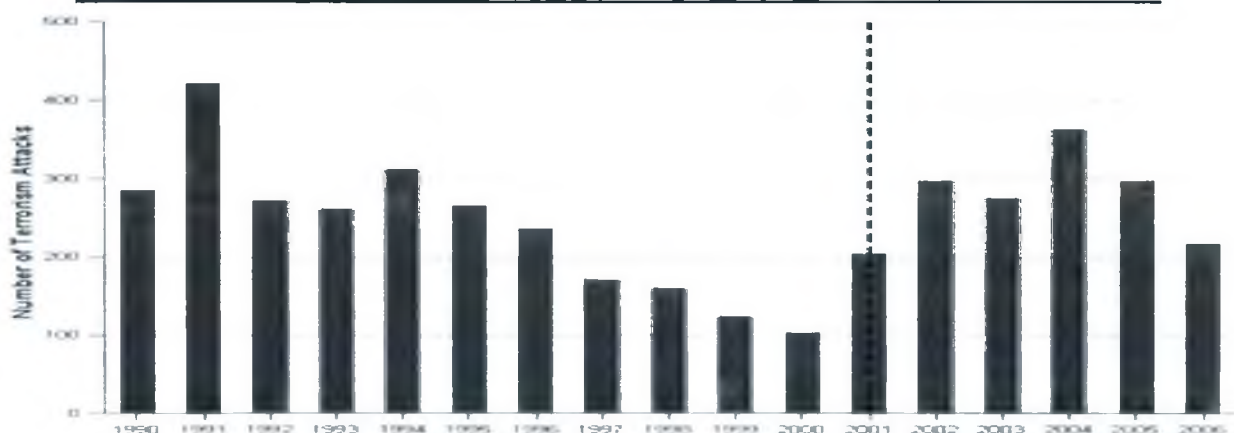
1. League of Nations Convention (1937): "All criminal acts directed against a State and intended or calculated to create a state of terror in the minds of particular persons or a group of persons or the general public".
2. UN Resolution language (1999): "1. Strongly condemns all acts, methods and practices of terrorism as criminal and unjustifiable, wherever and by whomsoever committed; 2. Reiterates that criminal acts intended or calculated to provoke a state of terror in the general public, a group of persons or particular persons for political purposes are in any circumstance unjustifiable, whatever the considerations of a political, philosophical, ideological, racial, ethnic, religious or other nature that may be invoked to justify them". (GA Res. 51/210 Measures to eliminate international terrorism)
3. SAJID DAWAR define terrorism as "The act or threat of violence by any individual, group, organization aimed at to secure predetermined ends through illegal channels"

¹⁹ "one man's terrorist is another man's freedom fighter". An early use of this phrase was in *The Economist* Vol. 273:2 in 1848, and more recently Indian Council of World Affairs *India Quarterly*, Indian Council of World Affairs [etc.], 1945. p. 122 noted it was *cliché*.

2.7 Annual Numbers of International Terrorism Attacks

Graph drawn upon data provided by the RAND-MIPT Terrorism Knowledge Base (www.tkb.org) in order to chart recent trends in international terrorism. The RAND-MIPT database is one of two comprehensive compilations of international terrorism events; the other being the ITERATE database. Chart shows a general decrease in the numbers of attacks during the decade following the end of the Cold War; this trend is corroborated by similar analyses of the ITERATE data. The incidence of attacks increases substantially in the post-9/11 period.

Figure 2.5 Annual Numbers of International Terrorism Attack 1990-2006



Source: Centre For Systemic Peace Website

RAND-MIPT provides the following definitions of these events.

Terrorism: "For the purposes of [the Terrorism Knowledge Base (TKB)] data, terrorism is defined by the nature of the act, not by the identity of the perpetrators or the nature of the cause. Terrorism is violence, or the threat of violence, calculated to create an atmosphere of fear and alarm. These acts are designed to coerce others into actions they would not otherwise undertake, or refrain from actions they desired to take. All terrorist acts are crimes. Many would also be violation of the rules of war if a state of war existed. This violence or threat of violence is generally directed against civilian targets. The motives of all terrorists

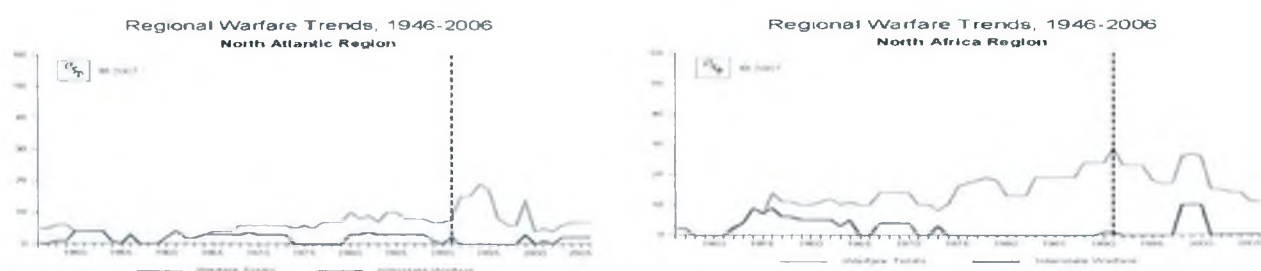
are political, and terrorist actions are generally carried out in a way that will achieve maximum publicity. Unlike other criminal acts, terrorists often claim credit for their acts. Finally, terrorist acts are intended to produce effects beyond the immediate physical damage of the cause, having long-term psychological repercussions on a particular target audience. The fear created by terrorists may be intended to cause people to exaggerate the strengths of the terrorist and the importance of the cause, to provoke governmental overreaction, to discourage dissent, or simply to intimidate and thereby enforce compliance with their demands.

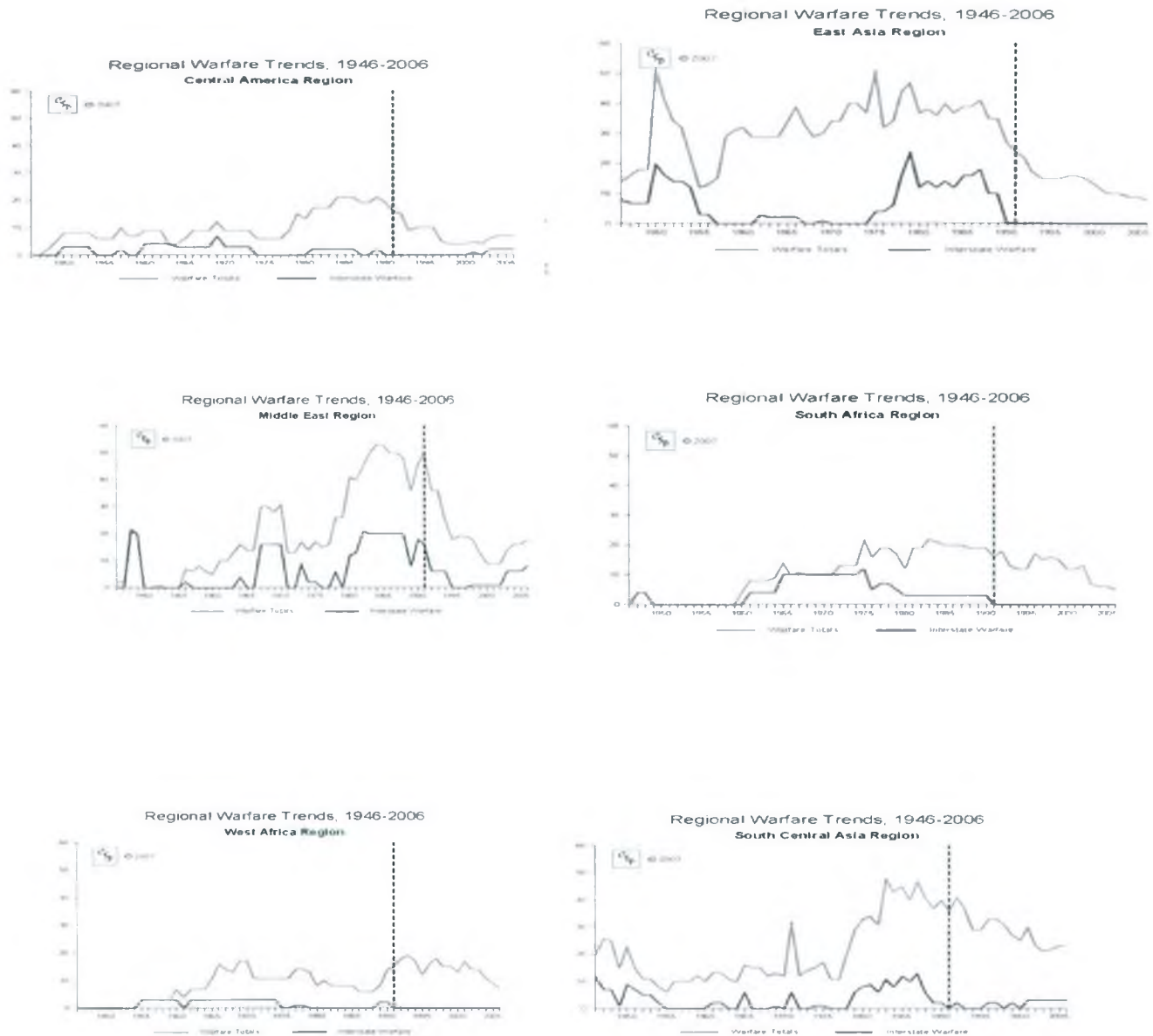
International Terrorism: "Incidents in which terrorists go abroad to strike their targets, select domestic targets associated with a foreign state, or create an international incident by attacking airline passengers, personnel or equipment. The CSP study on "Global Terrorism: An Overview and Analysis" proposes that "international terrorism" accounts for less than ten percent of global terrorism since 1990; the vast majority of global terrorism is local, or national, terrorism. The rates for international terrorism are further qualified by the tremendous increases in international activity that has accompanied "globalization" and the post-Cold War expansion of the free market system.

2.8 Regional Conflicts

Centre for Systemic Peace presents the regional warfare trends graphs with in their accuracy, reliability, and comprehensiveness and contends that the foundation for the trends (i.e., the global system) provides a constant "universe of analysis" through the contemporary period. The regional conflicts trends are presented below to understand the conflict prone region at specific time and intensity.

Figure- 2.6: Global Regional Conflict Maps





Source: Centre For Systemic Peace Website

General global trend in armed conflict continues to decrease in the early years of the 21st century. The above graphs gives clear picture of regional peace and stability. The Africa and Asia regions are the most conflict prone continent. After the cold war the Central America and East Asia reduced the number of conflicts. Whereas the East Africa and South Central Asia region remained conflict prone for some longer duration even after the cold war is over. There are some counter-trends that should be acknowledged, these are:

- **Escalation of Long-Standing Disputes or Rivalries.** Nearly all of the armed conflicts that crossed the threshold to serious warfare in the late 1990s involved an escalation in a long-standing dispute rather than an outbreak of a new conflict.
- **Separatism.** Many of the most serious incidents of warfare in the late 1990s involved escalations in attempts by distinct ethnic groups to gain (or maintain) separation from a central authority unwilling to accept it.
- **Black Market Control.** Many of the late 1990s' most serious wars involved conflicts over the control of black market commodities and assets that can be easily liquidated through illicit trade, such as drugs and diamonds. Wars have become a "pay-as-you-go" proposition as the global arms trade becomes increasingly "privatized."
- **Bad Neighborhood Effects.** Only four new armed conflicts broke out in the late 1990s and each of these new wars occurred in regions already beset by warfare: armed conflicts in Albania and Kosovo in the Balkans and Congo (Brazzaville) and Guinea-Bissau in Africa. In general, new outbreaks and escalations of serious warfare in the late 1990s tended to occur in particular regions, or "bad neighborhoods," where ongoing, serious armed conflicts were already taking place just as they have throughout the contemporary period.

- **War on Terrorism.** In response to the September 11, 2001, unconventional attacks by hijacked, private airliners on symbolic targets in New York and Washington, DC, US President Bush launched a series of "pre-emptive" engagements against agents of "global terrorism." These engagements have included the forcible ousters of the Taliban regime in Afghanistan in late 2001 and the Saddam Hussein-led Ba'athist regime in Iraq in 2003.

2.9 Future Global Hotspot

The nature of future global conflicts trend will be growing threat from terrorists and states with poor governance, ethnic, cultural, or religious tensions, weak economies, and porous borders will be prime breeding grounds for terrorism²⁰.

The September 11 attacks on the United States, though causing far more casualties than any previous terrorist incident, reflected trends in international terrorism that began several years ago: Some of the future trend can be narrated below:

- Terrorism has become more lethal and transnational;
- The role of state sponsors has declined substantially while "ad hoc" groups have enhanced their capabilities;
- More terrorist groups identify themselves with religions--particularly Islam; and the United States has become a prime target.

These trends²¹, rooted in broad political, sociocultural, and economic developments, are not likely to be reversed in the foreseeable future.

The US will remain a prime target of international terrorists, chiefly because of its status as the only superpower, but also because of resentments against US policies and the effects of the worldwide spread of western culture. Terrorists recognize that attacks within the United States have a deep psychological impact

²⁰ National Central Intelligence Report, USA 2002.

²¹ Global Trends and the Implications of the 11 September Attacks" By John L. Helgeson Chairman, National Intelligence Council at the Army War College Carlisle, Pennsylvania 22 January 2002.

on Americans. They will seek to mount operations on US soil--particularly against high-profile and symbolic targets-- to demonstrate their power. They also will try to attack US embassies, military facilities, and nonofficial targets abroad.

Islamic extremists will continue to pose the greatest threat to US interests. The political, economic, and sociocultural conditions in Muslim countries and conflicts involving Muslim states that breed violent anti-American extremism -- including the Israeli-Palestinian conflict -- are likely to persist for at least the next several years.

Most terrorists will continue to rely on conventional tactics, primarily bombings and armed attacks. But some terrorist groups have expressed an interest in acquiring chemical, biological, radiological and nuclear weapons. The key point is that terrorists will vary their tactics and operational plans to keep the targets of their attacks off balance.

The overall magnitude and shape of international terrorism will depend in large part on the counterterrorist policies of governments and the persistence and vigor with which they execute those policies. Beyond the issue of terrorism, the Global Trends study assessed that the international community through 2015 will continue to face the potential for inter-state conflict, probably arising from rivalries in Asia and the Middle East. The potential lethality of such conflicts will grow, driven by the availability of weapons of mass destruction, longer-range missile delivery systems, and other technologies.

The Global Trends study also assessed that the frequency of internal conflicts stemming from religious, ethnic, economic or political disputes will remain at current levels or even increase. Such conflicts will spawn internal displacements, refugee flows, and humanitarian emergencies--placing large demands on donor governments and other humanitarian aid providers.

Now that we have noted some of the key drivers of the world situation in 2015, I'd like to talk about how these factors will interact in some selected countries and regions.

In Russia, the government will face the continuing challenge of adjusting everything from its day-to-day operations to its expectations for world leadership to its dramatically reduced resources and circumstances. All of the problems we have just discussed concerning resources, demographics, the environment, governance, and internal conflict are manifested in Russia. She is adapting still to the collapse of the Communist system and the disintegration of an empire that had expanded for many hundreds of years.

The stakes for both Europe and the United States will be high, although neither will have the ability to determine the outcome for Russia in 2015. The quality of Russian governance—and Russia's economic policies--will be the critical factors. The most beneficial and far-reaching geostrategic effect of the events of September 11 may ultimately prove to be as a catalyst in facilitating the reorientation of Russian foreign and security policy in a direction more compatible with Western interests. The going will not be easy. Russia will continue to differ considerably from developed liberal democracies and market economies of the West. More important, Russian security elites are skeptical about Putin's new course and will press him on diverging agendas in the anti-terrorist coalition, pre-existing areas of contention between Russia and the US, and the handling of events in other parts of the world. Putin will be a tough negotiator, but his actions to date suggest he is capable of moving in a fundamentally new strategic direction.

Russian support of US military engagement in Central Asia was a particularly positive, concrete step. It lays the foundation for Russia, the United States, and the Central Asian states to work together to facilitate development of the region. If the current conflict ends with a more-or-less stable Afghanistan, it would make feasible a north-south line of communication running from Karachi northward to Tajikistan, Uzbekistan, Turkmenistan, and Russia. This unprecedented ability for Central Asia to carry on trade on both an east-west and a north-south axis would greatly expand the region's economic and geopolitical horizons. Russia has huge infrastructure, economic, and demographic problems, at least in the short term. In the long term, the reorientation might pave the way for much-needed foreign

direct investment, but this will require sustained good governance and the rule of law.

In the case of China, there is no affect for the 9/11 attacks and the consequent international anti-terrorism campaign will result in a fundamental reorientation of that country's security policies. China's major concern will be that it not becomes a geopolitical loser. Beijing will worry, specifically, about increasing cooperation between the United States and Russia that may frustrate Chinese efforts to limit US influence in Central Asia and to build a broad anti-missile defense campaign.

Beijing also is concerned about efforts by India to enhance its regional status through closer cooperation with the United States, and, of course, by the possible ramifications of growing tensions between India and Pakistan. What China sees as moves by Japan to unshackle its military will also be of concern to Beijing, which sees itself as the preeminent Asian power. Estimates of internal developments in China through 2015 are fraught with unknowable. An array of political, social, and economic pressures will increasingly challenge the Chinese Communist Party's legitimacy, and perhaps its survival. Two conditions, in the view of many experts, would lead to a major security challenge for the United States and its allies in the region: a weak, disintegrating China, or an assertive China willing to use its growing economic wealth and military strength to pursue its strategic advantage in the region. China has underway ambitious, multi-year programs to acquire technologies, weapons, and enhanced strategic capabilities. For the immediate future, however, we note that China and its leaders are heavily invested in dealing with that country's accession to the WTO and the leadership transformation that will occur this fall, in all likelihood bringing a so-called "fourth generation" leader to power. For these and other reasons, we may see a period of less tension in China's relations with both Taiwan and the United States.

Regrettably, global trends from demography and natural resources to globalization and governance appear generally negative for the Middle East. Most regimes are change-resistant. Many are buoyed by continuing energy revenues and will not be inclined to make the necessary reforms, including in basic education, to change this unfavorable picture.

A key driver for the Middle East will be demographic pressures--how to provide jobs, housing, public services, education and subsidies for rapidly growing and increasingly urban populations. Linear trend analysis shows little positive change in the region, raising the prospects for social unrest, religious and ideological extremism, and terrorism directed both at the regimes and at their Western supporters.

Concern has been expressed that these stresses will lead to an increase in anti-American violence, a greater reluctance by area governments to cooperate visibly with the United States, and heightened threats to politically fragile regimes. Fortunately, during the current anti-terrorism campaign most of the fears have not been borne out.

The counterterrorism campaign has introduced several new dimensions into the Arab-Israeli conflict, in the sense that it has created, at least implicitly, pressures and opportunities for both the Palestinians and the Israelis. The net effect, however, has probably been to leave the dispute in about the same unpromising situation that it was in prior to September 11.

In South Asia, it is clear that the threat of major conflict between India and Pakistan will continue to overshadow all other regional issues. Among the practical problems for the US is the fact that Pakistan and India have incompatible expectations regarding a payoff--in the form of US support for their respective positions in Kashmir--in return for their assistance in dealing with the Taliban and the worldwide campaign against terrorism generally.

Looking at the larger picture over the 15-year time frame, India will remain the unrivaled regional power with a large military and a dynamic and growing economy. Pakistan will not recover easily from decades of political and economic problems, and will remain dependent on international financial assistance.

Looking at the situation in North Korea, P'yongyang, because of 9/11, faces a geostrategic environment far different in 2002 than just one year previously. It undoubtedly will be concerned about Russia's cooperation with the United States, Japan's new self-defense role, growing US involvement in Central Asia, and the

level of cooperation the Chinese are extending to the United States and the coalition.

P'yongyang retains the option of engaging in provocative or threatening behavior to gain world attention, particularly in regard to its self-imposed missile launch moratorium, due to expire in 2003. The interplay of demographics and disease--as well as poor governance--will be the major determinants of the increasing marginalization of Sub-Saharan Africa over the next 15 years. The Global Trends study assesses that most African states will miss out on the opportunity for economic growth engendered elsewhere by globalization and by scientific and technological advances.

Looking at the implications of recent events for Africa, key portions of the region are vulnerable to al-Qaida's campaign because their regimes are weak, unstable, and corrupt, creating breeding grounds for disaffected young men. Somalia, with no functioning central government and with a history of ties to extremist Islamic groups, could serve as a refuge for terrorists on the run and a base from which to launch attacks elsewhere in Africa, especially in the Horn.

The NIC study projects a full agenda for Europe in the period to 2015. This will include putting in place the components of EU integration; taking advantage of globalization; sustaining a strong IT and S&T base to compensate to some degree for stagnating population growth and a shortage of workers; and weaning the Balkans from virulent nationalism.

EU enlargement, institutional reform, and a common foreign, security, and defense policy will play during this period. Having absorbed at least 10 new members, the European Union will have achieved its likely geographic and institutional limits. The aging of European populations and low birthrates will be major challenges to the region's prosperity and cohesion.

With the United States, Europe during this period will also be implementing the expansion of NATO. Our security structures will change more fundamentally than they have in 50 years.

In conclusion, the course of the on-going war against terrorism and resulting international perceptions of the United States will play a key role in determining the long term effects of the trends that have been discussed. Continued success- notably in liquidating al-Qa'ida as a functioning entity and preventing repetition of a major terrorist act elsewhere, will further strengthen the role of the United States and its allies. The degree to which positive developments follow from these events, however, will in large part be a function of the success in forging coalitions and anchoring gains in a widely accepted international framework.

CHAPTER - III

TRENDS OF CULTURAL CONFLICTS

3.1 Introduction

In this post Cold war world the most pervasive, important and dangerous conflicts will not be between social classes, rich and poor or other economically defined groups, but between peoples belonging to different cultural entities. Tribal wars and ethnic conflicts will occur within civilizations. And the most dangerous cultural conflicts are those along the fault lines between civilizations²². Civilization cultures are based mainly on religion: Western Christianity, Islamic, Orthodox, Latin American, Sinic, Japanese, Hindu, Buddhist, African²³. "Cultural identities, based on civilizations, are shaping patterns of cohesion, disintegration and conflict in the post Cold War World." "In the post-Cold War world, the most important distinctions among peoples are not ideological, political, or economic. They are cultural²⁴."

The sheer meaning of the culture is the practices and believes about the life, philosophy and activities of the day to day life for a long time. In the process of doing so human being develops a value system which is considered as ideal of life and those become the guide line for the progression of life. Since there are involvements of individual or group or society as a whole, there remains certain kind of consciousness among them that whatever they are doing, they are right, since it is accepted by all in common. This cultural belief is very strong among the people and one can not ignore it. In that scenario, the culture plays important role in human being. The cultural conflicts often become very dangerous if it is not controlled in the right manner.

Both the world wars originated in the Europe and third world war could also originate from the same continent again if people of this continent would not have been careful. The people even fully realized that the third world war

²² Huntington (1996) *Clash of Civilizations* p. 28

²³ Huntington (1996) *Clash of Civilizations* (p43-48)

²⁴ Huntington (1996) *Clash of Civilizations* p. 21.

could bring annihilation and self destruction as such nations restrained themselves fighting among each others. The economic emancipation is more important than the subjugation. The international institutes are working hard so that culturally diverse people can be brought together with the single notion of the world peace. The world peace is becoming more important than that engaging for war or destruction. These were partly enshrined in international law, charters, treaties, agreements and declarations, and partly in framework of world bodies dealing with social and economic issues. The most essential newly agreed principles were the sovereignty of the nation state, non intervention in internal affairs, national development, international development cooperation, international free trade and, last but not least, various concepts of human rights. During the decades thereafter other new values were negotiated: social welfare, basic human needs provision, human development, sustainable development, sustainable human development, humanitarian intervention, the precautionary principle, the responsibility to protect, adjustment with a human face, the right to development. Many found their way into resolutions and declarations of the UN and its agencies. In case of violation of these values appeals could be raised. The dispute would have to meet agreed rules and procedures. The outcome would either be a change in the policy and a conditioning and diluting of the principle, or its reassessment and reconfirmation and an expression of the intention to improve the practice (“never again”)

3.2 Value System

Human society had been scattered and separated, and had not united into an organic whole in the very long period from the beginning of the civilized society to the time of the Renaissance, although some different groups of humankind had some kinds of association (including war) with each other to some degree. In this long history, corresponding to this situation, different groups of human being (tribes, nationalities, states and so on) had evolved a great variety of value systems and different cultural patterns which were centered on these value-systems, up to now this has not changed completely. According to Samuel P.

Huntington, there are seven cultural patterns such as Chinese civilization, Japanese civilization, Indian civilization, Islamic civilization, Western civilization, Latin American civilization, and African civilization. Although some value systems (such as value system of the Confucian and Christianity) have achieved a certain consensus in a comparatively large scope, however human being still has not formed a generally acknowledged value system. These systems are not only multi polar and pluralistic, but also distinctive and self-opinionated. As Samuel P. Huntington says, these different value systems or cultural patterns are all self-centered. Undoubtedly, these different value systems also have some common things, but parts of human being have not achieved universal acknowledgement in these respects.

Since the period of the Renaissance, especially since the twentieth century, with the globalization of economy, politics and culture, the isolated value systems and different civilizations based on them confronted with each other greatly. In the course of conflicting and contradicting, the western civilization becomes a stronger one with its peculiar superiority and influence, and affects other civilizations constantly. In a certain sense, the contradictions and conflicts between different value systems in the world, in fact, are those between western civilization and others, or more accurately to say, are the infiltration of western civilization and anti-infiltration against western civilization. The accomplishment of the infiltration does not only resort to 'warship', commodity, capital, cultural goods and mass media so as to 'export' the western value ideas, but also depends on accepting actively or passively the western value ideas by many persons of other cultural patterns. However, the conflict and contradiction between western civilization and other civilizations, the struggle between the infiltration and anti-infiltration are not mainly those between western countries and other countries, but those inside other countries. That is to say, these contradictions and conflicts chiefly reflect the contradictions and conflicts between westernization advocates and westernization opponents. This is the chief feature of value conflicts in the present world. This kind of value conflict is much more different from those occurred before the twentieth century, especially before modern times.

The controversy between westernization and anti-westernization, which has been lasting for more than one hundred year, is still very sharp now. One of the main reasons lies in that though in non-western countries, westernization has been realized in some degree, generally it has not been fully achieved. However, on the other hand, non-western countries gradually start with modernization and then progressively become stronger in the course of westernization. In the situation, westernization opponents (who usually stand for the view of the government) even has grounds to fight against the infiltration and expansion of the west, and make rival claims as an equal. They call for enhancement of national spirit, and claim to uphold national dignity. Just as Huntington says, the expansion of the west ends while the revolt against the west begins. However, the modernization of non-western countries is mainly learned from the west and has little creation. Moreover, because they pay much more attention on their own national characters in the course of learning, these countries do not learn completely, and the modernization in these countries has more or less difficult problems or “tails”, which become a handle of those who advocate westernization. They argue that just because of the incomplete learning the modernization cannot be genuinely achieved. In their point of view, it is what considered as national characters that are the very obstacle in the way of modernization and the thing should be swept out. Certainly, those who advocate westernization are not necessarily traitors, but deem that in order to finish national modernization; it may be as well to achieve the ‘stride’ by ‘taking’ if there is no better alternative. Under this circumstance, value conflict in contemporary world does not become weaker, but more intense in some degree. There are two main manifests: one is that non-western countries try to enhance their national value ideas, and thus cause the confrontation between non-western value idea and western value idea; the other is the intensification of the contradiction between westernization advocates and westernization opponents inside non-western countries. For the very reason, the value conflicts among different civilizations seem so uncompromising that some scholars (such as Huntington) hold that conflict of the world should be the conflict between different civilizations in the future.

However, this is only one side of the problem. The other side is that different value systems of different cultural patterns are melting and identifying with each other constantly while they are conflicting and contradicting with each other. It is well known that economy of the world is experiencing a globalization, which is often considered that economies of different countries infiltrates and influences each other and becomes an organic whole. This understanding is superficial. If we analyses deeply, it is not difficult to discover that the phenomenon of economic globalization is resulted from widespread practice of market economic system. Therefore, economic globalization is a result of identification on economic system all over the world, and its base and substance lie in worldwide market economy. In this sense, the base and substance of economic globalization is the identification of economy in the world, that is, the identification of common economic mould---market economy. As to culture, every country in the world has left or is leaving agricultural civilization (traditional civilization) consciously or unconsciously, and marches to industrial civilization (modern civilization) and post-industrial civilization (post-modern civilization). As to value idea, since modern times, humankind have gradually shaped some universally accepted value ideas such as freedom, equality, democracy, legality, market, science and technology, and environmental protection, which all become general goals chased by people all over the world. As to life style, people normally claim for individual independence and autonomy, and the autonomous life style is taking place of heteronymous life style and becomes universally acknowledged. All the facts show that different value ideas of various cultural patterns are identifying in deep level. Today's globalization of economy, politics and culture is resulted from the melt and identification among different value systems.

Value identifying does not mean value unity. What will accompany with the globalization is that people all over the world attain agreement on fundamental value ideas and follow the value system based on them, with which other different value systems of different levels (including value system of individuals) coexist and complement each other. Common value system of human being is just like the value system of a state, is confined to certain respects, and is not all-embracing. That is to say, the common value system only reflects and protects the basic and overall needs of human being, does not stipulate specific

requirement and activity of every person, and it remains certain spaces for individuals (including groups and persons) to build value system of their own. Common value system of human being is only a part of the total value system of human being and could never take the place of the entire system. In specific aspects of value direction and value pursuit different people should have their own characters. It is terrible that every individual bears a same value system without his or her own personality, distinctive pursuit and particular life style. Unity harmonizes with multiplicity, and common value system and other value systems of different levels and different kinds work in coordination, this will be a total prospect of value system of human being²⁵.

3.3 Value System Ramification

This value system has ramifications that pervade the societies infested with it. It is, in my view, the most toxic value system on the planet. The term toxic is carefully chosen and meant to be taken with the utmost literalness because societies pervaded by this value system are deeply poisoned spiritually.

Almost everybody will react to an attack on their honor, but in many societies people are expected to restrain their impulse to get revenge: to forgive or simply ignore insults, and most members of those societies succeed to a greater or lesser extent. But in societies dominated by the "honor" ethic, it's permissible, often demanded, to seek revenge. In many places, this cycle of revenge creates blood feuds that last for generations, or results in periodic flareups of mass violence or ethnic cleansing.

It's considered bad form in many circles to criticize another culture's values. In addition, the social science literature contains a number of rationalizations for the "honor" mentality. One is that every value system makes sense to the people that hold it. Another is that every value system exists for a reason. Well, of course. The problem is that you can make these assertions about any value system whatsoever. Rape and genocide and embezzlement also exist for a reason, and make sense to people who think a certain way. That doesn't tell us whether the

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values are morally acceptable or even whether they are beneficial to those who adhere to them.

Thar is an Arabic word meaning, "blood vengeance,". This is an attribute of a value system, which is very toxic. The thar mentality can be said to include these features. They vary in degree from person to person and place to place but if we find all or most of them in a society we can justly apply the label thar²⁶.

- Extreme importance of personal status and sensitivity to insult.
- Acceptance of personal revenge including retaliatory killing.
- Obsessive male dominance
- Paranoia over female sexual infidelity
- Primacy of family rights over individual rights

People infected with this attitude will be utterly incapable of recognizing wrongdoing by their own society, utterly incapable of taking criticism or recognizing the need for correction. The thar mentality hinders technological progress in a host of ways. Most obviously, it hinders people from moving into new occupations. You can't become an engineer if the family demands that you go into shoemaking like all your ancestors did. It also blocks progress by causing people to shun necessary but low-status tasks or occupations. Thar-dominated societies aren't merely male-dominated, but subject women to extreme degrees of degradation.

Another value system can be exemplified that Japanese code of Bushido indeed placed great emphasis on personal honor but also on obedience no matter what. When the Japanese were ordered by the Emperor to surrender and submit in 1945, they did. When the Japanese were told by the Emperor to submit to the

26 Steven Dutch, The World's Most Toxic Value System, web site:
<http://www.uwgb.edu/dutchs/PSEUDOSC/TOXICVAL.HTM>

worst, they quite literally expected to be punished and enslaved. We for our part expected sullen acquiescence at best and terrorism at worst. Both sides, to their immense relief, saw the best side of the other.

3.4 Islamic and Western Values

The measurement of cultural distance between the West and Islam is a complex undertaking, and that distance is narrower than they assume. Islam is not just a religion, and certainly not just a fundamentalist political movement. It is a civilization, and a way of life that varies from one Muslim country to another but is animated by a common spirit far more humane than most Westerners realize²⁷.

Mores and values have changed rapidly in the West in the last several decades as revolutions in technology and society progressed. Islamic countries, which are now experiencing many of the same changes, may well follow suit. Even within the West, one sees cultural lag. Although capital punishment has been abolished almost everywhere in the Western world, the United States is currently increasing the number of capital offenses and executing more death row inmates than it has in _____ years.

Westerners regard Muslim societies as unenlightened when it comes to the status of women, and it is true that the gender question is still troublesome in Muslim countries. Islamic rules on sexual modesty have often resulted in excessive segregation of the sexes in public places, sometimes bringing about the marginalization of women in public affairs more generally. British women, however, were granted the right to own property independent of their husbands only in 1870, while Muslim women have always had that right. Indeed, Islam is the only world religion founded by a businessman in commercial partnership with his wife. While in many Western cultures daughters do not inherit anything if

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Dr. Ali A. Mazrui, "Islamic Values, the Liberal Ethic and the West," September/October 1997 issue of *American Foreign Affairs* (Vol. 76, No. 5, pp. 118-132), <http://www.alhewar.com/AliMazrui.htm>

there were sons in the family, Islamic law has allowed allocated shares from every inheritance to both daughters and sons. Primogeniture has been illegal under the sharia (Islamic law) for 14 centuries.

In almost all Western countries except for New Zealand, women did not gain the right to vote until the twentieth century. Great Britain extended the vote to women in two stages, in 1918 and 1928, and the United States enfranchised them by constitutional amendment in 1920. France followed as recently as 1944. Switzerland did not permit women to vote in national elections until 1971—decades after Muslim women in Afghanistan, Iran, Iraq and Pakistan had been casting ballots.

Furthermore, the United States, the largest and most influential Western nation, has never had a female president. In contrast, two of the most populous Muslim countries, Pakistan and Bangladesh, have had women prime ministers: Benazir Bhutto headed two governments in Pakistan, and Khaleda Zia and Hasina Wajed served consecutively in Bangladesh. Turkey has had Prime Minister Tansu Çiller. Muslim countries are ahead in female empowerment, though still behind in female liberation.

Cultures should be judged not merely by the heights of achievement to which they have ascended but by the depths of brutality to which they have descended. The measure of cultures is not only their virtues but also their vices.

In the twentieth century, Islam has not often proved fertile ground for democracy and its virtues. On the other hand, Islamic culture has not been hospitable to Nazism, fascism, or communism, unlike Christian culture (as in Germany, Italy, Russia, Czechoslovakia), Buddhist culture (Japan before and during World War II, Pol Pot's Cambodia, Vietnam, North Korea), or Confucian culture (Mao's China). The Muslim world has never yet given rise to systematic fascism and its organized brutalities. Hafiz al-Assad's Syria and Saddam Hussein's Iraq have been guilty of large-scale violence, but fascism also requires an ideology of repression that has been absent in the two countries. And apart from the dubious

case of Albania, communism has never independently taken hold in a Muslim culture.

3.5 The Order of Islam

Against Western claims that Islamic "fundamentalism" feeds terrorism, one powerful paradox of the twentieth century is often overlooked. While Islam may be blamed to generate generate more political violence than Western culture. On the other hand, Western culture may be blamed for generating more street violence than Islam. It is well accepted Islam does produce a disproportionate share of mujahidin, but Western culture produces a disproportionate share of muggers on the street.

As an approach to the problems of modernity, some Muslim societies are attempting a return to pre modernism, to indigenous traditional disciplines and values. Aside from Iran, countries such as Sudan and Saudi Arabia have revived Islamic legal systems and other features of the Islamic way of life, aspects of which go back 14 centuries. Islamic movements in countries like Algeria, Egypt, and Afghanistan are also seeking revivalist goals. A similar sacred nostalgia is evident in other religions, such as the born-again Christian sects in the United States and Africa.

Of all the value systems in the world, Islam has been the most resistant to the leading destructive forces of the twentieth century – including AIDS. Lower levels of prostitution and of hard drug use in conservative Muslim cultures compared with other cultures have, so far, contributed to lower-than-average HIV infection rates. If societies closer to the sharia are also more distant from the human immune deficiency virus, should the rest of the world take a closer look?

One can escape modernity by striving to transcend it as well as by retreating from it into the past. Perhaps the Muslim world should explore this path, searching for postmodern solutions to its political tensions and economic woes, and pursuing the positive aspects of globalization without falling victim to the negative aspects of westernization.

3.6 The Dialectic of Culture

Western liberal democracy has enabled societies to enjoy openness, government accountability, popular participation, and high economic productivity, but Western pluralism has also been a breeding ground for racism, fascism, exploitation, and genocide. If history is to end in arrival at the ultimate political order, it will require more than the West's message on how to maximize the best in human nature. Humankind must also consult Islam about how to check the worst in human nature – from alcoholism to racism, materialism to Nazism, drug addiction to Marxism as the opiate of the intellectuals.

One must distinguish between democratic principles and human principles. In some human principles – including stabilizing the family, security from social violence, and the relatively nonracial nature of religious institutions – the Muslim world may be ahead of the West.

Turkey is a prime example of the dilemma of balancing human principles with democratic principles. In times of peace, the Ottoman Empire was more human in its treatment of religious minorities than the Turkish Republic after 1923 under the westernizing influence of Mustafa Kamal Atatürk. The Turkish Republic, on the other hand, gradually moved toward a policy of cultural assimilation. While the Ottoman Empire tolerated the Kurdish language, the Turkish Republic outlawed its use for a considerable period. When not at war, the empire was more humane than the Turkish Republic, but less democratic.

At bottom, democracy is a system for selecting one's rulers; human governance is a system from treating citizens. Ottoman rule at its best was human governance; the Turkish Republic at its best has been a quest for democratic values. In the final years of the twentieth century, Turkey may be engaged in reconciling the greater humaneness of the Ottoman Empire with the great democracy of the Republic. The current Islamic revival in the country may be the beginning of a fundamental review of the Kemalist revolution, which inaugurated

Turkish secularism. The dialectic of history continues its conversation with the dialectic of culture within the wider rhythms of relativity in human experience.

3.7 Ideological Belief

We judge that ideological conflicts akin to the Cold War are unlikely to take root in a world where most states will be preoccupied with the pragmatic challenges of globalization and shifting global power alignments. The force of ideology is likely to be strongest in the Muslim world—particularly the Arab core where Islam's diverse expressions will continue to influence deeply social norms and politics as well as serve as a prism through which individuals will absorb the economic and cultural forces of globalization. Increasing religious observance and the failures of secular Arab nationalism will leave Islamic political and social movements best positioned to assert ideological influence over governments and publics in much of the Muslim world over the next 15-20 years²⁸. The ensuing Islamic discourse will be increasingly fluid as the clerical leadership detaches from established seats of learning and traditions of jurisprudence and asserts its own interpretations of the Quran and the Hadith (oral tradition). The trend toward bypassing tradition, aided by the spread of media technologies, will encourage the spread of Salafism (reverence for the earliest period in Islam), including its most radical forms, which risks undermining Western allies in the Muslim world, especially in the Middle East. Nonetheless, the dispersal of religious authority into networks of like-minded thinkers also could set the stage for a revival of innovative perspectives on Islam's relationship to the modern world and provide a counterweight to the radical trend. The direction of Islam's internal ideological struggle will be determined primarily by local conditions. In countries where economic and demographic trends are favorable and publics and governments opt for the benefits of globalization, there will be strong incentives to revive and broaden Islamic teachings that promote a culture of innovation, scientific learning, political experimentation, and respect for religious pluralism. In those countries that are likely to struggle with youth bulges and weak economic underpinnings—

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Global Trends 2025: A Transformed World, C. Thomas Fingar Chairman, National Intelligence Council, *November 2008*, www.dni.gov/nic/NIC_2025_project.html.

such as in Afghanistan, Nigeria, Pakistan, and Yemen—the radical Salafi trend is likely to gain traction.

3.8 Religion

In the twentieth century, it was Germany and the most gargantuan death in Europe since early modern times that led nations everywhere to begin again to reassert universal values that would restrict state sovereignty. Demonstrating the extremity of what a state could inflict when completely immune from outside criticism and interference, the Holocaust prodded Westphalia's reversal. It was the Holocaust and the destruction resulting from World War II that animated the vast majority of states to sign the Universal Declaration of Human Rights in 1948, the year of Westphalia's tercentennial. Human rights would later gain legal clout from two United Nations covenants on human rights, several other covenants promoting specific rights, and from the European Court of Human Rights, whose substantial judicial powers limit state sovereignty. After the Cold War, human rights norms achieved a great advance forward in their assault on Westphalia sovereignty after the Cold War when international bodies began to authorize intervention where human rights abuses and massive suffering were taking place. The first historically parallel trend, a transition in sovereignty, then, is a mirror image of early modern Europe. At that time, the sovereign state was consolidating; now, the vault of Westphalia is beginning to become unsealed. What of the other parallel trend of religious conflict? The worldwide acclaim and anger aroused by Samuel Huntington's "clash of civilizations" thesis, holding that the key global conflicts will increasingly be fought between religiously defined civilizations, testifies to the resonance of religious and cultural conflict²⁹.

In an "Islamic Resurgence," most of the world's Muslim states, from Indonesia to Iran, have over the past two decades become more alienated from the West in their orientation, out of a renewed confidence in their own civilization, out of a reaction to a Western drive to universalize and spread its own civilization, and because of non-cultural factors such as rapid population growth and attendant

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See Samuel Huntington, *The Clash of Civilizations and the Making of World Order* (1996).

unemployment and dislocation. The results have included tensions over weapons proliferation, Islamic migration into western societies, control of oil, the role of the West in conflicts involving Muslims such as the one in Bosnia, and, disputes over the universality of human rights. At the 1995 U.N. Women's Conference at Beijing, for instance, Islamic states objected to the extent and nature of rights demanded for women, while at the 1993 U.N. Conference on Population Control in Cairo, Muslim states, as well as the Vatican, were at odds with UN elites over contraception as an element of family planning. Most poignantly, though, the Islamic resurgence has brought terrorism. The attacks of September 11, 2001 were indeed carried out by a faction of Islamic "revivalists" who, convinced that Islam had fallen into a pre-Mohammedan state of *jahilliya*, or barbaric ignorance, vowed *jihad* against defilers of Islamic civilization like the United States.

Cultural conflicts between Asian societies and the West, especially the United States, became more frequent in the 1990s as well. While Asian intellectuals and political leaders such as Singapore's Lee Kuan Yew asserted an "Asian Way" that dethroned political and civil rights in favor of cultural solidarity and the right to economic development, America has threatened to place economic sanctions upon Asian countries that violate human rights. In many contexts and venues, representatives of the West have asserted constitutional freedoms as universal entitlements, only to encounter Asian denials. In 1993, human rights activists touted that year's UN World Conference on Human Rights in Vienna as an opportunity to develop a broad consensus on universal human rights, but found themselves blocked by a coalition of mostly Asian and Islamic countries, who prevented agreement on anything but the paltriest statement of common beliefs. In the Bangkok Declaration just prior to the conference, a coalition of Asian states strongly opposed the "universal human rights regime" as a Western form of particularism and stressed in its place the principles of national sovereignty, non-intervention, and territorial integrity. Similar disputes have arisen as diplomatic incidents. In the summer of 1997, for example, the prime minister of Malaysia told the U.S. Secretary of State, Madeleine Albright that his country no longer subscribed to the Universal Declaration of Human Rights. None of these

contemporary cultural tensions, amount to, or even augur the religious wars of early modern Europe. There are, however, resemblances in spirit. The cultural conflicts, for instance, have arisen over values that make claims across borders: Western human rights advocates and Islamic contenders both assert what is true for all people; Al Qaeda is a non-state actor who claims to speak on behalf of the umma, the globalized community of Muslims, and is determined to fight its enemies in whatever state they may exist; and Asian values, Confucian or Japanese Shinto, pertain to entire cultures, not single states. In response, the U.S. and other Western states intervene in other states to fight Islamic terrorism and make claims on the behavior of Asian states like China towards their own citizens. All over the world, much of the religious violence is secessionist or irredentist, involving the assertion of loyalties across borders. All such conflicts place heavy demands on sovereignty.

There are two historical trends, then, in which the present day mirrors early modern Europe. One is the plight of living between a system of sovereign states and a system with more variegated authority; the other is religious and cultural conflict. Completing the parallel between the present and the past era is a common dilemma to which the two trends, in the two periods, give rise. In a world of states where sovereignty is not absolute, where intervention often occurs, and where the proponents of universalistic religions and philosophies make more and more conflictual claims on other states' inhabitants, can we find a set of values that would justify intervention that commands at least a thin consensus of the international community? In other words, can we pry open the doors and poke holes in the walls of the Westphalia vault without letting delirium escape? In early modern Europe, the natural law philosophers' dream of attaining such a consensus failed; the era resolved its dilemma instead with an absolute proscription of intervention. Today's increase in cultural and religious conflict again gives rise to the same lamentable possibility. Just as Third World states were loathe to endorse humanitarian intervention during the Cold War, lest the superpowers would use it as a pretext for intervening for their own ideological causes, states today are unlikely to endorse norms that curtail sovereignty at a

time when it is being increasingly violated by states and organizations with rivaling cultural and religious identities³⁰.

Yet, today's international community arguably has dealt with the dilemma far more successfully. Since the end of the Cold War, states, even ones of differing ideology, culture, and regime, despite their growing cultural differences, have in fact been able mutually to agree upon intervention in many cases. In Bosnia, Somalia, Iraq, Haiti, Rwanda, Namibia, Cambodia, the Sudan, Liberia, El Salvador, Nicaragua, Kosovo, and elsewhere —enough instances to constitute a substantial trend —the UN, the European Union, NATO, the Organization of American States, and other international bodies, although not all in every conflict, have approved. These were measures that the consensus of states would have regarded as illegitimate interference by the standards of the Cold War and earlier times. In most of these cases, the interveners did not obtain the prior consent of the target state's government or the parties to a conflict, thus exceeding traditional peacekeeping operations that deferred to state sovereignty. The interventions, for instance, have delivered humanitarian food and medicine in war and famine, ended war, enforced peace, attempted to rebuild institutions, overthrown governments which violate human rights and democracy, conducted and monitored elections, and arrested war criminals.

Not all of the interventions have been successful. Few of them have attained all of their original goals; most have resulted in mixed success; many of them have been unilaterally carried out, even if internationally sanctioned; and none was accomplished without disagreement among the major powers. Interventions in Kosovo and Iraq, for example, failed to win the approval of the UN Security Council. But what is historically remarkable is the cooperation of Security Council states in most of the cases. China, which constantly protested outside infringement of its sovereignty during this period, openly opposed intervention only in the cases of Kosovo and the Iraq war of 2003, and at worse abstained from Security Council votes in the other cases. Islamic states frequently

³⁰ James T.H. Tang, *Human Rights and International Relations in the Asia-Pacific Region* (1995).

supported the operations too. In 1996, Pakistan and Bangladesh were the two leading contributors of troops to UN peacekeeping and observer missions. The international consensus on intervention, then, though far from unblemished, is significant. International judicial institutions that circumscribe sovereignty have also obtained a broad international consensus. During the 1990's, United Nations tribunals for Bosnia and Rwanda as well as the International Criminal Court were established to try people who had committed large-scale human rights violations, even within the borders of a single state. Though the opposition of the United States to the International Criminal Court detracts from this consensus, the court still commands the support of a whole spectrum of states representing a wide variety of cultures. Here, too, although not absolutely solid, the consensus is widespread. Finally, in Europe, over twenty states have now combined their sovereign powers in the supranational institution of the European Union, the most radical departure from traditional Westphalian sovereignty to date. In sum, it seems that today we have come much closer than the early modern Europeans to realizing the dream of those philosophers Grotius, Victoria, Suarez, Gentili, and Languet, who tolerated the sovereign state, but supported intervention against princes who committed commonly recognizable atrocities. Most of the wrongs redressed by today's interventions— starvation, genocide, human rights violations, war crimes— are similarly widely recognized wrongs. Cultures that may clash over other issues can recognize *these* conditions as worthy of international remedy. Witnessing the “commonness” of these evils are also broad groups of philosophers and theologians from the very traditions whose peoples are increasingly clashing. Scholars of Islamic ethics such as Sohail Hashmi argue that humanitarian intervention and “core human rights”— rights to life, bodily integrity, subsistence—find strong support in mainstream Islamic theology.

The Western tradition, which is home to the doctrine of human rights, is strengthened by the strong support of human rights by the Catholic Church following the 1960's Vatican II council, and by many Protestant denominations. Many scholarly and public spokes people for Asian cultures, too, insist that none of the communal Asian virtues preclude endorsement of core universal human

rights. Today's consensus is, therefore, substantial in both philosophy and practice.

Cultural contact between Islam and the West has been marred by historically unequal power relations, leaving the West often arrogant and insensitive and the Muslim world frequently defensive and insecure. But active engagement with one another, through sustained dialogue and interaction, permits each to understand the deeper meanings, associations, and history of the other. Active engagement permits us to understand the authentic, life-affirming expressions of human religiosity in each of the other faiths. Above all, we seek a paradigmatic shift in how we see, understand, and relate to one another. Our awareness can and must be expanded beyond existing limitations, as we develop a greater sense of belonging to the family of humankind³¹.

3.9 Social Concept of among the Muslims and rest of the Civilization

Classical legacy of philosophy & law, Catholicism & Protestantism, multiple languages, rule of law, social pluralism, representative bodies, individualism³².

"Individually none of these factors was unique to the West. The combination of them was, however, and this is what gave the West its distinctive character³³."

The core contrast between the West and Muslim cultures relate to *democratic* values (1996, p70).³⁴

Two extremely different groups, one from the West and one from the Muslim world,

have been arguing that Islam and democracy are incompatible. On the one hand, Khan

pointed out, some western scholars and ideologues have tried to present Islam as antidemocratic and inherently authoritarian. By misrepresenting Islam in this way they seek to prove that Islam has a set of values inferior to western liberalism and is a barrier to the global progress of civilization. This

³¹ UNITED STATES INSTITUTE OF PEACE SPECIAL REPORT SPECIAL REPORT 1200 17th Street NW • Washington, DC 20036 • 202.457.1700 • fax 202.429.6063

³² Huntington (1996) *Clash of Civilizations* Pp. 68-72

³³ Huntington (1996) *Clash of Civilizations* p. 72

³⁴ Huntington (1996) *Clash of Civilizations* p. 70

misconception also promotes Israel's claim to be the sole democracy in the Middle East. On the other hand, many Muslim activists, using broad and sometimes crude notions of secularism and sovereignty, consider democracy to be the rule of humans as opposed to Islam, which is rule of God. Those who reject democracy falsely assume that secularism and democracy are necessarily connected. But secularism is not a prerequisite for democracy; religion can play a significant role in democratic politics, as it does in the United States.

As Khan noted, Muslim scholars agree that the principle of *shura* is the source of democratic ethics in Islam. While there is considerable truth in this claim, one must also recognize the differences between *shura* and democracy before one can advance an Islamic conception of democracy based on *shura*. *Shura* is basically a consultative decision-making process that is considered either obligatory or desirable by different scholars. Those who choose to emphasize the Quranic verse "and consult with them on the matter" (3:159) consider *shura* as obligatory, but those who emphasize the verse praising "those who conduct their affairs by counsel" (43:38) consider *shura* as merely desirable. There is no doubt that *shura* is the Islamic way of making decisions, but is it obligatory? Does a government that does not implement a consultative process become illegitimate? We do not have decisive answers to those questions.

More and more Muslim intellectuals agree that consultative and consensual governance is best. Jurists, however, are more doubtful or ambivalent. Many jurists depend on Non-consultative bodies for their livelihood and are in no hurry to deprive themselves of the privileges that non-consultative governments extend to them. But even if *shura* is considered supportive of democratic process, the two are not identical, Khan asserted. What is clear is that a great deal more reflection is required among leading Muslim thinkers about the nature of *shura* and its relationship to democracy, as well as other Islamic principles that relate to democratic practice.

As Khan pointed out, the rise of political Islam has made the concept of Islamic sovereignty central to Islamic political theory and that concept is often presented as a barrier to any form of democracy. The Quranic concept of sovereignty is

universal (that is nonterritorial), transcendental (beyond human agency), indivisible, inalienable, and truly absolute. God the sovereign is the primary law-giver, while agents such as the Islamic state and the Khalifa (God's agents on earth) enjoy marginal autonomy necessary to implement and enforce the laws of their sovereign. At the theoretical level, the difference between the modern and Islamic conceptions of sovereignty is clear. But operational implications tend to blur the distinction.

Democracies are seen by some Muslim activists as systems in which human whim is the source of law, whereas Islamic principles are transcendental and cannot be undermined by popular whim. But what many of them fail to understand is that democratic institutions are not just about law. They are also about prevention of tyranny by the state. Regardless of where sovereignty is placed theoretically, in practice it is the state which exercises it and not God. Even though God was supposedly sovereign in Taliban's Afghanistan, it was in fact the Taliban that was sovereign there; Mullah Omar ruled, not God. Sovereignty in fact is always human, whether in a democracy or an Islamic state. The issue is not whether people are sovereign, but how to limit the de facto sovereignty of people, since they reign under both systems. Democracy with its principles of limited government, public accountability, checks and balances, separation of powers, and transparency does succeed in limiting human sovereignty. The Muslim world, plagued by despots, dictators, and self-regarding monarchs, badly needs the limitation of human sovereignty, Khan argued. Many Muslim activists also fail to recognize that Islamic governance is interpreted differently by different Islamic scholars, and hence is not nearly as immutable as they contend. While sovereignty belongs to God, it has been delegated in the form of human. The political task is to reflect on how this God-given agency can be best employed in creating a society that will bring welfare and goodness to the population both now and in the future. God is sovereign in all affairs, but God has exercised sovereignty by delegating some of it in the form of human agency. God cannot become an excuse for installing and legitimizing governments that are not accountable to their citizens and responsive to their needs.

CHAPTER FOUR

TRENDS OF ECONOMIC CONFLICTS

4.1 Introduction

The term global economic trends mean the way most of the world economy is behaving in a recent period of time within a set of well defined parameters. Global economy or the world economy is largely centered on a few large or developed economies of the world, namely the USA, UK, France, Germany and Japan, some newly emerging economies of the world such as India, China and some South East Asian economies and certain pockets of Latin America like Brazil, Mexico and Argentina³⁵. The economic achievements of the least developed economies like most of the Caribbean and South America and almost the whole of Africa can not be ignored and they are also contributing to the global economy.

The economic recession in the US economy in 2001 was downplayed and a surge in inventories has not proven sufficient to lead the economy on a sustained path of investment recovery. More so, growth in the US economy seems to be driven by increased consumer spending on consumer goods such as cars and electronic appliances. Although tax cuts and other measures have provided a temporary stimulus for higher disposable incomes, employment levels have actually been falling and with decline in equity rates and a general rise in international oil prices, the USA is perceived by many to be heading to a second plunge for recession in the new millennium.

As with the case of Europe, Germany's private consumption and demand are failing to take-off and, with the appreciation of the Euro, their exports have also been hit hard. Labour market inflexibility and lack of sound demand management

³⁵ Economy Watch, Global Economic Trends. Internet journal:
http://www.economywatch.com/world_economy/world-economic-indicators/global-economy/global-economic-trends.html

policies have created growth in domestic demand of only 3.9% in UK, 1.5% in Germany and 2.3% in France between 1996 and 2000.

Japan, the only developed economy of Asia, has experienced a rapid growth in its industrial production and that has also been reflected in the positive growth of its exports. But domestic demand being low remains its problem growing only at 1.2% in the period between 1996 and 2000. Japan suffers from a problem of deflation and although there has been no real fall in real income levels, consumers live in uncertainty and postpone purchases which bring about further deflation.

In terms of investment flows and movement of capital, Asian exporters have benefited from the stability in US markets whereas restrictive fiscal policies for the Latin American economies have resulted in reduced investment flows to the country as also a decline in earnings from the countries' exports. African economies have by and large been uninfluenced by world capital markets. But the net private capital inflows are said to reduce for the developing economies as whole, falling by 11.3% between 2001 and 2002.

Latin American countries as described above are going through a recession with prices of the country's exports falling by 10 to 30 percent. Coupled with reduced investment flows, South America is at present reeling under severe depression. Argentina and Brazil remain the only bright spots with procyclical fiscal policies like increase in interest rates being adopted to restore investment flows into the region.

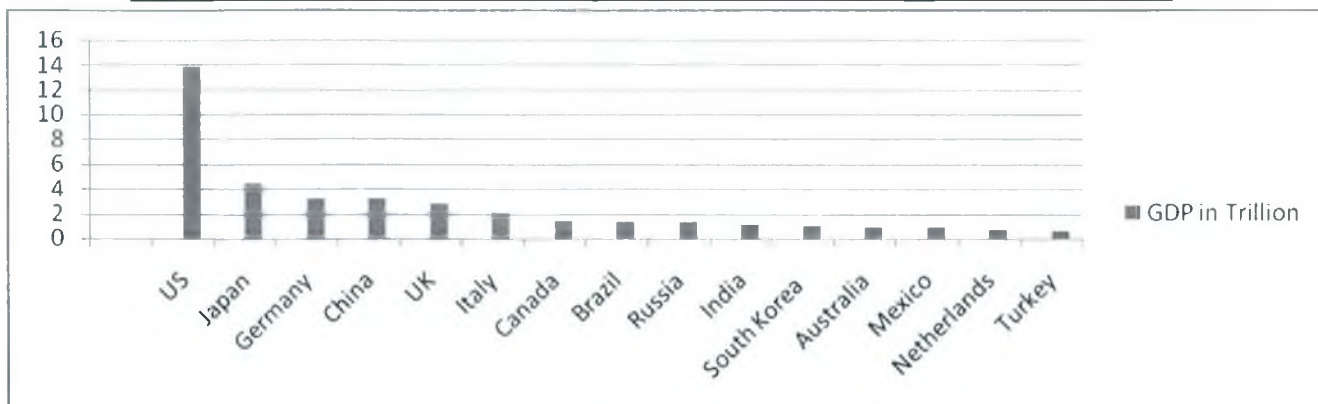
4.2 GDP Trend of Developed and Developing Countries

World GDP, also known as world gross domestic product or GWP - gross world product, calculated on a nominal basis, was estimated at \$65.61 trillion in 2007 by the CIA World Factbook. While the US is the largest economy, growth in world GDP of 5.2% was led by China (11.4%), India (9.2%) and Russia (8.1%). Throughout the twentieth century the United States of America has dominated world gross domestic product, or World GDP. In 2007, according to the

International Monetary Fund, the US GDP was \$13.8 trillion. Since rising from the ashes of World War II, Japan has become the second largest world economy, with a GDP of \$4.4 trillion. Germany is Europe's largest economy and the third largest in the world, with an annual gross domestic product of \$3.2 trillion. China is close behind Germany at \$3.2 trillion, and due to overtake it soon. If current growth rates continue, China will become the largest economy in the world somewhere between 2025 and 2030. The United States will be pushed down to second spot. At that time, three out of the four largest economies in the world will be Asian - China, India and Japan.

The United Kingdom and France are currently at fifth and sixth spots respectively. UK GDP for 2007 was \$2.8 trillion and for France the amount stood at \$2.6 trillion. European countries round out the next two spots in the GDP list. Italy is seventh with a GDP amount of \$2.1 trillion and Spain is at eighth with \$1.4 trillion. Five out of ten top world economies are European. Canada and Brazil are also in the Top 10 World GDP List: Canada with GDP of \$1.4 trillion and Brazil with \$1.3 trillion. Just outside the top 10, Russia has made significant economic progress in the recent years after the Soviet Union was divided into several countries. In 2007, Russian GDP stood at \$1.3 trillion. India is close behind at \$1.1 trillion. South Korea is staking its claim to importance by becoming the world's 12th biggest economy, and the fourth biggest in Asia, with a GDP just under \$1 trillion. Australia has been booming off the back of an extended run up in the prices of commodities, and is now the world's 13th biggest economy with a GDP of \$908 billion. Boosted by the North American Free Trade Agreement (NAFTA), Mexico has been powering forward with its GDP reach \$893 billion. The gross domestic product of the Netherlands in 2007 was \$769 billion and Turkey stood at \$663 billion. Figure-4.1 shows the trend of GDP among the developed and developing countries.

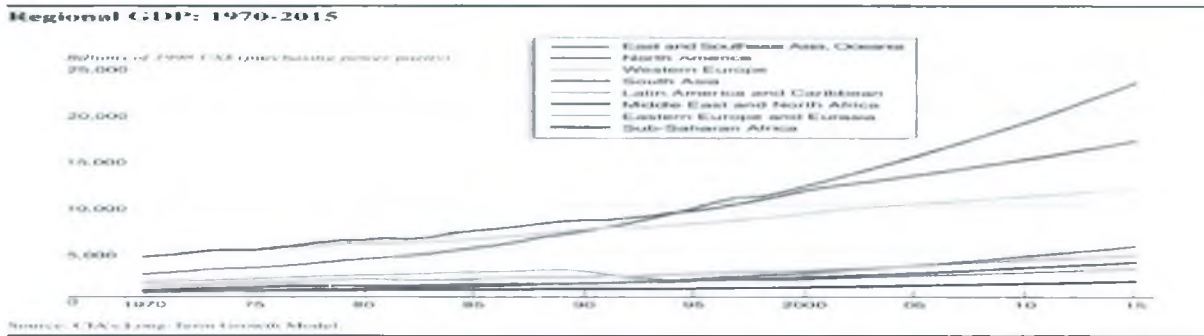
Figure-4.1: GDP Trend of Developed and Developing Countries, 2007



Source: IMF Report

Figure-4.2 shows the projected growth of GDP of various regions. Projected GDP growth shows that East and South East Asia will be leading and they will be followed North America and there after followed by Europe in next 5 to 6 years.

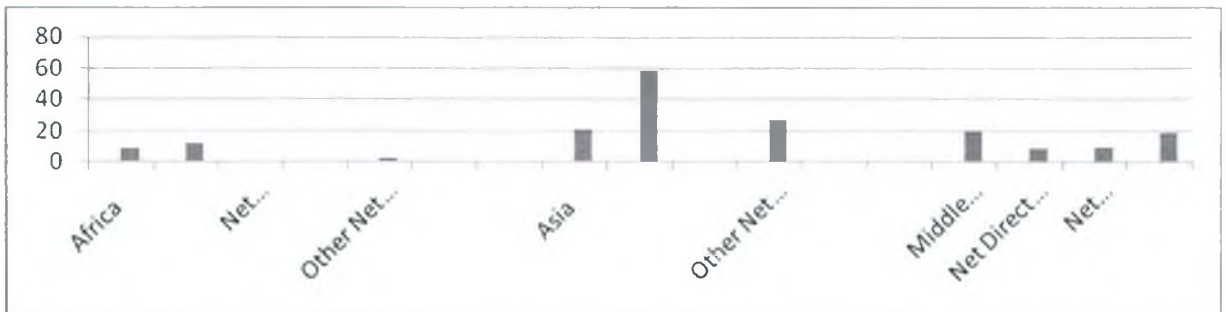
Figure-4.2: Projected Regional GDP Comparison, 2070-2015



Source: National Intelligence Council Report, Washington, D,C, 2004

Poverty still remains the most difficult to tackle with 14.5% of the population of East Asia and the Pacific living on less than \$1 a day. The corresponding figure for Europe and Central Asia is 4.2% and that for Sub-Saharan Africa is at a staggering 49%. Following figures and diagrams for output growth for the period 2002-2003 for the respective countries (based on IMF model using country weights in terms of Purchasing Power Parity (PPP)).

Figure-4.2: Output Growth Comparison of Africa, Asia and ME and EU

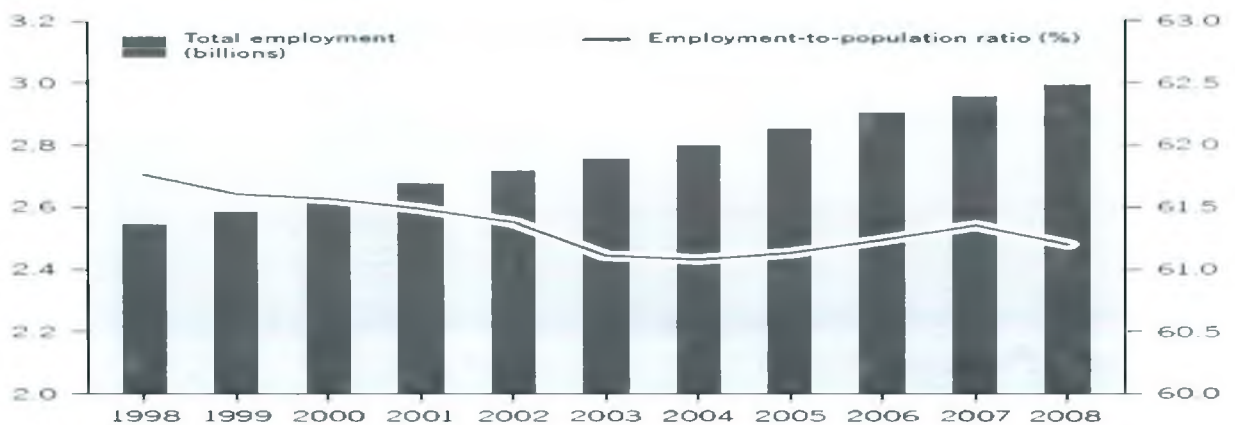


4.3 Inflation

Global Inflation refers to the inflationary trends generally noticed in the diverse sectors of the economy of a country. As important worldwide phenomena, Global Inflation varies largely, owing to the trend components of inflation as well as due the fluctuations arising in the frequencies of the commercial cycles. The rise in the rate of inflation in recent times has forced a number of countries like China and South Africa to take necessary steps to restrict the growing pace of inflation. To the effect, the Chinese government has raised its rate of interest. The South African Reserve Bank and the overall banking sector across the globe are also working for curbing the growth rate of inflation. This, in fact, has become immensely beneficial activity for the existing conditions of the world economy at present and in days to come.

In 2008, roughly 3 billion people around the world were employed, a growth rate of about 1.3 per cent over the previous year, which is low in comparison with an annual average growth rate of 1.6 per cent during the past ten years, and in line with the lower economic growth rate in 2008. The distribution of employment creation by region shows that the three Asian regions account for the lion's share of global employment creation. In the Developed Economies and European Union, on the other hand, net employment creation in 2008 was negative (not shown in the figure), which

Figure 4.6 Global Employment Trend, 1998-2008

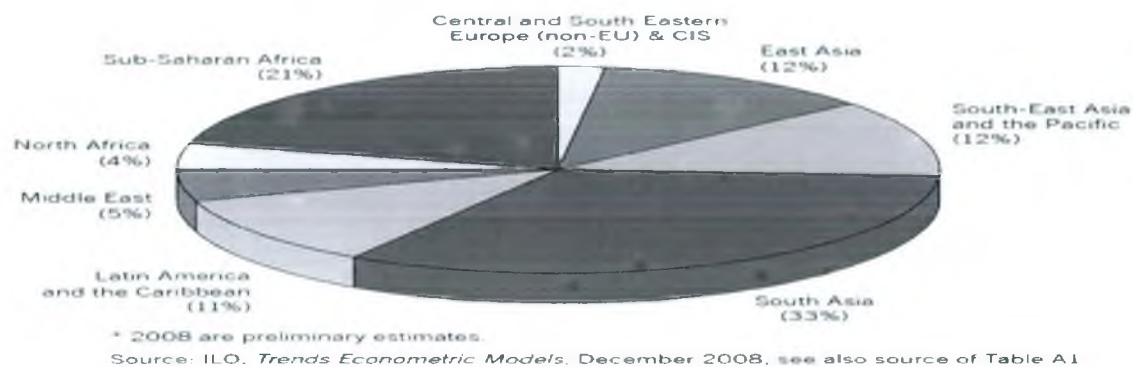


* 2008 are preliminary estimates.

Source: ILO, *Trends Econometric Models*, December 2008, see also source of Table A1.

explains in part the low global employment creation in this year (see also the section on regional developments below).

Figure 4.7: Regional Share in Employment Creation, 2008



4.4 World Trade

The World Trade Organization (WTO) is the most powerful and effective multilateral legal regime currently in existence. Established on 1 January 1995, the WTO's membership is currently composed of 144 countries, the overwhelming majority of which are developing countries. Its strength lies in its subject matter and its enforcement mechanism. Indeed, the international trade and commerce of goods, products, services, intellectual property, and investments is at the center of the agendas of most countries. The very effective international trade dispute settlement and enforcement processes it has put into place make agreements in the WTO legally binding and in most cases self-enforcing.

Geneva - The World Trade Organization (WTO) launched its first ministerial meeting in four years on Monday with ministers seeking to give fresh impetus to the struggling global trade round amid warnings that time was running out to

secure a deal. While trade negotiations are not on the agenda of the three-day gathering in Geneva, the stalled trade round emerged centre stage during the conference's open session, with ministers renewing their backing for signing off on an agreement by the end of 2010. In his opening remarks to the meeting, WTO chief Pascal Lamy told the ministers they were facing "the moment of truth." He said that, after nearly nine agonizing years of negotiations, the ministers would have to decide whether the 2010 deadline would be met. "Time is running out," the WTO director general said, adding that there were "still hard negotiations" ahead if the 153-member organization was going to sign off on a trade deal. WTO negotiations were "progressing too slowly" to reach the 2010 deadline. The WTO member states represent about 95 per cent of total global trade. Ministers last met in 2005 in Hong Kong. But a gathering scheduled for 2007 was postponed because of lack of progress on the trade round launched in Doha in 2001. However, crisis had also shown that changes needed to be made at the WTO.

Trade facilitation came rushing to the foreground of WTO issues as the international business community increasingly expressed concern for greater transparency, efficiency, and procedural uniformity of cross-border transportation of goods. According to an APEC study, clearing the red tape at country borders would generate approximately twice as much gain to GDP than tariff liberalization would³⁶. Trade facilitation measures would particularly benefit developing countries, where the inefficiencies are sometimes more costly to industries than are tariff barriers. In response, WTO members added trade facilitation to the agenda at the Singapore Ministerial Meeting in 1996. The Singapore Ministerial Declaration calls upon the Council for Trade in Goods (CTG) to conduct exploratory research into cross-border barriers, and analyze the effects of those barriers on traders and consumers.

The CTG research draws from the work of over fifteen intergovernmental organizations and the responses of the international business community at the WTO Trade Facilitation Symposium in March 1998. Based on the discussion at

³⁶

the Symposium, the WTO Secretariat circulated a Checklist of Issues that summarizes central issues and prescribes possible solutions to prevalent problems. The points of concern can be categorized into five broad areas: documentation requirements; official procedures; automation and use of information technology; transparency and consistency; and modernization of border-crossing administration.

4.5 Trade of Developing Countries

While there is across-the-board agreement on the necessity for trade facilitation, developing countries are not enthusiastic to negotiate a multilateral agreement of trade facilitation commitments³⁷. They argue that they do not have the resources necessary to update their customs procedures to more modern technological standards. They are also reluctant to take on additional legal obligations that may increase their exposure to disputes. If members insist on creating standards through the WTO, developing countries such as Brazil, Jamaica, and Zimbabwe ask that the agreement be a list of voluntary guidelines, or an agreement focused on capacity-building, rather than a legally-binding, rules-based agreement. Some developing countries such as India even suggest that trade facilitation remain a nation, bilateral, or regional concern. Taking into consideration the qualms of developing countries, the WTO will offer significant technical assistance and capacity building in conjunction with negotiations.

4.6 Energy

The global economy will continue to become more energy efficient through 2015. Traditional industries, as well as transportation, are increasingly efficient in their energy use. Moreover, the most dynamic growth areas in the global economy, especially services and the knowledge fields, are less energy intensive than the economic activities that they replace. Energy production also is becoming more

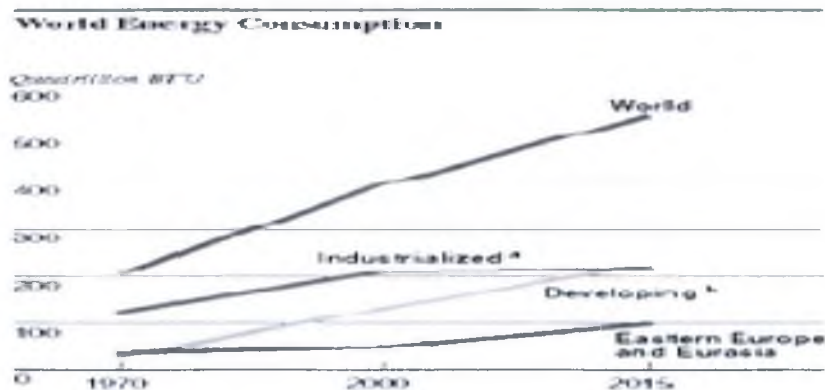
³⁷ The WTO, Trade Facilitation and Sustainable Development," IISD Trade and Development Brief, No. 3, Spring 2003

efficient. Technological applications, particularly in deep-water exploration and production, are opening remote and hostile areas to petroleum production.

Sustained global economic growth, along with population increases, will drive a nearly 50 percent increase in the demand for energy over the next 15 years. Total oil demand will increase from roughly 75 million barrels per day in 2000 to more than 100 million barrels in 2015, an increase almost as large as OPEC's current production. Over the next 15 years, natural gas usage will increase more rapidly than that of any other energy source—by more than 100 percent—mainly stemming from the tripling of gas consumption in Asia. Asia will drive the expansion in energy demand, replacing North America as the leading energy consumption region and accounting for more than half of the world's total increase in demand. China, and to a lesser extent India, will see especially dramatic increases in energy consumption. By 2015, only one-tenth of Persian Gulf oil will be directed to Western markets; three-quarters will go to Asia.

Fossil fuels will remain the dominant form of energy despite increasing concerns about global warming. Efficiency of solar cells will improve, genetic engineering will increase the long-term prospects for the large-scale use of ethanol, and hydrates will be used increasingly as fuels. Nuclear energy use will remain at current levels.

Figure 4.8: World Energy Consumption 1970 - 2015



Source: CIA Projection

- USA, Canada, Mexico, Japan, UK, France, Germany, Italy, Netherlands and other EU countries. Developing Asia (China, India, South Korea and other Asian countries) and Africa.

Meeting the increase in demand for energy will pose neither a major supply challenge nor lead to substantial price increases in real terms. Estimates of the world's total endowment of oil have steadily increased as technological progress in extracting oil from remote sources has enabled new discoveries and more efficient production. Recent estimates indicate that 80 percent of the world's available oil still remains in the ground, as does 95 percent of the world's natural gas.

The Persian Gulf region—absent a major war—will see large increases in oil production capacity and will rise in its overall importance to the world energy market. Other areas of the world—including Russia, coastal West Africa, and Greenland—will also increase their role in global energy markets. Russia and the Middle East account for three-quarters of known gas reserves.

Latin America—principally Venezuela, Mexico, and Brazil—has more than 117 billion barrels of proven oil reserves and potentially 114 billion barrels of undiscovered oil, according to the US Geological Survey. With foreign participation, Latin American production could increase from 9 million barrels per day to more than 14 million.

Caspian energy development is likely to be in high gear by 2015. New transport routes for Caspian oil and gas exports that do not transit Russia will be operating. Oil-producing countries will continue to exert leverage on the market to increase prices but are unlikely to achieve stable high prices. Energy prices are likely to become more unstable in the next 15 years, as periodic price hikes are followed by price collapses.

By 2015, global energy markets will have coalesced into two quasi-hemispheric patterns. Asia's energy needs will be met either through coal from the region or from oil and gas supplies from the Persian Gulf, Central Asia, and Russia.

Western Europe and the Western Hemisphere will draw on the Atlantic Basin for their energy sources at world prices.

4.7 Unpredictability of Global Economy

In the economy it seems that everything is predictable. Yet, we have no idea what will happen. That is the curious paradox of our world. We now will try to identify major trends which are likely to unfold in the world economy. What is predictable is that some major economic trends are reshaping the world after the cold war³⁸. Those trends will give a rough idea how world economy is moving and in which direction. We shall discuss it in subsequent paragraphs.

4.8 The rising cost of energy

The whole world is running after energy. Specially the developed countries economy is seriously need energy to keep their development engine on. To keep the energy under their own control, the big powers are playing their role in the world geopolitics and that is vividly visible down to earth. Energy and resource hungry developed countries are engaged to keep their dominance in those recourses. They are also looking for alternative energy but still that seems very costly. But exercise for developing new energy is on even with the cost of huge expenditure. Yet, no economically and huge alternative supply is identified or discovered.

Worldwide, oil is calibrated in dollars. But what is the dollar calibrated in? More and more oil producers are beginning to ask. And the answer is that the dollar floats in the air like a willow leaf. If the winds are favorable, it stays up. If it gets caught in a downdraft, it falls.

³⁸

Bill Bonner, The five major trends reshaping the world economy, Aug 02, 2006 ,
<http://www.moneyweek.com/news-and-charts/economics/the-five-major-trends-reshaping-the-world-economy.aspx>

4.8 Global Monetary System

We say that this is an 'experimental' financial system, because nothing like it has ever existed. Not that this is the first experiment with lighter than air money. Now, practically every currency in the world is backed by dollars. And the dollar itself is backed by nothing. In fact, the whole world's financial system rests on the shoulders of a single currency – which everyone knows is a shirker.

Historically, people were reluctant to take a currency that did not have sufficient precious metal backing. They didn't trust it. They figured that the people in control of it would succumb to the temptation to print up too much money, so that each bill would lose some of its value. They knew central bankers could create as many pieces of paper as they wanted. They could also default on their promises. They could do anything. But they couldn't create gold.

The U.S. dollar was backed by gold, 35 years ago. The 15th of August 1971 the Nixon administration cut the link between the dollar and gold. If we compare the gasoline price now and then, it will give a clear picture how the price has been inflated over the period of time. It is almost 1200%. It's more expensive largely because it's measured in dollars and the dollar has been stretched out by inflation. As the quantity of dollars increases, each one represents a smaller piece of the world's wealth.

The world monetary system is based on dollar, where dollar is floating on nothing. This is likely to collapse, and be replaced with something else. Soon the effect is going to have in the world financial system and it must be remedied. Otherwise the world is going to suffer awful financial crisis soon.

4.10 The Exodus of Money

One of the biggest trends in economic history was the rise of the West – centered roughly in Manchester, England, and Manchester, New Hampshire – beginning in the 18th century. Then, in the 19th century, all of Europe and European outposts in the New World spurted ahead of the rest of the world. By the end of the 20th century, the average worker in Western Europe or America earned about 20

times a more per hour as a similar worker in China or India. But the averages masked the new trend. Wages in India and China are rising sharply. Those in America and Europe are stagnant. The real hourly incomes in America are lower today than they were 5 years ago. In India, they have almost doubled. Meanwhile, China is growing faster than at any time in the last 10 years – with a GDP growth rate over 11%. India is not far behind. Is the world waiting to see counter trend? Certainly, it will see some setbacks and countertrends.

4.11 Influence of Monetary Institutions

The IMF and the World Bank, these two monetary institutions were first formed by 44 nations at the Bretton Woods Conference in 1944 with the goal of creating a stable framework for the post-war global economy.

The IMF was originally formed to promote steady growth and full employments by offering unconditional loans to economies in crises and establishing mechanisms to stabilize exchange rates and facilitate currency exchange. Much of these visions never came to reality. Pressure from the US government made IMF start offering loans based on strict conditions. Critics have said that these policies have reduced the level of social safety and worsened labour and environmental standards in developing countries.

On the other hand, the World Bank, initially known as the International Bank for Reconstructions and Development, was formed to fund the rebuilding of infrastructure in nations ravaged by World War II. Its focus soon changed in the mid 1980's. The Bank turned its attention away from Europe to the third World countries, most of which are in Africa. It started funding massive industrial development projects in Africa, Asia, and Latin America³⁹.

The IMF and World Bank are largely controlled and owned by the development nations such as USA, Germany, UK, Japan, amongst others. The US for example

³⁹ Floyd Mann, *The IMF and World Bank Are Major Causes of Poverty in Africa*, Concord Times in Freetown, South Africa. See web site, URL: <http://www.globalenvision.org/library/23/1524>

controls 17 to 18% of the voting right at the IMF. When an 85% majority is required for a decision, the US effectively has veto power at the IMF. In addition, the World Bank is 51% funded by the US treasury. Under a plane devised mechanism the World Bank and the IMF loan money in return for the structural adjustment of their economies. This means that economic direction of each country would be planned, monitored, and controlled in Washington. For instance, the World Bank assistance for helping a poor country involves country by country investigations with a meeting of Finance Ministers who are handed a restructuring agreement pre-drafted for voluntary signature. These instructions include privatizations, trade liberalization, high interest rates etc. Trade liberalization for under-developed economies could have some serious attendant effects.

The centre for European Economic Research conducted a research on IMF and World Bank using a panel of 85 countries observed between 1970 and 1997 and found that with respect to the Bank, the number of projects has a positive impact on overall economic freedom, while the effect of the amount of World Bank credits is negative. These effects are stronger during the 1990s than in earlier periods. There is no clear relationship between credits and programs of the IMF and economic freedom⁴⁰. The research team has also observed that World Bank projects are more likely to improve economic freedom than do IMF programmes. Programmes of the latter institution have, according to our estimates, not led to changes in structural, growth-oriented policies. This endorses recent criticism of the IMF demanding to scale back the mandate of the Fund in order to restrain its activities to key areas of expertise, providing short term balance of payments credits, and to let the World Bank deal with development goals.

⁴⁰ Bernhard Boockmann and Axel Dreher, *The Contribution of the IMF and the World Bank to Economic Freedom*, web sit URL: <ftp://ftp.zew.de/pub/zew-docs/dp/dp0218.pdf>

CHAPTER - V

TRENDS OF ENVIRONMENTAL CONFLICTS

5.1 Introduction

The environment, “*environmental change*” frequently referred to as “*climate change*” as well as more generally “*environmental degradation*” is humanitarian issues of rapidly increasing concern. Scientists have pointed out the causality between environmental change and the higher frequency of devastating storms, floods, droughts or the growing scarcity of drinking water as well as negative impacts on health. There seems to be a consensus building that action has become imperative⁴¹.

The humanitarian relevance of the subject nowadays is demonstrated in a film by a former Vice President of the United States, entitled “An Inconvenient Truth”, which is only the most recent of many alarming reports on the disastrous implications of climate change as a global trend⁴².

Climate change in International Panel on Climate Change (IPCC) usage refers to a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the United Nations Framework Convention on Climate Change (UNFCCC), where climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods⁴³.

⁴¹ Panel on: Linking Health Care and International Politics: Doing Good for the Benefit of All Players, Global Health Studies Program University of Iowa, October 20-22, 2006.

⁴² Panel on: Linking Health Care and International Politics: Doing Good for the Benefit of All Players, Global Health Studies Program University of Iowa, October 20-22, 2006

⁴³ Synthesis Report by the three Working Groups (WGs) of the Intergovernmental Panel on Climate Change (IPCC), 2007.

A schematic framework representing anthropogenic drivers, impacts of and responses to climate change, and their linkages, is shown in Figure-5.1. With increased understanding of these linkages, it is now possible to assess the linkages also counterclockwise, i.e. to evaluate possible development pathways and global emissions constraints that would reduce the risk of future impacts that society may wish to avoid⁴⁴.

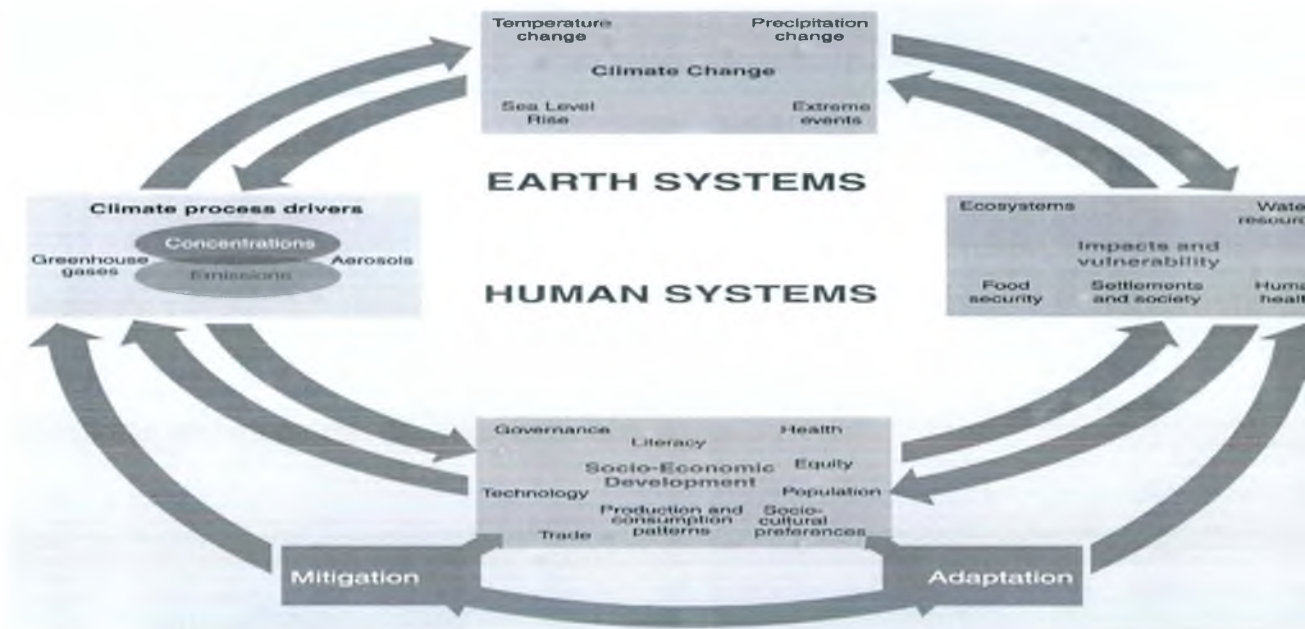


Figure 5.1: Climate Change Cycle

Source: IPCC-Climate Report

5.2 Climate Change

To discuss about the climate process driver, greenhouse gasses are the main driver of the climate change. The greenhouse effect is the heating of the surface of a planet or moon due to the presence of an atmosphere containing gases that absorb and emit infrared radiation. Thus, greenhouse gases trap heat within the surface-troposphere system. This mechanism is fundamentally different from that of an actual greenhouse, which works by isolating warm air inside the structure so that heat is not lost by convection. The greenhouse effect was discovered by Joseph Fourier in 1824, first reliably experimented on by John Tyndall in 1858,

⁴⁴ IPCC report, 2007.

and first reported quantitatively by Svante Arrhenius in 1896. In the absence of the greenhouse effect and an atmosphere, the Earth's average surface temperature of 14 °C (57 °F) could be as low as -18 °C (-0.4 °F), the black body temperature of the Earth. Anthropogenic global warming (AGW), a recent warming of the Earth's surface and lower atmosphere, is believed to be the result of an "enhanced greenhouse effect" mainly due to human-produced increases in atmospheric greenhouse gases⁴⁵.

The Earth receives energy from the Sun mostly in the form of visible light and nearby wavelengths. About 50% of the sun's energy is absorbed at the Earth's surface. Like all bodies with a temperature above absolute zero the Earth's surface radiates energy in the infrared range. Greenhouse gases in the atmosphere absorb most of the infrared radiation emitted by the surface and pass the absorbed heat to other atmospheric gases through molecular collisions. The greenhouse gases also radiate in the infrared range. Radiation is emitted both upward, with part escaping to space, and downward toward Earth's surface. The surface and lower atmosphere are warmed by the part of the energy that is radiated downward, making our life on earth possible.

In order, Earth's most abundant greenhouse gases are:

- water vapor
- carbon dioxide
- methane
- nitrous oxide
- ozone
- CFCs

Real Climate ranks by their contribution to the greenhouse effect⁴⁶:

- water vapor, which contributes 36–70%

⁴⁵ wikipedia

⁴⁶ "Water vapour: feedback or forcing?". RealClimate. 6 April 2005.
<http://www.realclimate.org/index.php?p=142>. Retrieved 2008-05-01

- carbon dioxide, which contributes 9–26%
- methane, which contributes 4–9%
- ozone, which contributes 3–7%

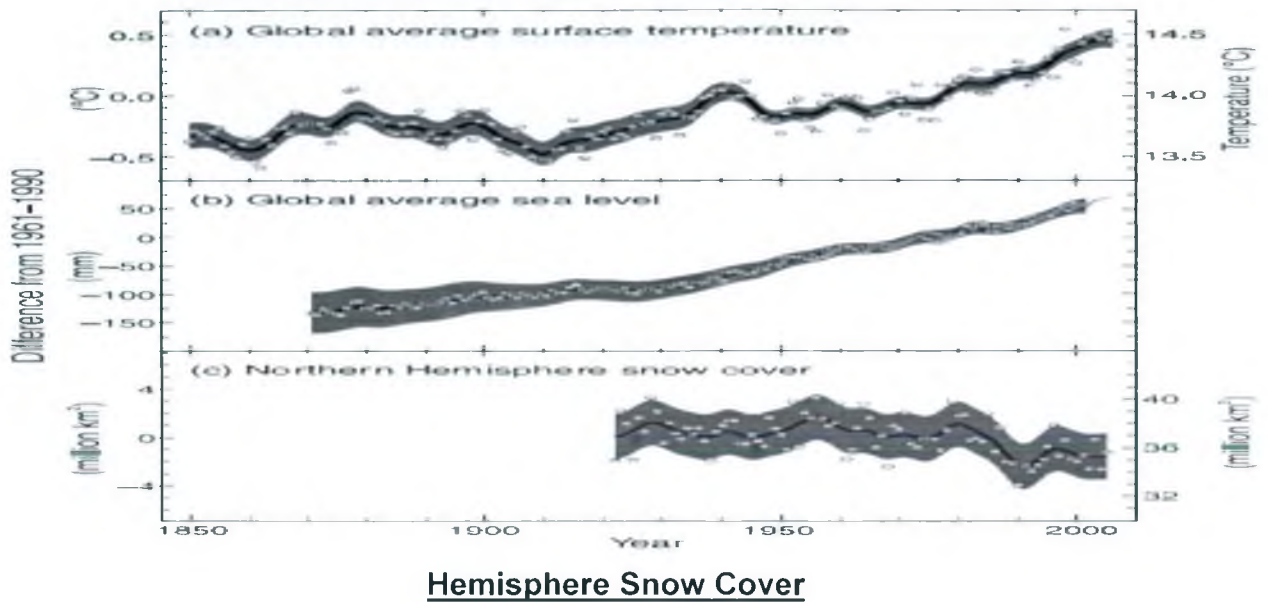
The major non-gas contributor to the Earth's greenhouse effect, clouds, also absorb and emit infrared radiation and thus have an effect on radiative properties of the atmosphere. Carbon dioxide is the human-produced greenhouse gas that contributes most of radiative forcing from human activity. CO₂ is produced by fossil fuel burning and other human activities such as cement production and tropical deforestation. Measurements of CO₂ from the Mauna Loa observatory show that concentrations have increased from about 313 ppm in 1960 to about 383 ppm in 2009. The current observed amount of CO₂ exceeds the geological record maxima (~300 ppm) from ice core data. The effect of combustion-produced carbon dioxide on the global climate, a special case of the greenhouse effect first described in 1896 by Svante Arrhenius, has also been called the Calendar effect.

Because it is a greenhouse gas, elevated CO₂ levels will contribute to additional absorption and emission of thermal infrared in the atmosphere, which could contribute to net warming. In fact, according to Assessment Reports from the Intergovernmental Panel on Climate Change, "most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations". Over the past 800,000 years, ice core data shows unambiguously that carbon dioxide has varied from values as low as 180 parts per million (ppm) to the pre-industrial level of 270ppm. Certain pale climatologists consider variations in carbon dioxide to be a fundamental factor in controlling climate variations over this time scale.

5.3 Temperature Change

From 1961 to 2003, the global ocean temperature has risen by 0.10 °C from the surface to a depth of 700 m. There is variability both year-to-year and over longer time scales, with global ocean heat content observations showing high rates of warming for 1991 to 2003, but some cooling from 2003 to 2007. The temperature of the Antarctic Southern Ocean rose by 0.17 °C (0.31 °F) between

Figure 6.2: Change in Temperature, Sea Level and Northern



Source: IPCC-Climate Report

the 1950s and the 1980s, nearly twice the rate for the world's oceans as a whole. As well as having effects on ecosystems (e.g. by melting sea ice, affecting algae that grow on its underside), warming reduces the ocean's ability to absorb CO₂⁴⁷. See Figure 6.2.

5.4 Sea Level Rise

Increases in sea level are consistent with warming (Figure 1.1). Global average sea level rose at an average rate of 1.8 [1.3 to 2.3]mm per year over 1961 to 2003 and at an average rate of about 3.1 [2.4 to 3.8]mm per year from 1993 to 2003. Whether this faster rate for 1993 to 2003 reflects decadal variation or an increase in the longer term trend is unclear. Since 1993 thermal expansion of the

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wikipedia

oceans has contributed about 57% of the sum of the estimated individual contributions to the sea level rise, with decreases in glaciers and ice caps contributing about 28% and losses from the polar ice sheets contributing the remainder. From 1993 to 2003 the sum of these climate contributions is consistent within uncertainties with the total sea level rise that is directly observed. See Figure 6.2.

5.5 Global Warming and impact on Earth

The impact of global warming and climate change are of concern both for the environment and human life. According to the IPCC Fourth Assessment Report, "most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in human greenhouse gas concentrations. It is predicted that future climate changes will include further global warming (i.e., an upward trend in global mean temperature), sea level rise, and a probable increase in the frequency of some extreme weather events. Ecosystems are seen as being particularly vulnerable to climate change. Human systems are seen as being variable in their capacity to adapt to future climate change. To reduce the risk of large changes in future climate, many countries have implemented policies designed to reduce their emissions of greenhouse gases.

Over the last hundred years or so, the instrumental temperature record has shown a trend in climate of increased global mean temperature, i.e., global warming. Other observed changes include Arctic shrinkage, Arctic methane release, releases of terrestrial carbon from permafrost regions and Arctic methane release in coastal sediments, and sea level rise. Global average temperature is predicted to increase over this century, with a probable increase in frequency of some extreme weather events, and changes in rainfall patterns. Moving from global to regional scales, there is increased uncertainty over how climate will change. The probability of warming having unforeseen consequences increases with the rate, magnitude, and duration of climate change. Some of the physical impacts of climate change are irreversible at continental and global scales. Sea level is expected to rise 18 to 59 cm (7.1 to 23.2 inches) by the end

of the 21st century. Due to a lack of scientific understanding, this sea level rise estimate does not include all of the possible contributions of ice sheets. Slowing of the Meridional Overturning Circulation is very likely to occur this century, but temperatures in the Atlantic and Europe will probably still be higher due to global warming. For a global warming of 1-4°C (relative to 1990-2000), there is a moderate chance that partial deglaciation of the Greenland ice sheet would occur over a period of centuries to millennia. Including the possible contribution of partial deglaciation of the West Antarctic ice sheet, sea level would rise by 4-6 m or more.

The impacts on human systems of climate change will probably be distributed unevenly. Some regions and sectors are expected to experience benefits while others will experience costs. With greater levels of warming (greater than 2-3°C, relative to 1990 levels), it is likely that benefits will decline and costs increase. Low-latitude and less-developed areas are probably at the greatest risk from climate change. With human systems, adaptation potential for climate change impacts is considerable, although the costs of adaptation are largely unknown and potentially large.

Global warming may be responsible in part for some trends in natural disasters such as extreme weather. Based on future projections of climate change, the IPCC report makes a number of predictions. It is predicted that over most land areas, the frequency of warm spells/heat waves will very likely increase. It is likely that:

- Increased areas will be affected by drought.
- There will be increased intense tropical cyclone activity.
- There will be increased incidences of extreme high sea level (excluding tsunamis).

Storm strength leading to extreme weather is increasing, such as the power dissipation index of hurricane intensity. Kerry Emanuel writes that hurricane power dissipation is highly correlated with temperature, reflecting global warming. However, a further study by Emanuel using current model output concluded that the increase in power dissipation in recent decades cannot be completely

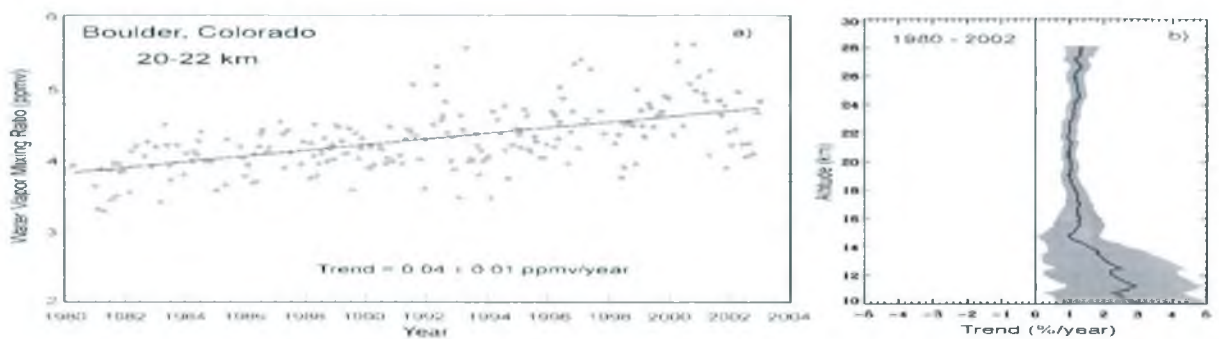
attributed to global warming. Hurricane modeling has produced similar results, finding that hurricanes, simulated under warmer, high-CO₂ conditions, are more intense, however, hurricane frequency will be reduced. Worldwide, the proportion of hurricanes reaching categories 4 or 5 – with wind speeds above 56 meters per second – has risen from 20% in the 1970s to 35% in the 1990s. Precipitation hitting the US from hurricanes has increased by 7% over the twentieth century. The extent to which this is due to global warming as opposed to the Atlantic Multi decadal Oscillation is unclear. Some studies have found that the increase in sea surface temperature may be offset by an increase in wind shear, leading to little or no change in hurricane activity. Hoyos et al. (2006) have linked the increasing trend in number of category 4 and 5 hurricanes for the period 1970-2004 directly to the trend in sea surface temperatures.

Increases in catastrophes resulting from extreme weather are mainly caused by increasing population densities, and anticipated future increases are similarly dominated by societal change rather than climate change. The World Meteorological Organization explains that “though there is evidence both for and against the existence of a detectable anthropogenic signal in the tropical cyclone climate record to date, no firm conclusion can be made on this point.” They also clarified that “no individual tropical cyclone can be directly attributed to climate change.”

Thomas Knutson and Robert E. Tuleya of NOAA stated in 2004 that warming induced by greenhouse gas may lead to increasing occurrence of highly destructive category-5 storms. In 2008, Knutson et al. found that Atlantic hurricane and tropical storm frequencies could reduce under future greenhouse-gas-induced warming. Vecchi and Soden find that wind shear, the increase of which acts to inhibit tropical cyclones, also changes in model-projections of global warming. There are projected increases of wind shear in the tropical Atlantic and East Pacific associated with the deceleration of the Walker circulation, as well as decreases of wind shear in the western and central Pacific. The study does not make claims about the net effect on Atlantic and East Pacific hurricanes of the warming and moistening atmospheres, and the model-projected increases in Atlantic wind shear.

A substantially higher risk of extreme weather does not necessarily mean a noticeably greater risk of slightly-above-average weather. However, the evidence is clear that severe weather and moderate rainfall are also increasing. Increases in temperature are expected to produce more intense convection over land and a higher frequency of the most severe storms.

Figure- 6.3: Increasing water vapor at Boulder, Colorado



Source: Wikipedia

Over the course of the 20th century, evaporation rates have reduced worldwide; this is thought by many to be explained by global dimming. As the climate grows warmer and the causes of global dimming are reduced, evaporation will increase due to warmer oceans. Because the world is a closed system this will cause heavier rainfall, with more erosion. This erosion, in turn, can in vulnerable tropical areas (especially in Africa) lead to desertification. On the other hand, in other areas, increased rainfall, lead to growth of forests in dry desert areas.

Scientists have found evidence that increased evaporation could result in more extreme weather as global warming progresses. The IPCC Third Annual Report says: "...global average water vapor concentration and precipitation are projected to increase during the 21st century. By the second half of the 21st century, it is likely that precipitation will have increased over northern mid- to high latitudes and Antarctica in winter. At low latitudes there are both regional increases and decreases over land areas. Larger year to year variations in precipitation are very likely over most areas where an increase in mean precipitation is projected.

5.6 Cost of more extreme weather

As the World Meteorological Organization explains, “recent increase in societal impact from tropical cyclones has largely been caused by rising concentrations of population and infrastructure in coastal regions.” Pielke et al. (2008) normalized mainland U.S. hurricane damage from 1900–2005 to 2005 values and found no remaining trend of increasing absolute damage. The 1970s and 1980s were notable because of the extremely low amounts of damage compared to other decades. The decade 1996–2005 has the second most damage among the past 11 decades, with only the decade 1926–1935 surpassing its costs. The most damaging single storm is the 1926 Miami hurricane, with \$157 billion of normalized damage.

The American Insurance Journal predicted that “catastrophe losses should be expected to double roughly every 10 years because of increases in construction costs, increases in the number of structures and changes in their characteristics.” The Association of British Insurers has stated that limiting carbon emissions would avoid 80% of the projected additional annual cost of tropical cyclones by the 2080s. The cost is also increasing partly because of building in exposed areas such as coasts and floodplains. The ABI claims that reduction of the vulnerability to some inevitable effects of climate change, for example through more resilient buildings and improved flood defenses, could also result in considerable cost-savings in the long term.

5.7 Local climate change

In the northern hemisphere, the southern part of the Arctic region (home to 4,000,000 people) has experienced a temperature rise of 1 °C to 3 °C (1.8 °F to 5.4 °F) over the last 50 years. Canada, Alaska and Russia are experiencing initial melting of permafrost. This may disrupt ecosystems and by increasing bacterial activity in the soil lead to these areas becoming carbon sources instead of carbon sinks. A study (published in *Science*) of changes to eastern Siberia's permafrost suggests that it is gradually disappearing in the southern regions, leading to the loss of nearly 11% of Siberia's nearly 11,000 lakes since 1971. At the same time, western Siberia is at the initial stage where melting permafrost is creating new

lakes, which will eventually start disappearing as in the east. Furthermore, permafrost melting will eventually cause methane release from melting permafrost peat bogs.

Prior to March 2004, no tropical cyclone had been observed in the South Atlantic Ocean. The first Atlantic cyclone to form south of the equator hit Brazil on March 28, 2004 with 40 m/s (144 km/h) winds; although some Brazilian meteorologists deny that it was a hurricane. Monitoring systems may have to be extended 1,600 km (1,000 miles) further south. There is no agreement as to whether this hurricane is linked to climate change, but one climate model exhibits increased tropical cyclone genesis in the South Atlantic under global warming by the end of the 21st century.

In historic times, glaciers grew during a cool period from about 1550 to 1850 known as the Little Ice Age. Subsequently, until about 1940, glaciers around the world retreated as the climate warmed. Glacier retreat declined and reversed in many cases from 1950 to 1980 as a slight global cooling occurred. Since 1980, glacier retreat has become increasingly rapid and ubiquitous, and has threatened the existence of many of the glaciers of the world. This process has increased markedly since 1995.

Excluding the ice caps and ice sheets of the Arctic and Antarctic, the total surface area of glaciers worldwide has decreased by 50% since the end of the 19th century. Currently glacier retreat rates and mass balance losses have been increasing in the Andes, Alps, Pyrenees, Himalayas, Rocky Mountains and North Cascades.

The loss of glaciers not only directly causes landslides, flash floods and glacial lake overflow,[43] but also increases annual variation in water flows in rivers. Glacier runoff declines in the summer as glaciers decrease in size, this decline is already observable in several regions. Glaciers retain water on mountains in high precipitation years, since the snow cover accumulating on glaciers protects the ice from melting. In warmer and drier years, glaciers offset the lower precipitation amounts with a higher melt water input. Of particular importance are the Hindu Kush and Himalayan glacial melts that comprise the principal dry-season water

source of many of the major rivers of the Central, South, East and Southeast Asian mainland. Increased melting would cause greater flow for several decades, after which "some areas of the most populated regions on Earth are likely to 'run out of water'" as source glaciers are depleted. The Tibetan Plateau contains the world's third-largest store of ice. Temperatures there are rising four times faster than in the rest of China, and glacial retreat is at a high speed compared to elsewhere in the world.

According to a UN climate report, the Himalayan glaciers that are the sources of Asia's biggest rivers—Ganges, Indus, Brahmaputra, Yangtze, Mekong, Salween and Yellow—could disappear by 2035 as temperatures rise. Approximately 2.4 billion people live in the drainage basin of the Himalayan rivers. India, China, Pakistan, Bangladesh, Nepal and Myanmar could experience floods followed by droughts in coming decades. In India alone, the Ganges provides water for drinking and farming for more than 500 million people. It has to be acknowledged, however, that increased seasonal run off of Himalayan glaciers led to increased agricultural production in northern India throughout the 20th century.

The recession of mountain glaciers, notably in Western North America, Franz-Josef Land, Asia, the Alps, the Pyrenees, Indonesia and Africa, and tropical and sub-tropical regions of South America, has been used to provide qualitative support to the rise in global temperatures since the late 19th century. Many glaciers are being lost to melting further raising concerns about future local water resources in these glaciated areas. In Western North America the 47 North Cascade glaciers observed all are retreating.

Despite their proximity and importance to human populations, the mountain and valley glaciers of temperate latitudes amount to a small fraction of glacial ice on the earth. About 99% is in the great ice sheets of polar and subpolar Antarctica and Greenland. These continuous continental-scale ice sheets, 3 kilometres (1.9 mi) or more in thickness, cap the polar and subpolar land masses. Like rivers flowing from an enormous lake, numerous outlet glaciers transport ice from the margins of the ice sheet to the ocean.

Glacier retreat has been observed in these outlet glaciers, resulting in an increase of the ice flow rate. In Greenland the period since the year 2000 has brought retreat to several very large glaciers that had long been stable. Three glaciers that have been researched, Helheim, Jakobshavn Isbræ and Kangerdlugssuaq Glaciers, jointly drain more than 16% of the Greenland Ice Sheet. Satellite images and aerial photographs from the 1950s and 1970s show that the front of the glacier had remained in the same place for decades. But in 2001 it began retreating rapidly, retreating 7.2 km (4.5 mi) between 2001 and 2005. It has also accelerated from 20 m (66 ft)/day to 32 m (100 ft)/day. Jakobshavn Isbræ in western Greenland had been moving at speeds of over 24 m (79 ft)/day with a stable terminus since at least 1950. The glacier's ice tongue began to break apart in 2000, leading to almost complete disintegration in 2003, while the retreat rate doubled to over 30 m (98 ft)/day.

The role of the oceans in global warming is a complex one. The oceans serve as a sink for carbon dioxide, taking up much that would otherwise remain in the atmosphere, but increased levels of CO₂ have led to ocean acidification. Furthermore, as the temperature of the oceans increases, they become less able to absorb excess CO₂. Global warming is projected to have a number of effects on the oceans. Ongoing effects include rising sea levels due to thermal expansion and melting of glaciers and ice sheets, and warming of the ocean surface, leading to increased temperature stratification. Other possible effects include large-scale changes in ocean circulation.

In a paper published in 2007, the climatologist James Hansen et al. claimed that ice at the poles does not melt in a gradual and linear fashion, but that another according to the geological record, the ice sheets can suddenly destabilize when a certain threshold is exceeded. In this paper Hansen et al. state:

5.8 Acidification

Ocean acidification is an effect of rising concentrations of CO₂ in the atmosphere, and is not a direct consequence of global warming. The oceans soak up much of the CO₂ produced by living organisms, either as dissolved gas, or in the skeletons of tiny marine creatures that fall to the bottom to become chalk or

limestone. Oceans currently absorb about one tonne of CO₂ per person per year. It is estimated that the oceans have absorbed around half of all CO₂ generated by human activities since 1800 (118 ± 19 petagrams of carbon from 1800 to 1994).

In water, CO₂ becomes a weak carbonic acid, and the increase in the greenhouse gas since the industrial revolution has already lowered the average pH (the laboratory measure of acidity) of seawater by 0.1 units, to 8.2. Predicted emissions could lower the pH by a further 0.5 by 2100, to a level probably not seen for hundreds of millennia and, critically, at a rate of change probably 100 times greater than at any time over this period.

There are concerns that increasing acidification could have a particularly detrimental effect on corals (16% of the world's coral reefs have died from bleaching caused by warm water in 1998, which coincidentally was the warmest year ever recorded) and other marine organisms with calcium carbonate shells.

5.9 Shutdown of thermo haline circulation

There is some speculation that global warming could, via a shutdown or slowdown of the thermohaline circulation, trigger localized cooling in the North Atlantic and lead to cooling, or lesser warming, in that region. This would affect in particular areas like Scandinavia and Britain that are warmed by the North Atlantic drift.

The chances of this near-term collapse of the circulation are unclear; there is some evidence for the short-term stability of the Gulf Stream and possible weakening of the North Atlantic drift. However, the degree of weakening, and whether it will be sufficient to shut down the circulation, is under debate. As yet, no cooling has been found in northern Europe or nearby seas. Lenton et al. found that "simulations clearly pass a THC tipping point this century".

5.10 Oxygen depletion

The amount of oxygen dissolved in the oceans may decline, with adverse consequences for cean life.

5.11 Positive feedback effects

Some observed and potential effects of global warming are positive feedbacks, which contribute directly to further global warming. The IPCC Fourth Assessment Report states that "Anthropogenic warming could lead to some effects that are abrupt or irreversible, depending upon the rate and magnitude of the climate change." This is largely because of the existence of these positive feedbacks.

5.12 Methane release from melting permafrost peat bogs

Western Siberia is the world's largest peat bog, a one million square kilometer region of permafrost peat bog that was formed 11,000 years ago at the end of the last ice age. The melting of its permafrost is likely to lead to the release, over decades, of large quantities of methane. As much as 70,000 million tones of methane, an extremely effective greenhouse gas, might be released over the next few decades, creating an additional source of greenhouse gas emissions. Similar melting has been observed in eastern Siberia. Lawrence et al. (2008) suggest that a rapid melting of Arctic sea ice may start a feedback loop that rapidly melts Arctic permafrost, triggering further warming.

5.13 Methane release from hydrates

Methane clathrate, also called methane hydrate, is a form of water ice that contains a large amount of methane within its crystal structure. Extremely large deposits of methane clathrate have been found under sediments on the ocean floors of Earth. The sudden release of large amounts of natural gas from methane clathrate deposits, in a runaway greenhouse effect, has been hypothesized as a cause of past and possibly future climate changes. The release of this trapped methane is a potential major outcome of a rise in temperature; it is thought that this might increase the global temperature by an additional 5° in itself, as methane is much more powerful as a greenhouse gas than carbon dioxide. The theory also predicts this will greatly affect available oxygen content of the atmosphere. This theory has been proposed to explain the most severe mass extinction event on earth known as the Permian-Triassic extinction event. In 2008, a research expedition for the American Geophysical

Union detected levels of methane up to 100 times above normal in the Siberian Arctic, likely being released by methane clathrates being released by holes in a frozen 'lid' of seabed permafrost, around the outfall of the Lena River and the area between the Laptev Sea and East Siberian Sea.

5.14 ***Carbon cycle feedbacks***

There have been predictions, and some evidence, that global warming might cause loss of carbon from terrestrial ecosystems, leading to an increase of atmospheric CO₂ levels. Several climate models indicate that global warming through the 21st century could be accelerated by the response of the terrestrial carbon cycle to such warming. All 11 models in the C4MIP study found that a larger fraction of anthropogenic CO₂ will stay airborne if climate change is accounted for. By the end of the twenty-first century, this additional CO₂ varied between 20 and 200 ppm for the two extreme models, the majority of the models lying between 50 and 100 ppm. The higher CO₂ levels led to an additional climate warming ranging between 0.1° and 1.5 °C. However, there was still a large uncertainty on the magnitude of these sensitivities. Eight models attributed most of the changes to the land, while three attributed it to the ocean. The strongest feedbacks in these cases are due to increased respiration of carbon from soils throughout the high latitude boreal forests of the Northern Hemisphere. One model in particular (HadCM3) indicates a secondary carbon cycle feedback due to the loss of much of the Amazon rainforest in response to significantly reduced precipitation over tropical South America. While models disagree on the strength of any terrestrial carbon cycle feedback, they each suggest any such feedback would accelerate global warming.

Observations show that soils in England have been losing carbon at the rate of four million tonnes a year for the past 25 years according to a paper in *Nature* by Bellamy et al. in September 2005, who note that these results are unlikely to be explained by land use changes. Results such as this rely on a dense sampling network and thus are not available on a global scale. Extrapolating to all of the United Kingdom, they estimate annual losses of 13 million tons per year. This is as much as the annual reductions in carbon dioxide emissions achieved by the UK under the Kyoto Treaty (12.7 million tons of carbon per year).

It has also been suggested (by Chris Freeman) that the release of dissolved organic carbon (DOC) from peat bogs into water courses (from which it would in turn enter the atmosphere) constitutes a positive feedback for global warming. The carbon currently stored in peatlands (390-455 gigatonnes, one-third of the total land-based carbon store) is over half the amount of carbon already in the atmosphere. DOC levels in water courses are observably rising; Freeman's hypothesis is that, not elevated temperatures, but elevated levels of atmospheric CO₂ are responsible, through stimulation of primary productivity.

Tree deaths are believed to be increasing as a result of climate change, which is a positive feedback effect. This contradicts the previously widely-held view that increased natural vegetation would lead to a negative-feedback effect.

5.15 Forest fires

The IPCC Fourth Assessment Report predicts that many mid-latitude regions, such as Mediterranean Europe, will experience decreased rainfall and an increased risk of drought, which in turn would allow forest fires to occur on larger scale, and more regularly. This releases more stored carbon into the atmosphere than the carbon cycle can naturally re-absorb, as well as reducing the overall forest area on the planet, creating a positive feedback loop. Part of that feedback loop is more rapid growth of replacement forests and a northward migration of forests as northern latitudes become more suitable climates for sustaining forests. There is a question of whether the burning of renewable fuels such as forests should be counted as contributing to global warming. Cook & Vizy also found that forest fires were likely in the Amazon rainforest, eventually resulting in a transition to Caatinga vegetation in the Eastern Amazon region.

The sea absorbs heat from the sun, while the ice largely reflects the sun rays back to space. Thus, retreating sea ice will allow the sun to warm the now exposed sea water, contributing to further warming. The mechanism is the same as when a black car heats up faster in sunlight than a white car. This albedo change is also the main reason why IPCC predict polar temperatures in the northern hemisphere to rise up to twice as much as those of the rest of the world. In September 2007, the Arctic sea ice area reached about half the size of the

average summer minimum area between 1979 to 2000. Also in September 2007, Arctic sea ice retreated far enough for the Northwest Passage to become navigable to shipping for the first time in recorded history. The record losses of 2007 and 2008 may, however, be temporary. Mark Serreze of the US National Snow and Ice Data Center views 2030 as a "reasonable estimate" for when the summertime Arctic ice cap might be ice-free. The polar amplification of global warming is not predicted to occur in the southern hemisphere. The Antarctic sea ice reached its greatest extent on record since the beginning of observation in 1979, but the gain in ice in the south is exceeded by the loss in the north. The trend for global sea ice, northern hemisphere and southern hemisphere combined is clearly a decline.

5.16 *Effect on sulfur aerosols*

Sulfur aerosols, especially stratospheric sulfur aerosols have a significant effect on climate. One source of such aerosols is the sulfur cycle, where plankton release gases such as DMS which eventually becomes oxidised to sulfur dioxide in the atmosphere. Disruption to the oceans as a result of ocean acidification or disruptions to the thermohaline circulation may result in disruption of the sulfur cycle, thus reducing its cooling effect on the planet through the creation of stratospheric sulfur aerosols.

5.17 *Negative feedback effects*

Following Le Chatelier's principle, the chemical equilibrium of the Earth's carbon cycle will shift in response to anthropogenic CO₂ emissions. The primary driver of this is the ocean, which absorbs anthropogenic CO₂ via the so-called solubility pump. At present this accounts for only about one third of the current emissions, but ultimately most (~75%) of the CO₂ emitted by human activities will dissolve in the ocean over a period of centuries: "A better approximation of the lifetime of fossil fuel CO₂ for public discussion might be 300 years, plus 25% that lasts forever"[103]. However, the rate at which the ocean will take it up in the future is less certain, and will be affected by stratification induced by warming and, potentially, changes in the ocean's thermohaline circulation.

Also, the thermal radiation of the Earth rises in proportion to the fourth power of temperature, increasing the amount of outgoing radiation as the Earth warms. The impact of this negative feedback effect is included in global climate models summarized by the IPCC.

5.18 Economic and social

Indigenous populations in high-latitude areas are already experiencing significant adverse impacts because of climate change.[9] The impact of future climate change on human systems will likely be unevenly distributed. Africa is probably the most vulnerable continent to future climate change. Developing countries are probably more vulnerable to climate change than developed countries. With warming of 1-2°C above 1990-2000 levels, it is likely that key negative impacts would be experienced in some regions, e.g., Arctic nations and small islands. In other regions, some population groups would be threatened by this level of warming, e.g., high-altitude communities and coastal-zone communities with significant levels of poverty. Above 2-3°C warming, it is likely that most countries would experience net negative impacts.

The total economic impacts of climate change are highly uncertain. Typical estimates of climate change impacts are of a change in gross world product of plus or minus a few percent. Small changes in gross world product could be associated with relatively large changes in national economies.

5.19 Insurance

An industry very directly affected by the risks is the insurance industry. According to a 2005 report from the Association of British Insurers, limiting carbon emissions could avoid 80% of the projected additional annual cost of tropical cyclones by the 2080s. A June 2004 report by the Association of British Insurers declared "Climate change is not a remote issue for future generations to deal with. It is, in various forms, here already, impacting on insurers' businesses now." It noted that weather risks for households and property were already increasing by 2-4 % per year due to changing weather, and that claims for storm and flood damages in the UK had doubled to over £6 billion over the period 1998–2003,

compared to the previous five years. The results are rising insurance premiums, and the risk that in some areas flood insurance will become unaffordable for some.

Financial institutions, including the world's two largest insurance companies, Munich Re and Swiss Re, warned in a 2002 study that "the increasing frequency of severe climatic events, coupled with social trends" could cost almost US\$ 150 billion each year in the next decade. These costs would, through increased costs related to insurance and disaster relief, burden customers, taxpayers, and industry alike.

In the United States, insurance losses have also greatly increased. According to Choi and Fisher (2003) each 1% increase in annual precipitation could enlarge catastrophe loss by as much as 2.8%. Gross increases are mostly attributed to increased population and property values in vulnerable coastal areas, though there was also an increase in frequency of weather-related events like heavy rainfalls since the 1950s.

5.20 Transport

Roads, airport runways, railway lines and pipelines, (including oil pipelines, sewers, water mains etc) may require increased maintenance and renewal as they become subject to greater temperature variation. Regions already adversely affected include areas of permafrost, which are subject to high levels of subsidence, resulting in buckling roads, sunken foundations, and severely cracked runways.

5.21 Effects on agriculture-Food

Climate change is expected to have a mixed effect on agriculture, with some regions benefitting from moderate temperature increases and others being negatively affected.[111] Low-latitude areas are at most risk of suffering decreased crop yields. Mid- and high-latitude areas could see increased yields for temperature increases of up to 1-3°C (relative to the period 1980-99). According to the IPCC report, above 3°C of warming, global agricultural

production might decline, but this statement is made with low to medium confidence. Most of the agricultural studies assessed in the Report do not include changes in extreme weather events, changes in the spread of pests and diseases, or potential developments that may aid adaptation to climate change.

An article in the *New Scientist* describes how rice crops might be strongly affected by rising temperatures. At a 2005 Conference held by the Royal Society, the benefits of increased atmospheric carbon dioxide concentrations were said to be outweighed by the negative impacts of climate change.

5.22 Distribution of impacts

In Iceland, rising temperatures have made possible the widespread sowing of barley, which was untenable twenty years ago. Some of the warming is due to a local (possibly temporary) effect via ocean currents from the Caribbean, which has also affected fish stocks. By the mid-21st century, in Siberia and elsewhere in Russia, climate change is expected to expand the scope for agriculture. In East and South-East Asia, crop yields could increase up to 20%, while in Central and South Asia, yields could decrease by up to 30%. In drier areas of Latin America, productivity of some important crops is expected to decline, while in temperate zones, soybean yields are expected to increase. In Northern Europe, climate change is expected to initially benefit crop yields. Subsistence and commercial agriculture are expected to be adversely affected by climate change in small islands. Without further adaptation, by 2030, production from agriculture is projected to decline over much of southern and eastern Australia, and parts of eastern New Zealand. Initial benefits are projected in western and southern areas of New Zealand.

In North America, over the first few decades of this century, moderate climate change is projected to increase aggregate yields of rain-fed agriculture by 5-20%, but with important variability among regions. According to a 2006 paper by Deschenes and Greenstone, predicted increases in temperature and precipitation will have virtually no effect on the most important crops in the US.

In Africa, climate change is expected to severely compromise agricultural production and access to food. Africa's geography makes it particularly vulnerable, and seventy per cent of the population relies on rain-fed agriculture for their livelihoods. Tanzania's official report on climate change suggests that the areas that usually get two rainfalls in the year will probably get more, and those that get only one rainy season will get far less. The net result is expected to be that 33% less maize—the country's staple crop—will be grown. Alongside other factors, regional climate change - in particular, reduced precipitation - is thought to have contributed to the conflict in Darfur. The combination of decades of drought, desertification and overpopulation are among the causes of the conflict, because the Arab Baggara nomads searching for water have to take their livestock further south, to land mainly occupied by farming peoples.

5.23 Coasts and low-lying Areas

For historical reasons to do with trade, many of the world's largest and most prosperous cities are on the coast. In developing countries, the poorest often live on flood plains, because it is the only available space, or fertile agricultural land. These settlements often lack infrastructure such as dykes and early warning systems. Poorer communities also tend to lack the insurance, savings or access to credit needed to recover from disasters. With future climate change, it is likely that densely populated coastal areas will face increased risk of sea level rise and damages due to more intense extreme weather events. Due to differences in adaptive capacity, adaptation of the coasts of developing countries will probably be more difficult than for the coasts of developed countries. A 2006 study by Nicholls and Tol considers the effects of sea level rise:

5.24 Migration

Some Pacific Ocean island nations, such as Tuvalu, are concerned about the possibility of an eventual evacuation, as flood defense may become economically unviable for them. Tuvalu already has an ad hoc agreement with New Zealand to allow phased relocation. In the 1990s a variety of estimates placed the number of environmental refugees at around 25 million. (Environmental refugees are not included in the official definition of refugees, which only includes migrants fleeing

persecution.) The Intergovernmental Panel on Climate Change (IPCC), which advises the world's governments under the auspices of the UN, estimated that 150 million environmental refugees will exist in the year 2050, due mainly to the effects of coastal flooding, shoreline erosion and agricultural disruption (150 million means 1.5% of 2050's predicted 10 billion world population).

Melting Arctic ice may open the Northwest Passage in summer, which would cut 5,000 nautical miles (9,000 km) from shipping routes between Europe and Asia. This would be of particular benefit for supertankers which are too big to fit through the Panama Canal and currently have to go around the tip of South America. According to the Canadian Ice Service, the amount of ice in Canada's eastern Arctic Archipelago decreased by 15% between 1969 and 2004.

In September 2007, the Arctic Ice Cap retreated far enough for the Northwest Passage to become navigable to shipping for the first time in recorded history.

In August, 2008, melting sea ice simultaneously opened up the Northwest Passage and the Northern Sea Route, making it possible to sail around the Arctic ice cap.[128] The Northwest Passage opened August 25, 2008, and the remaining tongue of ice blocking the Northern Sea Route dissolved a few days later. Because of Arctic shrinkage, the Beluga group of Bremen, Germany, announced plans to send the first ship through the Northern Sea Route in 2009.

5.25 Forests

Pine forests in British Columbia have been devastated by a pine beetle infestation, which has expanded unhindered since 1998 at least in part due to the lack of severe winters since that time; a few days of extreme cold kill most mountain pine beetles and have kept outbreaks in the past naturally contained. The infestation, which (by November 2008) has killed about half of the province's lodgepole pines (33 million acres or 135,000 km²) is an order of magnitude larger than any previously recorded outbreak and passed via unusually strong winds in 2007 over the continental divide to Alberta. An epidemic also started, be it at a lower rate, in 1999 in Colorado, Wyoming, and Montana. The United States

forest service predicts that between 2011 and 2013 virtually all 5 million acres (20,000 km²) of Colorado's lodgepole pine trees over five inches (127 mm) in diameter will be lost.

As the northern forests are a carbon sink, while dead forests are a major carbon source, the loss of such large areas of forest has a positive feedback on global warming. In the worst years, the carbon emission due to beetle infestation of forests in British Columbia alone approaches that of an average year of forest fires in all of Canada or five years worth of emissions from that country's transportation sources.

Besides the immediate ecological and economic impact, the huge dead forests provide a fire risk. Even many healthy forests appear to face an increased risk of forest fires because of warming climates. The 10-year average of boreal forest burned in North America, after several decades of around 10,000 km² (2.5 million acres), has increased steadily since 1970 to more than 28,000 km² (7 million acres) annually. Though this change may be due in part to changes in forest management practices, in the western U.S., since 1986, longer, warmer summers have resulted in a fourfold increase of major wildfires and a sixfold increase in the area of forest burned, compared to the period from 1970 to 1986. A similar increase in wildfire activity has been reported in Canada from 1920 to 1999.

Forest fires in Indonesia have dramatically increased since 1997 as well. These fires are often actively started to clear forest for agriculture. They can set fire to the large peat bogs in the region and the CO₂ released by these peat bog fires has been estimated, in an average year, to be 15% of the quantity of CO₂ produced by fossil fuel combustion.

5.26 Mountains

Mountains cover approximately 25 percent of earth's surface and provide a home to more than one-tenth of global human population. Changes in global climate pose a number of potential risks to mountain habitats. Researchers expect that over time, climate change will affect mountain and lowland ecosystems, the

frequency and intensity of forest fires, the diversity of wildlife, and the distribution of water.

Studies suggest that a warmer climate in the United States would cause lower-elevation habitats to expand into the higher alpine zone. Such a shift would encroach on the rare alpine meadows and other high-altitude habitats. High-elevation plants and animals have limited space available for new habitat as they move higher on the mountains in order to adapt to long-term changes in regional climate.

Changes in climate will also affect the depth of the mountains snow packs and glaciers. Any changes in their seasonal melting can have powerful impacts on areas that rely on freshwater runoff from mountains. Rising temperature may cause snow to melt earlier and faster in the spring and shift the timing and distribution of runoff. These changes could affect the availability of freshwater for natural systems and human uses.

5.27 Ecological productivity

According to a 2003 paper by Smith and Hitz, it is reasonable to assume that the relationship between increased global mean temperature and ecosystem productivity is parabolic. Higher carbon dioxide concentrations will favourably affect plant growth and demand for water. Higher temperatures could initially be favourable for plant growth. Eventually, increased growth would peak then decline. According to the IPCC report, a global average temperature increase exceeding 1.5-2.5°C (relative to the period 1980-99), would likely have a predominantly negative impact on ecosystem goods and services, e.g., water and food supply. Research done by the Swiss Canopy Crane Project suggests that slow-growing trees only are stimulated in growth for a short period under higher CO₂ levels, while faster growing plants like liana benefit in the long term. In general, but especially in rain forests, this means that liana become the prevalent species; and because they decompose much faster than trees their carbon content is more quickly returned to the atmosphere. Slow growing trees incorporate atmospheric carbon for decades.

5.28 Water scarcity

Sea level rise is projected to increase salt-water intrusion into groundwater in some regions, affecting drinking water and agriculture in coastal zones. Increased evaporation will reduce the effectiveness of reservoirs. Increased extreme weather means more water falls on hardened ground unable to absorb it, leading to flash floods instead of a replenishment of soil moisture or groundwater levels. In some areas, shrinking glaciers threaten the water supply. The continued retreat of glaciers will have a number of different effects. In areas that are heavily dependent on water runoff from glaciers that melt during the warmer summer months, a continuation of the current retreat will eventually deplete the glacial ice and substantially reduce or eliminate runoff. A reduction in runoff will affect the ability to irrigate crops and will reduce summer stream flows necessary to keep dams and reservoirs replenished. This situation is particularly acute for irrigation in South America, where numerous artificial lakes are filled almost exclusively by glacial melt. Central Asian countries have also been historically dependent on the seasonal glacier melt water for irrigation and drinking supplies. In Norway, the Alps, and the Pacific Northwest of North America, glacier runoff is important for hydropower. Higher temperatures will also increase the demand for water for the purposes of cooling and hydration.

In the Sahel, there has been an unusually wet period from 1950 until 1970, followed by extremely dry years from 1970 to 1990. From 1990 until 2004 rainfall returned to levels slightly below the 1898–1993 average, but year-to-year variability was high.

5.29 Health

Climate change currently contributes to the burden of disease and premature deaths. Economic development will affect how effective adaptation to climate change will be. According to the IPCC report, it is likely that:

- climate change will bring some benefits, such as reduced cold deaths.
- the balance of positive and negative health impacts will vary from one location to another.

- adverse health impacts will be greatest in low-income countries.
- the negative health impacts of climate change will outweigh the benefits, especially in developing countries. Some examples of negative health impacts include increased malnutrition, increased deaths, disease and injury due to heatwaves, floods, storms, fires and droughts, and increased frequency of cardio-respiratory diseases.

According to a 2009 study by UCL academics, climate change and global warming pose the biggest threat to human health in the 21st century.

5.30 Direct effects of temperature rise

The most direct effect of climate change on humans might be the impacts of hotter temperatures themselves. Extreme high temperatures increase the number of people who die on a given day for many reasons: people with heart problems are vulnerable because one's cardiovascular system must work harder to keep the body cool during hot weather, heat exhaustion, and some respiratory problems increase. Global warming could mean more cardiovascular diseases, doctors warn. Higher air temperature also increases the concentration of ozone at ground level. In the lower atmosphere, ozone is a harmful pollutant. It damages lung tissues and causes problems for people with asthma and other lung diseases.

Rising temperatures have two opposing direct effects on mortality: higher temperatures in winter reduce deaths from cold; higher temperatures in summer increase heat-related deaths. The net local impact of these two direct effects depends on the current climate in a particular area. Palutikof et al. (1996) calculate that in England and Wales for a 1 °C temperature rise the reduced deaths from cold outweigh the increased deaths from heat, resulting in a reduction in annual average mortality of 7000, while Keatinge et al. (2000) “suggest that any increases in mortality due to increased temperatures would be outweighed by much larger short term declines in cold related mortalities.” Cold-related deaths are far more numerous than heat-related deaths in the United States, Europe, and almost all countries outside the tropics. During 1979–1999, a total of 3,829 deaths in the United States were associated with excessive heat

due to weather conditions, while in that same period a total of 13,970 deaths were attributed to hypothermia. In Europe, mean annual heat related mortalities are 304 in North Finland, 445 in Athens, and 40 in London, while cold related mortalities are 2457, 2533, and 3129 respectively. According to Keatinge et al. (2000), “populations in Europe have adjusted successfully to mean summer temperatures ranging from 13.5°C to 24.1°C, and can be expected to adjust to global warming predicted for the next half century with little sustained increase in heat related mortality.”

A government report shows decreased mortality due to recent warming and predicts increased mortality due to future warming in the United Kingdom. The European heat wave of 2003 killed 22,000–35,000 people, based on normal mortality rates. Peter A. Stott from the Hadley Centre for Climate Prediction and Research estimated with 90% confidence that past human influence on climate was responsible for at least half the risk of the 2003 European summer heat-wave.

5.31 Spread of disease

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Global warming may extend the favorable zones for vectors conveying infectious disease such as dengue fever, West Nile Virus, and malaria. In poorer countries, this may simply lead to higher incidence of such diseases. In richer countries, where such diseases have been eliminated or kept in check by vaccination, draining swamps and using pesticides, the consequences may be felt more in economic than health terms. The World Health Organisation (WHO) says global warming could lead to a major increase in insect-borne diseases in Britain and Europe, as northern Europe becomes warmer, ticks—which carry encephalitis and lyme disease—and sand flies—which carry visceral leishmaniasis—are likely to move in. However, malaria has always been a common threat in European past, with the last epidemic occurring in the Netherlands during the 1950s. In the United States, Malaria has been endemic in as much as 36 states (including Washington, North Dakota, Michigan and New York) until the 1940s. By 1949, the country was declared free of malaria as a significant public health problem, after more than 4,650,000 house DDT spray applications had been made. The World Health Organisation estimates 150,000 deaths annually "as a result of

climate change", of which half in the Asia-Pacific region. In April 2008, it reported that, as a result of increased temperatures, the number of malaria infections is expected to increase in the highland areas of Papua New Guinea.

5.32 Security

The Military Advisory Board, a panel of retired U.S. generals and admirals released a report entitled "National Security and the Threat of Climate Change." The report predicts that global warming will have security implications, in particular serving as a "threat multiplier" in already volatile regions. Britain's Foreign Secretary Margaret Beckett argues that "An unstable climate will exacerbate some of the core drivers of conflict, such as migratory pressures and competition for resources." And several weeks earlier, U.S. Senators Chuck Hagel (R-NB) and Richard Durbin (D-IL) introduced a bill in the U.S. Congress that would require federal intelligence agencies to collaborate on a National Intelligence Estimate to evaluate the security challenges presented by climate change.

5.33 Biodiversity

Determining how biodiversity of an ecosystem, species, or gene pool has changed over time by comparing current patterns with historical ones helps us to understand trends in biodiversity. Yet, pinpointing detailed trends is difficult because the data on which the extrapolations are often based are highly uncertain [see Measuring Biodiversity]. Estimating the rate of extinction is dependent on many things, including the number of known species, the particular region or ecosystem, and the period of time that is used.

To determine a trend, scientists must compare the rate of species loss at the present time to the loss indicated by the fossil records during other time periods. Based on fossil records, scientists have determined that there were several periods of mass extinctions in the distant past. Yet, according to the 2005 Millennium Ecosystem Assessment, the current rate of biodiversity loss is exceeding those of the historical past by several orders of magnitude – and it shows no indication of slowing down.

Since not every species that has become extinct has left a fossil record, estimates of the overall rate of change are often extrapolated from well-studied groups. According to the current IUCN Red List, between 12 and 52 percent of well-studied species are threatened with extinction, including approximately one-quarter of all mammals. The 2006 Living Planet Index, an aggregate of several indices, asserts that the population of vertebrate species has declined by nearly one-third since 1970. Most statistics illustrate that the majority of all species are declining in range and number, especially in the higher taxonomic categories that include mammals, birds, and fish.

Species that tend to face the greatest extinction risk are characterized by low population density and reproduction rates, a long lifespan, and a small geographical range. Loss of species diversity is especially high on islands and in tropical areas, which are home to a greater number of species per acre than other areas of the world. For example, all great apes – located primarily in small areas within Asia and Africa – are highly endangered.

A loss in species diversity is due in large part to decreasing ecosystem diversity through the conversion of land for agriculture, settlement, or other human uses. Though both terrestrial ecosystems and aquatic ecosystems have experienced significant conversion, some ecosystems are more affected than others. Grasslands and tropical dry forests, in particular, are being converted faster than any other biome. Since 1980, South America and Southeast Asia – which host the largest sections of world's mangroves and coral reefs (35 and 40 percent, respectively) – have had the highest rate of habitat loss.

Though the loss of species and ecosystem diversity generally get top billing, genetic diversity is also on the decline, mainly as a result of the increasing homogeneity of domestic animals and crops worldwide. The wide-spread adoption of specialized, high-yield plants after the “Green-Revolution” is often cited as one reason for this trend. The unique genetic characteristics that enabled local varieties of rice, maize, and wheat to thrive in certain ecosystems now survive, in some cases, only in a gene bank. As of 2006, an estimated one-third of the 6,500 domesticated animal species are endangered due to small population size. This lack of genetic diversity puts the species at greater risk for

disease and other population stresses, a problem of particular concern because of the implications to both human health and economic stability.

While many may disagree on the causes, extent, and implications of biodiversity loss, there is little question that great changes are presently occurring around the world. Finding ways to abate these trends is a focus for many scientists and conservationists, as well as for people whose livelihoods depend upon the continued availability of natural resources and the ecosystem services they provide.

Uncertainty also remains over the validity of the different measures used to predict the effect of drivers of change on future biodiversity loss, ecosystem functioning, and ecosystem services. However, most short-term forecasts predict the rate of loss will continue or even accelerate. Biologist E. O. Wilson estimates that 30 to 50 percent of the world's species will go extinct by the middle of the 21st century. Despite these dire sounding predictions, many scientists believe that the Earth's biodiversity has recovered after past mass extinctions and, given time, will do so again.

CHAPTER - VI

TRENDS OF DEMOGRAPHICAL CONFLICTS

6.1 Introduction

The role of the population variable in the political economy of nations, in economic growth and in sustainable development has been controversially debated among scholars for centuries. Since population deals with death and birth, with sex and marriage, with gender roles, with intergenerational relations and with movements of people from one place to another, it tends to be a very emotional topic, touching upon the foundations of cultures, religions and national identities. Population size, structure and spatial distributions do not only matter at the level of nation states. Increasing globalization of human migration flows, as well as of population-dependent consumption and emissions and of financial flows in the context of old-age security and pension funds, makes it necessary to look at population under a global perspective.

Dramatic changes in demographic patterns have taken place over the past several decades, particularly in less developed countries (LDCs). First mortality, and then fertility, fell at rates much faster than those experienced by more developed, industrialized countries (MDCs). The demographic transition from high to low fertility and mortality is not yet complete in many LDCs, as it is in MDCs, although its progress is reflected in declining growth rates of global population.

The current world population is about 6 billion. This is as large as it has ever been⁴⁸. The world is currently growing at about 1.4 percent per year, which translates into an additional billion people every 12 to 13 years. This average growth rate masks the fact that some parts of the world are growing much faster than others. The developed countries, for example, are growing at less than 0.3

⁴⁸ World Population Shifts Boom or Doom? Kevin F. McCarthy, A RAND Program of Policy-Relevant Research Communication, Oct 4, 1999.

per cent per year, while the rest of the world is growing almost six times as fast. Although this overall growth rate is obviously quite rapid, it represents a decline from the peak reached in the 1960s of about 2 per cent per year. Had that growth rate continued, the world's population would be doubling every 35 years instead of every 55 years, as it is today. If the world's population growth rate continues to slow, demographers predict that the world's population will peak at about 9.3 billion sometime in the middle of this century. However, on such a long term projections, they are notoriously suspect. It is also important to keep in mind that extremely rapid population growth is a very recent phenomenon indeed. Humans have been on the earth for something like 2.5 million years, but the world did not reach a population of 1 billion until about 1800 and it did not reach 3 billion until about 1960. This means that about half of the historical growth in the world's population has occurred in the past 30 or 40 years.

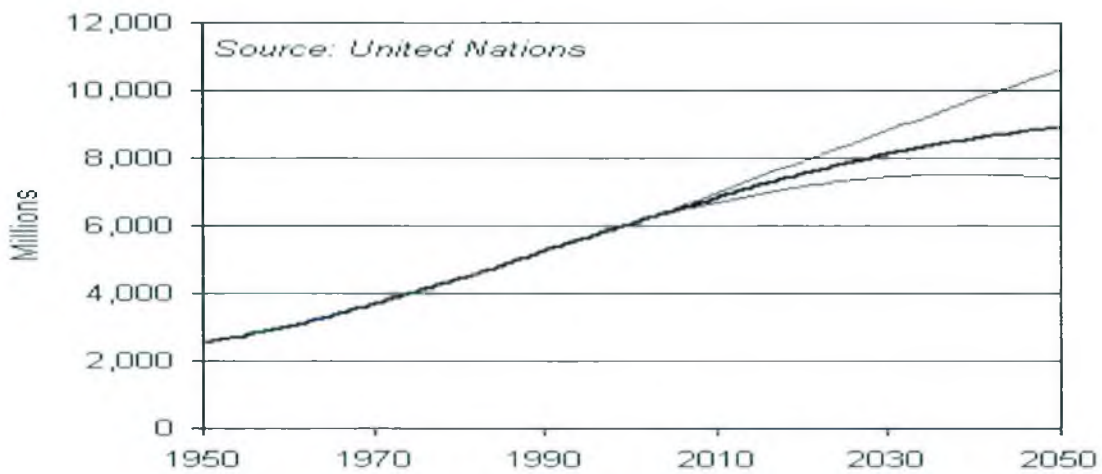
Demographics is another critical driver. Nearly half the people on the planet are under 25 years old. The disproportionately large share of young people in the population—the so-called youth bulge—is in absolute and relative terms the largest cohort ever to transition into adulthood, and it will remain so over the next two decades. Nearly 17 million of the world's youth are refugees or internally displaced persons; 130 million are illiterate; as many as 300,000 fight as child soldiers; and, collectively, young people make up almost 60 percent of the world's poor. There is strong historical evidence linking youth bulges to instability and conflict. But this need not be the case. A youthful population can be a country's blessing instead of its curse, providing a “demographic dividend” of energetic workers to jump-start productivity and growth⁴⁹.

⁴⁹ Top 10 Global Economic Challenges an assessment of global risks and priorities, February 2007

6.2 Demographic Trends by Region

Population growth rates vary greatly among regions and even among countries within the same region. One division is that between industrialized countries and developing countries. The more developed regions include Australia, New Zealand, Japan, Europe and North America, which are collectively home to 1.19 billion people. On average, population growth in these regions is almost 0.3 per cent per year, a rate that is projected to dip below zero before 2025, under all but the highest population

Figure 6.1: World Population with a Projection up 2050



projections, as fertility and the proportion of people in their childbearing years continue to decline. The population of less developed regions is estimated at 4.6 billion and is growing at a rate of 1.6 per cent annually. Over the next 30 years, almost 98 per cent of global population growth is projected to take place in developing countries⁵⁰.

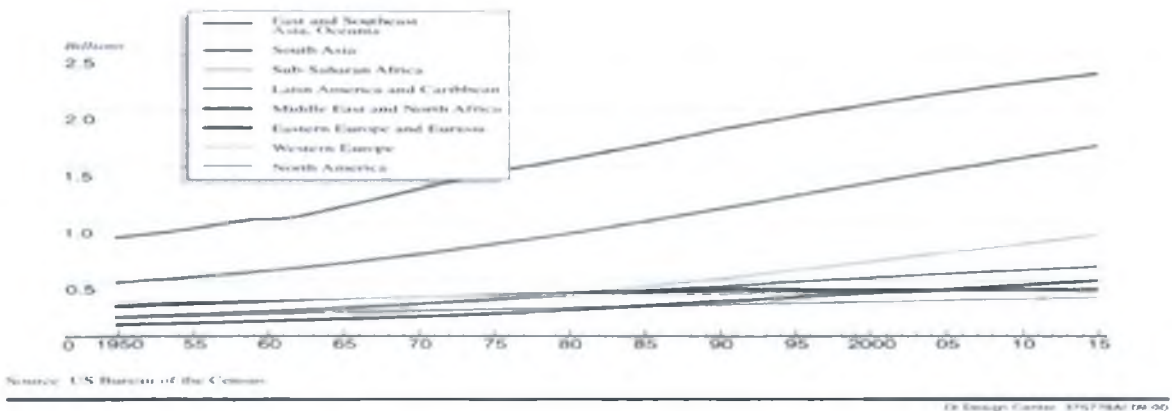
⁵⁰

United Nation's population Division's report.

Australia, Canada, New Zealand and the United States are among the developed countries with the highest rates of population growth, hovering around the 1 per cent mark, but that includes the effect of inward migration. Countries with rates of population growth near zero or declining include Hungary, Italy, Latvia, Portugal, the Russian Federation and Spain. Negative population growth in a number of Eastern European countries reflects poorer health and rising death rates, as well as outward migration. Fertility is lowest in Germany, Greece, Italy and Spain.

Africa's high rate of population growth also masks variations within the continent. Rates of growth fluctuate from 2.0 and 1.6 per cent in Northern and Southern Africa to 2.5 and 2.7 per cent in Western and Middle Africa, while the average for the continent is about 2.4 per cent. And while higher rates of population growth are to be found in the Comoros, the Gambia, Guinea, Libyan Arab Jamahiriya, Mozambique and Western Sahara, fertility is highest in Niger, Malawi, Uganda and Angola, where women have, on average, about 7 children. Africa's 1999 population of 767 million people is projected to nearly double by 2035.

After sub-Saharan Africa, the regions with the highest rates of population growth are Western Asia (2.2 per cent), Northern Africa (2.0 per cent), Central America (1.9 per cent) and South-Central Asia (1.8 per cent). Again, there are noteworthy variations among countries. Fertility has declined to less than four children in Algeria, Egypt, Morocco and Tunisia as access to both family planning services and education for girls has improved. Population growth rates of around 2 per cent in these countries contrast with rates of 3.3 per cent or higher in Saudi Arabia and Yemen, where access to family planning services remains more limited and women have, on average, nearly 6 children or more.

Figure 6.2: World Regional Population Growth, 1950-2015**Source: US Bureau of Census**

Similar contrasts are to be found in South-Central Asia. The population of the region, which includes the Indian sub-continent, Iran and five former Soviet republics, is projected to increase by about 50 per cent over the next 30 years, from less than 1.5 billion to 2.0 billion under the United Nations' medium variant. While Pakistan's fertility rates remain obstinately high, family size in Bangladesh is now steadily declining. India presents a mixed picture, with high rates in the north of the country and low ones in the south. A combination of good access to family planning services and high levels of education among women has supported declining fertility rates in southern India and Sri Lanka. Throughout the region, efforts to improve the status of women, including better access to reproductive health care and education, are essential to enhancing their roles in decisions about childbearing.

Rates of population growth in the rest of Asia range from around 1 per cent in China, South Korea and Thailand to more than 2 per cent in Cambodia, Malaysia and the Philippines. Particularly in the Republic of Korea and Thailand, access to good quality, voluntary family planning services and increasingly higher levels of female education are credited with supporting declines in family size. Asia as a whole is home to 60 per cent of the world's people, and while that proportion will not change significantly over the next 30 years, the medium variant projection

shows Asia's population increasing by more than 37 per cent, reaching over 4.7 billion people in 2025.

In contrast to Asia's demographic size, Latin American and the Caribbean are home to just over 8 per cent of the world's population. For the region's 511 million people, population growth rates have fallen by more than one-third over last three decades and women bear, on average, under 3 children. Life expectancy in Latin American is close to that of the northern industrialized countries and infant mortality is the lowest among the world's developing regions.

6.3 Aging of the Global Population

The industrialized world will record an unprecedented crisis of aging beginning early next decade and reaching critical mass in the mid-2020s. Italy will have nearly 19 percent elderly (as a reference point, about the same share of elderly as Florida has today) as early as 2003, followed by Japan in 2005, Germany in 2006, and Spain around 2012. France and Britain will pass that mark around 2016, and Canada and the United States in 2021 and 2023 respectively. The ratio of taxpaying workers to nonworking pensioners in the developed world will fall. Today, that ratio is about 4:1 in most industrialized nations. In 50 years this ratio will drop to less than 2:1 or even lower in some countries in Europe and Japan unless there are revisions to retirement laws or dramatically increased immigration. Without rapid growth in productivity, greater participation rates in the labor force, or other aggressive corrective actions, labor force contraction in many of the world's leading economies could depress economic output and boost inflation.

The world is getting older at a rate unprecedented in history. By 2050, nearly 1.5 billion people or 16.3 percent of the world's population will be aged 65 or older compared to about 420 million or 6.9 percent in 2000. Even the youngest regions—Latin America, Asia, and Africa—will have substantial elderly populations. Europe and Japan will face the most immediate impact of aging. Aging combined with large drops in fertility means fewer workers to support retirees. Work force issues will be especially problematic for Europeans, who

harbor cultural biases against working later in life. Over the next 50 years the developed countries are projected to become smaller and the United States is projected to increase by nearly half. As a result, the population of Western Europe, which in 2000 was larger than that of the United States by about 115 million, in 2050 will become smaller by 40 million. Japan's population will steadily drop from less than half of the US population to one-fourth its size by 2050⁵¹.

Figure- 6.3: Percentage of Children and Old Population



Source: United Nations Department of Economic and Social Affairs, Population Division. *World Population Prospects. The 2004 Revision*. New York: United Nations, 2005.

As populations age and fertility rates continue to decline, our major allies—even those who are currently plagued with unemployment—can expect considerably tighter labor markets: The working-age population (15-64) in Japan is expected to decline by 37 percent by 2050, according to US Census projections. In Italy, the working-age population will decline by an alarming 39 percent by 2050. Germany's working-age population will fall by more than 18 percent during that same period. France and the United Kingdom fare better, with projected working-

⁵¹ Source: US Bureau of the Census, International Data Base.

age population declines of 11 percent and 12 percent respectively. The working populations of the United States and Canada are expected to grow. The US working-age population is expected to rise by 33 percent over the next 50 years, a fairly sluggish pace compared to trends in the past half century. Canada is expected to gain in working-age population by about 17 percent, aided by net migration rates that are double those of the United States and a projected rise in its total fertility rate from 1.6 to 1.9. In any case, the ratio of taxpaying workers to nonworking pensioners in the developed world is due to fall. Today, that ratio is about 4:1 in most industrialized nations. In 50 years this ratio will drop to less than 2:1 or even lower in some countries in Europe and Japan. It will fall to 3:1 in the United States. This is critical because most social security systems in the developed world operate on a pay-as-you-go (PAYGO) basis, with current workers supporting current retirees through payroll taxes.

6.4 Impact of Aging

The impact of aging on GDP growth rates will be a decrease in Europe to 0.5 percent, in Japan to 0.6 percent, and in the United States to 1.5 percent in the years 2025-50. The OECD also projects that the average bill for public pensions and health care in Japan and Europe will grow by 9 to 16 percent of GDP over the next three decades. For Japan, the aging challenge, combined with its already large debt burden, could reduce its role as a major economic power: Over the next two decades the absolute number of people in the household-forming age groups in Japan is expected to shrink by 40 percent. Because these groups are at a time of life when home-buying propels demand for everything from washing machines to baby carriages, their decline could lead to overcapacity and falling returns on investment in such key sectors of the economy as construction, real estate, and durable goods. One consequence of a contracting or slower growing labor force for Japan will be slower improvements in living standards. Isolating the effects of the demographic factors, OECD estimates suggest that the cumulative effect of aging by 2050 could be a reduction in Japan's living standards—measured by GNP per capita adjusted for terms of trade effects—by 23 percent. For US allies in Europe the aging

challenge could decrease their willingness to help the United States manage global hotspots: If Europeans are unable to successfully substitute capital for manpower in their force structures, their defense establishments will shrink.

One consequence of a contracting or slower growing labor force will be slower improvements in living standards. OECD estimates suggest that the cumulative effect by 2050 could be a reduction in Japan's living standards—measured by GNP per capita adjusted for terms of trade effects—by 23 percent, the EU's by 18 percent, and the United States' by 10 percent below the level they might have reached extrapolating current productivity trends with unchanged dependency ratios. As births decline in the coming decades, so too could the number of consumers and producers. Because this age group is in its householdforming years, a time of life when home-buying propels demand for everything from washing machines to baby carriages, its decline could lead to overcapacity and falling returns on investment in such key sectors of the economy as construction, real estate, and durable goods. By 2010, the EU as a whole will experience a 13-percent decline in populations aged 20 to 39, according to UN projections. (Italy could have 30 percent fewer people in this age group by 2020).

Over the next decade, the absolute number of people in this age group in Japan is projected to shrink 20 percent (in the subsequent decade it is expected to shrink an additional 20 percent). This is critical since about 60 percent of Japan's GDP currently is generated by domestic demand. Declining numbers of workers and consumers inevitably would exert a contractionary effect on countries' GDP growth rates, asset values, savings rates, and currencies. If this happens, tax revenues also would fall short, making it harder to fund retirement benefits without big tax increases or large budget deficits. Producers would see declining domestic unit sales. Banks, pension funds, and other institutions that hold mortgage-backed securities could likewise experience deteriorating balance sheets. Surging retiree populations in the industrial world could also mean that large numbers of affluent households will be spending down their life savings in unison. Retirement alone could depress private savings rates by 8 percent of the combined GDP of 22 of the 29 OECD countries by the late 2020s. Some current

developments in Japan and Europe, although currently not directly related to aging, give us a window into what some of these aging problems could look like, Consumer spending has fallen in Japan for 29 straight months.

The retail and construction sectors are on deficit-financed life support. The value of debt owed by failed businesses in Japan reached an unprecedented \$85 billion in the last half of 2000, piling new losses on lenders almost as fast they could write off old ones. Moreover, sliding stock prices threaten banks' balance sheets. Capital is fleeing the EU at an unprecedented rate because of pessimism among European investors about Europe's outlook and slow pace of reforms. Despite today's favorable exchange rates and the supposed overvaluation of US equities, German companies announced \$94 billion in US acquisitions. At the same time, the costs of public pensions will increase much faster than economic growth in the developed world. Health-care costs are also certain to rise unless technology vastly changes the cost of medical care or countries give more recognition to preventative care and ration medical interventions. At the same time, the developed world can expect a substantial rise in the share of national income consumed by the dependent older population. The fiscal and societal implications of these demographic trends are compounded by PAYGO (unfunded) public pension systems and the growing costs of health care.

6.5 Some Corrective measures to Stop Fallout of Aging

Increase output and its rate of growth. A higher level of per capita output would directly limit the negative impact of aging on living standards and provide additional revenue. However, the extent to which raising the level of output eases budgetary pressures depends on how higher output per capita is achieved: For example, increasing output through higher utilization of labor (i.e. encouraging more citizens to work or encouraging those who are already in the work force to work more) would yield the most immediate results. This would also lead to a buildup in implicit government pension liabilities for the future, however. Japan has slack in its labor allocation (underemployment) and has yet to include women in its work force in great numbers. That said, according to a simulation model, with female participation rates as high as 85 percent in some age groups, much

higher than in the United States today (about 62 percent), a work force decline in Japan can only be reversed for the first decade of the 21st century, with long-term trends asserting themselves in succeeding decades. Improving growth performance through gains in productivity could alleviate some countries' pension pressures. However, the effect on the ratio of pension spending to GDP might not be significant for those countries—many of which are in Europe—where pension benefits are directly linked to wages.

Raise tax rates to earn more revenue. This is an option but a dubious one because few countries have much room to raise taxes: In the European Community, for example, the total tax burden already averages 46 percent of GDP. Collecting an extra 9 to 16 percent of GDP might prove economically impossible. The overall tax burden on the Japanese people, including national and local taxes, is already expected to rise from 36.9 percent today to a range of 50 to 56 percent over the next half century, according to official Japanese Government projections

Raise retirement ages or trim benefits. Raising retirement ages is often considered too difficult in Europe where the Germans, for example, are retiring between 55 and 60 because of “work-related stress” and French workers have shut down the country in recent years, demanding earlier retirement in a nation where the average retirement age is 59: Moreover, to hold dependency ratios steady and therefore benefits and tax rates constant, by 2030 retirement would have to begin at 78 in Japan, 74 in France, 73 in Italy, and 72 in the United States. By 2050, retirement ages in these countries would need to rise to 81, 78, 79, and 75 respectively. Cutting benefits is often a politically charged issue and usually not palatable, especially in Europe. In 1995, Silvio Berlusconi's Forza Italia government was buffeted by a number of political storms, all of which it weathered except for pension reform, which shattered the coalition. That same year, the Dutch parliament was forced to repeal a recent cut in retirement benefits after a strong Pension Party, backed by the elderly, emerged from nowhere to punish the reformers. In 1996, the French Government's modest proposal to trim pensions triggered strikes and riots.

Increase immigration to fill up the gap. Many aging developed countries are exploring replacement migration in their attempt to maintain support ratios at current levels. For most, however, this strategy will be ineffective and politically unacceptable because of the extraordinarily large numbers of immigrants that would be required: From 2000 to 2050 net total number of migrants needed to maintain the size of the working-age population in Japan would be 32 million (nearly 650,000 per year), in Germany 24 million (487,000 per year), and in Italy nearly 19 million (327,000 per year), according to the UN. In many European countries, non-European foreigners already make up nearly 10 percent of the population. One alternative is to generate a population of “guest workers,” as is commonly done in the Middle East. Acceptance of these workers in the large numbers that would be needed, however, would still require major cultural changes in Japan, for example, which currently has a negligible number of resident aliens.

Have more children to increase population. Implementing pronatalist programs in an effort to increase national fertility rates is also an option. Bandai, a leading Japanese toy company, is offering its female employees \$10,000 per child after their second child. These programs have generally not been successful and can often aggravate other problems: Sweden, for example, appeared to have substantially increased its fertility rate in the early 1990s as a result of generous government incentives to encourage childbirth, but the latest figures now indicate that Swedish fertility has dropped to 1980s levels. In general, pronatalist programs encourage couples to have children sooner than they would have done otherwise but do not increase the overall number of children born. Even if successful, these policies could not expect to have a significant effect on dependency ratios before 2030. Programs to increase birthrates could lead to a drop in participation by women in the work force, further aggravating the situation.

6.6 Trends of Immigration

The number of countries that both send and receive migrants has more than quadrupled since 1970. The number of major sending and receiving countries has more than doubled. More than one person in 40 is an immigrant dispersed

over a growing number of countries. Border patrols apprehend 1.5 million illegal immigrants at the US-Mexican border. Civil instability or economic deterioration in a number of Latin American countries could boost immigration to the United States in a number of ways: The continuing deterioration of the political, human rights, and economic situation in Haiti could lead to a repeat of the immigration crises of the first half of the 1990s.

The escalating civil conflict in Colombia that has displaced nearly 1 million people already has produced a near doubling of visa applications over the past year. Illegal migration is on the rise and will surge as the conflict intensifies. Almost any scenario involving a change of government in Cuba will have the potential for generating substantial migration—during its early phases. Another economic crisis in Mexico, the largest source of migrants to the United States, would lead to a surge of legal and illegal immigration to the United States. The United States will remain vulnerable to explicit or implicit threats by foreign governments such as Cuba and Haiti to use mass emigration as leverage in bilateral relations or to reduce political pressures arising from domestic policy failures. Forced or mass migration—often resulting from military conflict, or sudden or prolonged economic crises or natural disasters—will be among the most difficult demographic trends for governments to prepare for and deal with because it often comes unexpectedly:

Economic emergencies such as the debt and energy crises of the 1970s and 1980s and the currency crises of the 1990s resulted in stepped-up migration to developed countries. In Asia, the 1997-98 financial crisis prompted Malaysia, Thailand, and South Korea to expel substantial numbers of foreign workers. The movement of Bangladeshi refugees into the Indian state of Assam is another example of uncontrolled immigrant flow. Population growth in Bangladesh is overtaking the availability of agricultural land.

Governments and political groups use forced migration for a variety of reasons, many of which challenge both host and home governments. Governments induce

such flows to preserve homogeneity, to remove politically troublesome groups from the body politic, and to exert pressure on neighboring states: The Vietnamese Government in the late 1970s expelled large numbers of ethnic Chinese in an effort to preserve the cultural homogeneity of Vietnam.

Iraq forcibly expelled Kurds in 1991 to eliminate what it saw as political troublesome elements in the country. Fidel Castro used the 1980 Mariel boat lift as a political tool against the United States by sending thousands of Cuban criminals to US soil. For host nations, large, unexpected populations of refugees burden infrastructure and natural resources, causing economic hardship and accelerated rate of resource usage and sometimes political upheaval: If a refugee group moves into a region that is sparsely populated, host government concerns could rise that the migrants may wish someday to colonize the affected region and perhaps have it rejoin its home state. Some Russian elites see the current movement of Chinese migrant laborers into the Russian Far East as posing this kind of threat. In 1989, the mass migration of East Germans into West Germany through the suddenly open Austro-Hungarian border was the catalyst behind the collapse of the German Democratic Republic and the unification of Germany. In 1991, the flow of Kurdish refugees into Turkey as a result of an abortive post-Desert Storm Kurdish uprising against Saddam Husayn led to NATO military intervention in northern Iraq to establish a safety zone for the Iraqi Kurds.

Increased privatization and foreign investment, trade liberalization, and enhanced communications will encourage more people to migrate globally. Democratization in many developing countries will loosen state control over migration, while the ease of travel and communication will facilitate cross-border movement. Immigration laws in receiving countries that give priority to family reunification and the growth of powerful ethnic communities in those countries will boost pressure to increase immigration of certain ethnic groups. In Russia and other states of the former Soviet Union(FSU), weak immigration control regimes, weak economic development, ethnic conflict, and discrimination against minorities will increase migration pressures that already have produced over 10 million migrants since the FSU's breakup, 6 million of them are Russians. The uneven spread of

the new economy and increased income gaps between the haves and the have nots are likely to increase the number of migrants moving to the United States and Europe: According to a recent CIA study, the spread of market liberalization and institutional reforms that are crucial for countries to successfully exploit new technologies will be highly uneven, resulting in growing income differences.

The historical record shows that migration generated from economic pull factors—in which individuals seek better economic opportunities in other countries—is the most common form of “voluntary” migration. We have no reason to suspect that this type of migration—examples of which include the movement of Turkish guest workers to Germany in the late 1970s and the 1980s and the movement of Mexican migrants into the southwest United States in recent years—will not remain strong. High fertility can contribute to these movements, especially if the home country’s economy is incapable of providing employment for the masses of youth entering the work force like Bangladesh. Illegal migration, which international criminal alien-smuggling syndicates and corrupt officials increasingly facilitate, is set to approach or exceed legal migration. Illegal immigrants in the past comprised some 20 percent of total immigrants, but a number of indicators suggest that they amount to well over 50 percent or more of new entrants in many of the more recent immigrant-receiving countries, such as those in southern Europe. Some 4 million would-be immigrants on the eastern and southern periphery of the EU are poised to emigrate mostly illegally as their finances and opportunities permit. Toughened acceptance criteria for asylum seekers prompt more immigrants to move illegally.

6.7 Security Dynamics from Population

Demographic factors have a large security implication in the developed countries. As because developed countries specially European nations will face shortage of manpower for the employment of their industries as well as in the military to keep their military strength alive. Though numerical superiority will not matter much in

maintaining high tech army but still it will be too expensive for them to draft personals for the army. Though American interest can easily be met by their standing army around the world as well as high tech war machines will compensate numerical numbers of soldiers by increasing the capability of modern fighting personals.

There are many situations in the battlefield where density of soldiers are more required due to terrain and battlefield condition. In those trying situations, men will be more important than machines. Those situations must be taken care off, otherwise it will make an off balance condition for the developed army which does not have numerical superiority. On the other hand the developing countries will have clear advantage in this regard.

More so due to migration, people from the developing nations will be well spreaded around the world. These ethnic Diasporas always keep a long lasting linkage with the home countries. These ethnic Diasporas play a great role in case of many critical situations. Like Tamils in Canada contributed huge fund to continue war with Sinhalese. Similar linkages in future also can play vital role in fighting war. The ease of transportation, communication and media influence can turn the tide around. Global financial network, electronic transfer of money has made things very easy to make any kind of transaction. The Diasporas also makes lobbies in the international forum, which sees the interest of the homeland people. All these influence has significant affect on the future security matters of the state. Besides, the increase of population will make pressure on food and social security and resource sharing more difficult among the individual, group and state level.

“The researchers found that there are correlations between population and conflict after the cold war, using newly updated and expanded data from the United Nations Population Division and the Uppsala Conflict Data Program to solve a demographic puzzle: do the dynamics of human population rates of growth, age structure, distribution affect when and where warfare will break out? According to Cincotta and Engelman, the answer lies in the complex interplay of a country’s birth and death rates as it undergoes what they call the “demographic transition.”Dr. Richard Cincotta, Senior Research Associate at PAI, delved into

the data behind the security demographic. After marshalling expert opinions, the authors isolated six demographic factors possibly related to civil violence: a high proportion of young adults, rapid urban population growth, diminishing cropland and fresh water, AIDS-related demographic changes, differential growth of ethnic populations, and migration. Cincotta explained that he and Engelman rejected the last two factors because they lacked the regional and subnational data necessary to evaluate the effects of ethnicity and migration”⁵².

⁵² **Meaghan Parker**, *The Security Demographic: Population and Civil Conflict After the Cold War*, Wilson Centre, Spring 2004 issue.

CHAPTER - VII

CHALLENGES FOR UN AS PEACE MAKER

7.1 Introduction

The end of cold war changed the pattern of the strategic conflicts among the leading sovereign countries. As such the trends of conflicts are also reshaping and those are posing host of new challenges to the world body. The trend analysis has been made on armed, cultural, economical, environmental and demographical issues from where a host of challenges are identified which needs measures for tackling. If we know the likely challenges, surely that gives us opportunity to prepare UN to meet them squarely.

Global armed conflicts has different facets like intrastate, inter state and ethnical conflicts. On the other hand terrorism also poses equal challenges to mitigate them properly. Similarly, Cultural conflicts among the civilizations are another issue as per Huntington's thesis that will be a factor for many global conflicts. Among the civilizations, west is most dominating and leading civilization. Other civilizations have their own value, belief and traditions, which characterize them separately. There remain challenges to work with those cultures.

The geopolitical importance of various places is changing due to economical importance. The world economy is dominated by very few countries of the world and those countries are guided by their self interest. In addition, a small number of rich countries are enjoying the large share of global wealth and rest of the world population is suffering from poverty because of the ill distribution of the world wealth. More so world trade and finance is regulated by the few rich countries, where weaker as well developed countries face scores of challenges.

The global climate change due to human activities is going to make huge impact in the human life. There are numbers of likely fallout and challenges from there. The failure of Copenhagen Climate summit is one of the bright examples in the recent past. The island countries are going to suffer for the rise of sea level and melting of glacial ice. This is going to cause raise of sea level, shortage of water, spread different kind of diseases, change of biodiversity of ecosystem, extinction

of various spices from earth, which will have greater challenges on the condition of human living.

Another global challenging area is the population. The world population is increasing in unprecedented rate. The 6 billion populations are not equally distributed geographically. The most developed countries have less population in comparison to developing and poor countries considering their wealth and land. On the other hand, poor countries being over populated will face difficulties to feed them properly with the present economic status and the natural resources, as such both developed and poor countries will have number of challenges to deal with this issue.

In the above context, the world is facing scores of different challenges from the above variables. These challenges need to be identified clearly for greater cause of world peace and stability. Challenges are always disturbing and one can meet nicely, only if he knows its pros and cons.

7.2 Challenges of Armed Conflicts

Internal conflicts will pose the most frequent threat to stability around the world. Interstate wars, though less frequent, will grow in lethality due to the availability of more destructive technologies. Many internal conflicts, particularly those arising from communal disputes, will continue to be vicious, long-lasting and difficult to terminate leaving bitter legacies in their wake. They frequently will spawn internal displacements, refugee flows, humanitarian emergencies and other regionally destabilizing dislocations. If left to fester, internal conflicts will trigger spillover into inter-state conflicts as neighboring states move to exploit opportunities for gain or to limit the possibilities of damage to their national interests. Weak states will spawn recurrent internal conflicts, threatening the stability of a globalizing international system.

Internal conflicts stemming from state repression, religious and ethnic grievances, increasing migration pressures or indigenous protest movements will occur most frequently in Sub-Saharan Africa, the Caucasus and Central Asia, and parts of south and Southeast Asia, Central America and the Andean region. Some

governments, international and regional organizations, and civil-society groups press for outside military intervention in certain internal conflicts, they are again opposed by other influential countries making a challenging situation for mitigation.

7.3 Transnational Terrorism

States with poor governance; ethnic, cultural, or religious tensions; weak economies; and porous borders will be prime breeding grounds for terrorism. In such states, domestic groups will challenge the entrenched government, and transnational networks seeking safe havens.

At the same time, state-supported political terrorism and toward more diverse, free-wheeling, transnational networks enabled by information technology will continue. Some of the states that actively sponsor terrorism or terrorist groups today may decrease or even cease their support by 2015 as a result of regime changes, rapprochement with neighbors, or the conclusion that terrorism has become counterproductive. But weak states also could drift toward cooperation with terrorists, creating defacto new state supporters. Between now and 2015 terrorist tactics will become increasingly sophisticated and designed to achieve mass casualties. We expect the trend toward greater lethality in terrorist attacks may continue.

7.4 Interstate Conflicts

Over the next 15 years, the international system will have to adjust to changing power relationships in key regions:

China's potential is a concern for west. China's People's Liberation Army (PLA) will remain the world's largest military, but the majority of the force will not be fully modernized by 2015. China could close the technological gap with the West in one or more major weapons systems. China's capability for regional military operations is likely to improve significantly by 2015. Some projections indicate that Chinese power will rise because of the growth of its economic and military

capabilities. Most assessments today argue that China will seek to avoid conflict in the region to promote stable economic growth and to ensure internal stability. A strong China, others assert, would seek to adjust regional power arrangements to its advantage, risking conflict with neighbors and some powers external to the region. A weak China would increase prospects for criminality, narcotics trafficking, illegal migration, WMD proliferation, and widespread social instability.

Russia's decline will continue. By 2015, Russia will be challenged even more than today to adjust its expectations for world leadership to the dramatically reduced resources; it will have to play that role. The quality of Russian governance is an open question as is whether the country will be able to make the transition in a manner that preserves rather than upsets regional stability. Russia will be unable to maintain conventional forces that are both sizable and modern or to project significant military power with conventional means. The Russian military will increasingly rely on its shrinking strategic and theater nuclear arsenals to deter or, if deterrence fails, to counter large-scale conventional assaults on Russian territory. Moscow will maintain as many strategic missiles and associated nuclear warheads as it believes it can afford but well short of START I or II limitations. As Russia struggles with the constraints on its ambitions, it will invest scarce resources in selected and secretive military technology programs, especially WMD, hoping to counter Western conventional and strategic superiority in areas such as ballistic missile defense.

Japan's uncertainty is a concern for many. In the view of many experts, Japan will have difficulty maintaining its current position as the world's third largest economy by 2015. Tokyo has so far not shown any willingness to carry through the painful economic reforms necessary to slow the erosion of its leadership role in Asia. In the absence of an external shock, Japan is similarly unlikely to accelerate changes in security policy.

India's prospect to power projection at regional level is likely. India will strengthen its role as a regional power, but many uncertainties about the effects of global trends on its society cast doubt on how far India will go. India faces growing extremes between wealth and poverty, a mixed picture on natural resources, and problems with internal governance.

Current ethnic diverse states are conflict prone. The changing dynamics of state power will combine with other factors to affect the risk of conflict in various regions. Changing military capabilities will be prominent among the factors that determine the risk of war. In South Asia, for example, that risk will remain fairly high over the next 15 years. India and Pakistan are both prone to miscalculation. Both will continue to build up their nuclear and missile forces.

Pakistan's will keep building its nuclear and missile arsenal to counter India. Islamabad has publicly claimed that the number of nuclear weapons and missiles it deploys will be based on "minimum" deterrence and will be independent of the size of India's arsenal. A noticeable increase in the size of India's arsenal, however, would prompt Pakistan to further increase the size of its own counter measures.

Role of non state actors may increase. The atrophy of special relationships between European powers and their former colonies in Africa will be virtually complete by 2015. Filling the void will be international organizations and non state actors of all types: transnational religious institutions; international nonprofit organizations, international crime syndicates and drug traffickers; foreign mercenaries; and international terrorists seeking safe havens. Internal conflicts will attract and leaders will in some cases welcome foreign criminal organizations or mercenaries to assist in the plundering of national assets, while faltering regimes will willingly trade their sovereignty for cash.

7.5 Recommendation for Conflict Mitigation

Promoting economic growth and diversification is the best long term strategy for reducing the risk of conflict. Natural resource based growth requires very good resource revenue management to have positive political effects. Developed countries may contribute to growth and diversification through foreign aid, liberalization of trade in goods exported by low and middle income countries, and

by promoting transparent and redistributive management of resource revenues. Regional development strategies should be emphasized⁵³.

Promoting greater democracy and improved human rights in low and middle income countries is desirable for a number of reasons but does not necessarily reduce conflict levels. In countries where democratic processes function reasonably well, policies to maintain and develop the democratic institutions will reduce the risk of conflict. In countries where electoral institutions are nonexistent or dysfunctional, however, encouraging constraints on the executive (through mechanisms to ensure budgetary transparency, auditing bodies, and the stimulation of the emergence of an independent press and non-governmental organizations) is more important than promoting free and fair elections. As long as executives can operate with few constraints, the incentives for electoral fraud will be too large.

Promote and finance UN and other peacekeeping operations (PKO). In addition, long term guarantees of rapid intervention resembling the UK guarantee in Sierra Leone should be supported. Such guarantees should be used to press post-conflict governments to reduce military spending which diverts valuable budgetary resources. Military spending in low income countries is in general counterproductive as means of preventing domestic conflict and also leads to regional arms races⁵⁴.

Promote post conflict aid. Tie aid to limits on military spending. Aid regularly spills over into military spending (Collier and Hoeffler estimate that 11.4% of development aid leaks into military budgets). Moreover, military spending typically increases substantially during conflicts. Caps on military spending as a condition for development aid is therefore both a necessary and potentially effective tool to reduce risk of conflict recurrence.

Promote the role of The Hague, particularly the efforts of the International Court of Justice to criminalize wrong doing during war. Also promote local post-conflict justice efforts. Work to discourage blanket amnesty for war crimes.

⁵³ Halvard Buhaug, Scott Gates, Håvard Hegre and Håvard Strand, *Global trends in armed conflict* Centre for the study of civil war, International Peace Research Institute, Oslo (PRIO), 2004

⁵⁴ Halvard Buhaug, 2004

Promote international regimes such as the Kimberley Process to regulate trade in contraband resources used to finance war. While there are holes in the Kimberley Process, and regulatory regimes alone will not stop a conflict, such measures in combination with PKOs and other policies can be effective.

7.6 Challenges of Culture

Religious conflicts among faith communities make a troublesome situation in many parts of the world. Global contentious three major religions are the most important and they are Christians, Muslims, and Jews. The events of 9/11 and after have made painfully clear the need for improved understanding among Christians, Muslims, and Jews. Misconceptions and misunderstandings are plentiful. But little effective communication takes place to eradicate those. Extremists on both sides would like to see a clash of religiously defined civilizations. And the more those extremists define conflict in those terms, the more it will turn out to become a true clash of civilizations, thus becoming a self-fulfilling prophecy.

The force of ideology is likely to be strongest in the Muslim world, particularly the Arab core states where Islam's diverse expressions will continue to influence deeply social norms and politics as well as serve as a prism through which individuals will absorb the economic and cultural forces of globalization. Increasing religious observance and the failures of secular Arab nationalism will leave Islamic political and social movements best positioned to assert ideological influence over governments and publics in much of the Muslim world over the next 15-20 years.

A different groups of human being (tribes, nationalities, states and so on) had evolved a great variety of value systems and different cultural patterns which were centered on these value-systems, up to now this has not changed completely. Some of the values are very toxic which contributes to conflicts. According to Samuel P. Huntington, there are seven cultural patterns and value system such as Chinese civilization, Japanese civilization, Indian civilization, Islamic civilization, Western civilization, Latin American civilization, and African

civilization. Although some value systems (such as value system of the Confucian and Christianity) have achieved a certain consensus in a comparatively large scope, however human being still has not formed a generally acknowledged value system, which is acceptable to all.

7.7 Recommendation for Meeting the Cultural Challenges

To forestall religious clash, dialogue is essential at various levels. First, there must be dialogue among political leaders from the West and from the Muslim world. Equally important is dialogue among people of faith, among religious leaders, among scholars, and among lay people. The fact that Muslims, Christians, and Jews all consider Abraham to be their spiritual ancestor and progenitor provides a natural basis for dialogue and religious communication. The sacred texts of the three traditions are also interrelated with each other. It can be enormously valuable for persons of each religious community to hear members of the other communities confess the problems and short comings that that community is experiencing. Communication of humility and self-criticism can go a long way toward healing, understanding, and mutual respect. There is need to develop programs for interfaith reading of sacred texts to educate,

Inform, and deepen understanding of one another. There is need to develop shared mourning processes surrounding death, destruction, and injustice, particularly in relation to terrorism and acts of governmental oppression. More thought needs to be given to promote acts that express repentance and facilitate reconciliation and mutual forgiveness.

Peaceful coexistence can be most effectively advanced by having activists in the three communities develop a common justice agenda to facilitate commitments across lines of religious division. It might be feasible to form facilitation teams composed of representatives from the three faith traditions to intervene in situations of conflict and tension. Participants asserted that diplomats need to recognize that religious peacemakers can be their allies in the promotion of peace and reconciliation. Common understanding among religion made use at various levels in the educational structure. For example, an anthology could be developed on the three Abrahamic traditions to be used in high schools. In addition, courses need to be developed on Abrahamic peacemaking teaching

how the three faith traditions understand and promote peace. Creation of Brotherhood and Unity among different faiths will develop understanding.

7.8 Challenges of Global Economy

Tackling the poverty-insecurity nexus demands sustained commitment to building long-term local capacity. Assistance is most effective not in the immediate aftermath of a conflict, when donor interest is typically greatest, but as a preventive measure before conflict erupts and in the middle of the first post conflict decade, when the recipient country's absorptive capacity has improved⁵⁵. Unless policies and programs shift from reactive to proactive and from responsive to preventive, breaking out of the poverty-insecurity trap will remain elusive. The global poverty and insecurity is pandemics in this new century and to face these challenges the United Nations to strengthen various mechanism and capabilities to counter those.

7.8.1 The Global Economy.

Although the outlook for the global economy appears strong, achieving broad and sustained high levels of global growth will be contingent on avoiding several potential brakes to growth. These include:

7.8.2 The US economy suffers a sustained downturn.

Given its large trade deficit and low domestic savings, the US economy—the most important driver of recent global growth is vulnerable to a loss of international confidence in its growth prospects that could lead to a sharp downturn, which, if long lasting, would have deleterious economic and policy consequences for the rest of the world.

7.8.3 Europe and Japan fail to manage their demographic challenges.

European and Japanese populations are aging rapidly, requiring more than 110 million new workers by 2015 to maintain current dependency ratios between the

⁵⁵ Top 10 Global Economic Challenges an assessment of Global Risks and and Priorities, February 2007.

working population and retirees. Conflicts over social services or immigration policies in major European states could dampen economic growth.

7.8.4 China and/or India fail to sustain high growth.

China's ambitious goals for reforming its economy will be difficult to achieve: restructuring state-owned enterprises, cleaning up and transforming the banking system, and cutting the government's employment rolls in half. Growth would slow if these reforms go off-track. Failure by India to implement reforms would prevent it from achieving sustained growth.

7.8.5 Emerging market countries fail to reform their financial institutions.

Many emerging market countries have not yet undertaken the financial reforms needed to help them survive the next economic crisis. Absent such reform, a series of future economic crises in emerging market countries probably will dry up the capital flows crucial for high rates of economic growth.

7.8.6 Global energy supplies suffer a major disruption.

Turbulence in global energy supplies would have a devastating effect. Such a result could be driven by conflict among key energy-producing states. Developing countries will drive increased energy demand which is expected to be 35 percent higher in 2030 than in 2005.

7.8.7 The Middle East.

Global trends from demography and natural resources to globalization and governance appear generally negative for the Middle East. Most regimes are change-resistant. Many are buoyed by continuing energy revenues and will not be inclined to make the necessary reforms, including in basic education, to change this unfavorable picture.

7.9 Economic Crises and Resilience

The global economy will be prone to periodic financial crises, but its capacity to correct itself will remain strong. Nonetheless, economic liberalization and globalization entail risks and inevitably will create bumps in the road, some of them potentially highly disruptive.

- **Economic crises will recur.** The trends toward free markets and deregulation will allow financial markets to overshoot, increase the possibility for sudden reversal in sentiment, and expose individual countries to broad swings in the global market. Any of these could trigger a financial crisis.
- **Turbulence in one economy will affect others.** Increased trade links and the integration of global financial markets will quickly transmit turmoil in one economy regionally and internationally, as Russia's financial turmoil in 1998 affected Brazil.
- **Disputes over international economic rules.** The Asian, US and European financial crisis at different time frame revealed differences among countries regarding global financial architecture. As emerging market countries continue to grow, they will seek a stronger voice in setting the terms of international economic governance. A lack of consensus could at times make financial markets skittish and undermine growth.
- **International Trade liberalization.** Still developed few countries control the global trade and they look for their own interest while they conduct any trade negotiation with developing countries.
- **World Financial Institutions and Financial System.** USA and Japan are the main donor countries for the international financial institution and they provide loan to the developing countries in a manner that ultimately that country become debt burden while following their economic prescription. The dollar is still primary money to international trade and monetary exchange, which itself is becoming volatile. There should be any other monetary system, which is very stable system.

7.10 Recommendation for Meeting the Economic Challenges

Role of the UN in global economic governance must be strengthened for improved coordination between the UN and the BWIs. A more central role of the UN in the post crisis international economic and financial architecture will help to world body to function together. This stronger role includes calls for a more robust ECOSOC, for the creation of an Intergovernmental Panel of experts to assess systemic risks in the global economy, for the establishment of a Global Economic Coordination Council within the UN, and for the UN to play a determining role in the evaluation, monitoring, and restructuring of the BWIs.

Future shape of global economic governance format must ensure inclusiveness and adequate representation of developing countries, including LDCs. From this viewpoint, the United Nations development system is the body which is most universal, legitimate and accountable to the people of the World. This is the so called G-192, reforming of Multilateral Institutions is essential. Interdependence and Multilateral institutions like United Nations General Assembly or at the World Trade Organization can have representation of all countries. Those institutions are to be open and inclusive and dedicated to address global challenges.

There should be treaty-based and effective mechanisms for international policy cooperation. This may require either enhancing existing processes, such as comprehensive reform of the Bretton Woods institutions and a revitalized and proactive Economic and Social Council in the United Nations system, or creating new representative world bodies to assume leadership for global financial and economic stability, such as the proposed "Global Economic Council" which will identify, debate and provide policy guidance on critical and emerging global issues. Any inclusive international institution needs to be based on an appropriate representation of world realities, and there is a great need to establish the appropriate mechanisms for coordination among the various institutions and their member states in the policy-making process.

Developing countries dispute the real inconsistency between the weight of developing countries in the world economy, their role as recipients of World Bank and IMF funds, and their level of representation in these institutions. The distribution of capital shares and proportional voting weights of the IFIs are indeed a remnant of the global economic power structure which existed immediately after the Second World War. It is for this reason that Bangladesh's Foreign Minister Dipu Moni, speaking on behalf of Least Developed Countries (LDC) at the Conference, called the structure of the Bretton Woods institutions "anachronistic and anomalous" and insisted that the overarching objective of the reform process should be "significant redistribution of voting power in favor of developing countries.

There is a need for supra-national reserve currency, which entails the creation of a new international reserve currency. This will make strong, stable, predictable, and more diversified international monetary system for the world economy for the 21 st century.

Huge investments over many decades have enabled oil and gas to meet nearly 60 percent of world energy needs today. There is a need of investment in the alternatives such as solar, wind, nuclear and bio fuels, which will make a significant and growing contribution to the energy of the world. But no single energy source solves the dual challenge of meeting growing energy needs while reducing emissions. Now and the foreseeable future, an integrated set of solutions is required for energy. On the other hand countries need to liberalize the labour and product market, which will help both achieve good outcomes in both employment and economic growth. So the people do not remain unemployed and wherever job opportunity is opening, they can move that location for their livelihood.

7.11 Challenges of Global Environment

.The world's surface air temperature increased an average of 0.6° Celsius (1.1°F) during the last century according to the Intergovernmental Panel on Climate Change (IPCC). This may not sound like very much of a temperature change, but it is. And the warmer temperature is causing noticeable changes to our planet. Below are some effects of climate change that we see happening.

Sea level is rising. During the 20th century, sea level rose about 15 cm (6 inches) due to melting glacier ice and expansion of warmer seawater. Models predict that sea level may rise as much as 59 cm (23 inches) during the 21st Century, threatening coastal communities, wetlands, and coral reefs.

Arctic sea ice is melting. The summer thickness of sea ice is about half of what it was in 1950. Melting ice may lead to changes in ocean circulation. Melting ice speeds up warming of the Arctic because water absorbs more heat than ice.

Glaciers and permafrost are melting. Over the past 100 years, mountain glaciers in all areas of the world have decreased in size and so has the amount of permafrost in the Arctic. Greenland's ice sheet is melting faster too.

Sea-surface temperatures are warming. Warmer waters in the shallow oceans have contributed to the death of about a quarter of the world's coral reefs in the last few decades. Many of the coral animals died after weakened by coral bleaching, a process tied directly to warmed waters. Seawater is becoming more acidic. Carbon dioxide dissolving into the oceans, is making seawater more acidic. There could be impacts on coral reefs and other marine life.

Heavier rainfall cause flooding in many regions. Warmer temperatures have led to more intense rainfall events in some areas. This can cause flooding.

Extreme drought is increasing. Higher temperatures cause a higher rate of evaporation and more drought in some areas of the world. Areas that are currently prone to drought are expected to become even drier over the next century.

Ecosystems are changing. As temperatures warm, species may either migrate to a cooler, more suitable habitat or die. Species that are particularly vulnerable include endangered species, coral reefs, and polar animals. Warming has also caused changes in the timing of spring events and the length of the growing season.

Hurricanes have changed in frequency and strength. There is evidence that the number of intense hurricanes has increased in the Atlantic since 1970. This may

also be true for tropical cyclones in other parts of the world. Scientists continue to study whether climate is the cause.

More frequent heat waves. It is likely that heat waves have become more common in more areas of the world. Warmer temperatures affect human health. There has been an increase in heat-related deaths, some changes in the ranges of animals that carry disease like mosquitoes, and an increase in the length of the pollen season.

According to computer models, more global warming is in our future. If we continue to emit as many, or more, greenhouse gases, this will cause much more warming during the 21st century than we saw in the 20th century. During the 21st century, various computer models predict that Earth's average temperature will rise between 1.8 and 4.0° Celsius (3.2° and 7.2° F).

7.12 Recommendation for Meeting the Environmental Challenges

To address the fundamental issues of uncertainty and paralysis that surround climate policy, we must move beyond the current set of policy recommendations that have been proposed and debated by the international community. Though the Kyoto Protocol process and other policy discussions have been helpful in proposing systems for addressing climate change and in focusing attention on the severity of the problem, such efforts have failed to obtain international cooperation on carbon emission reductions from the largest emitter the United States and the fastest-growing emitters China and India. International environmental treaties must overcome the political reality that leaders will find it exceedingly difficult to swap economic growth, flexibility and sovereignty for ambiguous benefits that are shared by nations unequally and are limited in their domestic impact.

The mitigation of challenges posed by the impact of climate change requires bilateral or multilateral international cooperation, support for adaptive capabilities and a massive technology transfer. Unless we combine to take decisive action, climate change will ravage our planet, and with it our prosperity and security.

7.13 Challenges of Global Demography

Although population growth rates in South Asia will decline, population still will grow by nearly 30 percent by 2015. India's population alone will grow to more than 1.2 billion. Pakistan's projected growth from 140 million to about 195 million in 2015 will put a major strain on an economy already unable to meet the basic needs of the current population. The percentage of urban dwellers will climb steadily from the current 25-30 percent of the population to between 40-50 percent, leading to continued deterioration in the overall quality of urban life. Differential population growth patterns will exacerbate inequalities in wealth. The other challenges are:

- a. Security Dynamics.
- b. The labor force in the developing world is expected to almost double from 1.7 billion people in 1998 to 3.1 billion people by 2025, according to the OECD.
- c. In the developed world, the EU is projected to need some 1.7 million high-tech workers by 2003, according to the press, many of which will have to come from outside the EU.
- d. According to the OECD, China's working-age population will reach 955 million by 2020 from 732 million in 1995, requiring the creation of millions of new jobs.
- e. Governments with aging populations will have difficulty balancing the need for new immigrants with domestic political resistance to greater in flows of foreign citizens.

7.14 Recommendation for Meeting the Demographic Challenges

Global migration, which is likely to increase over the next 10 to 20 years—could provide a partial solution to problems associated with both aging and large youth populations. An estimated 40 million people now live outside their native country. Migration would increase the availability of workers in aging populations and of jobs for unemployed youth in many developing countries.

In the United States, the National Research Council expects labor shortages to leave unfilled 890,000 high-tech jobs out of 1.6 million this year and expects

similar imbalances to continue for at least several years. Migration also could reduce strains on social systems in both aging and youth bulge countries:

Assuming current trends continue, migrants who choose to remain in host countries with aging populations will help to slightly boost government revenues. Immigrants currently pay \$153 billion in taxes in the EU, according to a private economic institute, a small fraction of EU members' annual revenue intake. Emigration will help relieve the social and political pressures associated with large populations of unemployed and restless youth. Hard currency holdings of some developing countries may increase as workers migrating from youth bulge to aging countries send hard currency earnings to family and friends in their home countries. Remittances have in the past provided a major source of foreign exchange for some governments—including despite its benefits and probable increase, global migration will present several challenges to both sending and receiving governments.

According to UN figures, if Germany and Japan were to use migration alone to ensure that the number of retirees each young worker would have to support did not increase above 1995 levels; they would have to boost immigration to record levels through 2050. In the case of Germany, immigration would far exceed the 1 million in 1990 that resulted from unification. Japan will have the greatest demand for immigrants but will face among the greatest political hurdles to increasing immigration because of its traditional emphasis on ethnic and cultural homogeneity. Government attempts to increase migration will almost certainly result in strong opposition from some political leaders, businesses, and workers. If political pressures lead Japan—and West European countries to a lesser extent to put off substantially liberalizing their immigration policies, it would place them at a competitive disadvantage vis-a-vis the United States.

7.15 Conclusion

After the cold war, the global governance system has witnessed a sea of change in almost every affair of important global issues. But still it faces huge challenges to face with them judiciously for making the world more peaceful. To identify

those causes and affect of challenges a through analysis is essential. Keeping this point in mind, a set of issues has been identified to examine their influence in the global conflicts. Those issues were armed, cultural, economic, environmental and demography. A through but brief trend analysis were conducted to identify future projections form them. This gave an insightful idea about the causes of global conflicts on those issues.

Global armed conflict still kills a huge no of people every year. From the trend analysis it has been identified that though the intrastate conflicts surged after the cold war but it has stabilized at the later part of 90s. The inter state armed conflicts did not have much variation. Though the intensity of intrastate conflict has reduced but still a good no of countries are engaged in this kind of conflicts. Causes of those conflicts are poor governance, weak economic condition and ethnical disharmony. One of the main reasons for stabilizing the global armed conflicts is the role of UN in mitigating those conflicts. But UN could not play any significant role in terrorism; as such it remained a flash point of global unrest. One of the reasons of the failure is that the world body could not yet come to a consensus to define the terrorism itself. As such mechanism for dealing those conflicts could not be effectively devised. The challenges of armed conflict are multifaceted. To eradicate all these problems, UN member states must work together in the UN frame work to find out the viable solution of each conflict and UN should be the centre point of discussion in this multilateral world.

Cultural conflict has long legacy, which is not very easy to solve. The various civilizations see the global problem on their cultural perspective. Each civilization has own cultural value, belief and ideology. Though the world is led by the West but other cultural civilization is not all the time compatible with them in global issues. This emanates from the lack of understanding in each other. There is no global culture which is soothing for all and it is also a difficult proposition. But globalization is gradually diluting the culture of other gradually but it is far distance to think to come in the same footing. As religion plays a vital role in cultural differences, as such an global level arrangement can be made so that differences can be reduced among them. The world leaders and top religious

people can work together so that understanding and tolerance level is increased. There is an advantage of doing such work as the three major religions (Muslim, Christian and Jews) have one Abrahamic link in their origin. This can improve the situation.

In the field of economy, there is a huge disparity among the nations. Developed countries enjoy the most of the wealth of the world (80%), whereas developing nations are the worst sufferer due to ill distribution system. In case of world trade and finance, developed world makes the rule keeping the poor countries at bay. These also make lot of disharmony among the nations. In the world have nots are more than the haves. This can not be allowed unabated. As the economic power dictate a nation's position in the world ranking, as such developed countries makes all the rule and policy favouring them. The role of the global financial institutes is also in question in case of world development. To face these challenges global economy to be linked together and UN need to play a greater role to have representation of all the nations. The recent financial crisis indicates the global present monetary system is not withstanding, where dollar has a dominant role but dollar is not stable currency. The world needs to find a unique exchange system, which is very stable. The other economic challenges can easily be over come if the nation states work together.

Global climate change has become major issues as the world body could not reach any consensus in CO₂ reductions, which is the main element for the greenhouse effect. The greenhouse effect has many ramifications. These are going to raise the sea level, where the island countries will be worst sufferer. The reason for not coming in to the consensus is that it is going to slow the development of the newly emerging economies as they are the most polluter of the world for their development work. The time is running out as the world is becoming warmer day by day. The ratio of warming has gone up in the recent past as most of the countries are concentrated their own development forgetting the fallout of their activities. The ice of the glacier is now melting much faster than earlier time. The Himalaya might be once with out glacier, which is likely to make the river of south Asia dry making this area a desert. Whereas a large number of population lives in this area and they are going to be direct sufferer. It has other

bad effects like change of biodiversity, extinction of the species etc. But it seems that no developed countries got any head ache on that. There is also an advantage of global warming too. The Arctic is going to loose huge ice, which is going to facilitate to extract many mineral resources by the developed countries.

The world demography scenario is going to be changed soon. There will be huge population in the world and mainly in the developing countries. On the other hand, developed countries are going to face shortage of manpower. More so, number of aged people is increasing at unprecedented rate, this is mainly happening in the developed countries. This is going to affect the labour market. The result will be huge migration. Though, some of the countries already adopted migration system to over come the imbalance situation, but few orthodox countries, which are very restricted in the migratory matter like Japan still in the oblivion to adopt any such measures. On the other hand, some of the country will face the bulge of youth population and they will have more unemployment problem. They may have to go for voluntary migration for getting employment elsewhere. This is going meet the labour shortage in other areas and again the remittance is going to benefit the home country.

The above study suggests that there is a host of challenges for UN in the global affairs, which causes conflicts. Considering all the issues, UN may have to reorganize and reemphasize on the conflict prones issues first. The world body must come to a consensus that UN should get lead role to amicably solve all the challenging issues gradually so that world becomes peace.

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