ECONOMIC VALUE OF CHILDREN IN RURAL BANGLADESH (AN ANTHROPOLOGICAL STUDY)

BY

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1982

CERTIFICATE

This is to certify that the research work embodying the results reported in this thesis has been carried out under my guidance. It is further certified that the work presented here is original and suitable for submission for the award of the Ph.D. degree.

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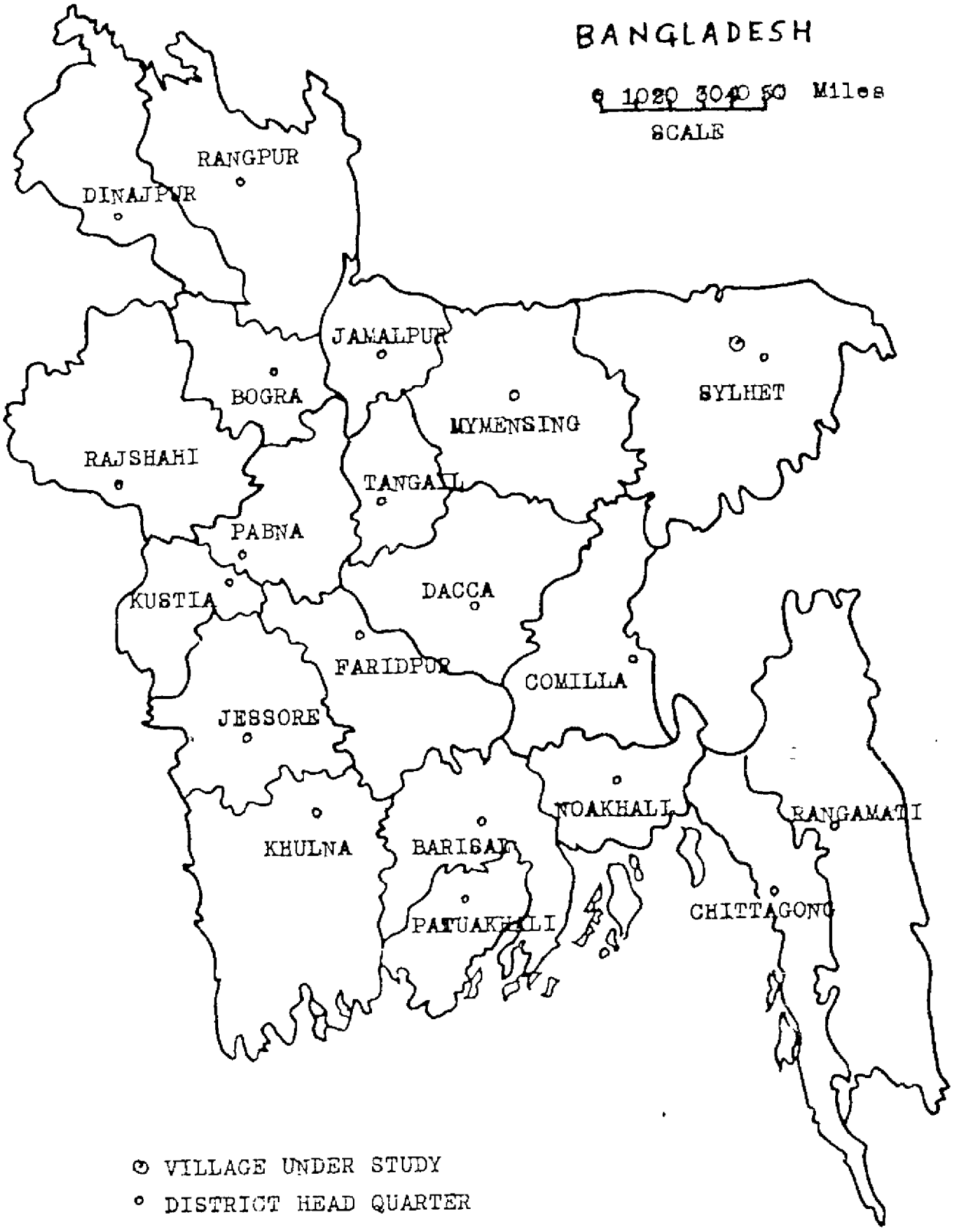

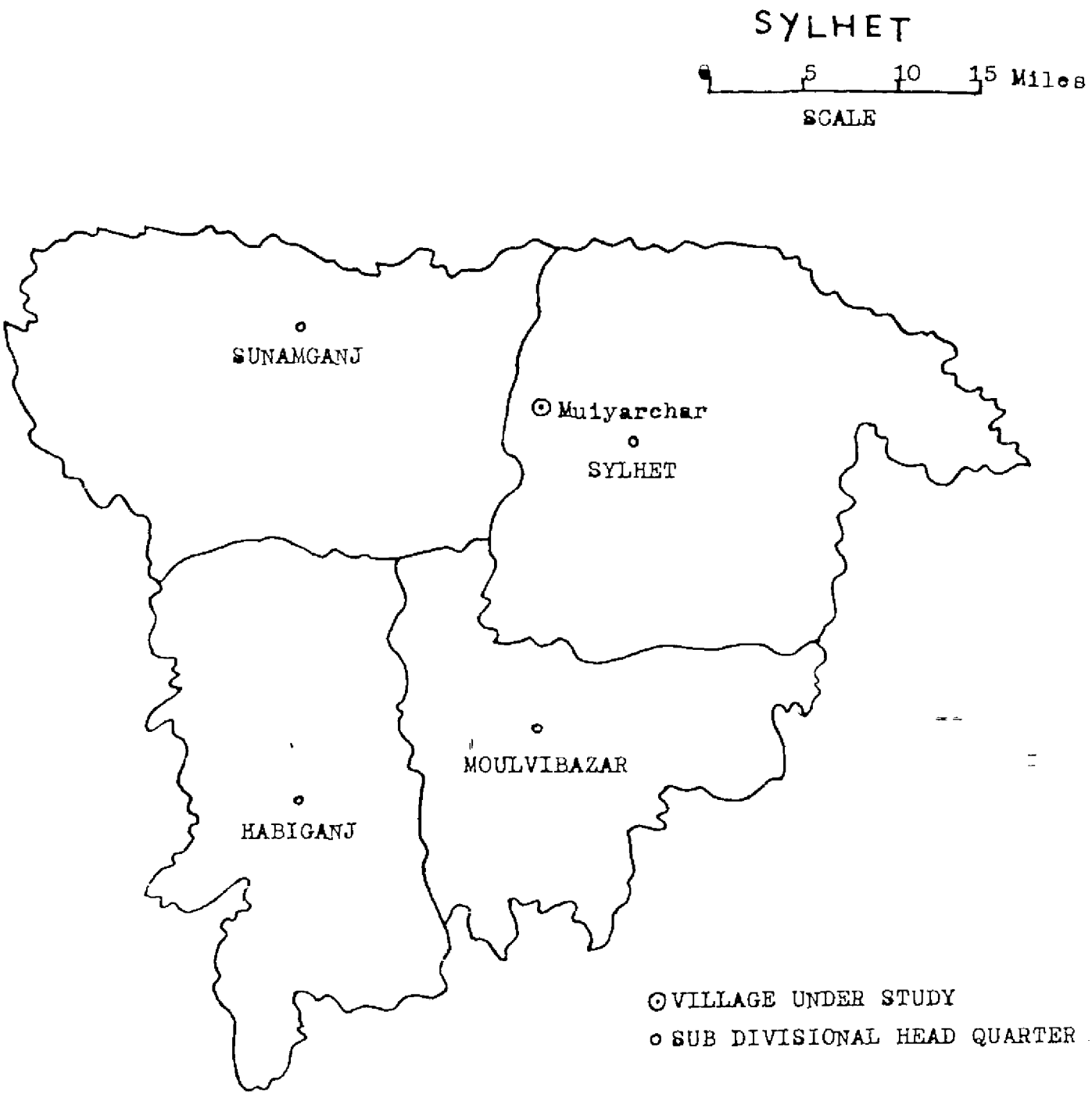

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given a fixed rate of discount, many other writers[4] have shown that in less developed countries, the cost of additional birth outweigh its benefits.

But very recently, several authors[5] have put forward an opposite view. They considered that at the micro-level, an increase in the number of children constitutes a utility, rather than a disutility to the household. They examined the material contribution of children of agriculturally based population in quantitative terms and have shown that children do make contributions to the household at early ages. They also examined the value of Children to their elderly parents as a source of economic support. These benefits, according to them, outweigh the costs of raising children. According to these analysis, high fertility appears to be a rational decision.

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4. Simon, L, 1969 'The Value of Avoided Births in Underdeveloped Countries', Population Studies, 23, 1, pp.61-68; Enke, S, 1957, 'Speculations on Population Growth and Economic Development', Quarterly Journal of Economics, 71,1, pp.19-35; Enke, S, 1960, 'The Economics of Government Payments to limit Population', Economic Development and Cultural Change, 8,4, pp.339-348; Balakrishnan, T.R., 1973, 'A Cost Benefit Analysis of the Barbados Family Planning Programme', Population Studies, 27,2, pp.353-364; Cassen, Robert and Wolfson, Margaret, 1978, 'Planning for Growing Population Development Centre of the Organisation For Economic Co-operation and Development, Paris.

5. Caldwell, J.C., 1976, "Towards a Restatement of Demographic Transition Theory: An Investigation of Conditions before and at the onset of Fertility Decline Employing Primarily African Experience and Data". Population and Development Review, 2(3) pp.321-366. Mamdani, M., 1972, 'The Myth of Population Control' (New York: Monthly Review Press); White, B., 1976, 'The Economic Importance of Children in a Javanese Village', in M. Nag (ed), population and social organization (The Hague; Mouton); Hull, T.H. 1975, 'Each child brings its own Fortune: An Enquiry into the value of children in a Javanese village', A.N.U. Ph.D. Thesis;

CHAPTER - 1

INTRODUCTION

Since the beginning of 1950, vast changes have taken place in many aspects of human life in almost every country of the world. The most noticeable change that occured in this period is the rapid growth of world population.[1]

Conventionally, rapid growth of population has been considered as a barrier to the development of economically backward countries. Some writers[2] have postulated a 'low level population trap' which maintains income per head at bare subsistence levels. Others, with their simplified models of national economics have demonstrated that a reduction in the rate of fertility would lead to a significant increase in the economic growth of underdeveloped countries. Again, using an investment planning approach,

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1. From 1950 to 1978 the world population rose from 2.5 billion to 4.2 billion. See Population Reference Bureau, Inc, 1978, World Population Data Sheet: Washington D.C.

2. See, H. Leibenstein, 1954, Theory of Economic-Demographic Development (Princeton: Princeton University Press); H. Leibenstein, 1957, Economic Backwardness and Economic Growth (New York: John Wiley & Sons) and R.R. Nelson, 1956, 'A Theory of the Low Level Equilibrium Trap in Underdeveloped Countries, American Economic Review,46,5 Pp.894-908.

3. Demeny P, 1958, 'Investment Allocation and Population Growth', Demography2(1965) pp.203-232; and Coale A.J. and E.M. Hoover, 'Population Growth and Economic Development in Low-income Countries' (Princeton: Princeton University Press.

given a fixed rate of discount, many other writers[4] have shown that in less developed countries, the cost of additional birth outweigh its benefits.

But very recently, several authors[5] have put forward an opposite view. They considered that at the micro-level, an increase in the number of children constitutes a utility, rather than a disutility to the household. They examined the material contribution of children of agriculturally based population in quantitative terms and have shown that children do make contributions to the household at early ages. They also examined the value of Children to their elderly parents as a source of economic support. These benefits according to them, outweigh the costs of raising children. According to these analysis, high fertility appears to be a rational decision.

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Here, a brief review of the world population is made with particular reference to Bangladesh. This will throw some light on the issue as to why parents want more children in the developing countries when the door of both traditional and modern means of fertility control are open to them.

1.1 Staggering Growth of World Population

Today's situation is unique in mankind's experience: the highest growth in human history (about 1.7 percent per year) from the highest base in absolute numbers (nearly 4.2 billion in 1978)[6]. The World is currently adding nearly 100 million people per year, about as many as the population of the eighth largest country (Bangladesh). The World population is growing at a faster rate than before in human history.

1.1.1 Present Trends

The present acceleration in the rate of population growth can be dramatically expressed by the concept of doubling time, the time necessary for the population to double in size. Thus, from historical records, it was evident that the population at the beginning of the christian era was about 250 million. It reached an estimated 500 million in 1850, thus requiring over 16 centuries

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Footnote 5 contd.

5. Nadkarni, M.V. 1976, 'Over Population and the Rural Poor', Economic and Political Weekly, 11 31 pp.1163-1172; Cain, Mead T. 1977, 'The Economic Activity of Children in a village in Bangladesh', Population and Development Review 3,3 pp.201-227.

6. United Nations, 1972, population and vital statistics, Report 1, New York: July.

to double. It reached a billion in 1850, doubling the second time in only 200 years. The third doubling of 2 billion was completed in 1930, only after 80 years. The next doubling of 4 billion was also completed in 1975, only after 45 years[7]. This trend of population growth clearly indicates that doubling time is gradually being shortened. If this growth rate continues, there will be six to seven billion people by the end of this century. The median value of several population projections[8] made by the UN in 1973 indicates that by 2000, the population of the world will be 6.4 billion, an increase that implies an annual growth rate during the next 20 years of 19 per 1000, posing a profound problem in every aspect of human welfare.

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7. Dorn, Harold F, 1963, 'World Population Growth', in Philip M. Hauser (ed). The Population Dilema. Englewood cliffs New Jersey: Printice Hall, pp.7-28.

8. Conde, Julien, 'Rapid population Growth in Developing Countries', in Robert Cassen and Margaret Wolfson (ed) Planning for growing population, Op.Cit. pp.26-48; See also Coale A.J. 'The History of Human Population' Scientific America, September 1974 Volume 231, No.3, New York, p.43; Population Reference Bureau, Inc.1978, World Population Data Sheet: Washington D.C.

1.1.2 Population of the Developed and the Developing World

The present day world is demographically divided into two distinct groups. The developed or industrialized countries of North America, Europe, the Soviet Union, Oceania and Japan have a low rate of population growth and a high standard of living. In contrast, the developing or non-industrialized countries of Asia, Africa and Latin America have a high rate of population growth and a low standard of living (see table 1.1). Population problems are found in both demographic groups but there are differences as well as similarities among countries in these groups. The developed countries are now close to replacement levels of reproduction, although, there is no certainty that they will remain there. The developing countries are growing very fast - mortality is falling more or less rapidly, but fertility is changing very little, except in a very few small countries[9].

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9. Although the fertility of the less developed countries as a group remains very high, there are some countries where the birth rate has fallen significantly from 25 to 50 percent - and very rapidly as per estimates prepared by the UN in 1974. These countries include Hongkong, Singapore, Taiwan, South Korea, West Malaysia, Barbados, Chile, Cuba, Jamaica, Trinidad, Tobago, Puerto Rico and Mauritius.

Table 1.1

Distribution of Overall Status of Human Population, 1973

Area	Population (million)	CBR (per 1000 population per year)	CDR (per 1000 population per year)	Annual rate of Natural increase (%)
A. World	3,860	33	13	2.0
B. Developed Countries	1,120	17	9	0.8
B.1 U.S.A.	210	15	9	0.6
B.2 Japan	108	19	7	1.2
B.3 Europe	472	16	11	0.5
B.4 USSR	250	18	8	1.0
B.5 Others (Canada, Australia, New Zealand, Latin America (Temperate)	80	22	8	1.4
C. Underdeveloped Countries	2 740	39	14	2.5
C.1 Africa	375	46	19	2.7
C.2 Asia (except Japan)	2,100	38	14	2.4
C.3 Latin America(Tropical)	265	38	8	3.0

Source: Freedman, Ronald and Bernard Berelson, 'The Human Population' in Scientific America. September 1974. Op.Cit. p.39.

The principal impetus to world population growth comes today from the underdeveloped countries. These countries contain over two-third of the world's population. Out of the estimated 4.2 billion people in the world in 1978, 3.1 billion live in the developing world, while only slightly over a billion live in the developed world. Death rates in the developing countries have been falling over the past 25 years towards the low levels of the

developed countries[10]. Birth rate, however, remain twice as high as they are in the developed countries. The result is that the population of the developing world is increasing at a much faster rate than the developed world. Thus, while in the developing countries the rate of natural increase[11] varies from 2.5 percent to 3 percent, the corresponding figures for the developed countries are found to move within the range 0.4 percent to 1.0 percent. This large gap between the developing and the developed countries in fertility can be represented while comparing an overall crude birth rate of 39 per 1000 population with 17 per 1000 respectively. Some large countries such as Nigeria, Iran & Bangladesh have crude birth rate that are three times higher than those of the USA[12].

However, the most striking fact that emerges from the comparative figures on current population size is the numerical predominance of Asia's population in the world total. Under developed Asia (with the exception of Japan),

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10 The CDR of the developing countries run about 14 per 1000 population, as against 9 per 1000 in the developed countries.

11 The rate of natural increase = $\frac{CBR-CDR}{1000}$ X 100

12 Comparing to the crude birth rate of 15 per 1000 in USA, the crude birth rates of Nigeria, Iran and Bangladesh are recorded as 46, 44 and 47 respectively per 1000 population in 1974.

which has a land much smaller than Africa, accounts for more than half of the world's population (i.e. about 55 percent of the world's total). As per 1974 UN statement, of the somewhat 3.1 billion people in the underdeveloped world, 75 percent live in Asia (28 percent in China, 33 percent in South and West Asia and 14 percent in South East Asia), 14 percent in Africa and only 11 percent in Latin America[13].

1.1.3 A Serious Issue

This large population base and it accelerating current and potential growth rate has caused a great concern for the future living standards of mankind in general and the economic growth potential of the developing countries in particular.

It is now widely accepted that within a given state of technology, rapid population growth clearly aggravates the problems of unemployment, rising poverty and inequalities in the developing countries. The direct effect of

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13 Demeny, Paul, "The Population of the Under Developed Countries", Scientific America, September, 1974, op.cit. pp.149-150.

rapid population growth on personal welfare[14], among the population of most of the developing countries, are very much depressing. In most of the developing countries, industrial development is slow and stagnant. As a result, over half and often more than four-fifth of the total population in these countries, live in rural areas. Although, increasing population are absorbed substantially in agricultural sector, yet agricultural output in these countries are not increasing at the same rate[15].

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14 Under nourishment resulting from nutritional deficiency and food scarcity; low literacy and limited educational resources resulting from poverty; catastrophic deterioration in medical services resulting from low investment both in equipment and human capital and concentration of more people in rural areas resulting from employment constraints in towns and cities are the normal features of the population of under developed countries which affect their personal welfare. Rapid population growth is the common factor influencing the results.

15 In Bangladesh, 92 percent of population lived in rural area in 1974, agricultural output increased by 29 percent and land-man-ratio (defined as net sown area to male agricultural labour) declined at the compound rate of - 1.46 percent and rural population increased by 35 percent during the inter censal (1961-74) period. (See, for example; Khan, Azizur Rahman, 1972, The Economy of Bangladesh, London, The Macmillan Press Ltd., P.17), Again, in India 80 percent of her population lived in rural areas in 1971, agricultural output rose by slightly more than 50 percent over the previous two decades and rural population by 48 percent. In Indonesia, the corresponding fractions are: 83 percent rural, about 40 percent increase in agricultural output and 45 percent growth in rural population. (See, Mc Nicoll, Geofrey, 1975, 'community level population policy: An Exploration' Population and Development Vol.1, No.1, p.3).

Moreover, the implications of rapid population growth in the economy of Bangladesh is also realised by considering several factors, such as, increasing concentration of wealth, landlessness, declining real income and increasing number of poor people below poverty in recent years[16] these indices amply testify economic plight of the developing countries and high rate of population growth is one of the factors contributing to this plight.

The Governments of the developing countries are now also realising the gravity of the situation. As a result, most of the nations in the developing world, are presently engaged in the gigantic task of improving the quality of life[17] of their people. The various governments have

16 Income inequality as measured by Gini co-efficient is found to increase from 0.27 in 1968-69 to 0.38 in 1973-74. Per capita real income has declined from Tk.100 in 1969-70 to Tk.98 in 1975-76. Real wage earnings of agricultural labourers declined by 30 percent in between 1970-75. Number of persons below poverty level has increased from 49.9 million in 1963-64 to 63.7 million in 1973-74 (See, Alamgir, Mohiuddin, 1978, Bangladesh: A Case of Below Poverty Level Equilibrium Trap, Dacca, Bangladesh Institute of Development Studies (BIDS), pp. 5-18). The landless households (defined as households which claim 0.5 acres or less land other than homestead land) was estimated to be 48 percent in rural Bangladesh in 1977 (See, Agency For International Development (AID), 1977, Report on the Hierarchy of Interests in land in Bangladesh, Table D III, Washington D.C.)

17 This implies improvement in the quality and quantity of food, housing, health, education, employment. It also refers better distribution of assets and rise in real income.

launched plans and programmes in order to achieve a better standard of living for their people and to eradicate the miseries of poverty, hunger, ignorance, disease and ill health. But, unfortunately, in Bangladesh like several other developing countries of the world, economic progress has been rather slow. Lack of capital, trained manpower, outdated technology, colonial exploitation, trade imbalance, and international politics are some of the reasons for slow economic development. But, perhaps one of the hurdles in the path of prosperity and progress, that some of the developing countries are facing is the rapid population growth. Whatever progress is made in a particular sphere of development i.e. agriculture, industry, housing, employment etc. is nullified by the fast growing population. Bangladesh like several other developing countries is a victim of this malady.

It is this realisation that has led to the launching of massive population control programme by several developing countries as a part of overall development plans. There is an increasing awareness among these countries that overall economic and social development depend upon slowing the rate of population growth and this can be achieved through the modern methods of family planning.

1.2 The Modern Methods of Family Planning

The government of most of the developing countries of the world are now realising that a reduction in the rate of population is likely to have a favourable effects on economic development. In pursuance of this objective, large scale family planning programmes have been launched by them.

1.2.1 Family Planning: An Integral Part of Development

Political leaders of the developing countries are now pushed by events to treat economic development and family planning as being integrally related rather than as alternatives. Therefore, most of these countries have adopted family planning programmes as an integral part of their development plans.

The explicit population policies designed to reduce fertility via contraception in South Asia were unique in modern history. Many other countries have since followed suit: Over 35 developing countries, comprising approximately 80 percent of the population in the developing world, have adopted policies aimed at lowering fertility[18]. In western Europe, North America and Australia contraception is widely available and practiced by a large majority of the population. In Eastern Europe and the Soviet Union,

18 United Nations Development Programme, A Forward Look at the Strategy, Role and Financial Requirements of UNFPA, 1972-75, UNFPA/PCC/IV/4 (February 1972) pp.2-3.

abortion and contraception are widely available and practiced. However, national policy decision relating to a particular rationale behaviour of family planning varies from country to country. There are four common rationales for making birth control, which may occur individually or in combination.

a. To give women the right to determine the size and spacing of their families, e.g. in Hungary, USSR.

b. To protect and improve maternal child health and prevent illegal abortion, e.g. many countries in central and South America including Chile, Colombia, Costa Rica & Cuba.

c. As a fundamental human right to decide the number and spacing of children e.g. Britain, Sweden, United States.

d. To contribute to the Socio-economic development of the country e.g. India.

But, contraception, until very recently was opposed both in the West by Protestant denomination and Roman Catholicism and in the East by Islam, Hinduism and Buddhism by imposing cultural constraints.

However, the polemics regarding family planning programmes in the developing countries must be viewed within the framework of official development assistance and birth control component of aid.

1.2.2 Official Development Assistance

Since 1945, one billion people have been freed from extraterritorial colonial rule. It has been estimated that only 22 million out of a population of 2.6 billion in the

developing world now live in that state[19]. They still to a greater or lesser extent suffer from the after affects of colonialism and exploitation from within and outside.

Official development assistance to the developing countries and multilateral agencies rose from an average of $ 1.9 billion during 1950-55 to $ 6.4 billion in 1968[20]. It is also important to note that external assistance has provided on the average only approximately 10 percent of the annual investment in developing countries[21]. This large assistance in the form of development and population control programme make the third world countries to rely more on foreign assistance.

1.2.3 Birth Control Component of Aid

Although health & nutrition programmes have figured prominantly in both bilateral & multilateral assistance, birth control programmes were largely conspicuous by their absence until 1965. The United States Agency for International Development (AID) has in the last few years emerged

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19 Mc Cormack 1971, A World Justice, p.301.

20 Commission on International Development, Partners in Development (Praeger Publishers, New York 1969) Official development assistance does not include private flows or other official flows such as export credits, p.197.

21 Commission on International Development, Ibid, p.14.

as the largest source of funds for birth control programmes in the developing countries. This assistance beginning in 1965 with $ 2.3 million grew to $ 34.7 in 1968, $ 45.4 in 1969, $ 74.6 in 1970, $ 95.9 in 1971 and $ 160.5 million in 1978[22].

The overall expenditure of the International Planned Parenthood Federation has seen its budget rise from $30.00 in 1961 to $ 20 million in 1971, and it is estimated to reach $ 50 million in 1974[23]. In the multilateral context, the United Nations Fund for Population Activities (UNFPA), established in 1967, has evolved into a major source of funds for birth control programmes. UNFPA has received contributions and pledges from 42 countries, at least 17 of which are developing nations. During 1967, $ 800,000 was obligated and by 1971 this figure had risen to $ 30.6 million.[24]

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22 Agency for International Development (AID) 1978 'Congressional Presentation, Fiscal Year 1980', annex VII - Population Planning, Health and Education/Human Resources. See also, Agency for International Development, Bureau of for Technical Assistance, office of Population, Population Programme Assistance (US Govt. Printing Office, Washington, 1971), p.23.

23 International Planned Parenthood Federation (IPPF), 1972, Facts Figures on Family Planning in South East Asia and Oceania Regions, Kualalampur, p.2.

24 United Nations Development Programme, A Forward Look at the Strategy, Role and Financial Requirements of UNFPA, op.cit, p.65.

Admittedly, modern contraceptive methods[25] are more humane and less hazardous to the mother's health and more effective than the traditional means[26] of Population Control.

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25 Modern contraceptive methods include both clinical and non-clinical methods. Sterilization (vesectomy and tubectomy), IUD (Inter Uterus Devise: Lippe's loop, cop-T) and Post contraceptive services (Abortion, Menestorial Regulation) fall under clinical method. Whereas, mechanical (condom, diaphram), chemical (foam tablet, acrocal: emko) and hormonal methods (pill, injection) are included under non-clinical method.

26 The common means usually applied to release the pressure arising out of population growth in traditional societies are: migration, infanticide, abortion, abstinence, Late marriage, celibacy and kinship institutions etc. But, in the face of rapid rate of growth in most of the developing & developed countries of the world, the above methods cannot successfully be adopted. A country will definitely got some relief to the problem of over population through out migration. But the scope of out-migration is very limited. Moreover, Population control through infanticide, abortion and celibacy is not ethically acceptable. Relief through abstinence Late marriage and kinship institutions is not always feasible. Thus, more emphasis is placed on fertility control through the advent of modern methods of family planning.

For detail, see, Pakrashi Kanti, 1968 'on Female infanticide in India' Bulletin of Cultural Research Institute, Nov 7, pp.33-47; New York: Julian Press, pp.25-26; Nag, Moni 1962 Factors Affecting Human Fertility in Non-industrial Societies: A cross cultural study, New Have, Yale University Publications in Anthropology, No.66.

Chaudhury, Rafiqul Huda, 1979, "Social Aspects of Fertility with Special Reference to Developing Countries". Bangladesh Institute of Development Studies, Dacca.

1.3 A Short Review of Family Planning in Bangladesh

The unprecedented population growth in Bangladesh (about 3 percent)[27] is one of the most serious national problems. The present 89 million people[28] crammed into a limited space of 55,126 square miles (consisting of a small surface area of 142,776 square kilometers) and ranked eighth with respect to population size and first with respect to population density[29] in the comity of World nations. This has given rise to a basic challenge to our economic and ecological viability.

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27 While estimates differ, it is generally agreed that the rate of population growth in Bangladesh is somewhat between 2.5 percent and 3 percent annually.

28 Population Census 1981 (Preliminary Report).

29 As per 1974 census, density per square mile in Bangladesh including river is 1286.

1.3.1 Facts about Population rise

The estimated population of Bangladesh was 10 million in 1600 A.D. It has taken thousands of years to reach this number. We don't have any records of population prior to 1600 A.D. The table below indicates the growth of population in Bangladesh from 17th century to the end of this century.

Table 1.2: Growth of Population in Bangladesh

Year	Population (Million)	Annual Rate of increase
1650	10.0	-
1800	12.0	.1
1845	13.0	.1
1872	22.6	2.7
1901	28.9	.9
1911	31.5	.9
1921	33.3	.5
1931	35.6	.7
1941	42.0	1.7
1951	42.1	.02
1961	50.8	2.0
1974	71.5*	2.6*
1981	87.5*	2.8

Source: Article by Dr. Shafiqur Rahman on 'Population Programme in Bangladesh & its impact on projected Area', published in Fertility in Bangladesh, Bangladesh Fertility Survey National Institute of Population Research & Training, Dacca, June, 1979 pp.142-152. Some unpublished data are also collected from Ministry of Planning, Statistics Division, Govt. of Bangladesh and 1981 Population Census, Preliminary Report.

* Unadjusted for under-enumeration.

It is evident from the table 1.2 that in 222 years from 1650 to 1872 A.D. the country's population rose by 12.6 million, while in the first 30 years (1931 to 1961) population of this country increased by 15.2 million. The population of Bangladesh has increased by 20.7 million and 16.0 million during the Census periods 1961-74 and 1974-81 respectively. The annual growth rate during the last two intercensal periods surpassed all the previous records, and at the current rate of growth, the present population of Bangladesh will be doubled in next 25 years.

1.3.2 Family Planning Programme in Action

As the rate of growth has direct impact on the dynamics of economic and social changes, its implications for the country are serious. Thus, considering the gravity of the situation, Family Planning Programme was introduced in Bangladesh. In 1959, at the request of the government, the Population Council (USA) sent a mission with Dr. M.C. Balfour and Dr. Paul Harper as its members. The mission submitted a set of recommendations to the government in January 1960. Largely, as a consequence of this recommendations, government initiated family planning programme in 1960 as a regular function of the existing health services.

From the beginning of 1960 till 1970, the programme was confined to few clinical services and limited amount of publicity. Though the programme was aimed to motivate eligible couples to use contraceptives and to ensure continuing practices, yet it met with very little success in promoting contraceptive practice to any significant extent.

According to the National Impact survey Report[30], though the knowledge of family planning rose to 52 percent in rural and 72 percent in urban areas at the time of survey (1968-69), comparing to 1966 figures of 6 percent in rural and 14 percent in urban areas, yet the contraceptive practice rate did not rise appreciably. Only 3.5 percent of the reproductive (15-45 age groups) couples were found using contraception at the time of the survey.

In 1971 there was country wide civil disobedience, followed by war of liberation (Bangladesh was an integral part of Pakistan till December 16, 1971), which brought the programme activities to a virtual stop. The major policy changes in the immediate post-liberation period were:

a. The system of financial incentives to doctors, acceptors and referrers was stopped.

b. Family Planning Programme was integrated with other health programmes (like Malaria) under Ministry of Health & Family Planning with one Secretary at the top.

c. For the first time oral contraceptive was introduced in the Family Planning Programme.

d. Abortion law was temporarily relaxed for a brief period in early 1972, exclusively to help the pregnant rape victims of Pakistani army[31].

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30 Pakistan Population Council, Report of National Impact Survey, Karachi, 1973.

31 Burhanuddin, A.F.M. 'Abortion as a measure of population planning: Relevance for Bangladesh', Proceeding of the seminar on Family Planning, 21-25 November 1972, Ministry of Health & Family Planning, Dacca, November 1973.

The First Five Year Plan (1973-78) of Bangladesh was finalized in 1973. The plan set a moderate demographic goal of reducing birth rate from 47 to 43 per thousand and growth rate from 3 to 2.8 percent in 5 years. The plan allocated Tk.700 million for population control & family planning programme.

Some improvement relating to the use of clinical contraception was noticed in this period[32]. The improvement was the result of re-introduction of financial remuneration for clinical methods (in the form of travel cost, IUD fee, daily allowance to doctors for participating in campaining Programme) and publicity campaign in the wake of world population year (1974).

The programme during this phase suffered due to integration of Health with Family Planning Programme. Though a separate division of population Control & Family Planning (PC & FP) was created in the Ministry of Health & Family Planning with a separate Secretary in-charge, yet the situation was not improved. Because, health, malaria eradication and family planning could not be brought under a common functional system.

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32 From January-June 1972 to January-June 1975, the use of IUD increased from 1,597 to 31,930, Vesectomy from 139 to 10,667, Tubectomy from 151 to 2,989, Condom from 3,549000 to 5,95400 & Pills from 57000 (in July-December 72) to 65,000. See, Government of the People's Republic of Bangladesh. Population Policy, Dacca, Ministry of Health and Population Control.

In January 1976 government declared Population Problem as the number one problem of the nation and consequently in June 1976 a national population policy outline was officially approved. This was the first comprehensive official statement on population policy. The policy envisaged to reduce population growth rate from 3 percent in 1975-76 to 2 percent in 1979-80, to reduce TFR[33] from 6.4 in 1975-76 to a replacement level of 2.6 in 1985 and to maintain an average of 1.5 percent annual rate of population growth between 1976 and year 2000, thereby expecting the size of population to be 121 million in year 2000[34].

Subsequent to publication of the National Population policy outline in June 1976, the population scheme under two years (1978-80) and the Second Five Year Plan (1980-85) were published. The operational implications of the policy target is shown in table 3.

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33 Total Fertility Rate (i.e. number of birth a women will give during her entire reproductive span at the current schedule of fertility).

34 Government of the People's Republic of Bangladesh, Ministry of Health and Population Control, Dacca, Population Control and Family Planning Division, 1976.

TABLE 1.3

DEMOGRAPHIC TARGETS ALONG WITH THE CONTRACEPTION ACCEPTANCE TARGET FOR THE PERIOD 1978-80 AND 1980-85

Year	Population (in million)	Fecund Married Women (in million)	CBR	CDR	TFR	Continued users (in million)	Continued users(as percentage of Fecund married women)
2 YR.PLAN							
1978-79	87.96	12.99	35.97	11.51	5.70	3.73	28.71.
1979-80	90.11	13.40	32.89	11.14	4.66	4.67	34.85
2nd 5 YR.PLAN							
1980-81	92.07	13.82	29.76	10.72	4.24	5.71	41.32
1981-82	93.82	14.25	26.69	10.39	3.83	6.78	47.58
1982-83	95.35	14.70	23.59	10.11	3.35	7.92	53.88
1983-84	96.65	15.17	20.48	9.69	2.93	9.13	60.18
1984-85	97.69	15.64	17.39	8.09	2.30	10.40	66.49

Source: Govt. of the People's Republic of Bangladesh, The two year 1978-80 and the Second Five Year 1980-85 plans, Volume I, Dacca, Population Control & Family Planning Division, September 1977.

Current Family Planning Programme is a multisectoral, Maternal and Child health (MCH) based, community involved integrated family planning programme.

1.3.3 Evaluation of Family Planning Programme

Valid scientific documentation of any recent changes of fertility in Bangladesh would be extra ordinarily difficult task. Available data suggest that the magnitude of such fertility changes, if any, would be miniscule in

comparison to methodological constraints associated with sampling, measurement techniques, statistical confidence intervals and the field conduct of fertility surveys. Even if real fertility changes were documented, the barriers relating to correct interpretation of such data in identifying the actual factors responsible for these changes would be very substantial indeed. Because, there are so many exogenous factors working in the field and affecting the result. The reproduction of declining fertility or the increased supply of contraceptive methods cannot be attributed to explicit reproductive behaviour, unless the effect of biological and other involuntary variables and the use of different contraception are identified and ascertained.

The Bangladesh Fertility Survey found that 9.6 per cent married and fecund women were practicing contraception in 1975. The current rate of contraceptive practice is estimated between 12 percent and 17 percent of eligible couples[35]. These figures are based on looking at the supply position of contraceptions in the registers. But considering the rigid pressure to attain the target and the financial benefit associated with higher number of clinical contraceptive acceptor, the question of inflated figures is a matter of debate. In many of their recently

35 Fertility in Bangladesh, Bangladesh Fertility Survey, National Institute of Population Research & Training, Dacca, June 1979; See also, Pisharoti, K. World Bank Mission, Dacca, 1978.

conducted research reports, Cholera Research Laboratory (recently renamed as the International Centre for Diarrheal Disease Research) in their Demographic Surveillance system - Matlab observed that false reporting, recruitment of unsuitable acceptors. Lack of interest in follow up and many other factors provided an unfavourable bias against the use of contraception. The magnitude of the problem of false reporting could never be measured precisely. The UN Evaluation Mission[36] considered this 'not a major problem'. But the Evaluation Committee appointed by the government found considerable amount of misreporting and fraud[37]. In one of his recent writings, Mead Cain[38] also observed that the majority of Family Welfare Assistants (Primary level women field workers who are entrusted with the duty to distribute contraceptives & follow up medical referrals) are drawing their substantial salaries without doing any work or providing any service. The problem, he felt, lies with the recruitment of less qualified persons in some middle level positions.

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36 United Nations, Department of Economics and Social Affairs, 1972, "Measures, Policies and Programmes Affecting Fertility, with Particular Reference to National Family Planning Programme", Population Study, No.51, New York.

37 Alauddin, M et.al. 1970, Report of the Committee for Evaluation of Family Planning Programme in East Pakistan.

38 Cain, Mead T. 1980, 'Risk, Fertility & Family Planning in a Bangladesh Village', Studies in Family Planning, Vol.II, No.6, June.

Thus population programme in Bangladesh, like many other developing countries of the world has become critical in recent years. Unfortunately, the family planning programme in Bangladesh, like other developing countries of the world has not met with success expected[39]. Side by side with family planning programme, medical and health services have been considerably introduced into Bangladesh. As a result, mortality rate has declined very sharply (from 45.6 percent of 1901-1911 to 29.7 percent of 1951-61 and 19.4 percent of 1961-74)[40]. The problem is compounded by the fact that there has been, as yet, no corresponding decline in the birth rate (crude birth rate declined only from 53.8 per thousand of 1901-1911 to 51.3 in 1951-61 and 47.4 in 1961-74)[41]. The net result has been an increase in population on land.

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39 According to Bangladesh Fertility Survey only 10 percent of currently married women were practising contraception in 1975 (see, Ministry of Health and Population Control: Bangladesh Fertility Survey, 1975).

Use of pills from 1976-77 to 1977-78 increased only by 44.3 percent, IUD decreased by 32.5 percent, sterilization decreased by 37.2 percent condom increased by 41.5 percent, and use of spermicidal decreased by 48.3 percent. These figures comparing to demographic targets of table 3 indicates a very disappointing picture. See for example, Pishorati, K. World Bank Mission, Dacca 1978.

40 Government of the People's Republic of Bangladesh, Ministry of Planning. Statistics Division, Bangladesh Bureau of Statistics, Statistical Pocket Book of Bangladesh, 1978, p.95.

41 Statistical Pocket Book of Bangladesh 1978, Ibid, p.95.

The success of survice oriented family planning programme in other developing countries of the world is also not very much encouraging. Little progress has been achieved in India, during the last 15 years inspite of her introduction of strong family planning programmes at national level. For example, the results of the Mysore population study and the Bangalor population study[42] give a dismal picture. A comparison of findings from the two studies revealed that the crude birth rate recorded a decline of 7.6 points in the rural hills, 2.0 points in rural plains, 4.5 points in towns and 2.6 points in Bangalor city over the period of long 24 years (1951-1975). These declines are small in view of the fact that the time lapsed is almost a generation and that the area has been the site of an intensive family planning programme since the early 1960's. The reduction in general marital fertility was only 5 to 6 percent, indicating that a good portion of even the small decrease in the crude birth rate can be attributed to structural changes in the population.

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42 Srinivasan, K; P.H. Reddy and K.N.M. Raju, 1978, "From One Generation to Next: Changes in Fertility, Family Size Preferences, & Family Planning in an Indian State between 1951 and 1975", Studies in Family Planning, Vol.9, November 10-11, pp.258-270.

From the above analysis, it appears that family planning is a means and not an end in itself. Slow progress in the field of family planning or the reluctance on the part of people to use family planning methods is not the result of ignorance or inaccessibility of contraceptive methods. Availability of modern contraceptives may be a necessary pre-condition but not sufficient condition for affecting changes in demographic trends. Had it been the case, developing countries with long history of family planning, would have experienced fertility decline.

1.4 The Central Problem of the Present Study

1.4.1 A Vital Issue

Our attention is, therefore, deverted to a vital issue relating to the question why adverse effects of high rate of population growth on national economy is not inducing sufficient number of people in Bangladesh to restrict their fertility? It is not correct to say that parents of the developing world and also those in Bangladesh are ignorant about the traditional means of fertility control, or they have no access to modern means of fertility control, or they are totally unaware about the consequences of high fertility, or acting under impetous and uncurbed passion. Thus, the question remains, why inspite of their full knowledge of traditional means of fertility control and why in the presence of modern means of population control, fertility is not checked? This thesis intends to give a partial reply to this question.

It is a recognized fact that societies are composed of heterogenous group and catagories of individuals. Tastes, desires, aspirations and life style of all individuals are not uniform. Some people readily adopt modern practices, many others consciously rejects them. Some need small families, while many others need large number of children they produce, who may even regard having large number of children as advantageous and therefore they would not be

willing to restrict their fertility even when the modern contraceptives are available. It is often alleged that many parents in the developing world want large families for good & valid economic reasons.

Children in most of the developing countries participate in essential household maintenance works from very early age of 4-6 years and this frees the adults to participate in more productive activities. If these services were not rendered by children, adults would find little time to devote to productive activities. Need for large number of children is also justified by the prevailing agricultural system and subsistence economy of the developing countries. A family with large number of children will be able to achieve organizational efficiency through division of labour and specialization. A household with a greater number of economically active members will be in a better position to diversify and exploit multiple sources of income particularly when, the timing of the peak opportunities of different income sources coincide. Moreover, there is a cash constraints and shortage of labour during peak agricultural seasons. Agricultural operations must be carried out in time, otherwise produce would be adversely affected. To meet this demand, adequate labour input is necessary in time. In the absence of family labour, a household has to hire wage labour and for this it may have to commit loan at an exhorbitant rate of

interest. Even if loans were not committed, the money spent for hired labour could have been invested in other agricultural inputs for higher production. Again, wage labour require more supervision than family labour and will probably be less efficient. Availability of greater number of children workers within the own household makes sure of control of own labour so that even the heaviest, most awkward or most labour intensive activities may be carried out without having to wait for outside help or pay for it. Moreover, both direct and indirect cost of raising children in these societies are found comparatively low and children provide the best economic support to their parents in their old days and in the days of their calamities. Thus in a society, where children are economically useful, and the cost of raising children is minimum (i.e. there is a transfer of intergenerational flow of wealth from children to parents), high fertility is a rational decision. This point has been well underscored by pearson committee in the following words:

"It must be recognised that in the developing world many parents want large families for good and valid economic reasons, not because they are ignorant or improvident. In such cases, access to family planning information and facilities will not make much difference. When child labour makes a considerable contribution to family income, and

when parents are dependent on a large family for protection and security in old age, there will be few incentives to reduce fertility no matter what the social cost of rapid population growth". (Pearson, Lester B. et.al. 1969 Partners in Development: Report of the Commission on International Development, New York: Praeger, p.197).

1.4.2 Some Specific Questions

Thus, from the above discussion, the pattern of fertility behaviour in a peasant society can be better understood in which socio-economic and cultural life-style of people and other surrounding circumstances direct the individuals to accept the large family pattern as a necessary means to an end.

It is on the background of the above thoughts, the following questions are asked:

1. What motivational factors actually guide the parents to determine their family size?
2. Can children contribute anything significantly (either material or non-material) to increase the household production?
3. How the net positive return from children is measured?
4. To what extent do old parents of the village perceive children as economically useful? Do children serve as old age security?

All such questions are relevant to the important issues developed earlier and the present study is designed in such a way as to give the answers to these questions.

1.4.3 Major Objectives of the Study

Before we go in detail to outline the theoretical framework of the study, and to deal with our empirical data, it is worthwhile to put the major objectives of the research at this stage which has been developed from the earlier discussion.

Considering high rate of population growth in the world and Bangladesh in particular, the study is designed in such a way as to focus the understanding of key motivational factors for having large number of children in the context of the people of Mulyarchar, a rural community in Bangladesh and makes an attempt to determine the fertility behaviour of parents at household level. Because, household is the basic economic unit of the society and it reflects the life-style of individual couples more accurately. Other important issues of the community such as, desire for additional labour in labour-surplus economy, problem of uncertainity under extreme poverty and the causes of reluctance to use modern contraceptives are examined in the light of the value of children concept. Two important assumptions are made relating to the behaviour of parents of the study community. (a) The parents of the community behave rationally, and (b) they attempt to maximize their satisfaction in their production, reproduction and consumption decision.

On the background of the above analysis, the major objectives of the study may be grouped under as follows:

1. To identify and explain the salient factors that affect the micro-level determination of fertility behaviour in the rural economy of Bangladesh.

2. To measure the net economic value of children by considering the relationship of mutual dependence between parents and children, by assessing the cost of raising children, and by evaluating properly the extent of parental control over children.

3. To identify the intergenerational transfer of resources and the extent of parental dependence on children during old age and in times of need both at perceived and actual level.

4. To ascertain the utility of children (both son and daughter) by examining the attitude of parents (both husband and wife) and old persons of the village relating to children's behaviour, during parents life cycle.

The objectives outlined above are complementary in nature. They are interrelated. Because, the discussion of one objective will not lead to the sacrifice of the other. Moreover, the specific answer in one area largely depends on the outcome of the analytical work of another area.

Building on this introductory chapter, the following section deals with the organizational framework of the study.

1.4.4 Organizational Framework

Chapter 1 is an introductory chapter, where the groundwork of the present study is formulated.

Chapter 2 deals with peasants, peasant society and peasant mode of production in fertility decision with special reference to Bangladesh economy. This chapter identifies the motivational factors behind high fertility particularly with reference to rural areas of developing countries and examined the various material and non-material roles of children and their net economic value in the household.

Chapter 3 deals with the economic value of children in the study of fertility behaviour. In this chapter, the value of children has been explained at different levels of conceptualization for a clear understanding about the value and cost of children. Other salient issues relevant to the study of economic value of children and fertility are also discussed here.

Chapter 4 provides a comprehensive discussion on selection of the study village, procedures of data collection and types of data employed in this study.

In chapter 5, the socio-economic and demographic characteristics of the study village are analysed with emphasis on fertility pattern and differentials.

Chapter 6 deals with the major findings. It examines the material and non-material benefits and costs of child bearing as perceived by parents of various economic

groups in the village. The age at which children of either sex enter into productive activities, the extent of their involvement in household economy, total costs involved in rearing them, the volume of intergenerational flow of wealth both cash and kind, sex preference for maximising utilities and status of women in affecting the fertility decisions etc. are explored in the light of the value of children concept.

Chapter 7 examines the role of children as old age security.

Chapter 8 summeries the findings, points out the future research needs and provides policy guidelines.

CHAPTER - 2

PEASANTS, PEASANT SOCIETY AND PEASANT MODE OF PRODUCTION IN FERTILITY DECISIONS

In order to understand the rationale of high fertility in a peasant economy, we must have a clear idea about the peasant society. It is difficult to interpret adequately the rationale the secret of high fertility or to evaluate the economic value of children among the rural poor in developing countries, without reference to the broader context of the peasant mode of production. Thus, in this section, a short review is made of the peasants, the peasant societies and the peasant mode of production in rural South Asia with particular reference to Bangladesh and within that context the fertility behaviour of the rural population will be subsequently analyzed.

2.1 Peasantry - An Analytical Definition

The term peasant or peasantry have been used in the social sciences for the description and analysis of a type of rural society which is distinguished by its mode of production.

Marx[1] identified the peasantry as a class either exploited by landlords and rulers or as incipient capitalists. Chayanov[2], also employing the data on Russian

1 Marx, K. (1867), The Capital, D. Torr (ed), London 1939.

2 Chayanov, A. 1925, Organizatsiya Krest'Yanskogo Khozyaistava. Translated as 'The Theory of Peasant Economy', Danial Thorner, p.54.

peasantry, argued that peasant economy was distinct from capitalist economy and it could not be analyzed in terms of the classical factors of production, but he always referred to the family and its labour as a unit. Chaynov's theory of peasant economy with its emphasis on the dual role of the peasant households as both a productive and a consumptive group is a valuable conceptual tool in any study of peasants. More or less, a similar type of argument is laid down by Mitchell[3]. In his opinion, peasant economy is characterized by Subsistance Production and production is geared to the family's customary requirements. Here family and production are homogeneous and peasant families work together for itself.

According to Wolf[4], peasants have been differentiated from other rural people by some criteria. The fact that peasants are those whose ultimate security and subsistence lies in their having certain rights in land and rights in family labour - but who are involved, through rights and obligations, in a wider economic system which includes the participation of non-peasants. These characteristics which peasant share with primitive agriculturists, but not with capitalist farmers. In case of capitalist farmers, they appear

3 Mitchell, Juliel, 1971, Women's Estate, Penguin, Harmondsworth, p.157.

4 Wolf, E.R. 1966, Peasants, Prentice-Hall, p.2.

to depend upon his land and even upon family labour in some cases, but they are not forced to rely solely upon those in the last instance. What the peasant share with capitalist farmers (though not with the primitive agriculturist) is his integration into a complex social structure characterized by stratification and economic differentiation. In fact, it is precisely the characterization of the peasantry in terms of its position relative to other groups in the wider social system which has particularly important explanatory value in the analysis of development.

The economic circumstances of Bangladesh are similar to those observed in a peasant society. Life in Bangladesh is at a bare subsistence level and that economic and demographic behaviour worsening these conditions.

Agricultural production in Bangladesh is carried out at subsistence level. Family labour in most cases are used in the process of agricultural production. The marketable surplus in case of a vast majority of producers is a myth. What most producers in Bangladesh sell is not real marketable surplus, but the forced marketable surplus or the surplus created compulsorily out of the given produce in order to meet the pressing claims.

About 53 percent of the rural households in Bangladesh are landless, and another 33 percent are marginal to small peasants with holding upto 3 acres. Of the rest, about 6 percent are by and large subsistence peasants with holdings

of 3-6 acres and the remaining 8 percent are in the surplus catagory[5]. The top 8 percent operate about 45 percent if the total cultivated land. They are the rural power-elites. As regards the bottom 86 percent, most of them are at below subsistence level[6]. They are the absolute poor. Their basic needs relating to food, clothing, shelter, medical care etc. are not met and they are bound to the small minority of surplus farmers in unequal and exploitive relationships.

2.2 Characterization of Peasant Society

In the present day world, a distinction can be made between the Pre-transitional Society, which is characterised by stable high fertility with that of the post transitional one, which is characterised by a fertility decline. In the former, no net economic gain will occur to the family from lower fertility level and this society is characterised by net wealth flows from younger to older generations. Whereas in the latter, economic rationality dictate lower fertility at family level and the net wealth flows in that society is from older to younger generation. Peasant society will fall in the former catagory.

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5 USAID and Bangladesh Bureau of Statistics; The Land Occupancy Survey of Bangladesh, Dacca, 1977.

6 Though some of the households may be quite well off because of their involvement in non-farm activities and professions of various kinds.

Several criterion may be used for determining whether the total society of a given country, nation or large colonial area is to be taken as a peasant society. All these must be satisfied before an entire economy of a given country can be termed peasant.

The first two criteria relate to production and working population. They are intended to help distinguish peasant society from post-transitional one, whether capitalist or socialist. In a peasant society, roughly half of the total population must be agricultural, and more than half of the working population must be engaged in agriculture. In a word, to be termed peasant, a society must be primarily agricultural. In a capitalist or a socialist state which has been industrialized, there may remain thousands or even millions of peasants, but we would no longer apply the term 'Peasant' to such a society, taken as a whole. The question would rather become one of the peasant sector in a non-peasant society; the setting would then be different, and a different level of analysis would be required.

The third criterion requires the existance of a great majority of people in extended families, where the modes of production is kin-based. The type of family, moulded by peasant mode of production, largely affects their fertility decisions.

The fourth criterion is the rural urban separation. We do not consider an economy to be peasant, unless it contains a significant number of towns with a definite pattern of urban life quite different from country side. Simply as a rough quantitative indication, Thorner[7] maintained the view that the total urban population should amount to at least half a million persons; or alternatively, that at least 5 percent of the entire population of a given country resident in towns.

The fifth criterion is the unit of production. In peasant economy, the typical and most representative units of production are the peasant family households. Peasant households form the basic nuclei of peasant society. A peasant household usually provides the work team of the farm, while the farms activities are geared mainly to production of the basic consumption needs of the family.

Peasant households, in a majority of cases consist of blood relatives of two or three generations. However, the basic determinant of household membership was not a blood tie, but total participation in the life of the household or as the Russian Peasants put it "earning from the common pot"[8]. This unity implied: living together under the authority of a patriarchal head. Consequently, one who joined

7 Thorner, Daniel, 1962, 'Peasant Economy as a Catagory in Economic history', in peasant and peasant societies, edited by Theodor Shanin, pp.202-218.

Chayanov, A. 1925, op. cit. p.54.

the household through marriage or adoption was considered a member with full rights, while a son of the family who set up a household on his own viewed as an outsider.

The peasant household operated as a highly cohesive unit of social organization, with basic division of labour, authority and prestige on ascribed family lines. Generally, the head of the household was the father of the family or the oldest kin member. His authority over other members and over household affairs by peasant custom implied both autocratic rights and extensive duties of care and protection.

Women in spite of their heavy burden of labour (both household and field work), and their functional importance in a peasant household, were considered second-rate citizens and nearly always placed under the authority of a male. In traditional peasant households, son is given much preference than daughters and male labour is considered more valuable than female labour.

The sixth and final critorion is the existence of risk and uncertainty in peasant society. Nature introduces an element of chance factors beyond human control with which all the peasant community is faced Margional farmers in peasant societies are always confronted with risk and uncertainty. In times of distress or hardship, such as, crop failure, poor harvest, flood & cyclone death of earning member of a family or destitution in old age, the absence of any earning male member in the family enforces the majority of marginal farmers in peasant society to sell

a portion of their landed property. Cain's[9] observed that "other things being equal, families with smaller holdings and fewer able-bodied males in peasant societies are less resilient and more at risk of enduring loss in times of hardship. Thus, in order to Spread risk for their own safety, and to ensure a steady income stream, marginal farmers in peasant societies always want increasing labour market participation by their family members". The demographic composition of the family, thus, is an important factor in mediating the effects of economic crisis. The pervasiveness of risk in the peasant society and its diverse course, undoubtedly creates an incentive for larger families.

It may be emphasized that not a single one of the above factors will suffice to determine whether or not a given society is indeed a peasant society. All these features must be found together and must relate to the economy of a whole country.

Bangladesh is one of the most densely populated rural countries of the world. China is 86 times larger than Bangladesh in geographical area, but in population it is only 10 times bigger. India is 25 times larger in size than Bangladesh. But population of India is only 6 times higher than Bangladesh. Crowded into a country, of 142 thousand kilometers, Bangladesh contains 90 million people;

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9 Cain, Mead T. 1980, 'Risk, Fertility and Family Planning in a Bangladesh Village', published in studies in Family Planning, Vol.II, No.6, June.

over 80 million of them live in the country side. The pattern of agricultural economy of the country is characterised by subsistence farming, arising out of a heavy pressure of population on land which is reflected in the very low-land-man-ratio[10] (defined as net sown area to male agricultural labour) it has. The pressure has resulted in an out dated land tenure system, chronic unemployment and under-employment of agricultural labourers & continuous fragmentation of holdings.

Agriculture is the most important sector of the economy of Bangladesh. It provides employment to 74 percent of the population of working age i.e. 10 years and above and accounts for 54 percent of national income and 76 percent of country's foreign exchange earnings. More than 80 percent of population in labour force[11] directly or indirectly depends on agriculture. Here agriculture production by extended family members are carried on mainly to feed the members of the family. Farming on commercial basis is almost non existent in the country. The pattern of rural social organization at the local level is intricate. People scattered through various horizontal layers of landholding classes are bonded

10 In 1974, 92 percent of population of Bangladesh lived in rural areas. Agricultural output increased by 29 percent and land-man-ratio declined at the compound rate of -1.46 percent and rural population increased by 35 percent during the inter-censal period (1961-74).

11 It refers to all population over 10 (ten) years of age, employed in any gainful profession. Housewives and inactive persons are excluded from labour force.

together, sometimes strongly, sometimes casually, into groupings of several different kinds. Kinship ties at several levels enmash and intern help to distribute the burden of risk. The nuclear and patrilinearly extended family is the basic social and economic unit of Bangladesh society. Even those who live in physically nucleated households have formal and informal contacts and ties with their families of origin and they live in physical proximity with each other.

Landless labourers are occupying very important place in peasant society of Bangladesh. They are working in land either as wage earners or as share croppers. Share croppers or wage earners have little or no interest in the produce of land. This lack of interest contribute greatly for the law productivity of our farm labourers.

The agriculture productivity in Bangladesh remained more or less stagnant over a long period[12]. Even to-day, the per capita production of foodgrains are much lower[13].

12 For detail, see Hossain, Mahbub, 1981, Land Tenure and Agricultural Development in Bangladesh. Institute of Developing Economies, Tokyo, V.R.F. series No.85, pp.3-9. The Author in his book estimated the trend rate of growth in the production of rice, the single major source of foodgrain in the country (which constitute 80% of the cropped area during 1979/80) and found the production only 2.2 per cent per annum of which 0.9 percent came from acreage expansion and 1.3 percent from growth of productivity of land.

13 The secular decline in per capita production of foodgrains can be estimated from the sharply rising trend in the imports of foodgrains to meet the growing domestic demand. The average yearly imports of rice and wheat was only 23 thousand tons in 1948-50 period, but it rose to 0.5 million tons in 1960-62 & further to 1.0 million in 1969-71. Recent imports of rice and wheat (average of 1976/77 to 1979/80) is running 1.6 million tons, which is about 11 percent of the domestic requirements. The population growth is estimated at 2.6 percent per annum during this period.

The main causes responsible for this law yields per acre are almost uniform as those observed in a peasant society. These are natural (crop failure, draught, poor harvest, flood & cyclone or badly distributed rainfall), economic (surplus farm population, problem of supply of improved seeds, manures, fertilizers, implements, insecticides, pesticides etc.) and socio-economic (conservatism, antiquated organization, lack of incentives and desire to produce more because of prevailing land tenure system and skewness in the land distribution) in nature. Thus the economy of Bangladesh is largely traditional peasant in character with a small industrial base[14]. A densely settled population[15], growing rapidly over the last few decades[16], depending heavily on agriculture, meshes lightly

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14 Sectoral shares of GDP at constant (1972-73) prices was calculated as 10.3 percent in case of industry in 1978/79 (provisional), of which the contribution of large scale industry was 5.9 percent and that of small scale industry 4.4 percent (see, Government of the People's Republic of Bangladesh, Ministry of Planning, Statistical Division, Statistical Pocket Book of Bangladesh, 1979).

15 As per 1974 Census, density of population, per square mile in Bangladesh including river is 1286.

16 See table 1.2.

with a hazardous natural environment. Important opportunities for industrial growth exist, but because of economic dominence of agriculture, any hope of rapid change necessarily rest on progress in the rural sector.

The consumption determined aims, the traditional methods of production, the use of family labour, the low marketability of the product, desire for son and children's labour contribution to household economy made the peasant household in Bangladesh a production unit very different from a rational capitalist enterprise.

2.3 Peasants Mode of Production and its Demographic Implications

A community may have more than one mode of production and each mode has its relation with the production. Peasant societies are moved by familial modes of production which usually refers to kin-based production between relatives.

2.3.1 Modes of Production in Peasant Societies

In peasant societies, modes of production are provided by societal norms. These norms are nothing but decision making mechanism, which are important in both economic and demographic areas. High fertility in peasant societies can not be understood without having any knowledge of material benefits arising from production and reproduction in peasant family.

In the areas of fertility, there are a series of decisions (such as: pre-marital sex, the practice of pre-marital contraception, whether marriage takes place, the age at marriage, the frequency of sexual relations during marriage, the practice of contraception during marriage, the practice of abortion during and after marriage etc.), which may influence fertility. In peasant societies some of these decisions are largely or almost wholly decided by persons beyond the conjugal paid. Usually parents decide upon marriage and upon the age at which it will occur. They decide whether fertility will be controlled, and they often influence the level of sexual activity.

In fact, contraception is not unknown to any peasant family in South Asia. Some are practicing contraception, if family wished it and others are not. The type of family largely affects their fertility decision. Probably, the great majority of adults in extended families, see no gain in restricting fertility.

2.3.2 Extended Families

In rural areas, a significant number of people still live in extended families[17]. The motives to live in close proximity of relatives has been developed either from the mutual obligation of fighting the disaster or from joint land ownership or from common financial obligations. These characteristics go far to explain how the peasant economy works and how and why its fertility remains high.

It is usually hypothesized that the extended families or joint household structures promote high fertility than the nuclear families. Sociologists like Lorimer, Davis and Blake uphold this view. The arguments usually advanced by them are:

i) The extended families tend to motivate and support early marriage and thus high levels of overall fertility;

ii) The financial and physical burden of rearing children is shared by others in the household; and

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17 In this study, of all households 78.50 percent are nuclear, supplemented nuclear and sub-nuclear in structure. Only 17.75 percent of all households are joint in structure i.e. contain more than one married couple.

iii) Couples are motivated to have their own status in the household.

Moreover, the older decision makers in extended families correctly see no advantage accuring to themselves from their children and child in-law restricting their fertility. They perceive advantages from children in their traditional agricultural system and thus act accordingly.

2.3.3 Traditional Agricultural System

The traditional agricultural system, seasonality in agricultural crops and small land holdings are the characteristic features of peasant households in most parts of south Asia and that of Bangladesh in particular. The nature of agricultural system justify large number of children in peasant households to diversify and exploit multiple sources of income, particularly when the timing of the peak opportunities of different income sources coincide.

The availability of a large and quickly mobilized labour force is of particular importance during the peak farming periods, when entire family including even the young children from the ages of seven is employed in different activities. It is at such periods that the advantages of many children is manifest to all.

Moreover, during the peak agricultural season, a household has to hire wage labour in the absence of family labour. But wage labour generally requires more supervision than family labour and will probably be less efficient. Over and above, more children in a peasant economy is justified on the ground that in case of any emergent situation, most awkward or most labour intensive activities can be successfully carried out without waiting for outside labour.

Children are not burden to peasant households. Peasants with large families do not regret having them. They with many children hardly ever begin to think they should have had fewer children. To peasants, children are potential sources of cheap labour. The greater the number of children a farmer has, the easier and quicker he cultivates his farmlands, because of the availability of reliable sources of cheap labour. Young[18] concluded from his study of a chinese village: "When a son is born, even to a poor family, he is not looked upon as someone who will further divide the family's land, but as one who will add to it. When a second son is born, the parents do not worry that their family piece of land will be divided into two parts. Instead, they begin to hope that when their sons are grown up, one will be a hired labourer, another a mason, and they will earn not only their own living but add fifty dollers or so to the

18 Yang, Martin, A Chinese Village: Taiton, Shantung Province, Kegan Paul, Trench & Trubner, London, 1948, p.84.

family every year. In two or three years they can buy one more mow of land with their savings. Thus, when the parents are old, they will be better off than they are now".

A large family is, therefore, considered as an economic asset in peasant society[19]. A peasant with a large number of children is thus identified as a successful man, and is usually thought to have a potential for ever greater success. Thus, in a large family neither the children nor the parents are embittered since they work and eat together.

2.3.4 Children's Work-inputs to Household Productivity

In peasant societies, the micro-economic theory of fertility recognizes children's work input to household productivity as a factor influencing the fertility behaviour of parents. Children's work input to household productivity includes not only the labour contribution of children, but it also includes the consumption egalitarianism and power and access of children to different services.

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19 In Barkat's (Khuda-e-Barkat, 1978), Study over two-third of all respondents were in favour of five children. Over 74.5 percent males and 61 percent of females felt that for a person having less than 0.5 acres, it was still useful for him to have a large number of children. In the present study, more than 50 percent of parents from all economic class, excluding economic class 5 and 6, gave their opinion in favour of 5 or more children, and 68 percent of parents felt that a man with less number of children is poor.

The amount of work done by children, the kind of work done etc. increase family income and give real pleasure to parents. In peasant societies, children make direct material contribution to household economy from their very early ages. Their contribution of services to household maintenance tasks also free the adult members to participate in more productive activities outside home. Thus, the direct material contribution of children to the household economy along with the contribution of services in time consuming tasks of sweeping, fetching water, washing, child-minding etc. support high fertility in a peasant society.

In peasant societies, cost of raising children is also fairly low. Here the cost of raising children is generally distributed or shared by the members of the extended family on the one hand, and there is also minimum demand from children, on the other.

It has been realised that the standard of comforts in villages is relatively low and the demands of children on their parents are minimal. Children, in agrarian societies, rarely ask for more than their parents can easily afford. Children are often reared to follow their parents in farming if parents are not capable of sending them to school. Econometric analysis of fertility in a few less developed countries have demonstrated significant negative correlation between child-labour force participation with child

schooling. It is, therefore, evident that instead of sending their children to school, parents used to send them in farming[20]. The children by their own considerable labour contributions not only earn their keep but also help to buy the foundation of their own future.

In agrarian economy, the cost of food staff is the major cost that parents incur in rearing up their children. Young children from the age of seven months begin to have their mother's milk supplemented with a small quantity of rice. The staple food stuffs which adults eat are rice or wheat, taken with pulse, fish and vegetables. These items are usually produced by the rich farmers in their farm and thus cost only the labour input which is regarded as costing virtually nothing. In cases of landless parents, the cost of food stuffs is considerable. Because, in that case, they are to purchase these items from the market. The cost of clothing and accomodation for children does not constitute any problem. Young children are found to use the clothes of their elders. However, the demand for clothes grow for those children who attend school or reside in town for higher education or engage in some trade over there. Children used to live with their parents in their own homestead until they are old enough to establish independent households. The question of establishing independent household arises, just

20 In the present study, about 42 percent of male children and 71 percent of female children are found not attending school within the age group of 5-21 years of age. For detail, see table 5.35.

after the marriage of children. Expenditure on medicine by parents in raising of children is also not substantial in peasant society, where hospital facilities are few and far between. In villages, babies are mostly delivered by local traditional midwives and medicines are supplied by local unqualified doctors and Hakims[21]. As villages are less developed, therefore people must rely on traditional lower cost health services.

Thus, in a situation, where the cost of raising children is minimum and children are found economically useful, under such circumstances, it is very logical from the point of view of parents to have many children.

Children are also seen as a source of power and social prestige in a peasant society. Engagement of children in big posts and responsible government services increased the social and political power of parents.

2.3.5 Preference for Son

In traditional agrarian societies, particularly in Patriarchal societies like Bangladesh satisfactions derived from having children is expressed in preference of son.[22] In

21 Hakim is a person who used to supply traditional types of medicine to villagers. His medicines are usually prepared from local herbs, sherbs and jungles.

22 In Barkat's (Khuda-e-Barkat 1978) study over 97 percent of all respondents felt sorry for a man with no son. In the present study, 90 percent of parents from landless class 1 and 2, 82 percent from economic class 3 and 80 percent respectively from economic class 4,5 and 6 equally felt the utility on sons.

such societies, sons are considered important for maximising economic, social and religions utilities.

In rural households, a strong preference for sons has been observed in all sections of the population. The higher value placed upon sons than daughters arises not only from the assumed economic advantages of sons to parents but also from considerations of religious and social prestige. Continuity of the family name is overwhelmingly the most frequently cited reason for wanting a boy. Old age support and various types of economic and practical help are also often cited[23].

A married women achieves a higher position in the household only after the birth of a son, and couples with many sons are admired. The prevalance of a dowry system, is to some extent, responsible for the dislike of female children. Because of the strong desire for sons, a high proportion of women continue to progress to higher parities until the preferred number of sons are achieved.

Thus, the preference of one sex over the other lead to high fertility both at individual and societal level.

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23 In the present study, in response to a specific question, the respondents were asked to state, the reasons as to 'why sons are more useful to them, than daughters'? 35 percent of parents from all economic classes felt that sons are useful because they provide old age security; 19.4 percent gave their opinion that sons preserve family name; 18.3 percent felt sons as economic asset; 17.2 percent felt the economic assistance of sons in times of need and the remaining 10 percent considered that girls add economic burden to the family at the time of marriage.

2.3.6 Old-age Security

Children are also seen as a means of social security. They are the best source of support to their parents in their old days and in the days of other calamities. They are expected to take over the task of working on the family farms, and to provide food and support for their parents when they can no longer support themselves[24].

Children are expected to help their parents if the latter fall sick, lose their employment, fall into debt or face other forms of misfortune. This is one of the firmest elements of the parent-child bond; the child must stand by its parents under virtually any circumstances, and vice versa.

Daughters also provide support for their parents indirectly. The parents can call on the services of their daughters husband and his family in time of need. This is the affinal link that is most frequently exploited in our society. Moreover, married daughters frequently bring food for their old parents, work for them and tend them during sickness.

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24 In the present study, 'the role of children as old age security' was analysed, in detail, in chapter 7, by taking a sample of 77 elderly persons of the village. Seventy six percent of the elderly parents admitted that they receive money or financial assistance regularly from their children irrespective of whether the children are residing in the village or in the town with or without spouse.

Studies in Java[25] have sown that "people do have some alternative sources of material support, including neighbours, siblings, other relatives, and, in some cases, government pensions. However, one's own children are unquestionally the preferred source of support, largely because it is not simply the material contribution involved, but also personal relations, and particularly the parent-child bond".

Parents prefer large number of children, because, they understand that all children may not be loyal to them, when they approach old-age. Some children may die and some may move away.

However, comparing the actual participation of children in either materially productive tasks or household services, the economic assurance which children provide against insecurity in peasant society is, considered as the most important factor affecting the fertility. But, it should be remembered that it is not only security in old age that is a support for high fertility, but the desire to have, throughout one's life, a cohesive social unit to provide a feeling of assurance in general, and a fulfilment of life, are the prime factors supporting high fertility.

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25 Hull, Valerie J. 1977, "Social and Economic Support for high Fertility in Peasant Communities: General Issues Emerging from specific Research", in the Economic and social supports for high fertility, Edited by L.T. Ruzicka, Canberra: The Australian National University, Department of Demography, pp.241-250.

2.3.7 High Infant and Child Mortality

In the peasant societies, high infant and child mortality[26] is considered an important factor which encourage high fertility. Since the probability of survival of infants and children are low in peasant societies, parents are required to produce more children than necessary (desired) in anticipation that at least few of them would survive till their adulthood. Thus, in traditional subsistence agrarian societies, high fertility is encouraged to offset high mortality.

There are several mechanisms by which infant mortality may affect fertility level, of which, i) the Biological or Physiological effects, ii) Replacement effects, iii) Insurance effects and (iv) Societal effects are most important.

Biological effect is involuntary in nature. It operates through abbreviated breast feeding and consequent cessation of post partum amenorrhea, following an infant death. Usually, after the death of an infant, breast-feeding is discontinued and ovulation is likely to be resumed sooner, so that if contraception is not practiced an earlier pregnancy may be expected, keeping other factors constant, infant mortality may cause frequent birth i.e. births within shorter interials through releasing the ovulatory suppressant

26 The study village provides the infant and child mortality rate as 125 infant deaths per 1000 population. The Bangladesh data on infant mortality is 132 deaths per 1000 population as per 1974 population Census Report.

effect of lactation. Replacement effect, on the other hand, encourage additional births with the motivation to replace the actual death of a child. Similarly, in high mortality societies of peasants, parents may develop fear of loss of children, given their personal experience with death in the family and community. Thus, insurance effects demonstrate the production of more children than the desired number in order to ensure against possible risks of child losses. Same is the case with Societal (or Community) effect. All high mortality peasant societies have developed a wide range of social norms, beliefs and practices which are either explicitly or implicitly designed to deal with the problem of child loss.

2.3.8 Risk and Uncertainty

Marginal farmers in peasant societies are always surrounded by risk and uncertainty. In the face of crop failure and drought, a cultivator who operate close to the margin of subsistence, will always search a new technology for his own safety. Govern by a "safety first" principle cultivators will naturally reject a technology that promises a higher yield if it also increases the risk of crop failure. The poorer the cultivator the more averse to risk he will be.

The problem of a poor landless/subsistance farmer is to ensure a steady stream of income from participation in a labour market that can entail uncertainty in finding employment on a given day, or for more extended periods and uncertain wage rates. The uncertainty may depend not only on underlying demand factors (for example, extended unemployment created by harvest failure), but on structural features of the market. For example, wide fluctuations in wages and thus wage uncertainty, are likely to be less in markets where agricultural labour union are active than where they are not.

Cain's et. al.[27] compare the risk and uncertainty of a farmer with that of the financial manager of a mutual fund. The financial manager, according to them, will seek to diversify his investment portfolio in order to spread risk and minimize the effects on the overall rate of return of failure by any single investment. The head of a labouring household can spread risk and help to ensure a steady income stream in a similar fashion by increasing the number of labour market participants in his household. Moreover, if the total net returns to labour are on average the same with one or many household participations (i.e. if the net economic value of children is zero), landless parents will still have a positive economic incentive to have many children. Thus, the

27 Cain, Mead T. and A.B.M. Khorshed Alam Mazumder, Labour Market Structure, Child Employment and Productive Behaviour in Rural South Asia, Centre for population studies working papers, No.56, May, 1980 the population council, one Dag Hammarskjold Plaza, New York, New York 10017,U.S.A.

greater the risk inherent in a particular labour market structure, the greater the fertility incentives from this source.

Agriculture in Bangladesh is a gamble of monsoon. Good harvest depend on good weather. The vagaries of nature and luck in farming are immediately responsible for the majority of small land transfers. In times of distress or hardship (such as: Droughts, crop failure, poor harvest, flood, cyclone, untimely death of earning member of a family etc.), the absence of any earning male member in the family, particularly of son enforce the majority of marginal farmers to sell a portion of their landed property. Such farmers, if they are endowed with some able bodied sons can easily supplement their loss through the wage earnings of their sons and get themselves relieved from the transfer of land. Thus, uncertainty and the pervasiveness of risk in the peasant society and its diverse course, undoubtedly creates an incentive for larger families.

2.3.9 Social and Cultural Factors

Moreover, a large number of social and cultural factors prevailing in our peasant society like universal and early marriage, educational level, occupational pattern and social position of women greatly affect the micro-level determination of fertility in our rural economy.

i) Since all births in our country occur within marriage, total fertility is closely associated with the marriage pattern. In peasant society, marriage is considered to be a religious function and it is entrenched in their culture. In our society, marriage is not only universal, but it takes place at an early age resulting high fertility. An unmarried girl is expected to maintain her virginity till the time of her marriage, and marriage must be desired before any scope of suspicions regarding the virginity of a girl arises. Because of these, the age at marriage has been very low. It is often maintained that high fertility in peasant society is the result of universal and early marriage.

ii) Education is considered to be one of the most important variables affecting fertility behaviour. In most of the research findings[28], an inverse relationship between fertility and education has been noted. It is observed that education of wife has greater impact on fertility than

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28 Berelson, Bernard 1976 "Social Science Research on Population", Population and Development Review, Vol.2.
Bogue, D.J. (ed.) 1967 a sociological contribution to Family Planning Research, Chicago: Community and Family Study Centre, University of Chicago.
Coale, A.J. 1965, "Factors Associated with the Development of Law Fertility: A Historic Summary", Proceeding of the World Population Conference, Vol.11, pp. 205-209.
Chaudhury, Rafiqul Huda 1977b "Education and Fertility in Bangladesh", Bangladesh Development Studies, Vol.V, No.1, January, pp.81-107.

does the education of the husband. Education may affect the fertility behaviour of women (a) by delaying the age of marriage, (b) by providing new outlook, freedom and personal advancement, and (c) by allowing greater female participation in family decision making.

But, in peasant society, though parents recognize the value of education for their children, Yet the percentage of literacy is found to be very much insignificant. This low percentage of literacy in peasant society encourages high fertility.

iii) Occupational pattern of parents may also play an important role in determining the fertility behaviour. From different research findings[29], it is observed that occupational pattern of women has greater impact on fertility than does the occupational pattern of man. Some writers have employed the concepts of 'work commitment' and role incompatibility' to specify the relationship between female employment and fertility level. Though a negative

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29 Peek, Peter 1975, "Family Composition and Married Female Employment: The case of chile", ILO, Population and Employment Division, Working paper No.13.

Carleton Robert O. 1965, "Labour Force Participation: A Stimulus to Fertility in Paerto Rico", Demography 2: pp.233-239.

Nasra, M. 1974, "The Role of Inter-spousal, Communication in Adoption Family Planning Methods: A couple Approach," The Pakistan Development Review, Vol.XIII, Winter 1974, No.4, pp.452-469.

relationship is found between these two in the advanced countries, but such a relationship does not seem to hold good for peasant society where extended family ties are particularly strong and child care arrangement are relatively easy. Low occupational pattern of parents and particularly lack of female employment opportunities in peasant society promote high fertility.

iv) Traditionally, a large family is desired in peasant society. The status of a married women in peasant society is measured by the number of children, particularly male children. Her status is enhanced only when she has many children. For a women to have no children at all has traditionally been regarded as one of the greatest misfortunes, and even a cause of ostracism. The economic advantage of children, especially of sons, to the parents in the immediate future or in the old age, as mentioned earlier, is the important motivating factor behind the birth of a large number of children. Children are regarded as one's chief source of lasting pleasure and prime goal of affection. They are the means of attaining prestige in the society.

Thus the above analysis provide very clear-cut explanation of high fertility in peasant agrarian societies by pointing out that large families bring more benefits to their members than do small families.

CHAPTER - 3

AN APPROACH TO THE STUDY OF THE VALUE OF CHILDREN AS A DETERMINANT OF FERTILITY

The purpose of this chapter is to explore the theoretical approaches that have been developed until now, in connection with the analysis of the value of children at different levels of conceptualization[1] and to identify the central issues behind all such approaches for a clear understanding about the value and cost of children. The conceptual framework developed in this chapter, is later on applied in a setting typical of conditions found in a rural community of Bangladesh. The chapter concludes with a brief review of existing studies.

3.1 Conceptual Issues

An attempt is made here to clarify the different issues and related terminologies, which often confuse the minds of the readers in understanding the analysis on the value of children.

In recent years, the term 'value of children' is used by the researchers in determining the fertility behaviour of parents. Researchers often used this terminology

1 The analysis of value of children towards understanding fertility behaviour runs at four levels of conceptualization and these can be classified under (i) Socio-Demographic, ii) Socio-Structural, iii) Socio-Psychological and (iv) Micro-Economic approach.

according to their own tastes to interpret their own views. In many cases, this creates a great confusion and misunderstanding and 'hampers the discussion of the value of children to parents' (Hull, 1975, p.19)[2]. Sociologists normally call 'values' are relatively abstract and cannot determine the behaviour (spengler, 1966, p.119)[3]. They consider values in terms of "Functions". Phychologists, on the other hand, use the term 'need' to refer the 'value' of children (Hoffman, 1973, p.27)[4]. Difinitely, children fulfil the psychological needs of their parents. Again, economists consider value of children in term of 'utility' (Leibenstein, 1957, p.162)[5]. In economics, the concept

2 Hull, T.H. 1975, 'Each Child Brings its own Fortune: An Enquiry into the Value of Children in a Javanese Village', Unpublished Ph.D. Dissertation, Australian National University, Canberra.

3 Spengler, J.J. 1966, 'Values in Fertility Analyses', Demography, 3(1) 109-130.

4 Hoffman, Lois W. and Martin L. Hoffman, 1973, 'The Value of Children to Parents', in Fawcett, James T. (ed.), Psychological Perspective on Population, New York: Basic Books, 19-76.

5 Leibenstein, Harvey, 1957, Economic Backwardness and Economic Growth: Studies in the Theory of Economic Development, New York: John Wily and Sons.

'Utility' refers to the fulfilment of satisfactions. Thus, by utility of a child, an economist means the satisfactions which the child brings to his or her parents. But, unfortunately, many writers ignore the 'Psychic'[6] functions inherent in the concept of utility and considerer purely 'material concepts' in evaluating the 'value of children' terminology. This type of analyses ultimately ~~creates~~ creates confusion and misunderstanding among the researchers in arriving at the net economic value of children.

Children are valuable, because they provide certain social[7], economic[8] and psychological[9] benefits (or satisfactors or utilities) to their parents. Usually, the term 'value' is used to signify the positive functions. But values are not always positive. Costs are also essential ingredients of the above concept. It is difficult to obtain benefits without incurring some cost. Values can be positive or negative depending on the benefits and costs involved. Conceptually, therefore, value of children implies a net

6 Non-material and emotional values.

7 Adult status, social identity, self fulfilment, expansion of life, companionship, etc.

8 Help in the house, business or farm, care of younger children, old age security of parents including economic support, physical care, etc.

9 Pleasure from watching growth and development of children, pride in children's accomplishments; reflection of self in children, etc.

balance between 'benefits' and 'costs' which are not in procuring them.

For a clear understanding of the positive and negative meaning of the term 'value of children', a list prepared by Fawcett (1976)[10] is reproduced below, which represents variety of terminology that is used in connection with the value and cost of children.

Positive Orientations	Negative Orientations
Value of children	Cost of children
Satisfactions of children	Dissatisfactions
Advantages of children	Disadvantages
Rewards of children	Disvalues
Functions of children	Dis-utilities
Utility of children	Negative Motivations.
Need for children	
Tastes for children	
Preferences for children	
Demand for children	
Motivation for parenthood	
Reproductive Motivation	
Child bearing Motivation	
Fertility Motivation.	

Thus, in any analyses of value of children, one needs to look at both 'benefits' and costs aspects. Omission of any of these two aspects of the concept will lead to a misinterpretation of the net economic value of children.

10 Fawcett, James, T. 'The Value and Cost of Children: Converging Theory and Research'. A paper prepared for presentation at the Annual meeting of the American Psychological Association, Washington D.C., September 2-7,1976; in Lado T. Ruzicka (ed), The Economic and Social Supports for High Fertility, Canberra: The Australian National University, 1977, pp.91-114.

The terminologies which are listed above in connection with the value and cost of children are all confusing. One term cannot bear the exact connotation of the other. In other words, they are not interchangeable. Fawcett (1976)[11] thus rightly observed: 'Terminology in this area of research is loose and non-uniform and suffers from a lack of systematic definition, either theoretically or operational'.

3.2 Socio-Demographic Approach in Determining Fertility Behaviour

Socio-demographic approach is basically historical and inferential in nature. Here, the value and costs of children are measured by considering long term changes in economic and social order of the society. According to this framework, transformation of society from rural to urban, socio-economic changes, the growing proliferation of factories, etc. are associated with demographic transition. The central theme of this approach is summarised by Fawcett (1972: 5-7)[12] as follows:

> The sociology and demography, the satisfactions and costs of children have been discussed as a partial explanation for the demographic transition. The shift from a rural, agricultural society to an urban, industrial one implies a reduction in economic benefits from children and an increase in costs. Other

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11 Ibid, p.94.

12 Fawcett, James, T. (ed.) 1972, "The Satisfactions and Costs of Children: Theories, Concepts, Methods", East-West Population Institute, Honolulu.

changes, such as higher level of education, tend to increase awareness and desires related to alternatives to children, changing family structure, along with alternations in economic activities of the family, tend to make large number of children dys-functional.

Thus, according to this approach, the economic values and costs of children are measured by considering the changes of socio-demographic and economic conditions of the society. About 27 years ago, Banks (1954)[13] made an attempt in his historical study to asses explicitly the value and cost of children with this approach. However, the ideas of this approach are applied to contemporary cross-sectional data.

3.2.1 Value of Children in Pre-Industrial Era:

The assumption that slowing population growth will increase a society's well being has never been adequately established either logically or empirically[14], (Blandy 1974; Krueger et. al. 1962; Robinson et. al. 1971). Supports for

13 Banks, J.A. (1954), Prosperity and Parenthood: A study of Family Planning among the Victorian Middle Classes, Routledge & K. Paul, London.

14 Blandy, Richard J. 1974. "The Welfare Analysis of Fertility Reduction", Economic Journal, 84(333): 109-129 (March);

Krueger, A.O. and L.A. Sjaastad 1962, "Some Limitations of Enke's Economics of Publication", Economic Development and Cultural Change 10(3): 423-426.

Robinson, Warren, C. and D.E. Horlacher 1971, 'Population Growth and Economic Welfare', Reports on Population/ Family Planning 6:1-39 (February).

high fertility is considered to be an inherent desire on the part of people many developing countries of the world. Social scientists, particularly demographers, economists, sociologists and psycologists have therefore started collecting data on social and economic factors that are related to or supporting high fertility in these countries. Social scientists have presented strong evidence that fertility trends of all societies are not uniform. It varies from culture to culture and even within the same cultural groups, between one community with another (Ogburn, 1922)[15].

Therefore, it is not appropriate to say that children will generally command the same value everywhere and to every class. Perceived value of children by social class varies with changing social customs. In pre-industrial era children are considered valuable to their parents, because they (children) contribute materially to the running of the family, support their aged parents financially when they are helpless, preserve the family name and render help in many other family tasks. For examples, Filipino couples consider children an end in themselves, reflecting their high valuation of emotional warmth and closeness in the family. In rural Nigeria, a man with a large number of children is identified even today as a successful man, and is usually thought to have a potential for even greater success. In India, traditionally, a

15 Ogburn, William F. (1922), "Social Change with respect to Culture and Original Nature", Viking, New York: 200-280.

large family is desired and this attitude is well reflected in the following words translated from the Kannada language:

> I do not mind poverty so let me have many children.
> And let the Lord's kindness be on me. And I know
> He will take care of my children (United Nations, 1961: 139)[16].

Similarly, much of the earlier studies, testify high fertility in traditional societies of pre-industrial era. Parents in these societies consider that children are valuable to them, not because they provide financial support, but other important factors, such as, preservation of father's name, continuation of family enterprise, corporate strength of large families and support given by children to aged parents, are found contributing largely in determing the value of children.

However, many scholars of pre-industrial era also wrote on value of children and supporting high fertility both at individual and societal level. Plato in his utopian society discussed the different roles of children and his comments on child bearing behaviour, marriage and family life amply testify his support in favour of high fertility.

In the beginning of the 18th century, Mandeville in his 'Fable of The Bee' also discussed the value of children. He considered family as the basic unit of the society and

16 United Nations, 1961, "The Mysore Population Study" New York, P.139.

pointed out the consequences of excessive 'fondness' of children in the society.

Classical economists like Adam Smith and Malthus in their labour theory of value also showed the importance of high fertility in those days, when the demand for children was felt in all spheres of life - in family, in farming activities and in handicraft industries.

Thus high fertility was found as the inherent character of a large section of people of the world, who maintained the view that there cannot be any meaningful success without large number of children.

3.2.2 Changing Societal Concept on the Value of Children

The concept of the economic value of children in determining fertility behaviour of parents was found in a state of disarray until the development of demographic transition theory in 1940 by Notestein, Devis and the "Princeton School" (Notestein 1945, 1953, Davis, 1955)[17]. Though the earlier writers emphasised the economic value of children and supporting high fertility, yet no systematic discussion was found

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17 Notestein, Frank, W. (1945) 'Population: The Long View', in Theodore W. Schultz (ed), Food for the World, University of Chicago Press, Chicago: 36-57.

Notestein, Fran, W (1953) 'Economic Problems of Population Change' 8th International Conference of Agricultural Economists'.

Davis, Kingsley (1955) 'Institutional Patterns Favouring High Fertility in Under Developed Areas' Eugenics Quarterly, 2(1) 33-39.

among them. 'Demographic transition theory actually came ... when there was no theory and there was a crying need for a theory' (concepcion and Murphy, 1967)[18].

In pre-industrial age, family was considered as the basic unit of the society. This idea was changed with the growth of urbanization and industrialization. As a result, the utility of child labour as a source of cheap manpower drastically fall on family, farms and in factories. The Industrial Revolution changed the overall picture of the society. The impact of this change in society is well described by Hull (1975)[19] as follows:

> The growing proliferation of factories, the growth of urban cities, the solidification of national system, a flowering age of analyses and exploration had all began to produce quite different types of social and economic organization, one result of which was a transformation of the role of children in a society. These changes, not unexpectedly, produced changes, in what was observed, and in the way it was interpreted.

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18 Concepcion, Mercedes, B. and E.M. Murphy (1967), 'Wanted: A theory of the Demographic Transition', in International Union For the Scientific Study of Population, contributed papers, Sydney conference, Australia 21 to 25 August, 1967: 5-13.

19 Hull, T.H. 1975, op. cit.

In pre-industrial society, children helped their parents in times of need and particularly in old age when they were unable to work; but the introduction of 'Social Security Scheme' in many developed countries of the world reduced the economic value of children in that direction.

Moreover, restrictive child labour laws prohibiting the employment of children in farms and factories, arrangements facilitating savings, acquisition of assets by the individuals, growth of schools and rise in educational costs contributed largely in formulating a new 'institutional structure'. Notestein (1953: 16)[20] then suggested that 'Under these multiple pressures, old ideals and beliefs began to weaken and the new ideal of a small number of children gained strength'.

However, the situation in the developing countries of the world are quite different. In developing countries, the changing societal concept on the value of children as observed in the industrialized world cannot be applied adequately. Because, in most of the developing countries, social security scheme is not adopted at all level; child labour is not strictly prohibited in farms and factories; and the amount of expenditure in education is insignificant. Moreover, price instability, higher risks of death and disease, higher income inequality and lower income level

20 Notestein, Frank W. 1953, op. cit. p-16.

encourage high fertility in these countries. Thus, the value of children in developing countries of the world, in the above context, has not come down.

Though the demographic transition theory satisfied the long felt demand of finding a somewhat reasonable framework of fertility analysis, yet the theory is rejected by the later writers. Because, no 'testable hypotheses' of the theory is found. It is based on some 'casual factors' to determine relative importance of the value of children and as such failed to show the 'process of demographic change' in European countries (Vande Walle and Knodel, 1967, Lesthaeghe and Vande Walle, 1976, Coale 1973)[21].

3.2.3 New Dimension of Thoughts

After the 'Demographic Transion Theory' for some time, the 'thresh hold huppthesis' of Kirk (1971)[22] was found to

21 Vande Walle, Etienne and John Knodel (1967), "Demographic Transition & Fertility Decline: The European Case", in International Union for the Scientific Study of Population, contributed papers, Sydney conference, Australia, 21 to 25 August, 1967;

Lesthaeghe, R. and E. Van De Walle (1976), "Economic Factors and Fertility Decline in France & Belgium', in Ansley J. Coale (ed), Economic Factors in Population Growth, Macmillan, London;

Coale, Ansley J. (1973) 'The Demographic Transition' in International Union for the Scientific Study of Population, International population conference, Liege 1: 53-72.

22 Kirk, Dudley (1971) 'A New Demographic Transition' in National Academy of Science', Rapid Population Growth: Consequences and Policy Implications, Johns Hopkins Press, Baltimore: 123-147.

be very prominent in explaining fertility behaviour of a society.

Though Kirk's findings are interesting, but his calculated 'thresh hold levels[23], are always found changing with the change of socio-economic development of different countries of the world. Value of children under 'thresh hold analysis' cannot be measured. Because, marriage system, motivations for large family, preference for male offspring, family structure, infant mortality, and labour force participation of women outside home are not uniform in all culture. Any change in socio-economic development will lead to a change in those 'cultural region'. However, the main contribution of Kirk's work is the importance of cultural factors in the determination of fertility behaviour.

3.2.4 European Demographic Transition

Similar to the findings of Kirk, Linguistic and Cultural differences, rather than economic and educational differences were found to be important factors in explaining the decline of fertility between the 49 provinces in Spain (Coale 1973:63)[24].

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23 Kirk discovered the 'thresh hold level' by reducing heterogeneity and concentrating on 'Cultural regions' (of South East and African countries) showed how economic and social development reduced the value of children.

24 Coale 1973, op. cit p.63.

In Belgium (Lesthaeghe and Vande Walle 1976: 227)[25] and Portugal (Sweezy, 1975)[26] cultural factors were also found to play dominant role in reducing the birth rates of these countries.

Though many studies on fertility behaviour are conducted on the theoretical framework, basing on cultural setting (Davis and Blake 1956, Freedman 1961-62, Ryder 1959)[27], yet the idea of cultural norms per se does not tell the whole story about the value placed on children. Desire for children is an instinct urge of parents which is closely linked up with the changing socio-economic circumstances - not the culture alone.

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25 Lesthaeghe, R. and E. Van De Walle (1976) 'Economic Factors and Fertility Decline in France & Belgium', in Ansley J. Coale (ed), Economic Factors in Population Growth, Macmillan, London.

26 Sweezy, Alan (1975), Recent Light on the Relation Between Socio-economic Development and Fertility Decline', Caltech Population Program Occasional Papers, series 1, No.1.

27 Davis, K. and J. Blake (1956) 'Social Structure and Fertility: An Analytical Framework', Economic development and cultural change, 4(3): 211-235.

Freedman, Ronald (1961-62), 'The Sociology of Human Fertility': A Trend Report and Bibliography' Current Sociology, 10/11(2): i-iii, 35-121.

Ryder, N.B. (1959), 'Fertility', in Hauser, P.M. and Duncan, O.D. (eds). The Study of Population: An Inventory and Appraisal, University of Chicago Press, Chicago.

It may be mentioned that Davis and Blake (1956)[28] took the pioneering role by introducing a sociological model of fertility. According to them, structural variables through certain intermediate variables (intercourse, conception and gestation variables) affect the fertility behaviour. Freedman's diagram based on this model is reproduced in Fig.I.

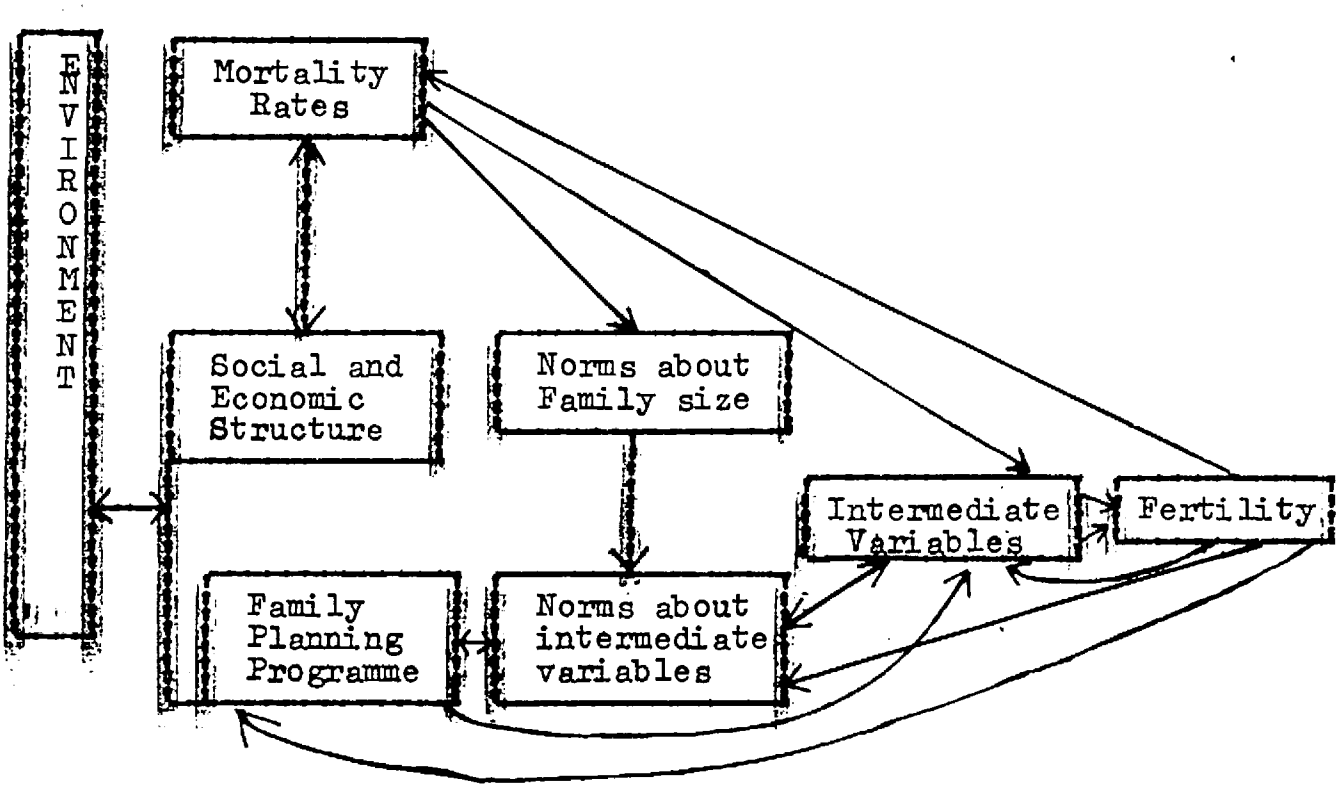

Figure 3.1 : A mode for the sociological analyses of fertility levels (from R. Freedman, The Sociology of Human Fertility: An Annotated Bibliography, 1975: 15).

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28 Davis, K. and J. Blake (1956), op. cit. p-211-235.

3.3 Social Structure and Fertility

Davis (1967)[29] and Blake (1971, 1972)[30] are the two important proponents of socio-structural approach. This approach affect the value and cost of children in a variety of ways. Some times, the whole society is considered, sometimes only a fraction of the society is considered and sometimes only the reproducing couples are considered to determine the value of children. Here emphasis is given to norms, values and opportunity structure, because these are closely linked with the value and cost of children. Davis and Blake deal with the reproductive motivation of individual couples and show how change in the social structure, such as urbanization, female labour force participation, education level and possession of modern consumer goods affect the utility of children and their costs. Freedman introduced 'family size norms' as another set of intermediate variables. He argued that environmental factors and social & economic structure affect fertility via a series of family size 'norms'.

29 Davis, Kingsley 1967, 'Population Policy: Will Current Programmes Succeed'? Science 158: 730-739 (November 10).

30 Blake, Judith, 1971, 'Reproductive Motive and Population Policy', Bio-Science, 21(5): 215-220.

Blake, Judith, 1972, 'Fertility Control and the Problem of Voluntarism' University of California International Population and Urban Research and Institute of International Studies. Reprint No.442, Berkeley. Reprinted from 'Scientists and World Affairs' (Proceedings of the 22nd Pugwash Conference on Science and World Affairs, 7-12 September, 1972, London n.d.) pp.279-288.

3.3.1 A Link Between Sociologists and Economists

The concept of 'norms' as developed by the sociologists was considered to be a source of communication between sociologists and economists. Sociologists maintain the view that individual decision making acting through norms affect the fertility (or test formation), whereas, economists stress individual's maximization of utility (or satisfaction) through choices between alternative possibilities, with resource constraint. This has been clearly indicated by Duesenberry (1960)[31] when he said, 'Economics is all about how people make choices, sociology is all about why they do not have any choice to make'.

Thus while demographers and sociologists failed to find a systematic and logical theory of fertility, then economists found the field ripe and entered into it. As Leibenstein (1974)[32] puts it:

> To some of those who had been labouring in the vine yeards of demography for decades, the efforts of economists in the sixties and seventies to develop a theory of fertility must have appeared like the invasion of a horde of primitives on a technologically

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31 Duesenberry, James, 1960, 'Comments On' an analysis of Fertility by Gary S. Becker, in Demographic and Economic Change in Developed Countries, Universities - National Bureau of Economic Research, Conference series 11, Princeton University Press, Princeton, N.J.: 233.

32 Leibenstein, H. 1974, 'An Interpretation Of The Economic Theory of Fertility: Promising Path or Blind Alley, Journal of Economic Literature, 12(2): 458.

advanced community proclaiming loudly their intent to reinvent the wheel.

3.4 An Analytical Base for the Study of the Economic Value of Children

Here the fertility theory of Leibenstein (both fertility levels and trends) in determing the value of children will be discussed.

Leibenstein (1957)[33] formulates the view that with the rise in income, the social status of families will also rise and this change in social status will lead to a change in tastes for children as well as for those goods which compete with children. He said, husband's relative income is more important than his actual income in determining a couples fertility. Given social status, the goals of parents concerning the tastes for children, he said, depends on the changing socio-economic structure. The goals he distinguishes are:

i) The personal satisfaction or pleasure that parents derive from watching the growth and development of children or the Consumption Utilities (Uc).

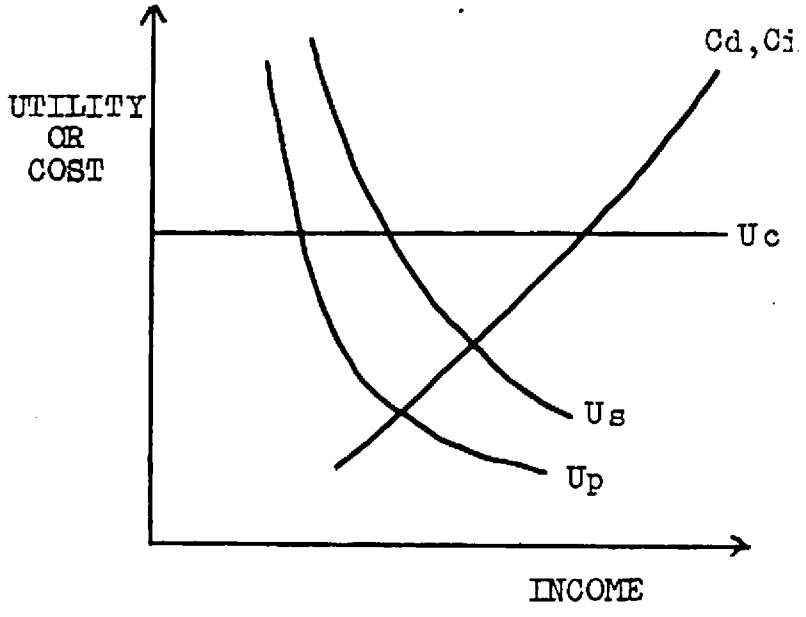
ii) The material gains that parents receive from children's help in the house, business and farm or the production Utilities (Up).

iii) The old age security, including economic support, physical care and psychological security that parents received from their children or Security Utility (Us).

33 Leibenstein, Harvey, 1957, op. cit.

To meet up these goals, Leibenstein maintains the view that, certain costs must be incurred by the parents. These costs are of two types: (a) Economic costs and (b) the opportunity costs. The former involves direct material expenses on child bearing and educational costs (Cd); while the later includes indirect expenses (Ci) which parents incur in the form of sacrificing recreation, enjoyment, freedom, travel, privacy and sleep. These can be represented in the following diagram:

Figure: 3.2 A New Analytical Base Representing Changing Utility-Cost Relations



(Source: Leibenstein H. 1957, op.cit, p.162).

According to Leibenstein, there is no variation with regard to personal pleasure and satisfaction that the parents of a modern society receive from their children in comparison

to that of the parents in traditional societies. Therefore, he draws the consumption utility curve (Uc) as a horizontal straight line. But, the other two aspects, such as, material gains produced by children and the importance of children as a source of security have been developed with the growth of modernization. Cost, according to Leibenstein will increase with the increase of income. Because, cost has its impact on tastes in determining the fertility behaviour of parents. He maintains that cost which determines the tastes and tastes which affects the social status is so important that it determines whether a couple will desire more children in a situation when his money income increase, least extra children will create a threat to maintain his status. Thus, Leibenstein shows that according to the assumption of the theory sustained fertility decline will generally occur as a result of development.

The analysis of Leibenstein, discussed here is important in the sense that it provides an analytical base for the study of the economic value of children, by considering the principles of values attached to child bearing, which we outlined earlier.

3.5 Micro-Level Framework of the Value of Children

In the foregoing analyses, we have seen how the demographers, sociologists and economists tried to build up their theoretical approaches in determining the value of children and how with the change of society from pre-industrial to modern stage a sharp shift is made from societal sanctions (macro level) to individual decision making (micro level) relating to taste formulation. Though the analysis of the earlier authors suffers from many shortfalls, Yet this provides a ground work for the later analysis.

In this section, an attempt is made to discuss the micro-economic theory of fertility. Here both the problems and theoretical applicability of this approach will be analysed and knowledge of empirical findings of this approach (along with the conceptual tools developed by other approaches) will be taken as an analytical base for the present study, which is fundamentally an anthropological in nature and designed on the background of the cultural setting of a rural economy of Bangladesh.

The goals of micro-economic approach of fertility is to explain the variance in completed family size at the level of the individual couples. In micro-economic theory, social and psychological dimensions are subsumed under such concepts as satisfaction, utility, tastes and preferences. Quality of children desired and the psychological cost of

birth control are the intervening element of micro-economic approach, which cannot be shown in any demographic and socio-economic model of fertility. Children, under micro-economic approach, are viewed as durable goods and the decision process relating to their production are found to be identical like other consumption goods. As Easterlin (1975: 54)[34] has put it:

> The conventional theory of consumer behaviour views the individual as trying to maximise satisfaction, given a range of goods, their prices and his own tastes and income. In the application of the theory for fertility analysis, children are viewed as special kind of goods, and fertility is seen as a response to the consumer's demand for children relative to other goods.

Like Hicksian theory of consumer behaviour, the micro-economic approach of fertility attributes a similar measure of rationality to reproductive decisions. Here, the decision on the part of a couple to have another child is determined on the basis of the cost of raising the child against the benefits of having the child.

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34 Easterlin, 1975, 'An Economic Framework for Fertility Analysis', Studies in Family Planning 6(3): 54-63.

Becker (1960)[35] took the pioneering role in applying micro-economic theory of consumers behaviour to child bearing. Since then, many other economists have attempted to develop more refined and sophisticated versions of the micro-economic theory of fertility (Easterlin 1969, 1975; Robinson and Horlacher 1971; Tabbarah 1971; Schultz, 1973, Leibenstein 1974, Nerlov, 1974)[36]. The common core of their discussions is to focus the individual and to stress motivation and choice in child bearing behaviour. Fawcett (1976)[37] listed six important assumptions of micro-level framework, which are as follows:

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35 Becker, Gray S. (1960), 'An Economic Analysis Of Fertility', in 'Demographic and Economic Change in Developed Countries', Princeton University Press for the National Bureau of Economic Research, pp.209-231.

36 Easterlin, Richard E. 1969, 'Towards a Socio-Economic Theory of Fertility: A Survey of Recent Research on Economic Factors in American Fertility' in Behrman, S.J. et.al. (eds), Fertility and Family Planning: A World View, University of Michigan Press, Ann Arbor, pp.127-150.

Easterlin, Richard A. 1975, op. cit.

Robinson, Warren C. and D.E. Horlacher 1971, op.cit; 1-39.

Tabbarah, Riad B. (1971), 'Towards a Theory of Demographic Development', Economic Development and Cultural Change, 19(2): 257-276.

Schultz, T. Paul, 1973, 'A Preliminary Survey of Economic Analysis of Fertility', The American Economic Review, 63(2): 71-78.

Leibenstein, H. 1974, op.cit. 457-479.

Nerlov, Marc, 1974, Household & Economy: Toward a New Theory of Population and Economic Growth', Journal of Political Economy, 82(2) Part 2, 5200-5218.

37 Fawcett, James T. 1976, op.cit., pp.91-114.

i. People act in anticipation of future rewards and costs;

ii. Children provide important satisfactions in life, but not without cost;

iii. People differ with respect to type of satisfactions and costs that are important to them;

iv. These differences are related to both internal and psychological factors and external social and economic factors, which also affect the desirability and availability of alternatives to children;

v. The balance of satisfactions and costs are made by most people at some point in the life cycle, although not necessarily for every birth;

vi. These choices can be better understood, if not fully predicted, though research that focuses on the value and cost of children.

I shall now, turn to discuss the micro-economic theory of fertility as developed by different economists in different times.

3.5.1 Micro-Economic Theories of Fertility - The Household Production Model

Micro-economic approaches to fertility determination represented by 'Household Production Model' (alternatively called 'Demand Theory' or 'Chicago School Approach') was primarily based on the maximization of utility function subject to a budget constraint. This demand framework for understanding individual differences in fertility was conceptualized by Gray S. Becker (1960)[38], implemented

38 Becker, Gray S. (1960), op.cit.

empirically by Jacob Mincer (1963)[39] and has of late led to a number of investigations of reproductive behaviour in various societies (T. Paul Schultz, 1974)[40].

Becker formulates the view that since children can absorb a substantial share of a couples available time and market income, it is likely that market prices, level of spouses wage and non-human wealth exert substantial effects on the number of children, parents want.

"Given plausible assumption concerning the time intensity of child rearing for wives and husbands and alternative opportunities for the use of their time, the household demand framework predicts that a relative increase in the value of the wife's time will exert a more negative effect on demand for children. The effect of non-human wealth is assumed to increase the demand for children, for it would contain no offsetting price of time. These differential value of time (or education) and physical wealth effects on completed fertility behaviour

39 Mincer, Jacob 1963, "Market Prices Opportunity Costs, and Income Effects" in Carl Christ et.al. (ed). Measurement in Economics: Studies in Mathematical Economics and Econometrics in Memory of Yehuda Grunfeld, Standford, Calif: Standford University Press, pp.62-82.

40 Schultz, Theodore W. (1974), "Fertility and Economic Values", in T.W. Schultz (ed), Economics of the Family: Marriage, Children and Human Capital, University of Chicago Press, Chicago: 3-22.

have been confirmed in most empirical studies that appropriately exclude other endogenous variables in the prediction equation' (T. Paul Schultz, 1974)[41].

In this model family is viewed as a firm engaged in the production of basic items of consumption usually called "house-hold commodities"[42]. Families are assumed on the average, to allocate resources available to them in such a way as to maximise the satisfaction that they receive from those resources. The theoretical representation of this model in determining the value of children has been expressed in the analyses of De Tray[43] which demands appreciation.

Under 'Household Production Model', families are supposed to maximise a life time utility function of the form

$$U = U \quad (CS)$$

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41 Schultz, Theodore W. (1974), 'Fertility and Economic Values' in T.W. Schultz (ed) 'Economics of the Family: Marriage, Children and Human Capital', University of Chicago Press, Chicago: 3-22.

42 As for example, the commodity "good health" may require, as inputs doctors' services, drugs, a nutritious diet, and a persons time.

43 De Tray, Dennis 1976, "Population Growth and Educational Policies - An Economic Perspective" in R.G. Ridker (ed). Population and Development. Johns Hopkins University Press, Baltimore, London.

Where U represents utility and C and S are, respectively, a measure of the services derived from children (both monetary and psychic) and standard of living. For the reason of simplicity, it is assumed that parents will make all fertility and consumption decision during a single period. Commodities C and S are not available in the market, rather these are produced within the household, using the resources and technology at the household's disposal.

The introduction of time in this model, as a productive resource of the household, differentiate it from the other traditional theory of consumers behaviour.

One of the most sophisticated and comprehensive extensions of this model is shown by Willis (1973)[44]. In his model 'child services' enters the utility function and the production relationship of child services is assumed to be homogeneous of degree 1[45].

The overall discussion of the 'demand theory' can be summed up as follows:

a) The demand theory, in its most general form, postulates that children are but one among many potential avenues through which couples can spend their wealth.

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44 Willis, Robert J. 1973, "A New Approach to the Economic Theory of Fertility Behaviour", Journal of Political Economy 81(2); S14-69 (March/April Supplement 2).

45 That is an n percentage increase in all inputs will result in n percentage increase in output.

b) The main premise of the demand theory of family size is that children are not showered on parents in some uncontrolled fashion, but are, rather, the out comes of implicit or explicit decision making by parents.

c) The analytical framework of the theory is based on the assumption that many of the factors that bear on parental decisions to purchase consumption items from the market place (food, consumer durables, and so on) should also affect the "purchase" or production of children. Among the most important of these factors are the price that parents have to pay in order to raise a (another) child, and the amount of resources that parents have at their disposal, that is, family income and wealth.

d) If children are like other items consumed by households, then, as the cost of producing (i.e. parents time) children rise, holding family wealth and income constant, the number of children desired or produced by parents will decline. Conversely, if the cost of children remain unchanged but family income rises, then parents will want to consume (produce) more children as long as children are normal goods in the economic sense of them.

3.5.2 Drawbacks of Household Production Model

The demand theory of fertility based on the household production model have been criticised on a number of fronts

by economists (Griliches 1974, Leibenstein 1974, Nerlove 1974)[46] and non-economists (Blake 1965, Namboodiri 1972, Ryder 1973)[47] alike.

It is observed that the Demand theory of fertility contributed significantly to the explanation of household fertility behaviour without knowing explicitly why it is that parents have children. The economist in their study of fertility behaviour treated children exactly as household commodity. This has led to a theoretical model with few unambiguious predictions. In their application of household production model, they are accused of ignoring exactly what they are purporting to study. The family or family formation.

One important weakness of the theory is its neglect of the 'supply side'. Thus, the Demand theory of fertility cannot be treated as a complete theory. It has failed to explain, on the one hand, the situations where the demand for children does not exist (for example, in extra-marital

46 Griliches, Zvi, 1974, "Comment", Journal of Political Economy 82(2): S219-221 (March/April, pt.2).
Leibenstein, H. 1974, op.cit.: 457-479 (June).
Nerlove, Marc. 1974, op.cit: S 200-218.

47 Blake, Judith 1965, "Demographic Science and the Redirection of Population Policy", Journal of Chronic Diseases 18: 1181-2000.
Namboodiri, N.K. 1972, "Some Observations on the Economic Framework for Fertility Analysis", Population Studies 26(2): 185-206 (July).
Ryder, N.B. 1973. "Comment", Journal of Political Economy 81(2): S 65-69 (March/April, pt.2).

and especially in pre-marital fertility where the demand for children is nil); and on the other hand, important supply constraints, where a substantial portion of parents can not attain their desired number of children because of biological factors.

Now the question is can the economic models of fertility help us to understand the determinants of fertility in developing countries and particularly in the rural areas where the bulk of people still live and where labour force participation of women outside home is restricted/limited, and consequently mother's time cannot play a significant factor in determing fertility, T.W. Scuultz (1974:20)[48], notes that

> The household model as it now stands has not been developed to treat the particular classes of circumstances that constrain the household in these countries. These are countries in which illiteracy abounds, human time is cheap and the income opportunities that women have outside the home are mainly not jobs in the labour market. Furthermore, infant mortality is high, life expectancy at birth is low, defilitation during the adult years is substantial for reasons of inadequate nutrition and endemic diseases, and the availability of modern contraceptive

48 Schultz, T.W. 1974, op.cit.: 3-22.

techniques, including information about them is, in general, wanting. These classes of circumstances are not as yet at home in the household model.

The most crucial defect of the theory is that it cannot be applied in low-income countries, as G.W. Jones (1977)[49] has mentioned five reasons for it. First, in low-income countries no opportunity cost is sacrificed by women in child care assistance in the face of kin ties or the extended nature of mutual family obligations. Second, according to the demand theory of fertility 'mother's time' is a significant factor affecting fertility. In some cultures (in Muslim countries) women are secluded in home, work outside the home is not a real option for the great majority. Thus, if women do not work for cultural reasons, then mother's time cannot be a significant factor affecting fertility. Third, the theory fails to measure "household utility maximization", in low-income countries. Because, the household structure of many under developed countries are based on "extended families of mutual obligations" (Caldwell 1976a)[50]. Here, unlike the western societies where kinship ties are absent, individuals maximise their utility often at the expense of other household members.

49 Jones, G.W. 1977, "Economic and Social Support for High Fertility: Conceptual Framework" in L.T. Ruzicka (ed). The Economic and Social Support for High Fertility. The Australian National University, Canberra, pp. 3-47.

50 Caldwell, John C. 1976a, Towards a Restatement of Demographic Transition Theory: An Investigation of Conditions before and at the onset of Fertility Decline Employing Primarily African Experience & Data, Population & Development Review, 2(3): 321-366.

Fourth, where the demand theory of fertility considers children's role as "consumbers durables", this has now been outweighted in peasant agriculture by their role as productive agent and as a source of security (Caldwell 1976a; 1976b; Nag, 1975, T. Hull 1975)[51]. Fifth, in many developing countries of the world, 'supply constraint' looms large. There is a section in every population whose 'natural fertility[52] (See Henry 1961)[53] is below their desired fertility, perhaps because of sterility or subfecundity (such as Tabbe, low fertility belt of Central Africa); they cannot produce the children they desire. The demand theory of fertility cannot be applied to this subfecundity group.

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51 Caldwell, John, C. 1976a Ibid: 321-366.
Caldwell, John C. 1976b 'The Economic Rationality of High Fertility: An Investigation Illustrated with Nigerian Survey Data', Department of Demography, Australian National University, Canberra (mimeo).

52 The fertility of a population that makes no deliberate attempt to limit births.

53 Henry, Louis, 1961 'Some Data on Natural Fertility', Eugenics Quarterly, 8(2): 81-91.

3.6 Modern Analysis of the Value of Children: Easterlin's Framework

In Household production model, supply side was ignored. Easterlin (1975)[54] integrates the supply side of fertility with the demand side into the theory of fertility determination. Easterlin's interpretation of a positive income fertility relation runs in two direction: (1) one is the purely demand based on economic theory of fertility and the other is (2) potential output function. According to him,

a) Parents will demand more surviving children (Cd), if fertility regulations are costless[55]; and

b) The number of surviving children [i.e. potential output of children (Cn)] depends, if deliberate fertility regulations are absent.

The above two separate interpretations of Eastertain are represented in figure 3.3[56].

In figure 3.3 the horizontal axis OX measures the number of children and the vertical axis OY measures the goods consumed by parents. Here tastes are represented by the

54 Easterlin, Richard A. 1975, "An Economic Framework of Fertility Analysis", Studies in Family Planning 6(3): 54-63.

55 The cost of fertility regulations include both material and Psychic and the time and money required to learn about the use of specific techniques.

56 See, for example Jones, G.W. 1977, Economic & Social Supports for High Fertility: Conceptual Framework in L.T. Ruzika (ed), The Economic and Social Support for High Fertility: 3-47.

indifference map (1 and 2) and prices and income are represented by the budget constraint (L M and L_1M_1). For the moment, let us ignore the curve Levelled by Cn. Thus in a Purely demand based fertility theory, the maximisation of utility (or satisfaction) is shown by the point of tengency of the indifference curve and the budget line.

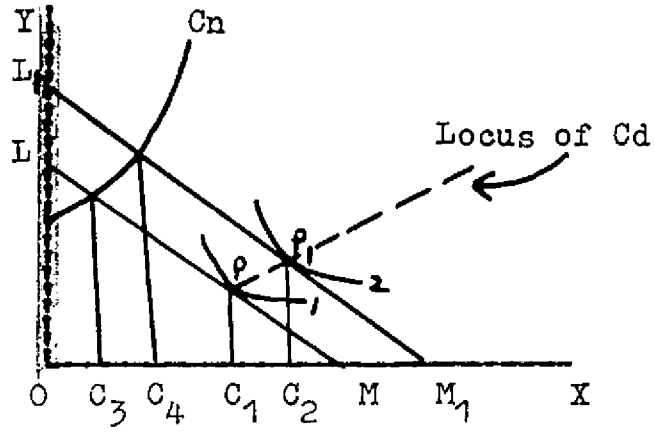

Figure: 3.3 "Output" compared with "Demand" interpretation of a positive income-fertility relationship.

In this case, the point 'P' represents the maximisation of utility, where the number of children desired (or demanded) by the household is C_1. P_1 represents the higher level of satisfaction, where more number of children (C_2) are demanded and more goods (P_1C_2) consumed by the parents. However, at any given time only one is applicable (either LM or L_1M_1). The connecting line between P and P_1 represents the locus of C_d i.e. the desired number of children.

Thus, the above figure shows the positive relationship between income and purchase of goods and also indicate that number of children varies directly with income.

The pre-modern conditions of fertility can also be shown in an alternative way with the help of potential output function (Cn). This function shows how the number of surviving children are increasing with the parents increase in income (or living conditions) and vice versa, when no deliberate attempts are made to control fertility. It is said that natural fertility will be zero below some minimum point of parents consumption and with the increase in income and standard of living from low level, natural fertility will increase progressively, but the increment will become gradually less until a point is reached at which any change in living condition (or level) left natural fertility unaffected. This situation is shown by the curve Cn in figure 3.3 where increase in income produced a positive income fertility relationship by shifting the desired (or equilibrium) number of children from C_3 to C_4. After that, any increase in income will not lead to any increase in natural fertility.

The interpretation of this curve differs from the earlier demand interpretation. In this case, the underlying mechanism involves such things as the effects of nutrition on reproductive capacity.

Cn function actually shows the output interpretation of the positive income fertility relation. Here no taste is shown and as such parents cannot produce the desired number of children like the demand based economic theory of fertility where the maximum satisfaction point is represented by the point of tengency of budget constraint and indifference curve. In this case, since desires exceed potential output, parents would, however have as many children as possible, the amount given by the interaction of the relevant budget constraint with the Cn function. The Cn function could, however lie to the right of the C_d locus for some couples, especially if health conditions or social customs were more favourable to high natural fertility. In such cases, the demand interpretation would be the appropriate one, since households will be unwilling to produce more children.

Easterlin's model is useful for understanding the conceptual interpretation in the sense that the framework developed by Easterlin can be applied successfully in any analysis of fertility levels and trends. But, his model is not applicable in different cultures, over time, and between different couples. In his analysis, Easterlin considers the cost of "average" couples, "average supply curve of children", "average" indifference curves and the "average" budget constraint to represent the society as a whole. But

this is not acceptable in many ways. Because, when the "average" couple is in an excess demand situation, some proportion of couples may still face an excess supply and vice versa. Moreover, Easterlin fails to give a clear idea about those persons whose natural fertility is below the desired level and of those whose potential supply of children exceeds their demand given the budget constraint they face.

However, with regard to the universal applicability of the model, Easterlin (1969: 151)[57] noted that his theoretical framework is equally applicable to both developed and less developed countries, but that there are several conditions which must necessarily be incorporated if the theory is to apply strictly to less developed countries. These include infant mortality, children's contribution to household income, and children's support to parents when they are old".

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57 Easterlin, Richard A. 1969, "Towards a Socio-Economic Theory of Fertility: A Survey of Recent Research on Economic Factors in American Fertility" in S.J. Behrman et. al. (ed), Fertility and Family Planning: A World View, Michigan, University of Michigan Press, Ann Arbor.

3.7 Inter-Relations of Various Types of 'Value System' under Socio-Psychological Approach

In recent years, a large number of authors are found dealing with the value of children and their approach is primarily socio-psychological in nature. In 1972, Schultz for the first time pointed out that the researchers on the value of children were ignoring the non-material value (such as affection, respect, pride, pleasure etc.) of children from their discussion. This ultimately led to the growth of socio-psychological approach of fertility.

The socio-psychological approach always emphasizes the needs of individuals that are fulfilled by having children. This approach is based on motivations and comprises more or less all other approaches that are related with the value of children study. As Foffman and Hoffman (1973:44)[58] pointed out: "Socio-Psychological approach results from a search for a theoretical scheme, capable of incorporating many values that children provide in various cultures". Like Hoffman and Hoffman, Berelson (1973)[59], Fawcett(1976)[60],

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58 Hoffman, Lois, W. and M.L. Hoffman, 1973 op.cit: 44.

59 Berelson, Bernard (1973) "The Value of Children: A Taxonomical Essay", in the Population Council Annual Report 1972, Population Council, New York: 17-27.

60 Fawcett, James T. (1976), 'The Value and Cost of the First Child', paper presented at the Conference on the First Child, California, 23-26 March, 1976.

and Arnold et al (1975)[61] are the proponents of this approach. The pilot study on the value of children in Asia and the United States involving six countries (Japan, Korea, Taiwan, Phillipines, Thailand and the United States (Hawaii)) carried out under the auspices of the East-West population Institute in Hawaii was the glaring example, where the value of children was assessed under socio-psychological approach. According to Fawcett (1976:9), "The Socio-psychological approach is the broadest of the four approaches discussed here, since it attempts to incorporate all dimensions of the value and cost of children that are relevant to child bearing decisions".

Though the limitation of this approach is primarily methodological, yet socio-psychological approach is justified on the ground that (a) it incorporates non-material value of children; and (b) provides a long list of "value scheme" (or motivations) for future analytical discussion on the value of children applicable in all different culture.

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61 Arnold, Fred et. al. (1975), The Value of Children: A Cross National Study, Vol.I, Introduction and Comparative Analysis, East-West Population Institute, Honolulu.

3.7.1 Theoretical Rationale and Other Perspectives under Socio-Psychological Approach

Theoretical rationale for the socio-psychological approach has been provided by Hoffman and Hoffman (1973)[62], whereas other general perspectives of this approach are shown by Fawcett (1976)[63], Berelson (1973)[64] and Arnold et al (1975)[65]. For the convenience of future analysis, a few list of value schemes are presented below that are designed for all culture by the above authors.

3.7.1.1 Hoffman and Hoffman (1973)

1. Adult status and social identity.
2. Expansion of self, tie to a large entity, "immortality".
3. Mortality: religion: altruism: good of the group: norms regarding sexuality, impulsiveness: virtue.
4. Primary group ties, affiliation.
5. Stimulation, noveltry, fun.
6. Creativity, accomplishment, competence.
7. Power, influence, and affection.
8. Social comparison, competition.
9. Economic Utility.

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62 Hoffman L.W. and M.L. Hoffman, 1973, op.cit.

63 Fawcett, James T. 1976, op.cit.

64 Berelson, Bernard, 1973 Ibid: 17-27.

65 Arnold, Fred et al, 1975, Ibid: 8.

3.7.1.2 Berelson (1973)

1. Biological: "The innate femaleness in a girl directing her development towards motherhood", wanting children as "the essence of her self-realization", indicating normality.

2. Cultural: The effect of cultural and social guides to child bearing; the desire for children is culturally sanctioned and institutionally supported. It is the natural thing to do; it is a social expectation.

3. Political: Reproduction for purposes of higher authority of a larger community than the family.

4. Economic: Children as an economic resource; they have maternal utility among rural poor, they provide labour in fields, hunting, help in the house and care of younger children, the dowry and bride wealth for parents and support them in latter life. In other social setting children compete with other "consumer goods" and services: the opportunity cost (especially with respect to human time) of having children is very high.

5. Familial: Children desired for the extension of family name, propritation of anacestors and for religious functions, for maintaining or improving marriage, to hold husband or occupy wife, to repair or rejuvenate marriage, for family happiness, for security, confort and assurance in family life.

6. Personal:

a) Child bearing gives parents personal power, gives father power over mother, or mother power over father, or parents power or influence over in-laws.

b) Becoming a parent demonstrates competance of an essential human roles; "men and women who are closed off from other demonstrations of competence through lack of talent or educational opportunities or social status still have the central one". For males parenthoods shows virility, potency, Machismo for females, it demonstrates fecundity.

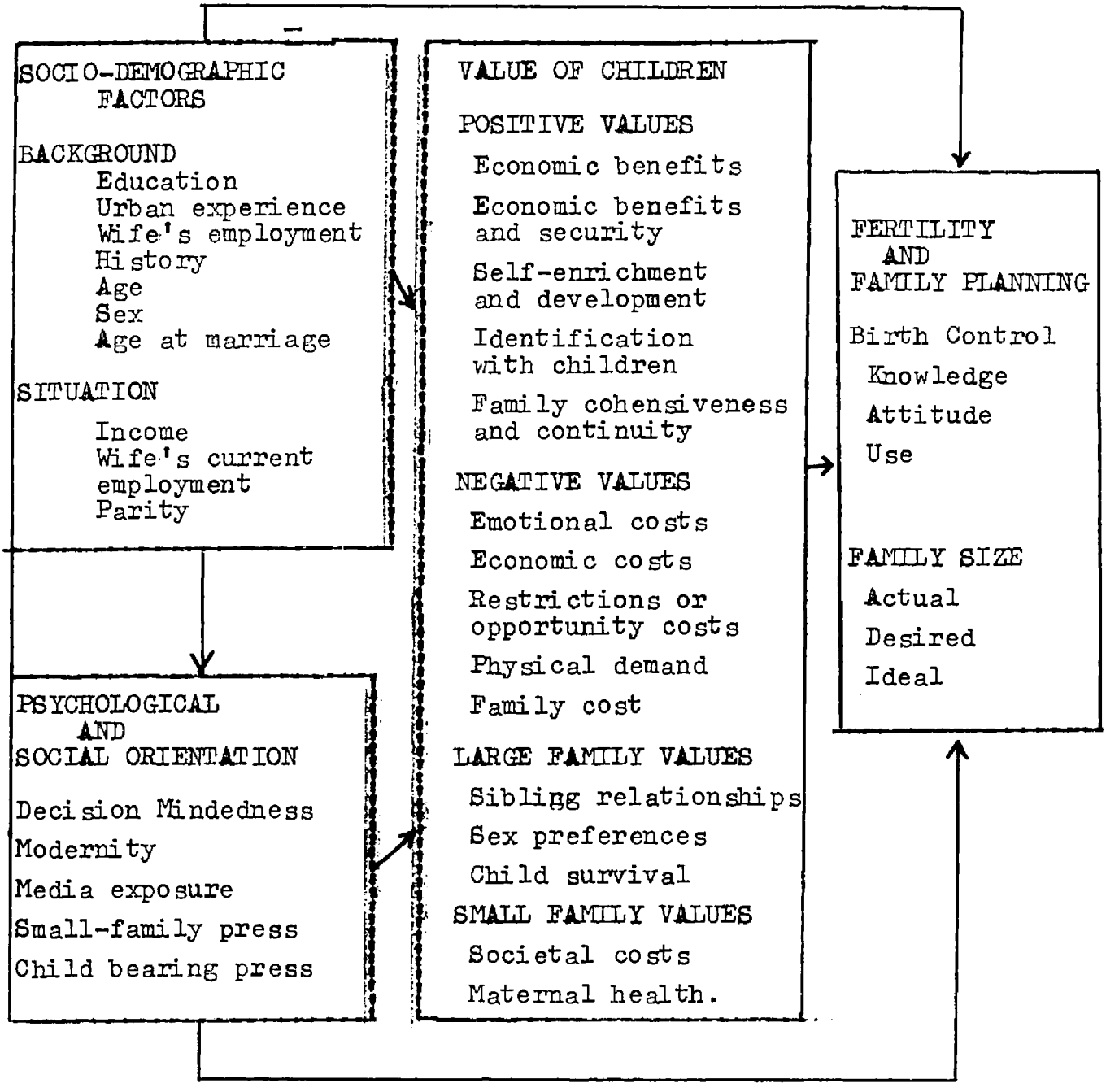
c) Personal status in the eyes of the community is gained by child bearing especially where status and prestige is tied more to family than to individual.

3.7.1.3 Arnold et al (1975)

Arnold et. al. treated the value of children dimensions as intervening between background (socio-economic) and situational factors on the one hand and fertility behaviour on the other, as well as intervening between psychological and social orientation (individual modernity) and fertility behaviour. This scheme implied, although never specifically stated, that family size norms become family size values which are internalized by individuals, and that fertility becomes almost entirely a matter for individual decisions. The analysis of Arnold et.al is shown below in figure 3.4.

Figure 3.4

Conceptual Model for the Value of Children Study (from Arnold et al Vol.I, The Value of Children: A Cross-National Study, 1975:8).



3.7.1.4 Faucett (1976)

Positive General Values

1. Emotional Benefits: Happiness, love, companionship, fun; also viewed in reverse as relief from strain and avoidence of boredom or lonelineess.

2. Economic Benefits and Security: Benefits from children's help in the house, business or farm, from care of siblings, and from sharing of income; old age security for parents, including economic support, physical care, and psychological security.

3. Self-Enrichment and Development: Learning from the experience of child bearing; becoming more responsible and mature; incentive and goals in life; being viewed as an adult, a grown women or man; self fulfilment; feeling of competence as a parent; being needed and useful.

4. Identification with Children: Pleasure from watching growth and development of children; pride in children's accomplishments; reflection of self in children.

5. Family Cohesiveness and Continuity: Children as a bond between husband and wife; fulfilment of marriage; completeness of family life; continuity of family name and traditions; producing heirs; having future grand children.

Negative General Values

1. Emotional Costs: General emotional strain; concern about discipline and moral behaviour of children; worry over health; noise and disorder in household; children as nuisance.

2. Economic Costs: Expenses of child bearing; educational costs.

3. Restrictions or Opportunity Costs: Lack of flexibility and freedom; restrictions on social life, recreation, travel; lack of privacy, restrictions on career or occupational mobility; no time for personal needs and desires.

4. Physical Demands: Extra housework, caring for children; loss of sleep; general weariness.

5. Family Costs: Less time with spouse; disagreements over rearing of children; loss of spouse's affection.

Large Family Values

1. Sibling Relationships: Desire for another child to provide companionship for existing children; enriching the lives of children; avoiding an only child.

2. Sex Preference: Specific desires for a son or daughter; desire for a certain combination of sexes among children.

3. Child Survival: Concern that existing children may die; need for more children to have enough survive to adulthood.

Small Family Values:

1. Maternal Health: Concern that too many pregnancies, or pregnancy when the mother is beyond a certain age, is bad for the mother's health.

2. Societal Costs: Concern about overpopulation, belief that another child would be a burden to society.

3.8 Application of Theoretical Approaches into Our Empirical Measurement of the Economic Value of Children

In the foregoing analysis, we have discussed, in detail, different theoretical approaches concerning the value of children studies. The merits and loppholess and the conceptual schemes of these approaches in the context of their applicability in different cultural regions are also analysed. The analysis reveals that the demand theory of fertility is primarily based under the socio-economic framework of the western society and found completely inapplicable in low income countries. Though Easterlin's theory is formulated under a broad framework to cover the diverse elements impiming on fertility, but the theory loses its specificity. Several conditions must necessarily be incorporated if the theory is to apply strictly to less developed countries. As fertility varies from one society to another among different

groups or individuals within the same society, therefore, one particular fertility theory is not likely to hold good. In order to understand the varient nature of fertility in different developing societies or class of people, separate fertility theories for each community should be designed by considering particularly their culture, social and family setting in mind.

The varient nature of fertility is easily noticed when we find son preference is the common motive affecting fertility in Korea, Taiwan and among the Ibos of Nigeria and in Hindu societies of India (Aline Wong 1976; Arnold et al,1975; Okore 1977)[66], but not in Thailand and Indonesia; spending on uncles or nephewes an obligation in Yoruba Society in Nigeria creating a similar satisfaction as spending on wives or children (Caldwell 1976a, 1976b)[67], but not in India and

66 Wong A.K. "The Value of Children and the Household Economy in an Urban Setting: A Review of Current VOC Studies in the Doveloping World" 1976. Published in the Economic & Social Supports for High Fertility edited by L.T. Ruzicka. Department of Demography Australian National University, Canberra 1977.

Arnold, Fred et al, 1975, op.cit.

Okore, A.O. 1977, "The Value of Children among Ibo Households in Nigeria: A Study of Arochukwi Division and Urban Umuahia into Imo State". 1977, Unpublished Ph.D. Thesis, Australian National University, Canberra.

67 Caldwell, John C. 1976a op.cit: 321-366.

Caldwell, John C. 1976b, op.cit.

Bangladesh; restriction of female labour force participation in Muslim countries, but not in the west; determination of female status and security only through production of sons in most of the low income countries of South-East Asia, but not in the stretotype societies of the West; desire for large families among Catholics in the Phillipines and Buddist in Thailand, but not in contraceptive using societies. Thus, socio-economic and cultural setting greatly influence in determining the fertility pattern and motivation for children.

Our social setting is not fully modernized. Here modernization process is going on very slowly. Thus, the conceptual analysis of the above fertility theories are not strictly applicable in our case. The analytical tools of the above framework will just serve as guide in formulating our own data to our own culture.

In the following chapters, we will show how the conceptual tools outlined in this chapter are reflected by our empirical data, collected from a rural community in Bangladesh.

3.9 A Review of Current Studies on Value of Children

During the last ten years, we have witnessed a considerable number of studies on the value of children. All these studies are found related with the basic determinants of fertility behaviour, and these are usually shown by focussing the inter relationship between the two sets of variables - one is 'socio-economic' in nature and the other one is 'demographic' in character. Most of these studies, however, are conducted in the west, and one general conclusion from these studies appear to be that the socio-economic benefits which parents derive from having many children are the major determinants of high fertility.

One can agree with the position that individual couples in many low developed countries see the added economic value of additional children as greater than the added cost of having them, but again, one cannot agree that their evaluation is necessarily correct. Because, most of the studies on the value of children are found conventional in the sense that the basic assumption and conclusion of these studies are uniform. Most of the contemporary studies on the value of children are based on the assumption that couples make cost-benefits calculations in making child bearing decision and they draw almost the same conclusion that children enters into productive activities at a relatively early age; has a low level of consumption; the parental share of children's arning is very high and the discount rate is low.

One may not disagree with the assumption or the conclusion drawn by the contemporary writers on the value of children. Because, though the same theme of the value of children are outlined long before in pre-industrial days by Plato, Exodus, Mandeville, Adam Smith and others, yet the implications of the approach of the modern writers on the value of children are quite different. But, what is most heartening to note that though the value and cost of children differ greatly from Western social stereotype to less developed countries situation, yet major research project on the value and cost of children in less developed countries are analysed on western style, depending on the theoretical framework made in the west. The contemporary researchers of low developed countries are found to follow the method of data collection and mimic the choice of variables of the western scholars. The nature of such contemporary researchers are well reflected in the writings of Suchart et al (1976)[68] as follows:

> These researchers seem quite satisfied with their intellectual dependence and the pieces of work they do, thinking that they understand something and do something useful. All these happenings are understandable as most of the researchers are trained in the

68 Suchart, P. and Frederick A. Day 1976, "Cost and Value of Children in Rural Thailand" in L.T. Ruzica (ed). The Economic and Social Supports for High Fertility. Australian National University, Canberra, 1977.

> west and consequently they end up doing research for the entertainment of the Western Scholars, contributing hardly anything useful to their own societies or to a true understanding of the phenomena. In order to comprehend the complex relationships between societal values and fertility change, the researcher must particularly attune himself to the differing and unique aspects of the social and economic environment of each society. His research will only be useful if he makes a judicious choice of the research methods that are suitable within the social and economic context of the local people. This may well necessitate innovative methods or an adoption of old methods to achieve meaningful results.

However, this section intends to review some of the major contemporary empirical findings that the value of children approach has yielded. The discussion will cover only those studies which are conducted very recently in less developed countries of the South and South Asia and Africa, and excludes all value of children studies which are completed in the west. Because, my purpose is to investigate the fertility behaviour of parents in low developed countries of the world and particularly in the rural economy of Bangladesh. In the review work, I shall look into the major empirical findings and drawbacks of the

contemporary value of children studies in the context of their methodology and try to show the major gaps still remain and then explore the need of my study in the present state of knowledge about human fertility, within a total societal context.

The studies on value of children, in recent years, can be divided broadly under two groups: One type of study is conducted under the framework of 'economic theory of fertility'. This theory has been introduced by Becker (1960) and popularly known as Becker's model of 'micro-economic theory of consumers behaviour' and later on developed and refined by a group of writers like Easterlin (1969)[69], Schultz (1973)[70], Ben-Porath (1974)[71], Nerlov (1974)[72], Leibenstein (1974)[73] and others. The other group of studies on value of children were mostly KAP (Knowledge, Attitude and Practice of Family Planning) in nature. The economic interpretation of fertility behaviour have enjoyed a good deal of popularity over the past 15 years. It seeks to

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69 Easterlin, Richard A. 1969, op.cit.

70 Schultz T. Paul, 1973, op.cit.

71 Ben-Porath Y. 1974, 'Notes on the Micro-Economics of Fertility', International Social Science Journal 26(2) pp.302-314.

72 Nerlov, Marc 1974, op.cit. S 200-218.

73 Leibenstein, Harvey, 1974, 'An Interpretation of Economic Theory of Fertility: Promising Path or Blind Alley, Journal of Economic Literature, 12(2), pp.457-479.

explain the inter-relationship between various socio-economic and demographic characteristics of individuals (or households) on the one hand and fertility measures on the other. The economic theory of fertility was developed in the United States and its empirical varification has so far been largely limited to this country. Some western Sociologists (Blake 1968, Freedman 1963)[74] have already questioned the applicability of micro-economic theory to fertility decisions. Its applicability to developing societies has remain largely untested. The conventional KAP studies, however, are mostly conducted in connection with family planning programmes. The majority of the family planning research between 1946 to 1972 have been KAP studies, where the most common independent variables were norms values and belief systems regarding family size and birth control. (Rosario 1973)[75].

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74 Blake J. 1968, 'Are Babis Consumer Durable', A Critique of the Economic Theory of Reproductive Motivation', Population Studies, 22(1): 5-25.

Freedman, R. 1963, "The Relation of Economic Status to Fertility" American Economic Review, 53(3), 1968, pp.414-426.

75 Rosario, F.Z. 1973, "A Researcher's Guide to Social-Psychological Communication Variables in Family Planning Research", East-West Communication Institute, Honolulu.

Uptil now, two major 'cross cultural studies' of fertility behaviour were conducted in Asia. These two studies were carried out from Socio-Psychological Perspective. One is the 'ECAFE study on Husband-Wife Communication' and the other one is the 'Pilot Study on the Value of Children in Asia and the United States (Hawaii)'. The first one was held in 1971 comprising four countries of Asia viz., Iran, India, Phillipines and Singapore (ESCAP 1975) and it attempted to evaluate the attitude of couples towards large and small family size. The second one was held in 1974 under the auspices of the East-West population Institute in Hawaii, comprising six countries viz. Japan, Korea, Taiwan, Phillipines, Thailand and the United States (Hawaii) (Fawcett et al 1974)[76]. This study has shown that how children fulfil many needs and also create many difficulties in the lives of parents.

Although systematic research on the value and cost of children is a recent development, the quantity of research is not impressive, particularly in the household context of the developing countries of the world. Apart from the two cross national studies, only few individual country studies were held on the value of children, for example, the Hong Kong

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76 Fawcett, J.T. et.al. 1974, 'The Value of Children in Asia and the United States: Comparative Perspectives', Papers of the East-West Population Institute, No.32, Honolulu.

Family Life Survey of 1972 (Choi and Chan 1973; Chung and Wong 1976)[77] and some recent studies in Taiwan (Mueller 1972; Yang 1974)[78]. In other parts of the developing world, increasing interest in research on value of children is also exposed by some proposed studies, in Bolivia (Cisneros 1975)[79] Turkey (Kagitcibasi, 1975)[80] and Chile (Turner 1974)[81].

In Indonesia, two more studies are found on the value of children. One is by T. Hull (1975, 1977)[82] and the other

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77 Choi C.Y. and K.C. Chen 1973, "The Impact of Industrialization on Fertility in Hong Kong: A Demographic, Social & Economic Analysis", Social Research Centre, Chinese University of Hong Kong, Hong Kong (mimeo).

Chung, B.J. and A.K. Wong 1976, "Contemporary Chinese Women and the Industrial Society in Hong Kong: Changing Roles and Family Values, monograph (under preparation).

78 Mueller, E. 1972, "Economic Motives for Family Limitation. A Study Conducted in Taiwan", Population Studies, 26(3): 383-403.

Yang, Kuo-Shu, 1974, 'Taiwan, Republic of China', in David H.P. and Lee, S.J. (eds), Social and Psychological Aspects of Fertility in Asia, Korean Institute for Research in Behavioral Sciences, Seoul.

79 Cisneros, A.J. 1975, proposed survey on "Values & Social Factors related to Children and their meaning in Bolivian Family", Centro de Investigaciones sociales, Academia Nacional de Ciencias de Bolivia.

80 Kagitcibasi, C. 1975, The Turkish National VOC Survey Conducted at the Bogazici University, Istanbul, Fieldwork stage.

81 Turner, Jean 1974, "Economic Context & the meaning of Children to Parents in Chile", paper presented at Second International Conference of the Association for Cross Cultural Psychology, Kingston, Ontario, August, 1974 (mimeo).

82 Hull, T.H. 1975, op.cit.

Hull, T.H. 1977, 'The Influence of Social Class on the New & Effective Demand for Children in a Javanese Village' in Economic and Social Support for High Fertility, edited by L.T. Ruzicka 1977. A.N.U. Canberra.

one is by Nag, White and Peet (1978)[83].

Hull collected his data from a village in Indonesia (Maguncharjo in Java) and using his data, he showed the economic utility of children in that village. His most important findings are as follows:

1) Children of lower and middle income households in the village are found engaged in productive activities. While the children of the richest households in the village are found to seldom participate in productive activities.

There are at least four reasons why the children of the rich do not work on a regular basis. First, they are more likely at any age to be in school and this inhibits their ability to participate in jobs. Second, their parents are usually government officials and there are few opportunities associated with these jobs which child could participate and help its parents. Third, even if there are some secondary jobs available, the rich parents are likely to distribute them to non-family members in order to gain the leverage attendent on the practice of patronage, Finally, it is often a threat to self respect of a rich man to have his wife and children working.

2) Rich children are too expensive. Heavy expenditures are usually incurred for their education, food, elaborate clothing and other consumption demands. Poor children are able to work enough hours and they make sufficient returns

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83 Nag, White and Peet 1978, op.cit.

to cover this expenses after age 14 or so.

3) When children marry, set up their own families and move away, their parents unlikely to regularly receive any significant amount of material help unless he is incapacitated.

4) Girls of less than 12 are found to have the primary responsibility for cooking, and boys fectch water and gather fuel and fodder, and when they reach adolescence take their fathers' places in the village night watch.

5) All children aged 10-19, regardless of participation in the various activities, an average of over one hour per day was spent by boys, and three hours a day by girls on the performance of various household services.

6) The poor have lower fertility and more of their children die in infancy than is the case of the rich.

He concludes by saying that, how can fertility be expected to fall, if there are no significant changes in social structure. A wide range of change in social and economic structure in Java is required before any meaningful reduction in fertility can be obtained.

Hull confused himself in distinguishing the term 'Work' and 'Leisure'. For example, in his view a boy playing with a young child or flying a kite while working buffalos graze may not be treated as participating in gainful work. This may not be an acceptable proposition. In a recent workshop organized by Agricultural Development

Council, held in Singapore, it was proposed that "work is what you prefer some one else to do, while leisure activity is what you prefer to do yourself, even another is willing to take your place". But Hull interpreted the concept work as "What is not enjoyable". This has ultimately led him to support that parents of rich children are found to seldom work in production. If he could interpret the concept meaningfully then he would find a large number of children of rich parents were regularly participating in production work.

The author in his study pointed out that 'rich children are too expensive'. Now if the cost of raising children in rich families are higher, then why do wealthier couples tend to have more children? Moreover, what is the reaction of a poor landless or a marginal farmer to high fertility? These aspects are not shown in his study.

Again, Hull's assertion that parent's are losing control of their children's labour is not correct. Because, his data do not provide any clue to the above contention.

However, the major shortcoming of his study is that, like others, he fails to measure the net economic value of children. He rather argued that if children did not constitute a net material advantage at any point in time, then it was not correct to say that they were an economic liability in the long run. Because, Children provide various non-material services to their parents.

The study of Nag, White and Peet (1978)[84] is considered to be more refined, well planned, intensive and thought provoking than the other studies conducted on the subject.

Anthropological field investigations were conducted by them in the two communities of Asia. White did the field investigation in the Javanese village from March 1972 to December 1973 and Peet worked in the Nepalese village from July 1972 to December 1973. In Java, a household survey was conducted in 478 households covering a total population of 2,197 persons. Out of these, only 20 (twenty) households were taken as sample size for intensive study of work-input data. In Nepal, a household survey was conducted covering 674 households and 3,232 persons. Out of these 45 to 50 Thami households were taken as sample size for intensive study of work-input data. Observation was the technique mostly employed in collecting the data, although it was supplemented at times by interviews.

The important findings of the authors are noted below:

1) Children of both villages spend an increasing amount of time in work activities as they grow older. Javanese boys and girls of 15-19 years spend as much as 7.9 and 10.2 hours per day respectively in all work activities, while the

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84 Nag Moni et al, 1978, op.cit.

corresponding figures for the Nepalese village are 9.5 and 11.3 hours. A sharp increase of input in all work occurs at age 12-14 among Javanese girls, 15-19 among Javanese boys. The lower average input by Javanese boys of 9-11 than by those of 6-8 can be explained by the fact that the former attend school more.

2) In both villages, the average input of girls 12-14 years old in all work is almost the same as that of males 15 years and above; the average input of 15-19 years old girls exceeds that of males 15 years and over. In directly productive work, the average work inputs of children of all age-sex groups are lower than those of males 15 years and over.

3) Both Javanese and Nepalese girls do more work than boys in almost all age groups. The higher average input by girls is due mainly to their relatively higher contribution to household maintenance work. The difference regarding directly productive work is not so marked, except in the case of 9-11 and 12-14 years old boys and girls of the Javanese village. The girls of these age groups participate in a major way of handicrafts, trade and wage labour, whereas the boys of the corresponding age-groups participate in a major way only in animal care.

4) Children in small families do less work than those in large families. As such, children in large families are more productive than those in small families.

5) Households with greater total work input of children are economically more successful. Households with greater access to land for wet-rice cultivation may have greater total work input of children.

6) In contrast to the generally accepted view that rural unemployment and underemployment are widespread in densely populated Java, it is said that there are a large number of occupations (most of them with lower economic return than rice cultivation) to which access is virtually unlimited.

The adult man (15 years or older) in Javanese households spend on the average almost eight hours daily, and adult woman almost six hours daily, in directly productive work. When child care, food preparation and various other necessary tasks of household maintenance are included, average input of all work rise to 8.7 hours per day for men and 11.1 hours per day for women.

7) Elderly parents depend largely on their offspring for care and sustenance. Dependence on son is much more common than dependence on daughters[85].

From the above findings, the authors conclude that "even in peasant villages of high population density,

85 However, in the Javanese village the parents are almost equally dependent on sons and daughters in their old age. This is due to somewhat flexible pattern of marital residence in Java.

households with a relatively large number of children appear to ensure themselves a lengthy period of economic 'success' during the latter phase of their development. The duration of this period depends both on the parents ability to produce children who survive and on their ability to retain control of their children's labour by postponing their dispersal from the household at the current rate of reproduction and under present circumstances, children probably have net positive economic value to their parents in these villages, aside from the old age security they provide them".

The conclusion of Nag, White and Peet, however, is not without limitations. They considered a society where socio-economic status of men and women are equal. But in societies where male children are preferred for socio-economic reasons and female children are considered as burden to their parents, as in the case of Bangladesh, India and Pakistan, the exante probability of incurring losses rather than gains from a female child must be quite high. Therefore, the positive value of children as observed in a Javanese and Nepalese villages may not be replicated in another society where female participation in direct income generating activities is negligible[86].

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86 In Javanese and Nepalese villages adult women (15 years and above) spend 63-78% of their time in productive activities. (Nag et al. 1978). The corresponding figure for a rural community in Bangladesh is estimated to be 22% only (Mead Cain 1977).

Nag et.al. found that children in large families are more productive than those in small families. But this does not mean that they are more active. In large families, older siblings are found working hard to mind the younger ones and in some cases they relieve their parents to participate more in directly productive and other household tasks by taking care of young children, which is not possible in a small family, where children will tend to tie their mother to domestic chores. Thus, large families are more productive, because they are large. How far the house work caused by children and the house work performed by children balance at different ages and parities needs to be clearly disentangled while examining the net productivity of a household by family size. Moreover, most of the large families are found rich and this may give them more opportunities to undertake productive activities and may explain their higher labour input. One should, therefore, control for variation in access to resources while examining the relationship between family size and labour input.

In addition to this limitation, the study has other significant imbalances. They argued, children are valuable to their elderly parents; but they have not measured it. Again, in determining the net economic value of children to their parents, they have considered only food budget as a

major cost component, and other important items are ignored. Cost of food might be a major item, but this does not necessarily account for other major costs, such as, cost of education, clothing and medicine. Therefore, the net economic value of children arrived at this study may be considered only partial. Moreover, the authors have considered only number of producers unit but not consumers units in the families while estimating the net value of children. This is a colossal omission. Finally, the authors have failed to present a statistical profile of economic class and income catagory of households in the villages under study and then to show how demography is influenced by the change of the above two factors.

It is generally assumed that the net economic returns from children in peasant households are higher in consideration with costs which parents bear to raise them up. Because, children in such economy enters into productive activities at a relatively early age, consume less, produce more and provide economic security to their parents old age. If, however, there is a slight change in the above assumption, the positive value of children may turn into a negative one. Thus, positive and/or negative value of children depend to a large extent on the assumption one makes.

Eva Mueller (1976)[87] calculated the net economic returns from children by comparing the age-sex profile of

87 Mueller, Eva 1976, "The Economic Value of Children in Peasant Agriculture", in Ronald G. Ridker (ed). Population and Development: The Search for Selective Interventions, Baltimore: Johns Hopkins University Press.

productivity and consumption of children for India and Taiwan. She found that children have negative values in peasant agriculture. The major findings of her analysis are as follows:

Female never produce enough to offset their consumption and that males do not become net producers until after age 15. Children (0-14) of either sex consume more than they produce, until they reach the 15-19 age bracket, i.e. the time when they themselve get married and have children. The surplus produced by youths 15-19 is small relative to the deficit engendered by children. Adults produce 2.2 times as much as they consume; and elders are self-sufficient.

On the basis of the above findings, Mueller concludes that the more children there are, the smaller is the excess of production over consumption and the lower is the potential saving rate. In other words, children produce negative return and they are economic burden on peasant households. But Mueller's analysis is based on certain faulty assumptions for which she is subjected to severe criticism by contemporary authors.

Her conclusion that in developing countries, children under age of 15 do little economic work and their productivity, even during the peak season, tends to be low, is based on her unrealistic assumption on productivity. In defining productivity, she includes only those activities of children which are related to agricultural works (i.e. cultivation and wage labour) and excludes all non-agricultural activities

(such as, house works and child care which frees the mother to do additional economic work) of children. It is, therefore, unrealistic to withhold non-agricultural works from any estimate of labour inputs provided by children to the peasant household. The school attendence of children below the age of 15 might stand as a reason of low participation of children in productive activities. But this cannot be justified by considering the low attendence of children in school and their active participation in farm works around the school. Her assertion that children participate in productive activities after the age of 15 years, might be the result of the use of official definition of labour force, which does not refect correctly the labour force participation of children. Because, such statistics do not truely represent the age pattern of labour force participation either in market activities or in peasant household economy, where children engage in gainful activities at a fairly early age (6-7) (White 1975, 1976, Caldwell, 1977a Clark, 1970, Nag et.al 1978, Cain 1977)[88].

88 White, Benjamin 1975, "The Economic Importance of children in a Javanese village" in Moni Nag (ed), Population and Social Organization, The Hague: Mouton Publishers, pp.127-146.

Caldwell, John C. 1977a 'The Economic Rationality of High Fertility: An investigation Illustrated with Nigerian Survey', Population Studies, Vol.XXXI, No.1 (March).

White, Benjamin, 1976 "Production and Reproduction in a Javanese village", unpublished Ph.D. Thesis submitted at the Columbia University, USA.

Clark, Colin, 1970 'The Economic & Social Implications of Population Control' in A. Allison (ed) Population Control, London, Penguin Book, pp.222-237.

Nag et.al. 1978, op.cit.

Cain, Mead T. 1977, op.cit.

Moreover, Mueller also makes unrealistic assumptions in dealing with her consumption and production profiles. She assumes that adult males produce 2.2 times as much as they consume and thus multiplies all values in the production profiles by 2.2 to make them comparable to those in the consumption profile. But labour productivity is not uniform in all peasant community. It varies with different types of peasant economy and therefore the validity of the conversion figure used by Mueller needs to be empirically tested.

Mueller finds that elders are self-sufficient, Because, they work on their family farms until very close to the age of their death and therefore questioned the validity of parents dependence on children as old age security. But does she ever consider the kind and productivity of such works and the cases of those elderly persons who do not own any farm land? Moreover, she also does not mention anything relating to the cases of those old women whose labour participation is low and who depends mainly on children's financial assistance and support. Mueller mostly used data of secondary sources drawn from different countries and therefore, her analysis of the value of children failed to answer some of the critical issues relevant to this concept.

Here two other studies on value of children are found worth mentioning. One such study is conducted by Suchart(1977)[89]

89 Suchart P. and F.A. Day 1977, 'Cost & Value of children in Rural Thailand' in the Economic & Social Support for High Fertility, Edited by L.T. Ruzicka, Deptt. of Demography, Australian National University, Canberra 1977.

in Thailand and the other one is conducted by Repetto (1976)[90], with respect to issues on value of children in developing countries. The former found that children have positive values in peasant agriculture and the latter found negative values of children in peasant agriculture.

The analysis of Suchart is not a deviation from the earlier findings which supported economic value of children in peasant household by considering that children participate in gainful productive activities at a relatively early age (6-7), male children produce more than female children, they free the adults to participate more in market and home production activities and support the elderly parents in old age, etc. But he fails to consider the productive activities of children after allowing for consumption. Therefore, his conclusion about the net positive value of children cannot be accepted unconditionally.

Repetto's (1976)[91] analysis of the value of children is mostly theoretical in nature and is confined to the socio-economic conditions of developing countries. Without using any data, he tries to investigate, how fertility changes with the change of economic benefits and costs of children. He considers that change in the demand for labour might be expected to change fertility. Few studies deal with

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90 Repetto, Robert 1976, "Direct Economic Costs and Value of Children" in Ronald G. Ridker (ed). Population and Development: The Search for Selective Interventions. John Hopkins University Press, Baltimore, London, pp.77-97.

91 Repetto, R. 1976, Ibid. pp.77-97.

the change in demand for child labour per se (as opposed to changes in child labour participation rates which are influenced by supply as well as demand). Most researchers fail to isolate the effects of school participation and family income on fertility. As such, Repetto cannot proceed further with his discussion in that line.

Repetto said, a reduction in the effective demand for child labour tends to result in a negative wealth effect for the household, along with an increase in the opportunity cost of a raising child. With regard to the question, whether marginal child happens to be an asset and liability, he said, other things being equal, desired fertility will be higher if the additional child is more an asset (or less of a liability). His term, asset is not clear. Because, an additional child might be wanted by a marginal or landless farmer either for his risk minimization or his profit maximization.

According to him, high fertility induces low school attendence rates because of income constraints. At the same time, the availability of ample employment opportunities for children and the lack of education opportunities may induce families to have higher fertility level. However, multiple reasons of low school attendence (such as, social, religious, personal etc.) other than high fertility or income constraint cannot be ruled out. Moreover, high ambition, long-run economic gain, power and prestige also

induce many parents to send their children to educational institutions in spite of availability of ample job opportunities.

Again, Repetto formulates the view that evidence with respect to old age support is mostly qualitative and indirect. This, he said was the result of attitude surveys conducted in different countries where strong family ties were traditional and little was known about actual extent of transfer. Thus, he argues, where the survival of children cannot be gurranted and where ample scope of investment are available in the present market, investment in other alternatives (such as, on Land, bank savings, Jewellary etc.) is more profitable then children.

Criticising this point, Ridker (1976)[92] pointed out that Repetto did not consider the risks of such investments. Farm investment are illiquid, money and jewellry can depreciate or it may be stolen. Commercial institutions can also go bankrupt, moreover, the depreciation of value due to inflation and the risks of theft, fire, flood, confiscation and other natural calamities cannot be ignored in the long run.

Thus, investment on children in peasant economy is profitable. Because the cost of bringing children into the world is not very high, and the costs of supporting them are

92 Ridker, Ronald G. 1976, "Perspectiveness on Population Policy and Research" in Ronald G. Ridker (ed). Population and Development: The Search for Selective Interventions. John Hopkins University Press, Baltimore, London, pp.1-35.

spread over at least ten to fifteen years - considering the economic returns which parents derive and the security which widow mother's receive from their surviving children.

However, the economic utility of children is now only felt by the parents of the developing countries of Asia. Several African countries also testify the economic value of children and these are reflected in the studies of Caldwell (1976a 1977a 1977b)[93], Okore (1977)[94] and others.

In Africa (Nigeria), children are considered more valuable than wealth. The changing African Family Project show that 80 percent of all Yoruba still hold that children are either better than wealth or are wealth (Okediji et.al.1976)[95].

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93 Caldwell, John C. 1976a. op.cit.
Caldwell, John C. 1977a. op.cit.
Caldwell, John C. 1977b. The Persistence of High Fertility: Population Prospects in the Third World, Family and Fertility change series No.1 changing African companion series, Canberra: The Australian National University, Deptt. of Demographyl

94 Okore, A. 1977, op.cit.

95 Okediji, et.al. 1976, 'The Changing African Family Project: A Report with Special Reference to the Nigerian Segment', Studies in the Family Planning 7(5): pp.126-136.

Similar view is expressed by Caldwell (1977c)[96] and Okore (1977)[97]. Children in African begin to work at an early age of 6-7 year and the labour input of the children are extremely valuable to the economic survival of a household.

A household with large number of children is able to diversify the economic activities and also take economic windfalls. Whereas lack of adequate labour in many parts of Africa (Kenya and Western Nigeria) may be considered as economically disastrous to family. In Ghana and Nigeria, small families having 0-2 children in rural areas are found on average poorer than the rest of the community (Caldwell 1977c)[98].

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96 Caldwell, John C. 1977c, "Measuring wealth Flows and the Rationality of Fertility: Thoughts and plans Based on the First place on African Work", The Economic and Social Support for High Fertility. Australian National University, Canberra, 1977.

97 Okore, A. 1977, op.cit.

98 Caldwell, John C. 1977c, op.cit.

In Africa, particularly in Nigeria remittance from migrant members constitute an important source of income of the household. Caldwell (1977a)[99] and Adepoju (1974)[100] found in different parts of Nigeria that the majority of the urban migrants remitted money to their parents/relations and this remittance constituted a significant portion of household income. Thus, in Nigerian family, migration provides an extra income to the rural household, particularly to those households, which have large number of children.

Extended family system and mutual obligation in Africa is also very strong. Children who intends to go outside the village for higher education are usually assisted by members of the extended family. Once a son secures a permanent job in urban areas, he is of great help to parents. Children who are residing in town and established in some trade or occupation, used to help their parents financially and this includes gifts of money, clothing and other materials, etc.

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99 Caldwell, John C. 1977a op.cit.

100 Adepoju, A. 1974, 'Rural-urban socio-economic links: The example of migrant in South-West Nigeria' in S. Amin (ed). Modern migrants in Western Africa, Oxford University Press, pp.127-137.

Parents in rural Africa receive net economic benefits out of having large number of children, because the costs of raising children in rural Africa is very little in consideration with the substantial benefits which they provide. Two studies (Caldwell 1977c, Okediji 1976)[101] measuring the life return on investment in children as well as the outflow of children was made in Nigeria in 1974-75 and in Ghana in 1963. The Nigerian study also discussed with the inter generational flow of wealth. Both these studies showed that the returns from children are substantial.

However, the economic returns and costs of children are not uniform among all classes of people in rural Africa. Rich parents usually incur more costs for the maintenance of children than their poor counterparts. Therefore, we need more data on value and cost of children in different parts of Africa and particularly among different classes of people for determining the net economic value of children.

Our society differs from African culture in terms of language, kinship ties, marriage pattern and family structure. Therefore, what is applicable in Africa, cannot reproduced in Asia in all sphares of life of our rural people.

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101 Caldwell, John C. 1977c op.cit.
Okediji, 1976, op.cit.

In Bangladesh, uptil now, only two studies on value of children (Cain 1977; Barket-e-Khuda 1977)[102] are done. Out of these two, one is done by a foreigner (Cain 1977) in the soil of Bangladesh, and the other one is done by a Bangladeshi national (Khuda 1978) in foreign soil. Naturally these diverse factors are reflected in their study. The former takes the help of some intermediaries (work assistants) from Dacca city to explore his down ideas in 'Char Gupalpur' (a village in Mymensingh district) and the later being trained up in the west tried to feed his borrowed data as per requirements of the western scholars.

It cannot be understood that how a researcher, who is not personally familiar with the individual respondents, his language, culture, society, religion and economic environment of the area for a longer period, can throw light on the value and cost of children of a peasant economy, only by collecting data through some non-villagers, whose duration of study in the village extends from one to three months.

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102 Cain, Mead T. (1977), "The Economic Activities of Children in a village in Bangladesh", Population and Development Review, No.3, pp.201-227.

Khuda-e-Barkat (1977), 'Value of children in a Bangladesh village', in John C. Caldwell (ed), The persistence of High Fertility: Part-2, Canberra; Department of Demography, The Australian National University, pp.681-728.

Cain selected a village in Bangladesh (Char-Gupalpur of Mymensingh district) and examined the economic value of children by employing time allocation data. The major findings of his study are noted below:

1) Children of both sexes begin their economically useful work around age 6, performing such tasks as gathering fuel, fetching water, carrying messages and carrying for younger children. Girls are particularly found active in sweeping, cleaning utencils and dishes, tending chickens and picking chillies by that age.

2) Boys assume responsibility for the care of cattle around age 8 or 9. They also begin to engage in fishing by that age. Girls on average begin to participate in most rice processing and food preparation activities between age 9 and 10.

3) Or average male children begin agricultural work at approximately age 11 and become net producer by age 12.

4) At age 13, children of both sex work on average, as long or longer than adults. By age 12-13 male children reach a level of efficiency in harvesting that is almost equivalent to that of an adult.

5) Both male and female adults work slightly more than 9 hours per day on average with age from 13-15. The absolute majority time of male children is devoted to directly productive activities but the female children spend most of their time in household maintenance works.

6) Boys below age 10, from landless households work fewer hours overall than boys from landed households; and they also spend proportionally less time in directly productive work. By contrast, boys age 10 and older from landless households do considerably more work than those from landed classes.

7) By age 15, male children's cumulative production exceeds their cumulative consumption; and by age 22, a male children can compensate his own cumulative consumption and that of one sister.

8) Female children do not compensate their total consumption by the time they leave their parents household (age 15).

9) Opportunity costs of child birth and rearing are minimal due to limited productive work opportunities for women, the compatability of women's work and child care, and the sharing of child care responsibilities with others in the household.

From the above findings, the author concludes: "... High fertility and large numbers of surviving children are economically 'rational' proposition", for the parents in many parts of the developing world.

However, this conclusion should be treated with caution. Because, the study of Cain suffers from several limitations, the most important of which are noted below:

a) Being a foreigner, he was not well conversant with the local problems (such as, language, culture, society, religion etc.)

b) He employed hired work assistants from Dacca city, most of whom were non-villagers. As such, informations relating to landholding, income and conjugual life of people of the study village were not acurately reflected in his data. Difficulties associated with collecting data on income have been recognised by researchers. Caldwell (1976a)[103] observed, "Money is a sensitive matter and people are used to giving wrong information about it, many expenditures and some sources of income they find difficult to recall or even embarrasing to mention".

c) He recruited some young boys of the locality who were going to school or recently stopped going to school to help his work assistants who were non-villagers. But young boys draw little attention of the villagers, which Cain himself observed. In most cases, they were neglected by the villagers and as such his data collection suffered from abiguity.

d) All his questionnaires were prepared in English. It is not known how the villagers and the school going work-assistants of Cain were able to understand the difficult questions written in English language and how they filled in the questionnaires.

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103 Caldwell, John C. 1976, op.cit. pp.321-366.

e) He estimated the labour-input of children on the basis of data collected during two month's period only. Employment opportunities particularly those related to agriculture are subjected to severe seasonal fluctuations in Bangladesh. Moreover, cropping pattern varies from region to region (Chaudhury 1978)[104],. Therefore, estimation of labour input of children based on two months data would be a gross mis-representation of yearly labour input for children of the entire country.

f) Moreover, Cain did not say anything about the cost of raising children. He only referred the cost of food stuffs indirectly by not looking at the actual expenditure. But, the net value of children cannot be measured by food cost alone, ignoring other important cost items, such as, clothing, education, medicine and sociolization of children.

g) He measured the productivity of children by taking child wage as proportion of average adult wage prevailing at a particular crop season. This measure of productivity of children labour is unacceptable given the tremendous seasonal fluctuations in wage rate over the year (Chaudhury 1978)[104].

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104 Chaudhury, Rafiqul H. 1978, "Some aspects of Seasonal Dimensions to Rural poverty". A paper presented at the conference on 'seasonal Dimensions to Rural poverty' held in the Institute of Development Studies, Sussex University, U.K. July 3-6.

In view of these limitations, it is felt that the study of Cain provides a necessary and valuable starting point, but more research is needed before one can assess and compare the actual economic value of children to their parents.

Barket (1977, 1978)[105] completed another study on the value of children in a village in Bangladesh (village 'Barkait' in Chandina thana of Comilla district). The study is not intensive like Cain (1977) who examined the various issues related to measuring the economic value of children by using data collected meticulously over a long period of time. The study of Barkat is based on 'one shot' survey unlike the prospective study of Cain. The major findings of Barkat are given as follows:

1) Over two-thirds of all respondents were in favour of five children.

2) Over 97 percent of all respondents felt sorry for a man with no sons.

3) Over 74.5 percent males and 61 percent of females felt that for a person having less land than 0.5 acres, it was still useful for him to have a larger number of children.

4) When given a lot of alternative choices, over one-third of all respondents were in favour of another child.

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105 Khuda-e-Barkat 1977, op.cit. pp.681-728.
Khuda-e-Barkat 1978, 'Labour Utilization in a village Economy of Bangladesh', Unpublished Ph.D. Dissertation A.N.U., Canberra.

5) Main costs of children were food, followed by clothing and educational expenses. 28 percent of the respondents said that a child cost the most around 5-7 years of age; 42 percent of the respondents reported this for children around 8-10 years of age; and 16 percent of the respondents reported this for children 11-1[illegible] years of age.

6) For boys the most common types of activities were tending animals, running errands, child care and collecting firewood. Only some of the boys were engaged in purely agricultural work - ploughing, weeding and nursery. For girls the most common type of activity was child cares, followed by tending animals, cooking and running errands. There were a few who were reported to be engaged in boiling, graining and husking.

7) Boys were engaged in the following types of productive activities: Ploughing, hoeing, herrowing, nursery work, transplanting, manuring and fertilizing, weeding, harvesting, maintenance and repairs of farm equipment, marketing, scaring birds, taking food to the fields, fishing, tending animals, hawking, manual irrigation, hair cutting (barbar) etc.

Girls were engaged in the following types of activities: Growing vegetables, threshing, boiling and drying grain, scaring birds, husking, fishing, tending animals, spinning yard, making handicrafts, collecting firewood etc.

8) Although girls aged 5-9 years cooked, washed and cleaned, brought water and ran errands, they were mostly engaged in child care and collecting firewood. Girls 10-14 years spend relatively more time in cooking, washing and clearing and bringing water than their younger sisters, although they also minded children and collected firewood.

9) With an increase in age, boys spend less time on child care and move on agriculture, fishing, tending animals and non-farm activities.

10) Children ensured the survival of the family name. 82 percent of the respondents expected assistance from their sons for most of their needs during their old age. Parents take children, especially boys, as insurance against old age. Children also physically take care of their old and invalid parents.

Thus, after completing his whole analysis, the author concludes: "It is clear that the role of children in rural Bangladesh, and, to a considerable extent, in all Bangladesh, has remarkable similarities to that described as being the situation among Yoruba peoples of Nigeria".

From the conclusion of the author, it appears that he was influenced by African studies on value of children. Though in many respect, similarities are found, yet our society differs from African Community in respect of social

structure, kinship ties, attitude towards sex preference, marriage pattern and so on and so forth.

However, after going through the whole analysis of the author, it appears that he intends to touch everything without entering into any particular issue in detail. Some sort of hurridness in the matter of exposing his 'One shot' survey data is clearly noticed. This might be, because of the fact that during the course of his study in A.N.U., the author came to Bangladesh from Australia for 12 weeks programme and during the time of his return journey, he collected some data from a village in Bangladesh, whatever is possible within this short period of time. But, it should be remembered that any analysis on value of children relating to fertility behaviour requires long participatory observation. Ordinary research survey method with structured or unstructured interview schedule cannot tell the true picture. This aspect has been clearly pin-pointed by Suchart et.al. (1977)[106] as follows:

> In order to understand the social and economic supports for high fertility, an ordinary survey research method with structured or unstructured interview schedules will hardly be sufficient.

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106 Suchart P. and F.A. Day, "Cost and Value of children in Rural Thailand" in Economic and social supports for High Fertility edited by L.T. Ruzicka, Australian National University, Canberra, 1977, pp.307-316.

> We need to supplement it with other methods that can provide insights into the phenomenon under study. Such insight requires that the researcher be personally familiar with the individual respondents and their social and economic environment. This will come only when the researcher makes a long participatory observation on how the people live in their environment. He must live in the localities long enough for his respondents to become familiar with him and trust him as their confident. Only then will the data they provide and explanations they give become useful for the understanding of the social and economic support for their fertility performance.

But, none of the authors (Cain, Barkat) follow this important aspect of data collection rigorously. In case of Barkat, this is rather less followed.

In addition to this limitation, the study of Barkat has other significant limitations. It does not consider the value of children to old parents with the same intensity and focus as the value of children in young families. Moreover, the study fails to measure the net value of children to their parents. 'Cost' is measured by Barkat by asking only three questions to the selected respondents. The questions are:

a) Do you agree that the real financial worry about children is schooling?

b) At what age does a children cost the most?

c) At what age do your children who have not been to school help enough or earn or produce enough to make up for the costs of keeping them?

These types of questions and answers cannot measure the cost of children. How can a respondent give correct reply within 5-10 minutes or even if more time is allowed to tell that at what age his children will cost most? Whether education of children is really a burden for him? And at what age his children who is not going to school help the family? For calculation of cost, its measurement is required. Cost of food, education, clothing and medicine varies from person to person even with the same age group. Even these components are found to vary seasonally and with the economic conditions of the parents. Therefore, expenditure on food, clothing, education and medicine for each and every member of the household should be measured at least once in a month for one year in order to assertain the actual material cost of children. A major short coming of the study is its failure to provide a statistical profile of the 'economic class' and 'annual income catagory' of the households in the village under study and then to examine how 'demographic characteristics' vary with differences in 'economic class' and 'annual income catagory'. However, the finding is consistent with those who believe that parents are motivated predominently by the economic value and costs of children.

3.10 Significance of the Present Study

Thus, from the foregoing analysis, it is observed that the value (and cost) of children has been discussed at different levels by different authors, interpreting their own opinion either supporting it or refuting it. Most of these studies however, were conducted by the western scholars in the context of western ideology. It is not correct to say that children will generally command the same value everywhere and to every class. Perceived value of children by social class varies with changing social conditions. People in different cultures and socio-economic settings want children for different reasons. This study differs from western social stereotype in the sense that it is more country based and village-level in nature and throws light on the identification and explanation of salient factors that affect the fertility behaviour of people in rural Bangladesh.

Although systematic research on the value and cost of children is a recent development, yet the quantity of research is not impressive, particularly in the household context of the developing countries of the world and more particularly with reference to Bangladesh. Most of the studies that were conducted in Bangladesh were short based. The period of data collection extended from 1-3 months. In many cases secondary data were used. But such statistics did not truely reflect the actual picture of a peasant household in rural economy of Bangladesh. As a result, determination of positive

or negative value of children was not based on a sound footing. The analysis and explanation of positive and negative value of children by those authors were totally depended on the use and interpretation of such data. The present study is comparatively based on an improved methodology. The period of data collection extends from July, 1979 to December, 1980, where the technique of data collection involves a blend survey and participant observation method. The need for more village level studies is immense in countries like Bangladesh. The long participatory observation, close familiarity with the individual respondents, recruitment of elderly local primary school teachers as field investigators, deep insights in preparing Bengali questionnaires and all other aspects of this study, definitely makes an attempt to develop the methodology for assessing the economic costs and value of children in rural Bangladesh.

In many of the previous analyses on value of children, it is found that cost side is totally ignored. Many authors, however, discuss the cost side partially by considering the food value of children. But, not a single discussion is found on value of children, which covers other cost items. This study makes an extensive survey to measure the cost components of children. Each household was visited once in a month throughout the whole year to collect food consumption data along with data on expenditure on education, clothing and medicine, for every member of the household, in order to calculate the net economic value of children.

In most of the discussions on value of children, time allocation data on activities of children are usually analysed in terms of age and sex. A major short coming of those studies is their failure to provide a statistical profile of the 'economic class' and 'annual income structure' of the households in the villages under study and then to examine how demographic characteristics and economic activities vary with change in economic class and income structure. This is a reply which this thesis calls into question.

Any study on peasant economy, concerning with the economic value of children and ignoring the "Seasonality" aspect of peasant society, will remain as partial in nature. Because, rural employment and activities of children in rural society are in most cases seasonal in character, particularly which are related to agriculture. Interpretation of data by taking some few peak or lean agricultural months of the year will naturally lead some one to conclude either children has got positive or negative value. Uptil now, not a single study on economic value of children has taken into consideration this seasonality aspect. The present study takes a rigorous attempt by calculating the activities of children in different months of the year from August to July and explaining the same for different age groups, sex and economic class.

The study is significant, because it demonstrates the kind of ambivalence usually encountered by researchers in most of the less developed parts of the world, attempting to elicit information on the advantages and disadvantages of large number of children. It is also important, because it focuses, identifies and explains the silent factors that affects fertility behaviour in rural Bangladesh.

CHAPTER - 4

SURVEY METHODOLOGY

4.1 Introduction

This chapter deals with the survey methodology of the present study. It throws light on the study approach which was conducted between July 1979 and December 1980. Detail description relating to the choice of a suitable village, recruitment and training of work assistants, establishment of working relations with the villagers, preparation of questionnaires, coding systems and sample design, data check and transfer and many other issues relating to survey methodology are discussed.

4.2 Analytical Approaches

In recent years, two types of analytical approaches are most commonly used by the researchers in their value and cost of children studies. One refer to the collection of interview data through surveys and the other one is the analysis of existing survey and census data using econometric technique. In addition to these, a few important village level studies have been conducted, in which interview and observation and other methods of data collection were combined.

Both interview and observation techniques, have their own limitations particularly in collecting time budget data. One important weakness of interview technique is the susceptibility to memory lapse, lack of time

consciousness and inaccuracy of reporting on the part of the respondents. The observation technique suffers from resource constraints and sufficient staff to observe a number of subjects at the same time throughout a day and the possibility of influencing the subjects behaviour.

In order to understand the economic and social factors affecting high fertility, survey method alone is not sufficient. For objective evaluation of economic utility and cost of children in any particular community, long participatory observation on the part of the researcher is necessary. The researcher must be familiar with the individual respondents and their social and economic environment.

However, in spite of the limitations of interview and observation methods, the present study adapts a somewhat rigorous approach to ascertain the determinants of high fertility by selecting a single community (or village) where the technique of data collection involves a blend of survey and participant observation methods. Time allocation data on household members for a particular day were collected mainly by interviewing the household members on the following day, although these were checked and supplemented by occasional observations. Observation technique was followed to asses the expenses in food, clothing, medicine and education by local work assistants and these were

supplemented by interviews. In case of other schedules, survey method was followed and these were frequently supplemented by observations.

4.3 Choice of a Suitable Village

The study of economic value of children in rural Bangladesh, particularly in the household context is very much significant, because it tells us the fertility behaviour of parents at micro level. Keeping in view the objectives of the study, it was decided to select a village which would be a representative of the country, at least in terms of economy, ecology and population characteristics.

In selecting the village, emphasis was given on four important criteria:

i) the village must be a typical one;

ii) the total numbers of households within the village, in no way, be less than the average village size in Bangladesh;

iii) the selected village must supply the required information to feed the overall task of the research work; and

iv) the village must be accessible by roads, but not very close to the urban area.

For the present study, a village in the Sylhet district was chosen for the following reasons:

i) there was rarely any village study in Sylhet;

ii) the researcher is more familiar with a village in Sylhet district than with a village in any other district. This is because, he is born and brought up in Sylhet and his working place is also situated in Sylhet. Therefore, for the sake of convenience and familiarity, a village in Sylhet was chosen.

The researcher went to Sylhet on June 6, 1979 and discussed the matter with the local administration and with the teaching staffs of Sylhet University College. The local administration helped the researcher by supplying the names and other informations of as many as 12 (twelve) villages, which were scattered over different places and lying within the range of 2 to 20 miles from Sylhet town. From June 8 to June 26, the researcher visited extensively to all these ~~twenty~~ twelve villages, mingled with the local people, consulted the local Union Parishad Chairmen and members and finally decided to select the village "Muiyarchar" for this study.

The village is situated about eight miles away from Sylhet University College and six miles away from Sylhet railway station. It is located approximately 214 miles away to the north-east of Dacca city, the capital of Bangladesh. In terms economy, population density, fertility, literacy, poverty and unemployment level, the village is found a typical of the country (see chapter on socio-economic and demographic profile of the study village).

4.4 Establishment of Working relationship with the Villagers

In the course of selection of the study village, working relationship was established with the following organizations/agencies personnel.

i) Union Parishad and Setting up the Working Office

The village Muiyarchar is situated under Tukerbazar Union (No.6) of Kotwali Police station of Sylhet district. The researcher met the Chairmen and other members of the Union Parishad and apprised them with the purpose of the study and solicited their support and co-operation. They extended all types of help by providing different types of relevant information and introduced the researcher with the local school teachers and some influential and resourceful families of the locality.

An old student of the researcher who was living in the village also acted as an intermediary. The student not only helped by introducing the researcher with the local people, but he also did an wonderful job by carrying out the field investigation. The student was extremely resourceful. He was the son of a rich businessman of the village under study. Ultimately, the working office of the researcher was set up in his home.

1 'Union' is the smallest administration unit in Bangladesh. It consists of several villages ranging from 15 to 40, with few exceptions. 'Union Parishads' are the lowest cadre of local self-government units in the country. An Union Parishad is composed of a Chairman, nine elected members and two nominated women members from amongst the local population. The Chairman and the elected members are elected by direct election on the basis of adult franchise. The women members are nominated by the prescribed authority from amongst the women of the Union. As per 1981 Preliminary Population Census Reports, there are 4550 unions and 91,000 villages in Bangladesh.

ii) Influential members of the Village

The researcher also met the local influential members of the village. These included visits to an ex-Chairman of Tukerbazar Union; members of different political parties; some heads of the big landowning households; businessmen of the locality and the Imams (i.e. religious leaders) of two local mosques and apprised them with the objectives of the study. They were very co-operative and evinced interest in the study.

iii) Tahsil Office

The researcher visited the local Tahsil Office, which collects land revenue and keep land records. The Tahsil office supplied the researcher with land records of the village.

Thus, a ~~good~~ working relationship was established with different local agencies and influential persons. The local support was extremely helpful in carrying out the field investigation smoothly.

4.5 Selection of Sample Household

A complete census of the village was taken in July 1979 for selection of sample of the present study. Four investigators (all of whom were local primary school teachers) were recruited to conduct the census. According to the census report, 214 households were recorded in the village, showing a total population of 1350 in July 1979. A detail information regarding the age, sex, education, occupation, annual income, landed property, share cropping of land, loan operation, financial transactions etc. of the entire village were recorded (see chapter 5) for subsequent stratification and for the purpose of administering intensive studies.

4.5.1 Calculation of Sample design

For the objective of drawing a representative household sample, each of the enumerated household was cross-classified by landholding and occupation status, income and life-cycle stages. All the households were stratified in six landholding classes according to the ownership of arable land (see Table 4.1). Landholding class-I consists of landless category I. It refers to those households who claim ownership of no land, either homestead land or other land. A total of 9 (nine) households (4.20%) were recorded under this category, whose main occupation was non-agricultural

in nature. Landholding class II consists of landless category 2. It refers to those households who do not claim ownership of any land other than homestead land. A total of 101 households (47.19%) were recorded under this category. Landholding class I and II were further sub-divided by their occupations (i.e. agricultural and non-agricultural). Landholding class III comprises of those households who posses less than 1.00 acre of land. A total of 40 (18.69%) households were recorded under this category. Landholding class IV comprises of those who possess more than one acre but less than 2.50 acres of land. A total of 36 (16.82%) households were recorded under this category. Similarly, 9.34% or 20 households were recorded under landholding class V, who possess 2.50-5.00 acres of land; and 3.73% or 8 households were under landholding class VI, who own more than 5.00 acres of land (see table 4.1).

Each of the six landholding and occupation class was further stratified into three annual income categories on the basis of their respective gross yearly income. Income category I comprises those whose annual income is less than Tk.6,000.00; income category II comprise those, whose annual income falls within the income bracket of Tk.6,000.00 to Tk.12,000.00; and income category III comprises those whose annual income is more than Tk.12,000.00. A total of 82 (38.31%) households were recorded under income category I; 94 (43.92%) households under income category II

TABLE - 4.5

Classification of Households in terms of Landed Property, Annual Income Catagory and the Life cycle stage of the parents.

Statement of landed property (Acres)		Annual Income (Tk)	Households With no children: Unmarried	Newly Married	Widow/ Divorced	Household with all children <5 Years of age	Household with all children unmarried	Household with less married & more unmarried children	Household with more married and less unmarried children	Household with equal number of married & unmarried children	Household with only son	Household with only daughter	TOTAL
1		2	3	4	5	6	7	8	9	10	11	12	13
	Landless	6,000/-	-	-	-	-	-	-	-	-	-	-	-
	Agricultural	6000-12000/-	-	-	-	-	-	-	-	-	-	-	-
	Labour	12,000/- +	-	-	-	-	-	-	-	-	-	-	-
Landless-1	Landless	6,000/-	1 (6.25%)	-	1 (20.00%)	1 (4.76%)	2 (2.35%)	-	-	-	-	2 (20.00%)	7 (3.27)
	Non-Agricultural	6000-12000/-	1 (6.25%)	-	-	-	1 (1.17%)	-	-	-	-	-	2 (0.93)
	Labour	12,000/- +	-	-	-	-	-	-	-	-	-	-	-
	Landless	6,000/-	1 (6.25%)	1 (5.55%)	-	2 (9.52%)	3 (3.52%)	2 (6.89%)	1 (10.00%)	-	2 (11.11%)	1 (10.00%)	11 (5.14%)
	Agricultural	6000-12000/-	1 (6.25%)	1 (5.55%)	-	-	5 (5.88%)	2 (6.89%)	1 (10.00%)	-	-	1 (10.00%)	11 (5.14%)
	Labour	12000/-+	-	-	-	-	-	1 (3.44%)	1 (10.00%)	-	-	-	2 (0.93%)
Landless2	Landless	6,000/-	3 (18.75%)	2 (11.11%)	2 (40.00%)	5 (23.80%)	6 (7.05%)	1 (3.44%)	1 (10.00%)	-	7 (38.88%)	-	27 (12.61%)
	Non-Agricultural	6000-12000/-	4 (25.00%)	3 (16.66%)	-	2 (9.52%)	26 (30.58%)	3 (10.34%)	1 (10.00%)	-	-	1 (10.00%)	40 (18.69%)
	Labour	12,000/-+	-	-	-	3 (14.28%)	1 (1.17%)	4 (13.79%)	-	-	1 (5.55%)	1 (10.00%)	10 (4.67%)
Less than 1.00 acre		6,000/-	3 (18.75%)	4 (22.22%)	-	2 (9.52%)	6 (7.05%)	1 (3.44%)	-	-	3 (16.66%)	1 (10.00%)	20 (9.34%)
		6000-12000/-	1 -	1 (5.55%)	-	4 (19.04%)	5 (5.88%)	2 (6.89%)	-	-	1 (5.55%)	-	13 (6.07%)
		12,000/-+	1 (6.25%)	-	-	-	3 (3.52%)	1 (3.44%)	-	-	1 (5.55%)	1 (10.00%)	7 (3.27%)
1.00 - 2.50 acre		6,000/-	-	2 (11.11%)	1 (20.00%)	-	3 (3.52%)	3 (10.34%)	1 (10.00%)	-	-	1 (10.00%)	11 (5.14%)
		6000-12000/-	1 (6.25%)	2 (11.11%)	-	-	8 (9.41%)	3 (10.34%)	2 (20.00%)	1 (50.00%)	1 (5.55%)	1 (10.00%)	19 (8.87%)
		12,000/-+	-	-	-	1 (4.76%)	3 (3.52%)	2 (6.89%)	-	-	-	-	6 (2.80%)
2.50 - 5.00 acre		6,000/-	-	-	1 (20.00%)	-	2 (2.35%)	2 (6.89%)	-	-	1 (5.55%)	-	6 (2.80%)
		6000-12000/-	-	1 (5.55%)	-	1 (4.76%)	5 (5.88%)	-	1 (10.00%)	-	-	-	8 (3.73%)
		12,000/-+	-	-	-	-	2 (2.35%)	1 (3.44%)	1 (10.00%)	1 (50.00%)	1 (5.55%)	-	6 (2.80%)
5.00 acre +		6,000/-	-	-	-	-	-	-	-	-	-	-	-
		6000-12000/-	-	-	-	-	1 (1.17%)	1 (3.44%)	-	-	-	-	2 (0.93%)
		12,000/-+	-	1 (5.55%)	-	-	3 (3.52%)	2 (6.89%)	-	-	-	-	6 (2.80%)
TOTAL		-	16 (7.47%)	18 (8.41%)	5 (2.33%)	21 (9.81%)	85 (39.71%)	29 (13.55%)	10 (4.67%)	2 (0.93%	18 (8.41%)	10 (4.67%)	214 (100%)

and 38 (17.75%) households under income category III (see Table 4.1).

These strata were further sub-divided according to the life cycle stage of the respondents. There were eight such stages. Parents with no children (stage I); those with only sons (stage II); those with only daughters (stage III); those with more unmarried and less married number of children (stage IV); those with more married and less unmarried number of children (stage V); those with equal number of married and unmarried children (stage VI); those with all children unmarried (stage VII); and those with all children below 5 (five) years of age (stage VIII). Stage I again, was further sub-divided into three sub-stages, viz. (i) Households representing unmarried heads of family; (ii) Households representing newly married heads; and (iii) where the heads of the households are widowes and divorced.

A total of 39 cases (18.22%) were recorded under life cycle stage I, of which 16 cases were unmarried heads, 18 cases were newly married heads and only 5 households were headed by widowes/dovorced. Similarly, 18 households (8.41%) were recorded under life-cycle stage II, 10 cases (4.67%) under life cycle stage III 29 (13.55%) cases under life cycle stage IV, 10 cases (4.67%) under life cycle stage V, 2 cases (0.93%) under life cycle stage VI, 85 cases (39.71%) under life cycle stage VII and 21 cases (9.81%) under life cycle stage VIII (see table 4.1).

Out of the total 214 households in the village, 108 (50%) were selected for intensive studies. The sample households were selected from each of landholding and occupation class, income category, life cycle stage with probability equal to the proportion of households in each category. The distribution of the sample households according to land ownership and occupation class, income group and life cycle stage is provided in table 4.2. A total of 5 cases (4.62%) were drawn from landless class I; 52 cases (48.14%) from landless cl ass 2; 18 cases (16.66%) from landholding class III; 18 cases (16.66%) from landholding class IV; II cases (10.18%) from landholding class V; and 4 cases (3.70%) from landholding class VI.

Out of 5 cases taken from landless class I, 4 (or 3.70%) were taken from annual income category I, and the remaining one case from annual income category II. Similarly, out of 52 cases from landless class 2, 20 (or 18.50%) were taken from annual income category I, 26 (or 24.07%) from income category II and 6 (or 5.55%) from income category III. Again, out of 18 cases taken from landholding class III, 9 (or 8.33%) were taken from income category I, 6 (or 5.55%) from income category II and 3 (or 2.77%) from income category III. Moreover, out of 18 cases of landholding class IV, 5 (or 4.62%) were drawn from annual income category I, 10 (or 9.25%) from annual income category II and 3 (or 2.77%) from annual income category III.

Similarly, out of 11 cases of landholding class V, 3 (or 2.77%) were taken from annual income category I, 4 (or 3.70%) from annual income category II and the remaining 4 (or 3.70%) from annual income category III. Finally, out of 4 cases from landholding class VI, only one case (or 0.92%) was taken from annual income category II and 3 cases (or 2.77%) from annual income category III (see table 4.2).

Similarly, eight demographic characteristics (arranged according to the life cycle stage of parents) were also represented by six landholding class stratified according to the ownership of land and three annual income categories, indicating the annual income of the households. Out of eight stages of life- cycle, 19 cases (or 17.59%) were represented from stage I, of which 8 cases were represented each from sub-stages (i) and (ii) and the remaining 3 cases from sub-stages (iii). Similarly, 9 households (or 8.33%) were taken from life cycle stage II, 5 (or 4.62%) from stage III, 14 (or 12.96%) from stage IV, 5 (or 4.62%) from stage V, 2 (or 1.85%) from stage VI, 43 (or 12.96%) from stage VII, and 11 (or 10.18%) from stage VIII (see table 4.2).

TABLE - 4.2

Calculation of sample Households (from table 4.1) on the basis of Random Stratified sampling.

Statement of Landed property (Acres)	annual Income (Tk)	Households with no children: Unmarried	Newly married	Widow/ Divorced	Households with all children < 5 years of age.	Households with all children unmarried	Household with less married & more unmarried children	Household with more and less unmarried children	Household with equal number of married & unmarried children	Household with only son	Household with only daughter	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12	13
Landless-1 Landless	Tk.6,000/-	-	-	-	-	-	-	-	-	-	-	-
Agricultural Labour	6,000-12,000/-	-	-	-	-	-	-	-	-	-	-	-
	12,000/- +	-	-	-	-	-	-	-	-	-	-	-
Landless	6,000/-	(8x.0625) =0.5	-	(3x.2000) =0.6	(11x.0476) =0.52	(43x.0235) =1.01	-	-	-	-	(5x.2000) =1.0	4(3.70%)
Non-Agricultural Labour	6,000-12,000/-	(8x.0625) =0.5	-	-	-	(43x.0117) =2.50	-	-	-	-	-	1(0.92%)
	12,000/- +	-	-	-	-	-	-	-	-	-	-	-
Landless-2 Landless	6,000/-	(8x.0625) =0.5	(8x.0555) =0.44	-	(11x.0952) =1.22	(43x.0352) =1.51	-	(5x.1000) =0.5	-	(9x.1111) =0.99	(5x.1000) =0.5	5(5.55%)
Agricultural Labour	6,000-12,000/-	(8x.0625) =0.5	(8x.0555) =0.44	-	-	(43x.0588) =2.52	(14x.0689) =0.96	(5x.1000) =0.5	-	-	(5x.1000) =0.5	5(5.55%)
	12,000/- +	-	-	-	-	-	(14x.0344) =0.48	(5x.1000) =0.5	-	-	-	1(0.92%)
Landless	6,000/-	(3x.1875) =1.5	(8x.1111) =0.88	(3x.4000) =1.2	(11x.2380) =2.61	(43x.0755) =3.03	(14x.0344) =0.48	(5x.1000) =0.5	-	(9x.3888) =3.49	-	14(12.96%)
Non-Agricultural Labour	6,000-12,000/-	(8x.2500) =2.00	(8x.1666) =1.33	-	(11x.0952) =1.04	(43x.3058) =13.14	(14x.1034) =1.44	(5x.1000) =0.5	-	-	(5x.1000) =0.5	20(18.51%)
	12,000/- +	-	-	-	(11x.1429) =1.57	(43x.0117) =0.50	(14x.1379) =1.93	-	-	(9x.0555) =0.49	(5x.1000) =0.5	5(4.62%)
Less than 1.00 acre	6,000/-	(8x.1875) =1.5	(8x.2222) =1.77	-	(11x.3952) =1.04	(43x.0705) =3.03	(14x.0344) =0.48	-	-	(9x.1666) =1.49	(5x.1000) =0.5	9(8.33%)
	6,000-12,000/-	-	(8x.0555) =0.44	-	(11x.1034) =2.09	(43x.0588) =2.52	(14x.0689) =0.96	-	-	(9x.0555) =0.49	-	6(5.55%)
	12,000/- +	(8x.0625) =0.5	-	-	-	(43x.0352) =1.51	(14x.0344) =0.48	-	-	(9x.0555) =0.49	(5x.1000) =0.5	3(2.77%)
1.00 - 2.50 acre	6,000/-	-	(8x.1111) =0.88	(3x.2000) =0.6	-	(43x.0352) =1.51	(14x.1034) =1.44	(5x.1000) =0.5	-	-	(5x.1000) =0.5	5(4.62%)
	6,000-12,000/-	(8x.0625) =0.5	(8x.1111) =0.88	-	-	(43x.0341) =4.04	(14x.1034) =1.44	(5x.2000) =1.0	(2x.5000) =1.00	(9x.0555) =0.49	(5x.1000) =0.5	10(9.25%)
	12,000/- +	-	-	-	(11x.0476) =0.52	(43x.0352) =1.51	(14x.0689) =0.96	-	-	-	-	3(2.77%)
2.50 - 5.00 acre	6,000/-	-	-	(3x.2000) =0.6	-	(43x.0235) =1.01	(14x.0689) =0.96	-	-	(9x.0555) =0.49	-	3(2.77%)
	6,000-12,000/-	-	(8x.0555) =0.44	-	(11x.0476) =0.52	(43x.0588) =2.52	-	(5x.1000) =0.5	-	-	-	4(3.70%)
	12,000/- +	-	-	-	-	(43x.0235) =1.01	(14x.0344) =0.48	(5x.1000) =0.5	(2x.5000) =1.00	(9x.0555) =0.49	-	6(5.55%)
5.00 and more acres +	6,000/-	-	-	-	-	(43x.0117) =2.50	(14x.0344) =0.48	-	-	-	-	1(0.92%)
	6,000-12,000/-	-	(8x.0555) =0.44	-	-	(43x.0352) =1.51	(14x.0689) =0.96	-	-	-	-	2(1.85%)
TOTAL	-	8 (7.40%)	8 (7.40%)	3 (2.77%)	11 (10.18%)	43 (39.81%)	14 (12.96%)	5 (4.62%)	2 (1.85%)	9 (8.33%)	5 (4.62%)	108 (100%)

4.6 Survey Design

The success of data collection and the subsequent processing and analysis of data in the overall research work depend upon the survey design and the intelligent and careful framing of the questionnaire.

4.6.1 Preparation and Processing of Questionnaires

It took about two months to prepare different types of questionnaires. All questionnaires were framed considering the objectives of the study. As many as fourteen types of questionnaires were framed in order to collect data from different angles. The nature of all such questionnaires were not uniform. Some were collected once in a year, some were collected once in a month throughout the whole year, and some others were collected twice in a month throughout the entire period of this study.

4.6.2 Types of Questionnaires

The village was studied for more than a year and questionnaires were framed to collect information on the following subjects:

i) Census (A base line survey of hundred percent households of the village).

ii) Time Budget Study (An estimation of time utilization of every member of the household of age 5 years and above).

iii) Cost schedule (An estimation of costs involved in rearing children).

iv) Income-Expenditure Schedule (An estimation of monthly income and expenditure of households).

v) Children's Education Survey (An assessment of parents attitude towards children's education).

vi) Fertility Survey (An assessment of parents attitude towards high/low fertility).

vii) Family Planning Survey (An assessment of parents attitude towards family planning practices).

viii) Living arrangements of elderly persons (Attitude of elderly persons 55 years of age and above relating to value of children).

ix) Registration of births and deaths (All births and deaths during the study period were recorded).

x) Registration of migration (All in-migration and out-migration during the study period were recorded).

xi) Registration of marriage (All types of marriages were recorded during the study period).

xii) Survey of important agricultural crops (surveys were conducted in sowing and harvesting periods of Aus, Aman and Boro to ascertain the wage rate, cost of production and average yields of each crops).

xiii) Children's activity survey (An estimation of children's activities at different age groups).

xiv) Survey on intergenerational wealth flows (An assessment of inflow and out-flow of wealth between out-migrant children with their parents).

4.6.3 Definition and Coding Systems

4.6.3.1 Census

a. Time period : Conducted in the month of July, 1979.

b. Coverage : Every household in the village (214 households; 1350 persons).

c. Respondents : Head of the households.

d. Purpose : Selection of sample size for intensive studies on time allocation and food consumption etc.

A complete census of all the households in the village was taken in the month of July, 1979 to determine the economy, ecology, population structure, land distribution, level of income and other socio-economic characteristics of the study village (see the chapter 5). The respondents were the heads of the household. In their absence, adult members of the respective households were interviewed. The information collected through base line survey formed the basis of final sample selection for intensive studies. There were altogether 214 households in the village. Out of these, 108 households were selected on the basis of random stratified sampling technique (see, sample selection of the present study).

The census included only regular residents of the village. Temporary residents and visitors who were present at the time of census were excluded from the enumeration. A person who had a regular job outside the village but returns to his village home at least once a month was also

considered as a resident. Migratory workers, such as businessmen, who were gone for as long as two to three months of a year but returned for the remaining months were also considered residents. Those persons who were absent for more than six months per year or who regularly lived outside the village were not enumerated.

4.6.3.2 Time Budget Study

a. Time period : Twice in a month throughout the entire year. (August 1979 - July 1980).

b. Coverage : Only sample households (108 households. 478 persons).

c. Respondents : All members of the households 5 years and above.

d. Purpose : To measure material and non-material activities of children and adults.

The major focus in the study is to assess children's contribution of labour in different productive and non-productive activities in terms of average time spent per-day. As the economic benefits of high fertility to parents dependent to a large extent on the productivity of children in the context of household economic organization, time budget were designed and extensively used to record the allocation of time by children to different activities and the duration of time spent in those activities. The purpose of time budget study is to demonstrate division of household labour and its seasonal fluctuations and to measure the

labour inputs of children vis-a-vis those of adults.

Time budget data were collected twice in a month for a period of one year. All members of the sample households of age 5 years and above were interviewed and each household was visited every 14th day throughout the whole year starting from August, 1979 to July 1980, and on each visit the following informations were recorded.

i) Productive, unproductive and household activities (both inside and outside family, farm and business) of all persons aged 5 years and above during the 24 hour period preceding the visit.

ii) Duration of time spent in different activities (general activities include leisure and schooling; productive activities include market production; and home production activities include household works) by all persons aged 5 years and above during the 24 hour period preceding the visit.

4.6.3.3 Cost Schedule

a. Time period : Once in a month throughout the study period (August 1979 - July 1980).

b. Coverage : Only sample households (108 households).

c. Respondents : Head of the households.

d. Purpose : To measure material and non-material costs involved in rearing children.

In a rural household, it is assumed that the costs of raising children is minimum. In order to determine the nature and extent of benefits that parents derive from the production of large number of children, cost components like food budget along with cost of clothing, education, medicine and setting up of children in some trade or occupation were extensively studied by obtaining appropriate information.

Each household was visited once in a month throughout the whole year to collect food consumption data on each household member during the 24 hour period preceding the visit. In the matter of collecting food consumption data particular emphasis was given to collect informations relating to the quantity of food consumed, sources from where food is acquired, prices of food taken, food consumed outside by household member and outsider's who share in household's food.

Expenditure on education, clothing and medicine were also collected separately for all members of the household once in a month throughout the whole period of study for estimation of economic costs of children.

Thus, the cost of raising children both direct and indirect was measured by considering the actual expenditures on food, medicine, education and clothing and other items pertaining to raising children in rural areas along with the sharing of child care activities with others.

4.6.3.4 Income-Expenditure Schedule

a. Time period : Once in a month throughout the study period (August 1979 - July 1980).

b. Coverage : Only sample households (108 households).

c. Respondents : Head of the households.

d. Purpose : To ascertain economic status of parents, standard of living, forms of economic activity, employment pattern, agricultural and non-agricultural income and expenditure of households.

It is assumed that economic status greatly determines the work activities of children. Economic status, on the other hand, depends upon the acquisition of wealth or the level of income. Thus, the work inputs of children in different age groups in terms of their economic background was studied. Income-expenditure data of households fulfilled this requirements. This schedule was designed to measure the agricultural and non-agricultural income of the households. Earned and unearned income, both cash and kind and particularly income from self-employed skilled services were also calculated. Side by side with income,

the pattern of expenditure and loan operation strategy of the households (both borrowing and lending) were studied and recorded.

In order to collect the income-expenditure data, each of the sample household was visited once in a month throughout the study period from August 1979 to July 1980.

4.6.3.5 Children's education Survey

a. Time period : Once in a year

b. Coverage : Entire village (162 couples)

c. Respondents : Head of the households.

This schedule was prepared to assess information on children's education. It is assumed that fertility is positively correlated with child labour force participation and negatively with child schooling. In our society, parents recognize the value of education for their children. They understand, not only is education important to the future career of their children, in establishing them in some trade or occupation, but it is also desirable for family name and prestige.

However, in Bangladesh, the absolute majority of the parents utilize the services of their children in different productive and household activities, instead of sending them to schools. In the present study, each and every household in the village was visited to record

the number of children studying in different educational institutions, both inside and outside the village. The costs of overall education, the reasons for dropouts, work-inputs of school-going children and attitude of parents towards children's education were ascertained. Data were also generated on living and financial arrangements of students studying outside the village.

4.6.3.6 Fertility Survey

a. Time period : Once in a year.

b. Coverage : Only married couples of the entire village (162 couples).

c. Respondents : Both husband and wife (separately interviewed).

d. Purpose : To ascertain parents opinion about the value of children.

The purpose of this schedule was to determine the attitude of parents towards high fertility. As many as 26 questions were asked under this schedule. All the 214 households were interviewed. Questions asked include: what is good about many children? What is good about having fewer children? What economic (material and non-material) and other supports are provided by children to their parents when they are old? Does a man with more grown up children enjoy lot of power and prestige in the society? Does a girl adds any economic burden to the

family at the time of marriage? At what age does a child cost the most? At what age children begin productive work? At what age children who do not attend school earn/produce enough to make up for the cost of keeping them? In addition to these questions, parents (both husband and wife separately) were asked to express their opinion about their desired number of children, their preferences for sons and daughters, economic gains and losses from having more children and their choices for alternative satisfactions other than having many children, etc.

4.6.3.7 Family Planning Survey

a. Time period : Once in a year.

b. Coverage : All currently married couples of the entire village.

c. Respondents : Currently married women aged 15-54, currently living with spouse and the husbands of those women.

d. Purpose : To ascertain knowledge, attitude and practice of family planning.

Family planning schedule was formulated to collect data on attitude and practices of family planning. Questions on family planning was designed in such a way as to ascertain the knowledge of married couples on family planning. The main purpose was to evaluate why in the presence of family planning methods and with the full knowledge on the part of the people, fertility is not checked?

4.6.3.8 Living arrangements of elderly persons

a. Time period : Once in a year.

b. Coverage : n = 77

c. Respondents : Elderly persons 55 years of age and above plus widowes.

d. Purpose : To ascertain the attitude of old persons about the utility of children.

In rural households, elderly parents largely depend on their children for care and sustenance. It is often maintained that children, particularly sons look after their parents in times of distress and during old age.

The purpose of this study was to ascertain the economic and physical supports actually received by elderly parents and widowes from their children and the mechanisms through which parents ensure these supports from children.

4.6.3.9 Registration of births and deaths

a. Time period : Once in a week throughout the study period (August 1979 - July 1980).

b. Coverage : Entire village.

c. Respondents : Head of the households.

d. Purpose : To ascertain crude birth rate (CBR), crude death rate (CDR), General fertility rate (GFR) and infant mortality of the village.

A birth registration schedule was maintained where all births occuring to individuals within the village and to in-migrants were recorded. Births occuring within the study village to temporary visitors were excluded from this registration. The registration of births was essentially a registration of pregnancies. To make sure that all live births were detected, the local work assistants visited each family at least once in a week throughout the whole year and recorded the result of a pregnancy - whether miscarriage, still birth or live birth. The distinction between miscarriage and still birth was based on the duration of the pregnancy. If the pregnancy (according to the women's assessment), lasted for less than seven months, the outcome of the pregnancy (a foetus which did not show any sign of life) was recorded as miscarriage. If, on the other hand, a woman indicated a pregnancy duration longer than seven months and the foetus did not show any sign of life, the event was then recorded as still birth. Sex was recorded in case of a still birth and live birth, but not for miscarriages.

Deaths of residents of the study village were also recorded on the death report form. The death form contained information on individual's identification, household number, date of death, age at death, sex, village of residence, place of death, cause of death and type of doctor consulted.

4.6.3.10 Registration of migration

a. Time period : Once in a week throughout the study period (August 1979 - July 1980).

b. Coverage : Entire village.

c. Respondents : Head of the households.

d. Purpose : To ascertain in-migration and level of out-migration of the study village.

Data on migration were collected with respect to migration into and migration out of the study village. However, an additional question was asked as to the place of destination of the out-migrant or alternatively, previous place of residence of the in-migrant.

An out-migrant is defined as a person originally listed on the census record as a resident, or a person who became a resident after the census by birth or in-migration, who has subsequently permanently moved out of the study village. An in-migrant is likewise, an individual not recorded on the census schedule who has permanently moved into the village area under study. Whether a movement constitutes a permanent change of residence is decided upon by the duration of stay. Residence of at least six months of duration is considered permanent. The date of migration is considered as the beginning of the six month period. Moves of less than six months duration are considered transient and transient movements are not registered.

Information included on migration reports include: household identification number, date of movement, in or out migration, sex, age, cause of movement, religion and place of destination/origin.

4.6.3.11 Registration of Marriage

a. Time period : Once in a week throughout the study period (August 1979 - July 1980).

b. Coverage : Entire village.

c. Respondents : Parents/Guardians of bride or bridegroom

d. Purpose : To measure age at marriage and other marital informations.

The census recorded in a simple form marriage history of each and every married person, stating whether the person (male) had one or two wives, whether he/she was separated from the spouse, divorced or widowed, and how many times he/she was divorced or widowed.

From 1st August 1979, the registration of marriages (first marriages, re-marriages) was introduced. The information collected in the marriage report included type of event and date of event. For both partners information was obtained on age, sex, marital status prior to the event, number of previous marriages, education, religion and birth history of previous marriages. Information on occupation was obtained for bridegroom. For bride information was obtained about their fathers' education and occupation. Data were also generated on distance between partners' residence, person who arranged marriage and the expenses involved in the marriage on the part of bride and bridegroom family.

4.6.3.12 Survey of Important agricultural crops

a. Time period : Sowing and harvesting period of Aus, Aman and Boro crops.

b. Coverage : All land owning households of the village.

c. Respondents : Only head of the landowning households.

d. Purpose : To ascertain wage rate, cost of production and output of respective crops.

Rural employment in most cases are seasonal in character, particularly those which are related to agriculture. Interpretation of data by taking some few peak or lean agricultural months of the year will naturally lead some one to conclude that either children has got positive or negative value. In order to overcome this difficulty, the sowing and harvesting periods of important agricultural crops were compared with other lean agricultural months of the yaar to ascertain variation of wage rate and other aspects relating to employment. Here mainly observation method was followed and subsequently these were supplemented by interviews.

4.6.3.13 Childrens activity survey

a. Time period : Once is a year.

b. Coverage : All unmarried children four years and above of sample households (n = 87 households).

c. Respondents : Children themselves/or any adult member of the household.

d. Purpose : To ascertain different activities of children at different age group.

Children in peasant societies assume the responsibilities of rendering time-consuming household tasks and other productive activities from early age of 4-6 years. These include sweeping, washing, child-minding, fetching water, collecting firewood, cooking food, tending animals, and so on. Although these activities do not yield direct material return, yet they help in smooth running of a household at this level of technology, and free the adults to participate in productive activities.

The study was conducted to ascertain the age at which the children enter into various market and home production activities. The information was obtained for all social and economic classes of the village. It covers only 87 out of 108 sample households of the study village.

4.6.3.14 Survey on Intergenerational Wealth flow

a. Time period : Once in a month throughout the study period (August 1979 - July 1980).

b. Coverage : Only out-migrant households.

c. Respondents : Heads of the out-migrant households.

d. Purpose : To ascertain some aspects of intergenerational flow of wealth based on contact between migrant children and parents and also between parents and their out-migrant children.

The local work assistants visited all the out-migrant households once in a month for full one year

and recorded information on the following:

> the age at which children left their parents households, the reason for their migration, frequency of visits between parents and children and inflow and outflow of food, money and other goods between migrants and their parents.

Children normally spend a good part of their lives as subordinate members of their parents households. But, after their marriage, they usually start a self supporting life. The degree of care and help they provide to their parents both before and after their marriage were also studied to assess the parental control over children.

4.7 Recruitment and Training of Work Assistants

All the field investigators for this study were recruited locally (i.e., from the study village). They were recruited by an extensive interview and successive passing out of a field test.

4.7.1 Field Investigators

The field investigators were of three types.

1) One group was purely responsible for collecting time budget data. This group consisted of four persons, most of them were selected from the teachers of local primary school. The teachers worked as part-time investigators in this study. They were in the age-group 25-40, and all of them were high school graduates. Out of four, two were married and had children. One was the head of his family and three were the members of the sample households of the study village. They were intimately familiar with the households in the study village and commanded respects in the community. They not only live in the community, but they also had their relations in the study village and therefore, they had an easy access to bari compounds of any household and could directly interview women and children. This ultimately facilitated the maintenance of the overall quality of the data.

From the base line household survey, a sample of 108 households were selected on the basis of random stratified sampling technique for intensive studies. Each of this sample household was visited by this group of investigators usually after 4 p.m. to record the duration of time spent in different activities by members

of a household. The persons aged 5 years and above were interviewed. It took about 2.00 hours on an average to complete the time budget schedule of a household consisting of six members. Thus, on an average, 20 to 25 minutes were required to complete the time budget schedule of a single member of a household.

2) The second group of field investigators were responsible for collecting data other than time budget. A team of three work assistants were recruited from the locality to carry out these responsibilities. Two of them had previous experience of working as anumerators for the national population census of 1974 and also for the national agriculture census of 1977. They also had the experience in preparing voters' list for elections of the local council and national legislature. The second group of field assistants were in the age group 22-35 and all of them were high school graduates.

This group of investigators used to visit households with different schedules from time to time as per requirement. The villagers, on the whole, were remarkably tolerant of their frequent visits. However, some were suspicious about the motives of the investigators and objectives of the study and refused to cooperate

initially. The common reason for suspicion being that these information will be used for levying taxes later. Some felt that investigators were collecting information for local and urban exploiters. For example, Kontora Bibi, the head of a sample household complained about exploitation of the rural folks by the urban and literate elites and opposed to conducting the survey work and refused to provide any information. A great deal of time was spent by the investigators to impress the respondents with the objectives of the study.

3) In addition to these field investigators, there was a supervisor, who was the overall cordinator of the field investigators. The head master of the local primary school was entrusted with this responsibility. His principal functions were as follows:

a) Fixation of time and place for holding weekly meetings with the work assistants to review the weekly progress; to detect gross errors and omissions on the part of the enumerators and to deal with the specific problems encountered by any field investigators;

b) Scrutiny of the filled in interview schedule by continuous and vigorous check interviews;

c) detection of inconsistencies, possible errors, and omissions in the completed schedule;

d) Collection of completed interview schedules from the field investigators and submission of these schedules to me;

e) Cordination of overall works of field investigators.

I used to undertake field visits frequently for overall supervision of the work of the village assistants and supervisor, for a close, continuous and rigorous checking and for varifying the authenticity of data collection. Proper care was taken to detect irresponsible and evasive field workers. All possible steps were taken so that no worker would indulge in biased and fictitions reporting and that observation and response might be kept at their highest degree of efficiency.

4.7.2 Coders

A team of five coders were appointed to do different coding activities. Two of them were female and the remaining three were male. They were my old students and all of them were college graduates.

Coding of time budget was the most arduous task. As many as three coders were engaged to do this job. After the collection of completed time budget forms, the coders were instructed to assign activity codes to all recorded activities. It took about 10 minutes to assign activity codes and 10 minutes to record the duration of time spent

by an individual member of a household to a particular activity. After assigning activity codes, duration of activities were recorded. Then, activity codes representing the recorded times were transferred to previously arranged work-sheets. A total of 108 work-sheets were prepared for each sample households, where the activity codes were shown in the vertical axis and the list of household members in the horizontal axis. Time budget was taken twice in a month for each member was recorded separately. This was done for correct estimation of an activity of a household member. Because, on many occasions, a member may remain absent from the household for various reasons. The worksheets could accomodate many rounds of time allocation data and a variety of aggregations and tabulations could be calculated from these worksheets. Separate worksheets were also prepared for other types of schedules. Finally, all these data were transcribed to IMB cards from calculated worksheets.

The calculation of time budget data through this process was really a time consuming task for me. Table 4.3 represents an approximate average spending of time in calculation of time budget data. This excludes the task of transcribing these data to IBM cards from calculated worksheets.

It took about 45 minutes to complete the task of time budgeting of an individual member of a household. This included 20 minutes for data collection, 10 minutes to the task of coding, 10 minutes to record the duration of time and 5 minutes to transcribe the data to work-sheets and to sub-total time segments. Thus, an approximate average of 4.30 man-hour was required to complete the

Table 4.3

An Approximate average Spending of Time in calculation of time-budget data

Activities	Household consisted of six members (Time)	One individual member of a household (Time)
Data collection	2.00 Hours	0.20 Hours
Coding activities	1.00 "	0.10 "
Recording of duration of time	1.00 "	0.10 "
Shifting activities to final work-sheet	0.30 "	0.05 "
Total	4.30 Hours	0.45 Hours

time budget form of each household in which the number of family members were six.

As mentioned earlier, lateron, these data were transferred to coding sheets for its onward punching into IBM cards. One coder with his/her utmost effort

working from 10 a.m. to 5.p.m. with a break of one hour was found to transcribe time-budget data for only four individual members of a household.

The coding activities of other schedules were comparatively much easier.

4.8 Training of the field staffs

In order to impart clear understanding of the purpose and scope of research, the implication of time budget, the utility of other schedules and the way in which information would be sought, the mode of filling up the schedules and other aspects of field operations, the training of field staff (alternatively called work-assistants) was fairly extensive. Initially, the basic ideas on the purpose and scope of the research were explained among the work-assistants. Before the work assistants were actually placed in the field, all aspects of field operations were thoroughly explained to them in the training session. The training was imparted through lectures, discussions, mock interviews and field practices.

In the lectures and discussions the objectives of the research, the manner in which the questions were to be asked, the manner in which the questions were to be recorded and utility of the time budget data were explained

thoroughly. The investigators were directed to explain the purpose of the investigation and solicit cooperation from the respondents before they would begin their work of enumeration and interviewing. For mock interviews, demonstration sessions were arranged in which investigators interviewed each other. The recorded schedules were then scrutinized and corrected in the presence of the investigators.

After theoretical part of the training was over, the field workers were sent for practical field training before they actually started their work. The field practice started with pre-testing of questionnaire, in which each of the investigators was required to complete 10 time budget form and 10-15 other types of schedule. In the pre-testing, the field workers got a chance of pointing out many aspects which were not covered in the lecture and discussion session and of clearing up many misunderstandings regarding the manner of asking questions and mode of recording answers. Each of them encountered difficulties in getting information and some enumerators met with refusals. They describe their individual experiences which were discussed in detail to find ways of over comming the difficulties.

The field work started from 1st week of August, 1979. As the field operation moved forward, the polite and courteous dealings of local work assistants with the villagers were able to foster good will among local people and a coodrial relationship developed among them. The locally recruited work assistants were familiar with the villagers. As most of them were elderly local primary school teachers, villagers used to respect them. Thus, the familiarity of the work assistants with the villagers enabled them to collect delicate and secret information on fertility, landed property and income-expenditure of the villagers.

CHAPTER - 5

DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE OF VILLAGE MUIYARCHAR

Introduction

A complete census of the village was taken in July 1979 for the selection of sample of the present study. The analysis presented here provides a demographic and a socio-economic profile of the village based on census data. Although the census is a minor part of the overall research, it contains valuable information particularly on land ownership, tenure, sources of income, etc. which deserve dissemination. The organization of the analysis is as follows:

1. Physical, Spatial Characteristics, Topography, Climate and Soil.
2. Economic Resources.
3. Baris and Households.
4. Household Size and Composition.
5. Population Characteristics.
6. Vital Statistics: Fertility, Mortality and Migration.
7. Age of Marriage and Marital Status.
8. Distribution of Land.
9. Main Forms of Economic Activities.
10. Education and Literacy.

5.1 Physical and Spatial Characteristics

The village Mujvarchar is situated in the district of Sylhet under Kotwali Police Station. It is located approximately five miles to Sylhet Town (the district headquarters) and one mile to the North-northwest of Sunamgonj Road. The village lies approximately 214 miles to the north-northeast of Dacca city.

The village occupies an area approximately one-half mile (east to the west) by one mile (north to the south). On the eastern side of the village, there is a pacca road, known as Badaghat road. It passes from the south to the north direction. To the south and west are two contiguous villagers. The northern side is bounded by the paddy field. One dirt road originating from Badaghat road enters into the village in the east-west direction across the southern boarder. This road is the major means of entry to and exist from the village.

Transport facilities to and from the village are very poor. The village is poor in modern facilities and services. There is one primary school in the village. However, there is no Secondary School. There are two pacca mosques in the village, with resident imams to oversee religious functions.

The village has no health centre, clinic or dispensary. The village has no qualified doctor or nurse.

There is no form of irrigation in the village, no shallow tubewells nor low lift pumps. There are some hand pumps which are used for drinking water and washing. There is no farm or other cooperative in the village.

The village huts and homesteads are constructed on artificially raised mounds of earth. These vary in size and continuity, depending on height of the surrounding arable land and the age of a particular settlement. The floors are of the packed mud and dung and, in a few cases, concrete. Walls are usually either thatch or bamboo weave and, in a few instances, corrugated iron. Roofs are most often straw thatch or, in richer compounds, corrogated iron. The poorest huts have open doorways and no windows; the richest have wooden frames with shutters and wooden doors and frames. There are no glass windows in the village. Corrugated iron is used for roofs and walls of four percent of the huts in the village and only two per cent of the huts are pacca building i.e., made of concrete.

5.1.1 Topography/Climate/Soil

The entire village is situated on a plain land. The western side of the village is comparatively low. During the rainy season, most of the western parts of the village

remain submerged under water. The low lying areas being filled with water give an impression of lakes, locally known as Jheels.

The climate of the study village like Bangladosh as a whole is hot and wet. A river locally known as Changerkhal enriched by waters of a large stream of Surma passes nearly two miles to the north of the village. The rainfall in the study village is expected to be higher compared to other villages located outside Sylhet district. This is because Sylhet experiences the highest rainfall in Bangladesh[1] and the study village is located in the district of Sylhet.

Most soils of the village are gracy or locally dark grey, clays with blocky structure. About two feet thick overlying an older soil which may range from clayey to sandy at short distances.

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1 The average rainfall in Bangladesh was 86.29" during the period 1972-1975. The corresponding figure for Sylhet district was 171.60" (See; Bangladesh Bureau of Statistics, Ministry of Planning. 1979 Statistical Year Book of Bangladesh, p.117).

5.2 Economic Resources

The important economic resources of the village are land, livestock, poultry and fisheries.

5.2.1 Land

Land is the most important means of production in Bangladesh. The study village is no expection to it. The total land area of the village is about three quarters of a square mile (approximately 485.00 acres)[2]. Agricultural land constitutes 304.05 acres and the remaining areas are covered with homesteads, small bushes, ponds and canals. The price of land varies from Taka 5,000.00 to Taka 15,000.00 per bigha[3].

Land in village Mulyarchar is fertile. Rice, wheat, pulses, oil seeds, spices and fruits are the major items of food crops produced in the village.

A total of 263.05 acres or nearby 86.51 percent of the cropped area is devoted to the production of rice, 10.19 percent to other food crops (such as, pulses, spices, fruits, vegetables & wheat etc.), and only a very small quantity of land covering only 10 acres or 3.28 percent of the cropped area is used for non-food crops (see Table 2.1).

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2 Land records of the village is verified in local Tohsil (Revenue) Office.

3 A bigha is one-third of an acre. It is equal to 0.33 decimal.

Out of the total arable land (304.05 acres) of the village, 177 acres or 58.21% are double cropped. The cropping intensity of the village is estimated to be 158 which is very close to the national level.

Table 5.1 shows the total area under different food and non-food crops, cropping calendar and the average yield of each crop.

5.2.1.1 Agricultural Implements

Implements used for cultivation are old and primative. Plough, the main implement used in agriculture from the time immemorial, consists of a curved piece of wood, one end of which is held by the plough man, while the other end sheathed in iron loosens the soil. The plough is ordinarily drawn by a pair of bullocks, which are fastened to the plough by a yoke, attached to the curved plough piece by a horizontal rod. It weighs usually about 120 pounds and when cattle are used, the yoke seldom stands as much as 36 inches from the ground. It is obvious that such an implement can only penetrate from three to four inches into the soil, but the poor quality of the plough and cattle prohibits the use of a more effective instruments. The plough is usually made of wood of inferior quality. The price of a plough varies from Tk.40.00 to Tk.60.00.

Table 5.1

Distribution of arable land under different food and non-food crops, crop calender and the total output during the study period, from July'79 to June'80.

Crops	Area under cultivation (in acres)	Sowing season	Harvesting period	Average yield (per acre)	Total yield(in maund)
Food crops					
Paddy					
i) Aus	177.00	April - May	Aug. - Sept.	12 mounds	2124 mound
ii) Aman	78.05	July - Aug.	Nov. - Dec.	15 "	3825.75 "
iii) Boro	8.00	Dec. - Jan.	April - May	20 "	160 "
Pulses					
i) Mug	3.00	Oct. - Dec.	Feb. - March	6 "	18 "
ii) Musur	4.50	Nob. - Dec.	Feb. - March	5 "	22.5 "
iii) Kalai	2.00	Sept.- Oct.	Nov. - Dec.	5 "	10 "
Spices					
i) Chillies		May - June	Sept. - Dec.	25-35 "	90 "
ii) Onion		Oct. - Nov.	Feb. - April	100-150 "	280 "
iii) Ginger	7.50	March- May	Nov. - Jan.	75-100 "	90 "
iv) Rabi		Dec. - Jan.	March - May	25-30 "	20 "
v) Turmeric		March- May	Nov. - Jan.	75-100 "	45 "
vi) Garlic		Oct. - Nov.	Dec. - March	100-125 "	85 "
Fruits					
i) Mango		May - June	Mid May-Aug.	Not estimated	Not esmated.
ii) Jack fruit		May - June	May - June	As above	As above
iii) Banana		Throughout	Dec. - Feb	150-250 Mds.	267 mound
iv) Papaya		the year			
iv) Papaya		"	Sept. - Oct. Peak period Feb. - April	125-150 "	53.5 "
v) Lemon	3.00	May - July	Aug. - Oct.	100-110 "	28.7 "
vi) Guava		July - Aug.	July - Sept.	100-120 "	37.4 "
vii) Pineapple		July - Aug.	May - July		
viii) Orange		Dec. - Jan.	Nov. - Dec.	Not estimated	Not estimated
ix) Coconut		May - Aug.	May - Sept.	As above	As above
Vegetables*					
i) Potato		Oct. - Nov.	Dec. - Feb.	100-150 Mds.	250 maunds
ii) Brinjal		May - June	Oct. - April	125-200 "	140 "
iii) Pumpkin	4.00	Oct. - Nov.	March - July		
iv) Tomato		March- May	June - Sept.	75-125 "	100 "
v) Beans		June - Aug.	Nov. - March	75-100 "	80 "
vi) Cabbage		Sept.- Dec.	Dec. - March	300-350 "	180 "
Non-Food Crops.					
i) Jute	3.00	March- April	July - Aug.	15 "	45 "
ii) Sugarcane	2.00	Dec. - Feb.	Nov. - March	300 "	600 "
iii) Oil Seed	5.00	Nov. - Dec.	Feb. - March	6 "	30 "

*The other common vegetables produced in the village are cauliflower, Radish, Spinach, Cocumber, etc.

Other implements which are used by the villagers for cultivation are harrow, hoes and sickels, etc. On the completion of ploughing, harrow (Moi) is applied to the land. The harrow is generally a bamboo ladder, about eight feet in length, on which a man stands as it is draw across the field by a pair of bullocks. It is used to crush the clods. Turned up by the plough before mustard or summer rice is sown, and to reduce the fields required for wet rice to puddle. Its place is sometimes taken by a plain log of wood. This harrow is prepared by the cultivator himself from the bamboos growing in his garden. When the seeds have begun to shoort, the soil is loosened and weeds are removed by an implement called anchra or comb. Crops like jute, cabbage, cauliflower, chillies, etc. when grown in lines can have the interculture operations easily done by hand hoe, which consists of three iron nails fixed 4 inches apart to an iron frame. The implement is provided with wooden handles and an iron wheel. The implement is pushed ahead by hands in between the lines of the crops. It uproots the weeds and breaks the crust. Kodalis are used to trim the embankments (ails) which help to retain the water. The head of the Kodali is made of iron. It is fitted with a shaft. Another implement which is important for reaping is the sickle. It is made of a simple wooden handle with a crescent shaped iron blade.

The ordinary implement used for husking grain is the dheki, a long beam with pestle affixed at the end, which is supported by two posts at about two-thirds of length from the head. The shorter end is depressed by the foot, and the pestle is thus raised into the air, the weight is then removed and the pestle falls into a small hole in which the grain is placed. When a small quantity of grain is to be husked, a morter and pestle are used. All these implements are made by carpenters.

5.2.1.2 Impact of Modern Technology

The introduction of two rice mills in the village, in recent time, has reduced the use of dheki drastically. Big landowning households, are now using, rice mills for husking grain. As a result, poor women, who were formerly engaged in husking rice through dheki are now gradually thrown out of their traditional jobs. Thus, the setting up of two rice mills in the village though simplified the husking of paddy on the one hand, yet it largely worsened the employment situation of the village on the other, particularly of those poor landless women.

5.2.2 Livestock

Ownership of livestock is one of the important aspects of the ownership status of rural families in Bangladesh. It

is usually the case that the ownership of livestock, which is a source simultaneously of draft power, animal protein and cash income, is distributed inequitably across land-holding size groups. This is also supported by data. Table 5.2 presents distribution of livestock and poultry population of village Muivarchar by land holding categories.

Table 5.2

Selected data on livestock by land size groups

Land size (in acre)	Number of bullocks per household	Number of cows per household	Number of culves per household	$ of goats & sheep per household	$ of fowls & ducks per household
Landless	.52	0.26	0.16	0.98	4.73
∠1.0 acre	.55	0.32	0.25	0.80	4.75
1.0-2.50	.80	0.50	0.25	0.80	5.61
2.50-5.00	1.15	0.70	0.55	1.00	4.55
Above 5.00 acre	2.12	2.12	1.50	3.32	9.75
Total	0.69	0.42	0.28	1.00	5.05

It is clearly evident from the above table that the ownership of bullocks, cows, goats & sheep very positively with land ownership status. Bullocks are mainly used for

ploughing the fields. The cows account for 24 percent of the cattle population of the study village.

Production of milk is not uniform throughout the year. It falls drastically during the rainy season when there is scarcity of feeder. On an average 40 to 60 seers of milk is produced per day. This is mostly cow milk. Goat milk contributes 20-25% of the total milk produced in the village. Milk produced in the village is largely consumed locally. The large farmers hardly sell their milk. But selling of milk constitutes an important source of income for those who are landless and small farmers. Fifteen to twenty percent of the total milk produced in the village is sold by 11 percent of the livestock owning households.

5.2.3 Poultry

Poultry is available almost in each household of the village and its distribution is more or less even across landholding size groups, with the sole exception being the largest land owning class which owns the highest number of birds (see Table 5.2). There are 1082 poultries in the village as of July 1979. Of these 924 (85.39%) are fowls and the remaining 158 (14.60%) are ducks. Fowls are mostly consumed by the big landowning households. However, the poor households rear fowls to sell in the market to supplement family income.

On an average, egg production in the village varies from 350 to 400 per week. The production reaches its peak during winter season i.e., post Aman harvest period when chicken food is available abundantly.

Most of these eggs are locally consumed. Only 20-25 percent of the total eggs produced in the village are sold by small landowning households, whose annual income is less than Taka 6,000.00. A dozen of egg costs Tk. 10 to Tk.12.00.

5.2.4 Fish and Fisheries

A large portion of the village is annually inundated by water during monsoon and the area is thereby connected with the neighbouring river Chanderkhal and other water ways. This allows fish to move in the locality from other areas. Ponds, tanks, canals, swamps and marshes are used by the villagers as fisheries. These are abound with fishes. The best time for fishing is when the flood waters are receding. Then the water is shallow and fish are trapped in landlocked pools.

Fish is caught in trap made of split bamboo which are of different shapes and are locally known as Kuin or Dari, Gui, paran and runca. A common fishing rig is a net mounted on a triangular wood frame, which is pushed through shallow pools by wading fisherman. A more elaborate rig, used in

deeper channels, consists of a net attached to the four points of a cross of bamboo. This is secured to a fulcum arm which is manipulated to lower and raise the net.

5.2.5 Capital Resources

There is practically no capital resource, worth mentioning in the village. No factory or mill are located here. However, one primary school, two rice mills, two pacca mosques and few pacca buildings are located in the village. Although, no cottage industry is located in the village, yet handicraft is the primary occupation of 2 percent households and secondary occupation of 9 percent households. Different types of household items, like chair, table, Kholai, Sukni Mura, Punkha, etc. are usually produced by the village artisans from locally available bamboo and canes. Different types of mats are also prepared from reeds and bamboos.

5.3 Household and Baris

In the village Mujargachar, there are 64 baris and 214 households[4]. The 64 baris of the village range in size from 1 to 12 households, with an average of 3.34 households per bari[5].

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4 A household consists of persons related either by blood or by marriage (parents, husband, wife and children) and many also include unrelated persons (servants and relatives, if any), who live together, have common housekeeping arrangements and normally take food from a common hearth of fireplace or Chula. In a household, there may be one or more earning members who usually contribute, partly or wholly, to a pooled household fund from which common expenditure for food, clothing, living accomodation and other essential household requirements are incurred. The head of the household is the key member who plays the vital role in making decisions about important affairs of the household and on whom usually rests the main responsibility of management and maintenance of the household.

5 A bari is a unit of two or more patrilineally related households. Separate baris are distinguished as settlements with a rectangular pattern of huts facing a central compound. The quality & volume of housing structures of a bari vary positively with its socio-economic conditions. For example, richer baris have variety of structures in addition to the usual sleeping, cooking and storage huts, for example, cattle sheds, and huts outside the main compound for receipt and entertainment of guests. A bari, particularly a rich one has a common graveyard. The heads of separate households in most baris are typically close relatives. Very often bari in the village consist of a father and his sons, all of whom are heads of separate households, a group of brothers or a group of brothers and cousins. A bari may vary in degree of cohesiveness and cooperation. However, physical proximity, close kin ties and the existence of hierarchy of patriarchal authority often result in coordination and cooperation between households in a bari. This may include cooperation among women in preparation and processing of food, child care and household maintenance in general. Among male members cooperation normally takes place in the form of exchange of draught animals, farm implements, and labour in crop production.

5.4 Household Size and Structure

5.4.1 Distribution of Household by kin Extensiveness

The distribution of 214 households in the village by kin extensiveness of household members is presented in Table 5.3.

Table 5.3.

Percentage and frequency distribution of households by household structure

Household structure	Member of households	Percentage
Single person[1]	8	3.75
Sub nuclear (widow)[2]	3	1.40
Sub nuclear (widower)[3]	1	0.46
Other sub nuclear[4]	11	5.14
Nuclear[5]	97	45.32
Supplemented nuclear[6]	56	26.17
Lineal joint[7]	27	12.62
Lineal collateral joint[8]	10	4.67
Collateral joint[9]	1	0.46
All households	214	100.00

[1] A person living alone in a household & prepares his/her own food in his/her own kitchen. The person may be a widow/widower.

[2] Widow, head of the household, living with her unmarried children.

[3] Widower, head of the household, living with his unmarried children.

[4]Widow/widower living with his/her unmarried children along with other unmarried/widow/widower relations and servants. Here widow/widower is not the head of the household.

[5]It comprises of the husband, wife and their unmarried children.

[6]It comprises of husband, wife, unmarried children, widow/widower mother/father, unmarried servants and divorced/unmarried sister/brother.

[7]It comprises of the husband, wife, their childre, the wives & children of the married sons and other relatives.

[8]It comprises of the husband, wife, their children; the wives & children of the married sons, brothers, sisters; the wives and children of married brothers; father, mother & other relations.

[9]It is a three generation household: It comprises of father mother, grand father, grand mother, uncle, aunt, nephew, niece, brothers, sisters & other relations.

The majority of households is composed of single nuclear family units, consisting of husband, wife and their unmarried children. Of all households, 78.50 percent are nuclear, supplemented nuclear and sub-nuclear in structure and only 17.75 percent are joint in structure i.e. contain more than one married couple. Other than nuclear and joint families, there are 8 (eight) households consisting of single persons. Most of them are widows and widowers.

5.4.2 Mean size of Household by Household Structure

The average size of households in the village is six persons. Table 5.4 presents the mean size of households for different households structures.

Table 5.4

Average size of household by household structure

Household structure	Mean household size	Number of persons	Number of Households	Percentage of total households
Single person	1.0	6	8	3.73
Sub nuclear	4.6	70	15	7.00
Nuclear	5.4	530	97	45.32
Supplemented nuclear	6.9	387	56	26.16
Joint	9.3	355	38	17.75
All Households	6.3	1350	214	100.00

It is clear from the above table that family size varies by family type. It ranges from 5.3 persons in one generation family (sub-nuclear & nuclear) to 6.9 persons in a two generation family and 9.3 persons in a three generation family.

5.4.3 Mean Size of Household by Landholding Status

Table 5.5 presents the mean size of household by land holding categories.

Table 5.5

Distribution of household size by land holding category

Land holding category (in acres)	Number of household	Number of persons	Mean households size
Landless 1	9	26	2.88
Landless 2	101	581	5.75
⁄1.00	40	236	5.90
1.00-2.50	36	245	6.80
2.50-5.00	20	160	8.00
5.00+	8	102	12.75
All households	214	1350	6.3

Note: Landless 1 : Refers to those households which claim ownership of no land, either homestead land or other land.

Landless 2 : refers to those households, which do not claim ownership of any land other than household land.

It appears from tho above table that the mean size of households varies positively with the size of land holding. It rises from 3 persons in landless catsgory 1 to 13 persons in the highest Landholding category. The average size of households observed in the study village closely corresponds to that of the national average[6].

6 See, National Impact Survey, 1968; Bangladesh Fertility Survey of 1975.

5.4.4 Relationship of Ever Married Females to Head of the Household by Marital Status

The kinship system of Bangladesh is patrilineal and patrilocal. In this system, the household head is the father or the eldest male member of the family and upon marriage, women usually move to their husbands' fathers home and widows tend to live with their married sons than with their married daughters. This residential pattern is clearly evident from data in Table 5.6, which presents the relationship of ever married women to the head of the household in which they reside. We find only 13 women are head of the households. This constitutes only 6% of total household heads. Among currently married women, 30 are daughters-in-law of the household head as against only two are daughters of the head. Only in exceptional situations, married daughters reside in their parents' house with their husbands. This occurs when the wife's father is relatively well off and has very few, very young or no sons. In this situation, if the father is a cultivator or a businessman, he may request his son-in-law to move in with him to help with the land or business. In our case two businessman who have had ~~k~~ no adult sons invited their sons-in-law to stay with them & help with business. Among 67 widows, 48 are mothers of the household head as compared with only 4 who are mothers-in-law.

Table 5.6

Relationship of ever married females to head of the household by marital status

Relation to Head	Marital Status				Total
	Currently Married	Widowed	Divorced	Separated	
Head	-	11 (16.41)	-	2 (50.00)	13 (4.16)
Wife	192 (80.33)	-	-	-	192 (61.53)
Daughter	2 (0.83)	-	-	-	2 (0.64)
D-in-Law	30 (12.55)	-	-	2 (50.00)	32 (10.25)
Mother	4 (1.67)	48 (71.64)	-	-	52 (16.66)
M-in-Law	-	4 (5.97)			4 (1.28)
Sister	-	1 (1.49)	2 (100.0)		3 (0.96)
Brother's wife	10 (4.18)	1 (1.49)	-	-	11 (3.52)
Aunt	-	1 (1.49)	-	-	1 (0.32)
Grand Mother	-	1 (1.49)	-	-	1 (0.32)
Maid Servant	1	-	-	-	1 (0.32)
Total N =	239	67	2	4	312
% =	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Note: The figure in parenthesis refers to percentages of respective marital status category.

5.5 Population Characteristics

5.5.1 Size of Population

The total population of village 'Mulyarchar' was 1350 as of June 15, 1979. The size of the study village appears to be little higher than average village size in Bangladesh. There are approximately 68,018 villages in Bangladesh and given the total rural population of 6,94,21000 persons in 1974 the average population of a single village is greater than 1000[7].

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7 However, it is difficult to determine average size of a village. Villages enumerated by the census officials often do not coincide with the locally recognized boundaries. For example, our study village is included as a part of another adjoining village in the census. In this situation when exact number of villages are not known, average village size is also unknown.

5.5.2 Age and Sex Distribution

Table 5.7 presents the distribution of the population by five year age groups and by sex.

Table 5.7

Distribution population by age and sex

Age	Male		Female		Total	
	n	%	n	%	n	%
0-4	104	14.42	109	17.32	208	15.40
5-9	99	13.73	94	14.94	198	14.66
10-14	106	14.70	82	13.03	188	13.92
15-19	58	8.04	55	8.74	113	8.37
20-24	68	9.43	58	9.22	126	9.33
25-29	78	10.81	43	6.83	121	8.96
30-34	56	7.76	36	5.72	92	6.81
35-39	35	4.85	33	5.24	68	5.03
40-44	26	3.60	21	3.33	47	3.48
45-49	19	2.63	22	3.49	41	3.03
50-54	19	2.63	22	3.49	41	3.03
55-59	20	2.77	11	1.74	31	2.29
60+	33	4.57	43	6.83	76	5.62
Total	721	100.00	629	100.00	1350	100.00

Examination of the table reveals young age distribution with 44 percent of the population under 15 years of age. This finding closely corresponds to the national age distribution pattern[8]. The most outstanding feature of the age distribution of the study population is the relative and absolute deficit of the population in the age group 0-5 as compared to the 0-4 group. The finding is at complete variance with those observed in the national censuses.

The ratio of population in the 0-4 age group to population in the 5-9 group was always found to be less than one in all the previous censuses of Bangladesh (see Table 5.8) but this was found to be above one in the study village.

Table 5.8

Ratio of population reported aged 0-4 to population reported aged 5-9 in various censuses of Bangladesh

	Male	Female
Village (Muiyarchar) census 1979	1.05	1.16
1961 census	.94	1.01
1951 census	.93	1.01
1974 census	.91	0.93

8 According to 1974 census, 48 percent of the population was below 15 years of age.

The persistent finding of relative and absolute deficit of the population in the 0-4 age group as compared to the 5-9 group is usually attributed to underreporting of infants and over estimating the ages of young children. These errors were overcome in this study by taking several prescautions. These are as follows: the enumerators in this study were recruited locally who were more or less familiar with the village population. Inspite of this familiarity, the enumerators took extra caution in estimating ages during the village census. Children were listed in order from youngest to eldest using probes for length of birth intervals. Month and year of birth were ascertained when possible with the aid of a detailed date/event card which included local and national events. Second, underreporting of infants may have been reduced by a sequence of questions in births in the past year and date of last live birth which was asked independently of the listing and age estimation of household methods. These precautions in estimating ages may explain the finding of relative and absolute surplus of population in the 0-4 age group as compared to the 5-9 group in the present study.

There are other features of the age distribution which need analysis and explanation. For example, the population has a relative and absolute deficit of females compared with males in the age group 15-44. This may be attributed to female mortality arising out of child bearing and child birth.

5.5.3 Sex ratio

Data on sex ratio by broad age groups are presented in Table 5.9.

Table 5.9

Distribution of sex-ratio by age groups

Age group	Total	Male (M)	Female (F)	Sex ratio $\frac{M}{F} \times 100$	Sex ratio Bangladesh (1974 census)
0-4	208	104	109	95	99
5-9	198	99	94	105	101
10-14	188	106	82	129	119
15-29	360	204	156	130	102
30-44	207	117	90	130	109
45-49	41	19	22	86	126
50-54	41	19	22	86	116
55+	107	53	54	98	131
Total	1350	721	629	114.6	108

The overall pattern of sex ratios observed in the study village roughly corresponds to the national pattern with the exceptions of those observed in the youngest (0-4) and higher age groups (45 and above). The sex ratios at the above ages are lower (less than one) in the study village compared with the national level (see Table 5.9). Employing census data, one finds consistently high sex ratios (more than one) at ages 0-4 and 45 above. High sex ratio at the age group 0-4 is usually attributed to higher infant mortality and undercount of female children. On the other-hand, high sex ratio at ages 45 and above is explained in terms of higher death rates for females at older ages. However, the findings of low sex ratios at ages 0-4 and 45 and above in the study village do not land support to the hypothesis of higher risk for death of female population at the youngest and higher ages. One should not be surprised by this finding, keeping in view what is true for the nation as a whole may not be necessarily true for a village. Moreover, part of the inconsistency may also arise out of rigour pursued in the collection of data. For example, the care which is taken in the collection of age data in the present study is not usually taken in the national censuses.

5.5.4 Dependency Ratio

It is a measure of dependents per 100 producers. Conventionally, children in the age-group 0-14 and those aged 65 and over are considered dependents[9] and those in the ages 15-64 are considered as producers or economically active population. Alternatively, it is an index of economic burden that a given age structure of the population represents. Using the above definition, there are 87 dependents per 100 active population in the study village. This is lower than that of the national dependency ratio[10].

5.5.5 Population Density

Population Density is conventionally measured in terms of number of people living per square mile or kilometer. It is a crude index measuring pressure of population on land. The study village covers an area of three quarter of a square mile & the total population is 1350. Given the above information, density of population for the study village comes to 2025 persons per square mile or 782 persons per square kilometer. The village is more densely populated than that of the country as a whole[11].

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9 This, however, denies the reality of life in a peasant society where children participate in economic activities as early as 6-7 years of age.

10 The dependency ratio for the country as a whole was 106 in 1974 (see, Bangladesh Bureau of Statistics, 1974 Bangladesh Population Census Report, National Volume).

11 Population density for the country as a whole was 1385 persons per square mile including river, 535 persons per square kilometer in 1974. (See, Bangladesh Bureau of Statistics, 1974 Bangladesh Population Census Report, National Volume).

5.6 Vital Statistics

5.6.1 Fertility

Information on birth, death, migration and marriage relating to study population were collected prospectively for a period of one year from 1st August 1979 to 31 July 1980. Altogether, 56 children were born alive to women who were usual residents of the village during the study period. This gives the village a Crude Birth Rate (CBR) of 41.48 per thousand population. This rate is somewhat lower than that of the national level which was estimated to be 47 per thousand population in 1975[12]. However, from this finding, one cannot firmly conclude that the fertility level of the study village is lower than that of the national level. This may simply arise out of yearly fluctuations in birth which is expected in a population as small as that of the study village.

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12 Ministry of Health and Population Control. Bangladesh Fertility Survey of 1975.

5.6.1.1 Age-specific birth rate

Table 5.10 presents age-specific birth rates for the country as a whole, DSS area of Matlab Thana and the study village.

Table 5.10

Comparison of age specific fertility rates

Age-group	Age specific fertility rates				Mujyarchar 1979-80
	BFS (1975)	BSFM (1973-74)	DSS (1976)	IBS (1966-68)	
15-19	.203	.198	.158	.252	.218
20-24	.332	.337	.351	.301	.396
25-29	.301	.311	.289	.350	.232
30-34	.236	.262	.266	.198	.166
35-39	.152	.197	.127	.126	.090
40-44	.069	.095	.041	.037	.043
45-49	.022	.014	.008	.003	.045
TFR	6.575	7.070	6.23	6.02	5.95
CBR	46.9	49.0	41.8	-	41.48

BFS = Bangladesh Fertility Survey, 1975.

BSFM = Retrospective Survey of Fertility & Mortality. Statistics Division, Ministry of Planning, Govt. of Bangladesh.

DSS = Demographic Surveillance System of Matlab Thana. International Centre for Diarhoeal Disease and Research, Bangladesh, Formerly known as Cholera Research Laboratory.

IB = Impact Survey, 1968.

Source : Rahman, A. et.al. "Some estimates of current levels of fertility & mortality in Bangladesh: preliminary analysis of the pregnancy histories of Bangladesh Fertility Survey". National Institute of Population Research & Training, Dacca, June, 1979, pp.41-47.

Examination of the table reveals that compared to the age patterns of fertility in DSS area of Matlab Thana and the nation as a whole as reported in the Bangladesh Fertility Survey of 1975, village schedule shows proportionately higher rates in the youngest age groups. However, total fertility rate (TFR) observed in the study village closely corresponds to the rate found for the country as a whole and for the DSS area. Given the age-schedule of fertility, a women in the village will produce on an average 6 children at the end of her reporductive period. The high fertility at the national level is also reflected in the study village. This would be further attested by other indices of fertility. For example, general fertility[13] of the study village is calculated as 160 per thousand female population. The corresponding figure for the nation as a whole according to the 1974 Census was 158. Child woman ratio (the number of children under age 5 per thousand women of 15-49 years) is found to be 795 for the study village compared to 821 for the country as a whole. Reviewing all the indices of fertility, one would tend to conclude that the fertility level of the village is as high as that of

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13 Number of live births per 1000 female population aged 10-49 years.

the country as a whole. This is also consistent with the finding of low use of contraception. Only 10 percent of currently married women in the study village were found praotising contraception.[14]

5.6.2 Mortality

During the reference period of the study i.e., from 1st August 1979 to 31 July 1980, 27 deaths were recorded. This gives the village, Crude Death Rate(CDR) of 20 per thousand population. This rate is little higher than that of the national level which was estimated to be 18 per thousand population in 1975.[15]

However, the infant mortality rate in the study village is little lower than that of the national level. There were 56 live births in the village during the reference period of the study. Of these 56 live births

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14 This is little higher than that of the national level. According to 1975 Bangladesh Fertility Survey, only 8 percent of currently married women were found practising contraception. However, if the analysis is confined to 'exposed' women (i.e., whose who are currently married, fecund & not currently pregnant) only, the proportion practising contraception rises to only 10%. The Comparable analysis could not be done for the study village due to lack of required data.

15 Ministry of Health and Population Control. Bangladesh Fertility Survey of 1975.

7 died, implying an infant mortality rate of 125 per 1000 live births. The corresponding rate for the country as a whole was estimated to be 150 per 1000 live births in 1975.[16]

5.6.3 Migration

Record of in and out migrants were maintained for the village during the study period i.e., from August 1979 to July, 1980.

An out migrant in the study is defined as one who has moved outside of the study area and has not returned in six months. On the otherhand, an in-migrant is one who has moved into the study area and stayed there for six months.

According to the above definitions there were 23 out migrants and 16 in-migrants during the study period. The out and in migrants constitute 1.70 percent and 1.18 percent of the total population. This yields a net migration rate of -0.51 percent. It appears that migration plays a very insignificant role in the growth of study population. The rate of natural increase (CBR - CDR) for the village is estimated to be 2.14 percent.

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16 S.N. Mitra. "Infant and childhood Mortality in Bangladesh-Levels and Difference" Master thesis presented at the Demography Department, Australian National University, 1979.

The out migration rate as obtained in this village is little lower to that obtained in other villages in Bangladesh.[17] This may arise out of yearly fluctuations and/or differences in reference period employed to measure out migration. of 23 out-migrants, 11 or 48% are females who are mostly concentrated in the age-group 15-19. Male out migrants are mostly concentrated in young adult ages 20-39 (see Table 5.11). Amongst the male out migrants, the distribution among various land size groups forms a U - shaped pattern; with high propensity to migrate among the landless and the highest land holding group and marginal (∠ 1.00 acre) and small farmers (1-2.50 acres) having fewer migrants. Of the total 12 male out migrants, 7 or 58% moved out of the country to UK, Idbya, Oman, Qatar and Saudi Arabia. The education level of those who moved out of the country is little higher than those who moved within the country. Females mostly moved in and out as bride. For example, all the female out migrants moved out of the village as bride and similarly, 14 out of 16 female in-migrants came in as bride in the village.

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17 Chaudhury, R.H. "Determinants and Consequences of Rural Out Migration: Evidence from some villages in Bangladesh", Oriental Geographer, Vol XXII, Nos.1&2 (January and July 1978).

Table 5.11

Some Socio-economic characteristics of the out migrants

Variables	n	%
Age (Male)		
0 - 9	1	8.3
10 - 19	2	16.6
20 - 39	7	58.3
40 +	2	16.6
Total	12	100.0
Age (Female)		
0 - 9	1	9.09
10 - 19	-	-
15 - 19	9	81.81
20 - 29	1	9.09
Total	11	100.00
Land-holding status (in acre) (acre) (Male)		
Landless	6	50.0
⅄ 1	1	8.3
1 - 2.50	2	-
2.5 - 5.0	2	16.6
Above 5.0 acres	3	25.0
Total	12	100.0

5.7 Age of Marriage

Marriage is universal in Bangladesh. This is also the case in the study village. There are no women in the village twenty three or older who have never married and no man greater than age 38 years who have never married. Girls marry earlier than boys. There is usually 8-10 years differences in mean ages at marriage between men and women in Bangladesh. In the study village mean ages at first marriage for ever married men and women are 25.0 and 14.2 respectively. In recent years, there is evidence of increasing age at marriage for women in Bangladesh. This is also evident in village Muiyarchar. During the course of the present study i.e., from 1st August, 1979 to 31 July, 1980, 32 marriages took place in the village. Of these 32 marriages, 26 are first marriages - 14 males and 12 females. The mean ages at first marriages for the males and females are 26 and 16 (see Table 5.12).

Table 5.12

Distribution of recorded marriages in Muiyarchar from August 1979 to July 1980 by age, sex & place of residence

Age group	Marriages within the village among villagers 1/		Marriages within the village among villagers and outsiders 2/	
	M	F	M	F
10 - 14	-	1 (16.66)	-	1 (14.28)
15 - 19	-	5 (83.33)	-	5 (71.42)
20 - 24	1 (16.66)	-	2 (15.38)	1** (14.28)
25 - 29	5 (83.33)	-	6 (46.15)	-
30 - 34	-	-	3** (23.07)	-
35 - 39	-	-	-	-
40 - 44	-	-	1** (7.69)	-
45 - 49	-	-	1*** (7.69)	-
50 +	-	-	-	-
Total N =	6	6	13	7
% =	100.00	100.00	100.00	100.00

1 Here both brides and bride grooms are the permanent residents of Muiyarchar.

2 Here either bride of bridegroom is a permanent resident of Muiyarchar.

** It refers to second marriage of the person in that age group.

***It refers to third marriage of the person in that age group.

The distribution of ever married males and females according to marital status is presented in Table 5.13.

Table 5.13

Marital status of ever married persons

Status	Males		Females	
	N	%	N	%
Currently married	230	94.65	239	76.60
Widowed	9	3.70	67	21.47
Divorced	-	-	2	0.64
Married but separated	4	1.64	4	1.28
Total	243	100.00	312	100.00

Examination of the table reveals that proportion of widows among ever married women is much greater than the proportion of widowers among ever married men. This is expected in a society with marriage at an early age, with a higher mortality level for women than for men at most ages, and with a considerable age difference between husbands and wives, widowhood is expected to be more frequent for women. In the age-group 40-44 years, less than one per cent men are widowed as compared with one percent women. This difference in the proportion widowed by sex increases with age (see Table 5.14). Data suggests that more wives are likely to lose husbands than vice versa. Moreover, higher proportion of widows among ever married women may also arise out of lower chances of remarriage among widow than among widowers. This is a reflection of social proscription against widows re-marrying a proscription not felt by widowers.

The women who are 'married but separated' in most cases severed their ties with their husbands. Formal divorce is not yet materialized due to legal complications.

The discrepancy between the number of currently married males and females (see Table 5.13) is due to the existence of polygynous unions and the presence in the village of several permanent male servants, most of whom are married but whose families are in other villages. There are 8 polygynous households in the village, representing approximately 3% of all marriages.

5.8 Land Distribution

5.8.1 Land Area of the Village

Ownership of land is the most crucial factor that determines the economic status and strength of different households. Land is the principal source of livelihood of the villagers. Most of the population of the village is directly connected with agriculture in a number of ways and land plays a vital role in shaping the class-structure of the population of Mujyarchar. The total land area of the village is about three-quarter of a square mile (approximately 485.00 acres).[18] This includes 31.62 acres of land owned by the non-villagers and other organisations (like local Union Parishad, Bazar Committee, Mosque Committee, School Committee etc.) and excludes 7.00 acres of land owned by the villagers in other localities outside the study village. The villagers altogether own 460.38 acres of land.[19] Of all land owned (460.38 acres). 304.05 acres (66%) are arable land. The remainder is land used for settlement, small stands of wood, ponds, canals and some low lying areas which are not yet brought under cultivation.

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18 Land records of the village is verified in local Tehsil Office (an office which collects land revenue and keeps land records).

19. 485 acres - 31.62 acres + 7.00 acres.

The lands of the village are not irrigated. Villagers usually depend on rainfall for cultivation of crops. However rainfall in this village is higher than the national average.[20] There is no shrtage of water, particularly during monsoon, A canal passes through the village which was recently re-excavated. It is over two miles long and is connected with the river Changerkhal. With the re-excavation of the canal more land could be brought under irrigation particularly during the dry season.

5.8.2 Transfer of Title

Land in the study village is owned by individuals. Other forms of land ownership such as corporate lineal, joint ownership, etc. are rare. However, homestead land, is found to be jointly owned by two or more persons in 9 percent of the households of the village. The eldest male member or the patriach is usually the owner of the land with the exception of those few cases, where the land is independently owned by sons or ever married women. Only in 3 households, a small quantity of land is distributed among sons and brothers, representing 1.40 per cent of all households. About 9 percent of the ever married women own some homestead property, but ;in most of these cases the amount of land owned in very small.

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20 The average rainfall in Bangladesh was 86.29 "during the period 1972-73. The corresponding figure for Sylhet district was 172". The village Muiyarchar is located in the district of Sylhet.

Title of land is not usually transferred to chaildren during the life time of the patriarch. To find out the extent of land transfer among the children, a question was asked to the elderly[21] head of the households in the village, "have you distributed your land among your children ?". Of the 77 cases, 25 have had no land to distribute. Out of the remaining 52 cases, only two head of the households admitted to having distributed land among their children.

Land was not distributed among the children because of the fear on the part of the patriarchs that once distribution is made, children would not spontaneously come forward to help them when they grow old and become inactive and also felt they would not be respected and consulted in family decision making by their children.

From the above findings it appears that patriarchs try to hold on their rights over property as long as they can in order to ensure their economic security.

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21 Those who are in the age group 55 years and above.

5.8.3 Land ownership

Table 5.15 presents data on the distribution of total land area of the village by ownership status.

Table 5.15

Distribution of households by different land holding categories.

Size of holdings (in acres)	No. of HH	Percent of total HH	Number of persons	Percent of total persons	Total land (in acres)	Percent of total land
Landless-1	9	4.20	26	1.92	-	-
Landless-2	101	47.19	581	43.03	87.33	18.96
⟨1.00	40	18.69	236	17.48	36.00	7.81
1.00-2.50	36	16.82	245	18.14	79.55	17.27
2.50-5.00	20	9.34	160	11.85	95.00	20.63
5.00+	8	3.73	102	7.55	162.50[a]	35.29
Total	214	99.97*	1350	99.97*	460.38	99.96*

*Total may not add to 100.00 due to rounding error.

Landless-1 refers to those households, who claim ownership of no land, either homestead land or other land.

Landless-2 refers to those households, who do not claim ownership of any land other than homestead land.

[a]It includes seven acres of land owned by three households of more than 5.00 acres land holding group, which are located outside the village.

The table shows that of the total 214 households in the village, 9 or 4.20 percent of the households belong to landless category-1, who calims ownership of no land, either homestead land or other land. These people live in

small huts or rooms adjoining to the houses of their relatives. The group represents only 1.92 percent of total population of the village. Landless category-2, however, is the largest group, representing 43.03 percent of the total population, who do not claim ownership of any land other than homestead land. They constitute 47.19 percent of the total households, but own only 18.96 percent of the total land (homestead land only). Thus, 51.39 percent of total households and 44.95 percent of total population of the village,[22] own no arable land. The landless category-2 own altogether 87.33 acres of homestead land with an average of 0.86 acres per household. Other than landless group, the remaining 104 households own 373.05 acres of land with an average of 3.58 acres per household. However, considering only the land holding category of more than 5.00 acres, it is observed that only 8 (3.73%) households or 7.55 percent of the total population ofthe village own 162.50 acres of land with an average of 20.31 acres per household or 1.59 acres per person. This finding of possessing more land by few big farm families is also observed in other studies. In village Chargopalpur of Mymensingh district, Cain(1978) found only 4 percent of the households owned more than 12.5 acres of land on an average. Similarly less than one per cent (0.80) of the total households

[22]The proportion of landless observed in this village is little higher than that of the rural Bangladesh as a whole. According to land Occupancy Survey of 1977,(contd.)

of rural Bangladesh representing only 1.66 percent of the rural population hold more than 15.00 acres of land on an average (Statistical year book of Bangladesh,1979). Thus, from the above table it appears that the existence of large proportion of landless households and the ownership of more land by few big farm families mark the special economic feature of the village. However, the land ownership pattern observed in this village is not different from the pattern observed in the rest of the country.

5.8.4 Fragmentation of Holdings

Land holding of an individual in the village is highly fragmented. The local unit of measurement of land is the Kata.[23] Plots are often one Kata or less and do not usually exceed four Kata in size. The most common reason for fragmentation of land holding is the law of inheritance.[24] Under this law, property is distributed among the heirs after the death of a person. This is a continuous process and generation after generation land is divided and sub-divided among the increasing number of heirs due to high rate of population growth arising out of

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22 (Contd.) landless categories 1 and 2 together accounted for 44 percent of the households and 35 percent of the population in rural Bangladesh.

23 It is one-tenth of an acre (or equal to 10 decimal)

24 This law is applicable in case of muslim families. It lays down that when a person dies, his/her landed property is divided among his/her children and other relations.

prevailing high fertility and low mortality. The second most important reason is the falling purchasing power of the farmers over the years due to rising inflation. As a result, farmers are compelled to sell a portion of their land every year to adjust to rising cost of living. This also results in fragmentation of land holdings.

5.8.5 Distribution of Arable Land:

As it can be seen from Table 5.16 that only 7.69 percent of all land owning households in the village who own more than 5.00 acres of arable land control 41 percent of the total arable land of the village,[25] whereas 73 percent of the land owning households who own less than 2.50 acres of land control only 31 percent of the total arable land of the village.

The pattern of distribution of the arable land closely corresponds to the pattern of distribution of total land i.e. the majority of the households are landless and there is concentration of land holding in fewer hands. We have seen earlier that 51.39 percent of the village households have had no arable land. The similar pattern of arable land sistribution was observed by Cain (1978) in village Char-Gopalpur in Mymensingh district. In the above village 33 percent of the households have had no arable land of their own.

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25 According to the Land Occupancy Survey of 1977, 7.59 percent of the households who own more than 5.00 acres of land on an average, control 42.96 percent of total land in the rural areas of Bangladesh.

Table 5.16

Distribution of households by own arable land holding categories

Size of Holding (in acres)	Arable land owned					Operational Holdings				
	No. of HH	Arable land (in acres)	% of Total	% of arable land owning HH	% of all HH	No. of HH	Operational Holding (in acres)	% of Total	% of (operational) land owning HH	% of all HH
Landless-1	9	-	-	-	4.20	9	-	-	-	4.20
Landless-2	101	- (87.33)**	-	-	47.19	104[1] (97+7)	27.00	8.88	6.48	48.59
∠1.00	40	30.00 (36.00)**	9.86	38.46	18.69	42	48.20	15.85	38.88	19.62
1.00-2.50	36	65.55 (79.55)**	21.55	34.61	16.82	38	63.00	20.00	35.18	17.75
2.50-5.00	20	83.00 (95.00)**	27.29	19.23	9.34	13	87.00	28.61	12.03	6.07
5.00+	8	125.50 (162.50)**	41.27	7.69	3.73	8	78.85	25.93	7.40	3.73
Total	214	304.05 (460.38)**	100.00	100.00	100.00	214	304.05	99.99*	99.97	99.96

* Totals may not add to 100.0 due to rounding error.

**The figure in parenthesis indicates total land owned by the respective land holding category.

1 Out of 104 households in landless category-2, under operational holding, six households share cropped in land and only one household mortgaged in land.

5.8.6 Operational Holdings

Table 5.17 shows the distribution of households by operational holding. Operational land holding is defined as arable land owned plus all land taken in (including share cropped in) minus all land given out (including land share cropped out). Of the total land (72.55 acres) that has been share cropped in, the landless category-2 as a single block obtained the maximum amount which is equal to 26.70 acres. But the highest land holding group (i.e., 5.00 acres and above) share cropped out the maximum amount of land, equal to 54.65 acres or 75.32 percent of the total land share-cropped out.

It is also interesting to observe that 22 households share crop in land as against 17 households who share crop out. This discrepancy in the number of households share cropping in and out reflects the fact that an owner parcels out his land into shall pieces and these pieces are shared out to more than one tenats. This is also one of the ways through which the land owned strenthens his position in the community by making many people obligated to him.

A total of 27 households (25%) out of 108 arable land-owning households are found to have their land held in mortgaged by some one else. A total of 22.80 acres land are mortgaged out with an average of 0.84 acres per household.

Table 5.12

Distribution of households representing total and arable land owned and the sharecropping and mortgaging characteristics of the village under total and operational land holding

Size of Holding (in acres)	No. of HH	Total land owned by the village		Arable land		Char cropped out		Share cropped in		Mortgaged out		Mortgaged in		Operational Holding		% of total
		Within the village (in acres)	Outside the village (in acres)	Within the village (in acres)	Outside the village (in acres)	No. of HH	Arable land (in acres)	No. of HH	Arable land (in acres)	No. of HH	Arable land (in acres)	No. of HH	Arable land (in acres)	No. of HH	Arable land (in acres)	
Landless-1	9	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-
Landless-2	101	87.33	-	-	-	-	-	6	26.70	-	-	1	.30	104[1]	27.00	8.88
1.00	40	36.00	-	30.00	-	2	.60	4	20.10	4	1.60	1	.50	42	48.20	15.85
1.00-2.50	36	79.55	-	65.55	-	6	9.30	5	15.05	13	6.30	-	-	38	63.00	20.72
2.50-5.00	20	95.00	-	83.00	-	4	8.00	7	12.70	8	10.60	2	9.90	13	87.00	28.61
5.00+	8	155.50	7.00	118.50	2.70	5	54.65	-	-	2	4.30	4	12.30	8	78.00	25.93
Total	214	453.38	7.00	292.05	2.70	17	72.55	22	72.55	27	22.80	8	22.80	214	304.05	

[1]Out of 104 households, 97 have had no arable land.

On the other hand, only 8 or 7.4 percent of the households held others land in mortgaged. The total amouht of land mortgaged in is 22.80 acres, with an average of 2.85 acres per household. The discrepancy between the number of persons reported to have land mortgaged in and out does not necessary mean that the village as a whole is a net debtor, although this is probably the case. However, this discrepancy is mostly due to the fact that people are willing to admit their land being mortgaged out more than they held other's land in mortgage. It could be further observed from the table that the highest land holding group held the maximum amount (54%) of the total land mortgaged in by the villagers, followed by the next highest land owning group.

Table 5.18 shows a positive relationship between land owning status and propensity to share crop in or out with the one exception that none in the highest lad holding group share crops in land. However, 63 percent of the highest land holding group shares crop out land. The decision on the part of big land owners to share crop out may be determined by the following factors: There is a limit of the household labour force. Moreover, the greater the total area owned, the more dispersed the plots and the greater variation in hight and soil quality are likely to be. This makes the task of supervision and management difficult. Under the circumstances, it may be profitable to share crop out

Table 5.18

Distribution of households representing the share cropping and mortgaging characteristics of the village by operational land holding

Land owned (in acres)	No. of HH (operational holding)	HOUSEHOLDS											
		Share cropped out Yes		Share cropped in Yes		Share cropped zero Yes		Mortgaged out Yes		Mortgaged in Yes		Mortgaged zero Yes	
		N	%	N	%	N	%	N	%	N	%	N	%
Landless-1	9	-	-	-	-	-	100.0	-	-	-	-	9	100.0
Landless-2	104	-	-	6	5.7	98	94.23	-	-	1	0.96	103	99.0
[illegible]	42	2	4.8	4	9.5	36	85.71	4	9.5	1	2.4	37	88.0
1.00-2.50	38	6	15.8	5	13.2	27	71.05	13	34.2	-	-	25	65.7
2.50-5.00	13	4	30.8	7	59.9	2	15.38	8	61.6	2	15.3	3	23.0
5.00+	8	5	62.5	-	-	3	37.50	2	25.0	4	50.0	2	25.0
Total	214	17	8.0	22	10.3	175	81.7	27	12.6	8	3.8	179	83.6

more land. Moreover, the big land owners may find investment in other enterprises more profitable than cultivating all land by hired labour.

Small owners have limited economic opportunities. They live on cultivating small amount of land that they have and capital constrainsts prevent them from borrowing land from others in large scale. This may explain the findings of lower proportion of share crop in and out among the small owners.

Table 5.19 presents the cross way distribution of households by share cropping and mortgaging status.

Table 5.19

Cross way presentation of households by share-cropping and mortgaging status.

Share cropping status	Mortgaging Status			
	Mortgaged out	Mortgaged in	Mortgaged zero	Total
Share-cropped out	2	1	14	17
Share cropped in	3	1	18	22
Share cropped zero	22	6	147	175
Total	27	8	179	214

The formula used for calculation of expected frequency in each cell is $a_{ij} = \frac{(a_i)(b_j)}{N}$

The table shows that the households who share crop land in and out are less likely to mortgage land in and out. Likewise, those who mortgage land in and out are less likely to share-crop land in and out.

Also, share-croppers out are more likely to be mortgagees, and share-croppers to be mortgageors.

5.8.7 Type of Tenancy

Table 5.20 shows the distribution of households and arable land area of the village by type of tenancy.

Table 5.20

Distribution of households and arable land area of the village by type of tenancy

Type of Tenancy	Number[1] of house-holds	% of total	Arable[2] land(in acres	% of total	Arable[3] land(in acres	% of total
Owner-cultivator	68	62.89	112.85	37.11	-	-
Owner-Manager	17	15.74	59.25	19.48	-	-
Owner-cum-Tenant	16	14.81	36.60	12.03	68.35	22.47
Tenant	7	6.48	-	-	27.00	8.88
Total	108	99.99	304.05 (208.70+ 95.35)	68.62	95.35	31.35

1 It excludes those households who do not claim ownership of any land either homestead land or other land and also do not take any land in from others.

2. Owner arable land excluding homestead land.

3 Arable land not owned, but taken in for cultivation from others.

Out of 108 households, who have had some arable land either owned or taken in from others, 68 (62.96%) are owner cultivators, 17 are owner-managers (15.74%), 16 are owner-cum-tenants (14.81%) and only 7 (6.48%) are pure tenants. Owner cultivators cultivate 112.85 acres or 37.22% of owned arable land, with an average of 1.65 acres of land per household. The owner cultivators work on land either directly or indirectly. They cultivate their own land with family labour either by directly participating in it or through supervision. They also invest in the productive process.

The non-cultivating owners of land are the owner-managers. They are alternatively called rentiers, because they live on rents without contributing any labour to the production process. They only lease their land to the tenants and receive half of the crop produced. The rentiers do not invest any capital for production. The capital is invested by the tenants to whom they lease their land. They only pay land revenue to the government. This group owns 59.25 acres (19.48%) of arable land of the village with an average of 3.48 acres of land per household. The arable land holding per household is highest for the owner-managers in comparison with other tenant groups.

The third group of land owners are owner-cum-tenants. They not only cultivate their own land, but also cultivate the land of others that they take on lease. They usually give half of the crop of the leased land as rent to the land owner. The owner-cum-tenants cultivate 36.60 acres or 12.03% of the total owned arable land of the village with an average of 2.28 acres per family. Altogether (including leased land), they cultivation 105 acres of land with an average of 6.56 acres per household.

The fourth group do not have any land of their own, but they cultivate land obtained from other households on lease. A tenant invests in the land he takes on lease. He has to supply everything necessary for production. The only 7 tenants cultivate 27.00 acres or 8.88 percent of leased out land with an average of 3.85 acres per household.

5.8.8 Terms and Conditions of Share Cropping and Characteristics of Share Croppers.

It is observed that most of the households that share cropped land in do so from more than one owner. Generally, land is share cropped out among the poor relations for one year on the basis of verbal agreements. In some cases, however, the land owners extend the period of lease. Many land owners change their tenants every year, but there are some tenant families who continue to get lease for years together from the same land owning families.

Share cropped land are usually taken directly from the land owners. The system of sub-letting is absent in the village. Most of the share croppers work in the field. Many of them have their bullocks and plough. Some of them hire labour at the time of sowing and harvesting. Those who do not have plough and bullocks, hire them on daily basis to prepare the land for sowing. The usual terms of share cropping contact are that the share croppers give half of the crop of share cropped land as rent to the owner and the owner of the share cropped land usually bears no cost of production. There are few instances where the owners of the land bear the cost of seeds and fertilizer. In this situation, the land lord demands 2/3 of the gross produce. Share-cropping is the principal mode of tenancy in the village. In few cases, land is rented out at fixed rate. The yearly rent of one bigha (.33 decimal) of medium quality land varies between Taka 300 to Taka 350.

Like share cropping transactions, all transactions of land relating to mortgage in and out actually take place among the villagers. There is no financial institution in the village nor any professional money lender is found among the villagers. The villagers usually take big loans by mortgaging their lands as security. Such big loans are generally incurred to repay the old debts, or for construction

and/or repair of houses; or in certain cases to finance the journey of a relation who intends to go abroad in search of job. Friends and relations of the needy farmers grain marchants of the village and particularly the big land owning households usually provide such loans by taking the lands in mortgage as security. Loan money received by mortgaging out land is usually less than half of the market price of the mortgaged out land.

A person who mortgages out his land usually losses the right of cultivation on that land until the principal is paid. Thus, the rights of cultivation of the mortgaged land is usually transferred to the crediter, without the transfer of the little and the creditor uses the land as his own, until the principal is repaid. No piece-meal contract of mortgaged land is found in the village. Usually, interest is not charged along with the principal amount. The farmer who mortgaged out his land is not permitted to cultivate the land even after the part payment is made. He may, however, share crops the land in under the usual terms and conditions of share cropping prevailing in the village. Land is also mortgaged out for a fixed period against some loan. In this system, land is released after the expiry of stipulated period of mortgage without requiring the borrower to repay the principal, But the incidence of this kind of mortgage is rare.

Land is usually mortgaged out for a period of one year, and a typical transaction is one in which a person secures a loan of Taka 300 with one bigha (.33 decimal) of land. This is a very profitable [26] deal on the part of the creditor. The average yield per bigha is estimated to be 5.44 maunds of husked rice and the market value of this quantity of rice was Taka 1414 in July 1979.

5.8.9 Land Distribution, Household Size and Nutritional needs.

We have calculated per acre production of local veriety of Aus, Aman and Boro crops in the study village on the basis of data collected during the base line survey of the village and during the course of our stay in the village for full one year period (August 79 - July 1980). The average yields of husked rice is estimated at 16.34 maunds or 215.32 lbs per acre in the study village. Assuming that an average person needs 16.0 ounces of rice per day to meet the minimum calorie requirements, a household in the village consisting of six persons on an average needs 2160 pounds or 26.24 maunds of rice per year. Given the assumptions of minimum calorie intake requirements, calorie content of

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26 The price of medium quality rice in the village was Taka 260 per maund in July 1979.

of rice and actual rice yields, we find that the yield from approximately 1.60 acres of land was the minimum necessary to supply a family of six with basic nutritional requirements. This, however, provides only a crude idea of subsistence needs with respect to land.

Table 5.21 presents a range of estimated minimum acreages necessary to provide households of different sizes with basic nutritional needs.

Table 5.21

Area of operatid arable land necessary to support the nutritional needs of different households.

Number of persons in the household	Acreage
4	1.07
5	1.33
6	1.60
7	1.87
8	2.13
9	2.40

The average family size in our study village was six. But the size of arable land per households was only 1.42 acres. It implies that availability of arable land per households is not sufficient to meet the nutritional requirements of an average family in our study village.

5.8.10 Landless Households

Landlessness is becoming an acute problem in this country. We have seen earlier that 51 percent of the households in our study village are landless. This is, no doubt an alarming situation, particularly when alternative job opportunities for these landless peasants are not adequately available. In this study, we have tried to understand the process of landlessness in a very limited way.

5.8.10.1 Period of Landlessness

Landlessness is not a problem of very recent origin, at least in village Mulyarchar. Table 5.22 traces the genealogy of the landless households. It shows that the absolute majority (83%) of the landless in the study village were in landless households. For example, 25 percent were born landless for two generations, 58 percent became landless during the life of their father and only 17 percent became landless during their own life time. We, therefore, find that landlessness is a matter of fait accompli, for many.

Table 5.22

Genealogy of landless households

Time	No.of HH	%
During Grand Father	27	24.54
During Father	64	58.18
During respondent's life	19	17.27
Total	110	99.99

5.8.10.2 Reasons for Landlessness

Several reasons are adduced, to explain the current situation of the landless households. These are as follows

Table 5.23

Distribution of the responses to the question, "whom do you blame for your current situation ?"

Item	No.of HH	%
Father	62.	58.49
Grand Father	26	24.52
Sale of property to repay debt	4	3.77
Maintenance of family expenditure	3	2.83
Sending of relatives abroad	3	2.83
Acquisition of property by relatives	2	1.88
Construction & reconstruction of houses	2	1.88
Acquisition of land by the government	2	1.88
Law of inheritance	1	0.94
Himself (idleness)	1	0.94
Total	106	99.96

*Totals may not add to 100.00 dus to rounding error.

5.8.10.3 Process of Landlessness

About 59 percent of the landless households blame their fathers and 25 percent blame their grand fathers for their present poor economic conditions. While framing specific charges against their previous generation, some of the landless respondents mentioned that their grand fathers had many wives and spent money lavishly without thinking about the future. Some mentioned that their predecessors were idle and passed their time garroulously; and they used to maintain themselves by selling their land. However, 3.77 percent of the landless households mentioned that they had to sell their arable land to repay their own and ancestral debt, as against 2.83 percent of the landless households, who mentioned that they were to sell their land under economic duress arising mainly out of galloping rate of inflation. About 3 percent of the respondents sold their entire land in order to send some of their relatives to foreign countries. Two respondents mentioned that they were minor when they lost their father and their relatives look advantage of this and denied them their share of land.

In one case, the respondent could not inherit his father's property in view of the fact that his father died before grand father. According to Islamic lowe of inheritance if father dies before grand father, the grand-son

can't in herit any property. The head of this household, blames the society for this present poor condition.

The partition of 1947 and abolition of the Zamindari[27] in 1950 led to the decay of many old land-owning class of the village. During 1950, many households of the village sold their land and migrated to other parts of the country. In our case, the relations of two land owning households are found landless due to the effect of acquisition of land by the government in 1950. Two respondents reported to have sold for construction and repair of their houses. One head of the household held himself responsible for his present condition.

Thus, in our investigation, it has been observed that the process of becoming landless usually takes two generations. Either grand-father or father took the loan or leased out the land, or father died keeping his only minor children giving ample scope to this relatives to forfeit his whole property, or the son had to sell the land to repay the loan taken by his father, or to arrange money to send some relatives abroad, or for construction or repair of houses or for consumption purposes only.

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27 One who lived on rent in cash received from land through sub-infeudatory rights.

5.8.10.4 Livelihood of the Landless

The landless labourers are employed and paid on a daily basis. The normal rate of daily wage is between Taka 10.00 and Taka 12.00, with a mid-day meal. The wage rate is high during the harvesting season, especially at the time of Aus harvesting. The daily wage of a labourer during the peak season varies from Taka 15.00 to Taka 20.00 with or without mid-day meal. Payments are usually made in cash, but occasionally in terms of commodities (paddy or rice).

The landless labourers, who work on daily basis do not invest anything in the land on which they work. They have Kachi[28] and this is their own investment.

5.8.11 The Class-structure and status

The class structure and status of people in the study village can be explained in terms of ownership, control and use of property. Land is one of the fundamental bases of social cleavages in Muivarchar. Therefore, on the basis of the ownership and control of land, the population of the village may be classified under three main groups, such as:

i) the land owners; (Malik),

ii) the share-croppers (borgadar), and

iii) the landless labourers (Kamla or badla)

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28 An agricultural implement for harvesting, alternatively called rake.

Again, the high and low status of population in the village can be explained by comparing 'Khandan Paribars'[29] with those of Girhasta Paribars[30] and Kamla Paribars.[31] The Khandan Paribars enjoy high status, whereas the Girhasta Paribars enjoy low status and Kamla Paribars enjoy the lowest status in the village. Both the Khandan and Girhastas are again divided hierarchically into a number of informal endogamous groups. The status of Khandans is mainly based on the traditional ownership and control of land, education and on differences in life style. The landless labourers and other occupational groups like carpenters, mason, driver, barbar and fisherman belong to the low status muslim category. The class of share-croppers stand in the middle of the class hierarchy. They roughly correspond to low status girhastas category of muslims. They enjoy the least political power and influence.

The source of power in the village are two folds - internal and external. The internal sources are land ownership, chairmanship and membership of union parishad, individual's intellectual capacities, tact, use of force etc.

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29 Khandan Paribars are high status muslim families
30 Girhasta Paribars are low status muslim families
31 Kamla Paribars are landless families.

The external sources to control village politics and power are the membership of political parties, contact with the local M.P. (member of parliament), high officials and police, ability to secure relief materials for the villagers, etc. Who ever can gain control over men and other material resources can gain power in village.

The three agririan classes, such as (i) land owners, (ii) tenants or share croppers, and (iii) landless labourers form the class structure of Muiyarchar, Most of the big land owners of the village are also big businessmen. Though business is the primary occupation of many land owning households, yet land is found as a major source of their livelihood. Most of the businessmen lease out their land and some of them get their land cultivated by hired labourers.

Usually, land is share-cropped out among the kin groups of the land owners. Generally, it is expected that the brother of a land owner is a land owner and a relative of a landless labourers is a landless labourer and the kith and kin of a tenant are tenants. But this is not found in all cases. There are also many exceptions of it. There are several instances which show that the members of the same family or the same kin group belong to different classes.

For example, four brothers with their families live in the four different households, but belong to different classes. Of the four brothers, Zafur Mia owns the maximum amount of arable land of the village, which is equal to 24.00 acres. He is also the owner of a rich mill in the village and engaged himself in diversified business. He is also an importer and usuually imports betel-nuts, betal leaf, and varieties of fruits from India and other parts of the country at different times. He cultivates 80 percent of his land by hired labour and the remaining 20 percent is share cropped out, spending most of his time in business. Some time his own brother Rais Mia, who does not own any arable land works as labourer on his land on daily wage basis. Another brother Shamsul Huq who owns only 0.85 acres of arable land. He cultivates his land with his own plough and bullock. His another brother Shirajuddin Ahmed owns 3.00 acres of arable land, but he cultivates 3.90 acres of land taking a lease of 0.90 acres (or 3 bighas) from his brother Zafur Mia. Shirajuddin Ahmed has also got his own plough and bullocks and his main income comes from agricultural land. Sow, we find that among the four brothers, three are landowners (one is owner cultivator, one is partially owner cultivator and partially owner manager, one is owner-cum-tenant) and the other one is a landless labourer.

Many such cases are found in the village. Tamzid Ali, another big businessman of the village owns 11.00 acres of agricultural land. He share cropped out all his land among his relations. His borther Khurshid Ali is a mason, who owns only 0.10 acres of arable land, but he cultivates 0.85 acres of land, taking a lease of 0.75 acres from his brother. Another brother Sonawar Ali is a teacher of local Primary School. He owns 2.00 acres of arable land and cultivates the same with his own plough and bullocks. Thus, here three brothers will fall under three land tenancy groups. The first one is the owner manager, the second one is the owner tenant and the last one is the owner cultivator.

Thus, land owning class earns maximum income, and irrespective of education, they stand at the top of class hierarchy in Muivarchar. The share croppers stand in the middle of the class hierarchy and landless labourers who live at subsistence level are at the bottom of class hierarchy.

5.9 Main Forms of Economic Activity

5.9.1 Employment Pattern

As part of the household census, each of the respondent (i.e. head of the household) was asked to mention his/her primary and secondary occupations. Table 5.24 presents the distribution of households by first and second most important occupations.

Table 5.24

Distribution of head of the households by first and second most important occupations

Occupation	Primary		Secondary	
	N	%	N	%
Agricultural Works				
1. Own crop production	68	31.77	43	20.09
2. Agricultural wage labour	23	10.74	32	14.95
3. Animal Care	-	-	14	6.54
Non-Agricultural Works				
4. Business	50	23.36	34	15.88
5. Mason	31	14.48	16	7.47
6. Day labour(non-agricultural)	11	5.14	18	8.41
7. Household works	8	3.73	34	15.88
8. Handicrafts	5	2.33	20	9.34
9. Carpentary	3	1.40	-	-
10. Government servant	4	1.86	-	-
11. Private employment	3	1.40	-	-
12. Begger	3	1.40	-	-
13. Driver/Rikshaw puller	1	0.46	-	-
14. Contractor	1	0.46	-	-
15. Pir/Darbesh	1	0.46	1	0.46
16. Doctor/Hakim	-	-	2	0.93
17. Teacher	1	0.46	-	-
18. Student	1	0.46	-	-
Total	214	99.91	214	99.95*

* Total may not add to 100.0 due to rounding error.

5.9.1.1 Agricultural Works

It may be observed from the above table that own crop production is the single most important occupation in the village. It is the principal occupation for atleast 32 percent of the households. In the category of crop production includes those who cultivate their own land and/or rented in land as share croppers. In addition to crop producers, there are others who are engaged in agricultural works. These include wage labour and animal care. Combining crop production, agricultural wage labour and animal care, we find that 'agricultural work' is the primary occupation for 43 percent of all households and for additional 42 percent of the households it is the second most important source of occupation. In otherworks, 85 percent of the households depend on agricultural works as the primary or secondary source of employment.

The dominant crop in the village is paddy. Aus and Aman paddy account for most of the paddy produced in the village. Very little Boro is grown. Of the total cultivated land Aus, Aman and Boro accounted for 36.7%, 53% and 1.6% respectively. Jute is also grown in the village. But, it occupies only 0.62% of the total cultivated land. Boro seeds are usually sown in the month of Kartik and Agrahayan (November) as soon as the rainy season is over and the crop

is harvested in the month of Baishakh (April and May). The average yield of Boro is 25 maunds per acre. It is higher than the average yield of Aus and Aman. The higher yield of Boro, however, depends on availability of fertilizer and other in time.

Aus in grown on the elevated land during the summer. It is usually sown or transplanted in the months of Falgun (February-March) and Chaitra (March-April) and harvested in Ashar (June-July). Aman is transplanted in the months of Srabon (July-August) and Bhadro (August-September) and harvested in the month of Agrahayan (November-December). It is also called the Agrahayan crop, as it is harvested in the Bengali month of Agrahayan. Usually, 12 maunds of Aus and 15 maunds of Aman are produced per acre of land in the study village. The seeds are locally purchased and the rich cultivators use their own seeds. Fertilizer is not used by the villagers due to ignorance, high prices and non-availability. Only twelve percent of the land-owning households of the village are found suing chemical fertilizers in small quantity.

5.9.1.2 Agricultural Wage Labour

Looking at the terms of contract, one may classify the agricultural wage labour in the village broadly into two categories - (i) permanent and (ii) daily.

The permanent male labourers are usually employed by the rich farmers in the village for a period of one year or more. These labourers are provided food and accommodation, they receive monthly salary in return of their works, which include various tasks related to cultivation and in some cases supervision of day labourers and preparation of meal. The monthly salary of a permanent labourer varies by age. It ranges from Taka 150-200 for an adult male to Taka 50-100 per boys aged 10-12 years. In this village only 8 percent of the big[32] land owning households employed one or more permanent labourers.

The demand for day labour is highly seasonal. It fluctuates positively with the tempo of agricultural activities in the village. The peak periods of demand are sowing/transplanting and harvesting period of Aus and Aman During these peak periods, the day labourers in the village are fully employed and they can bargain for better wage. Wage rate during these peak periods may fluctuate from day to day depending on whether and how fast the water level is rising or falling and on the necessity of getting a crop in or an operation completed immediately. However, on an average the daily wage rate rises to taka 12 plus two meals a day during Aman harvesting and

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32 Those owning land 5 acres and above.

Aus transplanting. For Aus harvesting and Aman transplanting, the rate is taka 10 plus 2 meals. Thus a labourer may earn Tk.20 (cost per meal is valued at Tk.4) at the most per day during the peak agricultural season.

However, this traditional pattern of employment is weakend by the entry of migrant labourers from the neighbouring districts into the local market in recent years. The employer prefers migrants to local villagers as day labourers in view of the followings: (i) the migrant labourers usually live away from their family and stay in their employers' house. As a result, they can pay undivided attention to their assignments over an extended period of time. While a local day labourer works for less hours usually from 8 A.M. to 2-3 P.M., since he has to attend his own works, (ii) the migrant labourers are also willing to accept jobs at a wage lower than the prevailing market rate. As a result, the local labourers find it extremely competitive to get a job even during the peak agricultural season.

During the lean agricultural season, work is difficult to find and wage rates are lower. Weeding provides employment to some men in the early spring and fall. Wages paid for weeding are usually less than half of that paid for paddy transplanting and harvesting. During

this lean period, alternative sources of income are explored. For example, some men are engaged in rice trading, kitchen gardening, taking care of animals, etc. However, the income from these alternative sources are not very adequate. The agricultural day labourers mostly remain unemployed and live below subsistence level during the lean period.

Among the agricultural wage labourers, there was not a single woman working in the field. However, some women are engaged in processing rice, particularly husking for wage. For this task, women are provided meals plus a half seer (a bit more than a pound) per maund (about 80 pounds) of rice husked. In one day, a woman can husk between one half and three quarters of a maund of rice. The women who are engaged in these activities are mostly the wives of landless peasants.

5.9.1.3 Animal Husbandry

Not a single head of the household in the village has adopted animal husbandry as the principal occupation. However, it is the supplementary source of income for 6.54 percent households of the village. The village is rich in terms of cattle and paultry heads.

5.9.1.4 Non-Agricultural Works

Non-agricultural wage labour is the primary occupation for 30 percent of all households and is a secondary occupation for an additional 32 percent. This is a mixed category which includes well paying jobs such as masonary, services in the government and private farm at one extreme, and uncertain poor paying jobs, such as unskilled day labour, begging etc. on the other. In the category of 'non-agricultural wage labour', masons are the dominant group, followed by day labourers. Masonary is the principal occupation for 15 percent of all households. For an additional 8 percent, masonary is the secondary occupation. This is a well paid job. A mason on an average earns Taka 20 to Taka 25 per day. The reason for finding a good number of masons in the village is possibly due to its close proximity to Sylhet town.

Non-agricultural day labour is the principal occupation of 5 percent of all households and is a secondary occupation for an additional nine percent. The activities of these day labourers include earth excavation, road construction, canal digging, firewood collection, cutting of trees and hut repairing, etc. They generally work from 10 A.M. to 5 P.M. and get a daily wage of Taka 15.00 with a mid day meal. The other important occupations in

the category of 'non-agricultural works' are (1) household works; (ii) jobs in government and private farms; (iii) carpentary; (iv) begging, etc. All the beggers in the village are destitute women.

Business is an important source of income for many in the village. It is the primary occupation for 24 percent of all households and secondary occupation for an additional 16 percent. Most of them are engaged in paddy and rice trading. Some of them are also engaged in betel leaf and betel nut business. In addition to these commodities, tejpata (a kind of leaf), fruits, oil, egg, milk and vegetables are also traded by the villagers. Most businessmen operate with meagre amount of capital with great risk. There is no permanent place of business for the majority of the traders. Paddy traders in the village usually purchase paddy from Tukerbazar, a village market, comparatively at a low price which they then thresh and husk, and re-sell it in the big market, preferably at Amberkhana bazar of Sylhet town. This gives them a margin of profit Tk.10 to Tk.13 per maund of rice. In additional to these petty traders, there are also few big landowners in the village who are also involved in trading oil, tejpata, fruits, betel nuts and betel-leaf business. Most of these businessess are seasonal in nature.

Sharisha (rape-seed), tejpata, fruits (orange, satkara), betel-nuts and betel-leafs are usually purchased from the boarder areas of Bangladesh and India[33] at a cheaper price and are sold in Sylhet market with considerable margin of profit. Most of these businessmen trade without any authorized import and export licences. The authorised dealers import pineapple, mango, litchi, dates and proceries, like vermachilli, molasses, chilli, etc. The average profit margin in these trades varies from Taka 2,000.00 to Taka 5,000.00 per month.

No professional milk, egg or vegetable traders are found in the village. On market days, villagers are found selling these commodities in the local market, which is situated half a mile away from the village. Most of these sellers belong to low income group having annual income less than Taka 6,000.00.

Among women, the most common from of non-agricultural wage labour is as maid servant. There are 14 such cases in the village, 8 of them work in the house of the rich peasants in the village and the remaining six work in the Sylhet town. Those who work in Sylhet town live with the families for whom they work. Wage rates are very low. Many of them receive only meals and some clothing. A few receive a small quantity of rice in addition.

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33 The nearest Indian border town is about 18 miles from the village.

It is, of course, true that women of the village have little scope to be employed as wage earners. Yet their role to supplement family income, particularly in poor households can hardly be ignored. Women in atleast 5 percent of the households in village earn in cash or in kind by participating in different activities within their family environment. A good number of skilled women are also engaged in handicraft works. Handicraft is the primary occupation of 2 percent of households in the village and a secondary occupation for an additional 9 percent. In most cases, women of the village make fish nets and sew quilts for sale. They also make different types of mat, chair, and varieties of household items (like Kula, Dala, Mura, Kholoi, Dugoin, Tukri, and Paka, etc.) from canes, reeds and bambooes. It generally requires 10 to 15 days on the part of a woman to make a good quality mat (Sitalpati), the price of which in the local market varies from Taka 200.00 to Taka 250.00. Ordinary mats are prepared within 4 to 5 days, the price of which in the local market varies from Taka 60.00 to Taka 100.00. Considering the price of raw materials, the profit margin in the above two qualities varies from Taka 50 to Taka 60 in the first case and Taka 15 to Taka 20 in the second case. The net gains from other items are comparatively lower. The average monthly income of those five households

which are engaged in handicraft works as principal occupation varies from Taka 125 to Taka 160. Most of these products are sold in Sylhet town or in neighbouring villages.

5.9.2 Diversification of Occupations

Given the Skewness in the land distribution, seasonality in agriculture and low wage rate, agriculture cannot absorb the fast growing labour force in the village. Moreover, it fails to employ a person throughout the year. Under the circumstances, the villagers diversify their sources of income other than crop production to ensure their basic minimum necessities of life. A closer look at table 5.25 will give us some idea with respect to diversification of occupations.

It can be seen from the above table that there is not a single land holding group which is dependent on cultivation alone for livelihood. Cultivation plus atleast one other off holding activity is the common practice among the farmers. This diversifioation of sources of income other than cultivation is more common among the landless. The landless and near landless have more than three sources of income. All the household heads of the village have had secondary sources of income. In most cases, the multiple income sources reflect multiple occupations. This phenomenon

Table 5.25

Distribution of Households by Multiple Occupations and land Size Group

Operational land holding (acres)	Only cultivation		Cultigation+ one other activity		Cultivation+ 2 other activities		Other sources only		Number of households	%
	n	%	n	%	n	%	n	%		
Landless	7	6.2	26	23.0	7	6.2	73	64.5	113	100.0
∠ 1.00	11	26.2	25	59.5	4	9.6	2	4.7	42	100.0
1.00-2.50	9	23.7	24	63.1	3	7.9	2	5.3	38	100.0
2.50-5.00	4	30.8	5	38.4	1	7.7	3	23.1	13	100.0
5.00+	1	12.5	6	75.0	1	12.5	-	-	8	100.0
Total	32	14.9	86	40.2	16	7.5	80	37.4	214	100.0

is a reflection of the insecurity and inadequancy of the available means of livelihood for the majority of villagers, as well as difficulty which most face in meeting basic subsistence needs.

5.9.3 Level of Income

In the course of household enumeration each head of the household was asked to state his/her annual income derived from all sources.[34] On the basis of this information, annual income of each of the household was estimated. Table 5.26 presents the distribution of the households by estimated annual income categories.

It may be observed from the table that the absolute majority (83%) of the households have had annual income less than or equal of Taka 12,000 only. Of these, at least 41 percent of the households have had annual income less than or equal to Taka 6,000.00. But, this income level is not sufficient to meet the minimum nutritional requirements of the households. Assuming that an average person needs 15.7 ounces of rice perday to meet the minimum calorie requirements,

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34 It includes income from agricultural crops; plants and vegetables; income from poultry, cattle and fishery; wages from both skilled and unskilled labour and services; pension and honourarium; income from trade and business; income from loans, grants and gifts; remittances from relatives and other; and finally income from different tangible and non-tangible property(e.g. land,building, car, rickshaw, boat, agricultural implements, etc.).

a household in the village consisting of six persons on an average will need 5.88 pounds[35] of rice. The price of medium quality rice in the village was Tk.260 per maund[36] in July 1979. Given the above price of rice a household of six persons needs an annual income of Tk.6,887.40[37] to meet the minimum calorie requirements. This calculation, however, excludes other expenditures incurred on some basic items, such as fuel, education, medicine and clothing. From the above calculation, it appears that more than 41 percent of the households in the village are living below the subsistence level.

A household in the village, on an average earns Taka 8,749 per annum[38]. The per capita income is calculated as Taka 1387.[39] The per capita income of the village appears to be little higher than that of the national level. Considering 1976-77 market prices, the per capita income of Bangladesh was estimated as Taka 1208.[40]

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35 15.7 ounces x 6 =94.2 ounces ÷ 16 = 5.88 pounds.

36 One maund is equivalent to 82.3 pounds.

37 Subsistence level of annual income of an average household (consisting of six person) is calculated as under: 94.2 ounce x30 =2826x12=3312 ounce (which is equal to 2119.5 pounds or 26.49 maunds). Thus, the price of 26.49 maunds of rice @ Tk.260/- = Tk.6,887.4.

38 The average anhual income of 214 households of the village is calculated by using the data of table 9.3

39 Tk.8749x214 =1872286 ÷ 1350 =1386.87

40 Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, Govt. of the People's Republic of Bangladesh Statistical Pocket Book of Bangladesh'79.

Table 5.26

Distribution of Households by Annual Income Categories

Level of Annual Income (Taka)	Number of households	Percentage
⁄1,200	3	1.40
1,201 - 2,400	4	1.86
2,401 - 3,600	23	10.74
3,601 - 4,800	33	15.42
4,801 - 6,000	25	11.68
6,001 - 7,200	33	15.42
7,201 - 8,400	21	9.81
8,401 - 9,600	11	5.14
9,601 - 10,800	16	7.47
10,801 - 12,000	9	4.20
12,001 - 25,000	28	13.08
25,001 - 40,000	5	2.33
40,001 - 90,000	3	1.40
Total	214	99.95*

* Totals may not add to 100.0 due to rounding error.

Table 5.27 presents data on average annual income of households by sources of income 'Confining the analysis to those categories having 10 or more cases, we find that the heads of the households who are engaged in own crop production has the highest income, followed by those engaged in business and mason works. Remittance from relatives and others, both from within and outside the country also form a considerable source of income for a limited number of households in the village. The beggars have the lowest average annual income.

From the above findings, it appears that although agriculture or crop production is the single most important occupation of the households in the village but it cannot absorb all the labour force and also fails to keep a person employed throughout the year. Moreover, the benefit of income derived through crop production is largely accrued to the big farmers. As a result, the villagers diversify their sources of income to guard against insecurity of income and possession of multiple occupations is the common practice, particularly among the landless and subsistence farmers. But the income derived from various sources are not even adequate to meet the basic minimum needs for a majority of households in the village..

Table 5.27

Average Annual Income of Households by Most Important Source of Household Income.

	Sources	Average Income(Tk.)
1.	Own crop productions	11,340
2.	Business	10,200
3.	Mason	7.680
4.	Agricultural wage labour	6,120
5.	Non-agricultural wage labour	6,480
6.	Remittance(within & outside the country)	4,560.
7.	Handicrafts "	1,620
8.	Carpentary "	5,760
9.	Self-employed service	6,240
10.	Other profession (Hakimi/Kabiraji/Piraki)	4,560
11.	Taxi Driver	8,400
12.	Begger	540
	Total	8,749.34

5.10 Education and Literacy

In this study, a person is considered literate who is able to both read and write Bengali. The definition of literacy as employed in this study is the same as that of the census.[41] According to the above definition only 37 percent of the village population aged five years and above are literate. The corresponding levels for male and female population are 48 percent and 24 percent respectively. Although the overall literacy level of the village is very low, but it is still higher than that of the national average. According to 1974 census, the literacy rates for males and females were 31 percent and 13 percent respectively in the rural areas.

5.10.1 Characteristics of Education

Table 5.28 presents data on years of education completed by age and sex. The following important points are to be noted from the above table: (1)low level of literacy; (2) change in the level of literacy over time; (3) glaring disparity between men and women in the level of literacy. Let us elaborate each of these features in somewhat greater detail.

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41 According to 1974 Census a person is considered literate who is able to read and write in any language.

Table 5.28

Distribution of Completed Years of Education by Age and Sex of Village Population, 1979.

Education (Grade Completed)	Age											
	Males											
	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
0 (No formal education)	38.3	45.3	50.0	64.7	50.0	51.8	54.3	50.0	68.4	63.1	35.0	78.7
1-3 (Less than Primary)	59.6	28.3	15.5	13.2	10.2	14.3	8.6	19.2	21.0	15.8	20.0	9.1
4-5 (Primary)	1.0	17.9	17.2	2.9	24.3	19.6	20.0	19.2	10.5	15.8	5.0	9.1
6-10 (Secondary)	-	7.4	15.5	16.2	11.5	10.7	17.1	7.7	-	5.2	20.0	3.0
11-12 (Higher Secondary H.S.C. level)	-	-	-	1.5	-	1.8	-	-	-	-	-	-
B.A./B.Sc./B.Com (Degree level)	-	-	-	1.5	2.6	-	-	-	-	-	-	-
M.A./M.Sc./M.Com (Master level)	-	-	-	-	-	1.8	-	3.8	-	-	-	-
Pharmacy	-	-	-	-	1.3	-	-	-	-	-	-	-
Madrasha	1.0	0.9	1.7	-	-	-	-	-	-	-	-	-
Total(Number)	99	106	58	68	78	56	35	26	19	19	20	33
Total(Percent)	100	100	100	100	100	100	100	100	100	100	100	100

Table 5.28 (Contd.)

Education (Grade Completed)	Age											
	Females											
	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
0 (No formal education)	48.9	60.9	80.0	89.6	83.7	80.5	81.8	100.0	81.8	90.9	100.0	95.3
1-3 (Less than Primary)	46.8	23.2	12.7	-	6.9	8.3	15.1	-	4.5	-	-	2.3
4-5 (Primary)	3.2	10.9	5.4	6.9	4.7	11.1	3.0	-	13.6	9.0	-	2.3
6-10 (Secondary)	1.0	3.7	1.8	1.7	4.7	-	-	-	-	-	-	-
11-12 (Higher Secondary) H.S.C. level	-	-	-	-	-	-	-	-	-	-	-	-
B.A./B.Sc./B.Com. (Degree level)	-	-	-	-	-	-	-	-	-	-	-	-
M.A./M.Sc./M.Com. (Master level)	-	-	-	1.7	-	-	-	-	-	-	-	-
Pharmacy	-	-	-	-	-	-	-	-	-	-	-	-
Madrasha	-	1.2	-	-	-	-	-	-	-	-	-	-
Total(Number)	94	82	55	58	43	36	33	21	22	22	11	43
Total(Percent)	100	100	100	100	100	100	100	100	100	100	100	100

Table 5.28 (Contd.)

Education (Grade Completed)	Total		
	Males	Females	Grand Total
0 (No formal education	52.0	75.9	62.9
1-3 (Less than primary)	23.5	15.9	20.0
4-5 (Primary)	13.5	6.2	10.1
6-10 (Secondary)	9.2	1.5	5.7
11-12 (Higher Secondary H.S.C. level)	0.3	-	0.2
B.A/B.Sc./B.Com. (Degree level)	0.5	-	0.3
M.A./M.Sc./M.Com. (Master level)	0.3	0.2	0.3
Pharmacy	0.1	-	0.1
Madrasha	0.5	0.2	0.3
Total(Number)	617	520	1137
Total(Percent)	100	100	100

5.10.1.1 Low level of literacy:

It is not only that the overall level of literacy of the village population is low, but those who have had some formal education received only few years of schooling. For example, primary education accounts for 77 percent and 92 percent of total male and female literates in the village. Even among the primary educated more than fifty percent are those who have received 1-3 years of formal education. Only six percent of the village population have received secondary education and less than one percent have received education beyond high School.

5.10.1.2 Progress in education in recent years

There shows an inverse relationship between age and literacy for both male and female population. The percentage of men and women with '0 completed years of education' has dropped considerably in the 15-19 age group as compared with those of 60 years and over. In the younger age group (15-19), 50 percent males and 80 percent females have not completed a single year of formal education. The corresponding figures for males and females are 79 percent and 95 percent respectively in the age group of 60 years and over. This drop in formally illiterate persons in the younger age group indicates some progress in education in recent years.

The similar progress in education in recent years for the country as a whole is also evident from the 1974 Census data.[42]

5.10.1.3 Sex differences in level of literacy

We have noted earlier higher literacy rate for male than for female (48 percent Vs 28 percent). This disparity between male and female literacy rates is not very pronounced at the first two younger ages (i.e. 5-9 and 10-14), but it increases with ages. For example, the male literacy rate was more than twice that for females in the 15-19 year age group; this increased to almost 21 times more in the age group 60 and over. The reason is not too hard to seek. For older people, given the socio-cultural situation of the country, it was inevitable that very few females learnt how to read and write. But overtime comparatively more women have received an education, as is evident in the literacy rates for the 5-9 age group, where the disparity between the sexes is comparatively less.

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42 According to 1974 Census 70.8 percent males and 94 percent females of 35 years and over, have not completed a single year of formal education in the rural areas. The comparable figures for males and females were 54.8 percent and 77.6 percent respectively in the younger age group (15-19).

Further evidence of the glaring disparity between men and women in education can be seen when one considers the different levels of schooling. For example, of those aged 15 years and over, 40,20 percent men compared with only 32 percent women have completed 1-5 years of schooling. For 6-10 years of schooling the disparity is ever pronounced, 16.55 percent males and only 3.2 percent females have completed this many years of education. The number of females completing higher levels of education is very insignificant. For example, 2.39 percent of men have completed education beyond high school as opposed to 0.8 percent of women. From the data, it appears that the relatively disadvantageous position of women with respect to men in terms of education deteriorates as the level of education rises. The low educational achievement of women as observed in this village is equally applicable for the country as a whole. There are several reasons for low educational achievement of the female population. Some of these are as follows: (i) Differential perceptions of economic value of sons and daughters and (ii) purdah system.

Most parents in general and particularly in the rural areas do not perceive any economic value in educating their daughters. They can hope that their sons will obtain job and provide them with economic support during old age

either in the form of money and/or shelter. Daughters, on the other hand, will marry and leave the parental home to be housewives and mothers. Differential perceptions of economic value of sons and daughters have been also substantiated in this study. Seventy three percent of the respondents in this study felt sons were more economically useful to them than their daughters (see Table 5.29). In this study, it was also found that the majority of the fathers wanted their sons and girls to be high school graduates and primary school graduates respectively. This perception of higher economic value of sons than daughters may have caused the parents to provide more education to their male than female children.

The system of purdah (seclusion) prevaling in the country confined girls and women within the four walls of home. In the above system, there is little room for contact with males outside the home. Under the circumstances, even if parents are willing to send their daughters to school they cannot, for often schools for girls are not located in their village; also there are not many female teachers in the schools. In village Muyiarchar, there is no girls' school. However, there is a primary school where all the teachers are male. Purdah restrictions prevents many girls from attending a school, where they are to study with boys and not a single female teacher is available.

Table 5.29

Distribution of responses to the question,"From the point of view of financial help, whom do you consider more important ? - son or daughter ?"

Responses	N	%
1. Son	63	73.25
2. Daughter	8	9.30
3. Both	6	6.97
4. No Reply	9	10.43
	86	99.98

Above all, the increasing poverty and rising cost of education are also retarding the progress of education in general and female education in particular. It is always accepted that if parents cannot afford to send all their children to school, boys will be given preference over girls.

5.10.2 Education by land-holding and income:

Although the overall level of education is low the village but its distribution is highly skewed, varying by social class as determined by land holding and income level. Land holding status and income level are positively associated with level of education (see table 5.30). Level of literacy among those having land 5 acres and above is at least two times higher than that of the level attained by those having no land or small amount of land. Similarly, 17 percent of the highest land holding group reported to have completed 6-10 years of education as compared to 3-4 percent among the landless and subsistence farmers. The identical trend is also observed with respect to the relationship between income and level of education (see table 5.31).

Table 5.30

Distribution of level of Education(completed years) by land holding categories

Level of Education (completed years)	Land holding category									
	MALES					FEMALES				
	Landless	Ⴑ1.00 acre	1.00-2.50	2.50-5.00	5.00+	Landless	Ⴑ1.00 acre	1.00-2.50	2.50-5.00	5.00+
0	134 (55.1)	75 (68.80)	63 (49.60)	33 (38.37)	16 (30.76)	187 (80.61)	79 (80.61)	73 (69.52)	43 (69.25)	13 (36.11)
1 - 3	63 (15.9)	15 (13.76)	28 (22.04)	28 (32.55)	11 (21.15)	17 (8.05)	14 (14.28)	23 (21.90)	16 (25.80)	13 (36.11)
4 - 5	28 (11.5)	11 (10.09)	23 (18.11)	14 (16.27)	7 (13.46)	13 (5.93)	4 (4.08)	7 (6.66)	3 (4.83)	5 (15.88
6 - 10	15 (6.2)	8 (7.33)	13 (10.23)	8 (9.30)	13 (25.00)	1 (0.47)	1 (1.02)	3 (1.90)	-	4 (11.11)
11-12	-	-	-	(2.32)	-	-	-	-	-	-
Bachelor	-	-	-	1 (1.16)	2 (3.84)	-	-	-	-	-
Master	1 (0.4)	-	-	-	1 (1.92)	-	-	-	-	1 (2.77)
Pharmacy	-	-	-	-	1 (1.92)	-	-	-	-	-
Madrasha	2	-	-	-	1 (1.92)	1 (0.7)	-	-	-	-
Total	243	109	127	86	52	219	98	105	62	36

Note : Figurese in parentheses are percentages.

Contd.....

Table 5.30(A)

Distribution of level of Education (completed years) by Land Holding Categories

Level of Education (completed years)	Land holding categories in acres				
	Landless	∠ 1.00	1.0-2.5	2.5-5.0	5.0+
0	69.48	74.39	58.62	51.3	32.9
1 - 3	17.31	14.0	21.9	29.7	27.2
4 - 5	8.87	7.24	12.9	11.5	13.6
6 - 10	3.46	4.34	6.4	5.4	19.3
11 - 12	-	-	-	1.35	-
Bachelor	-	-	-	0.68	2.2
Master	0.21	-	-	-	2.2
Pharmacy	-	-	-	-	1.1
Madrasha	0.65	-	-	-	1.1
Total	462	207	232	148	88

Table 5.31

Distribution of Level of Education (completed years) by Annual Income Categories

Level of Education (completed years)	Annual Income Category							
	Male			Female			Total	
	Tk.6000 (1)	Tk.6000-12000 (2)	Tk.12000+ (3)	Tk.6000 (1)	Tk.6000-12000 (2)	Tk.12000+ (3)	Male	Female
0 (No.formal Education)	(54.54)	(58.24)	(39.28)	(76.97)	(79.48)	(68.79)	(52.02)	(75.96)
1 - 3	(26.70)	(21.24)	(23.80)	(16.54)	(14.16)	(18.43)	(23.50)	(15.96)
4 - 5	(10.22)	(11.35)	(20.23)	(5.75)	(5.00)	(8.51)	(13.45)	(6.15)
6 -10	(7.38)	(7.69)	(13.69)	(0.71)	(0.83)	(3.54)	(9.23)	(1.53)
11-12	-	(0.36)	(0.59)	-	-	-	(0.32)	-
Bachelor	-	(0.36)	(1.18)	-	-	-	(0.48)	-
Master	-	(0.36)	(0.59)	-	-	(0.70)	(0.32)	(0.19)
Pharmacy	-	-	(0.59)	-	-	-	(0.16)	-
Madrasha	(1.13)	(0.36)	-	-	(0.41)	-	(0.48)	(0.19)
Total	176	273	168	139	240	141	617	520

Note: Figures in the Parentheses are percentages.

contd....

Table 3.31 contd.

Level of Education (completed years)	Total		
	∠Tk.6000 (1)	Tk.6000-12000 (2)	Tk.12000+ (3)
0 (No formal Education)	64.44	68.22	52.75
1 - 3	22.22	17.93	21.35
4 - 5	8.25	8.38	14.88
6 -10	4.44	4.48	9.06
11-12	-	0.19	0.32
Bachelor	-	0.19	0.64
Master	-	0.19	0.64
Pharmacy	-	-	0.32
Madrasha	0.63	0.38	-
Total	315	513	309

5.10.3 Enrolment

Table 5.32 presents data on enrolment ratio by age and sex.

Table 5.32 Enrolment ratio; distribution of students (5-24 years of age) by sex, 1979.

Sex	Age groups			
	5 - 9	10 - 14	15 - 19	20 - 24
Both sexes	46.11	38.83	12.38	3.96
Male	51.51	52.83	24.12	7.35
Female	40.42	20.73	-	-

*The enrolment ratio is defined as: number of children in age-group enrolled to total number of children in age group multiplied by 100.

From the above findings it appears that the overall enrolment ratio is very low.[43] More than half of the children of primary school ages 5-9 years and 61 percent children of secondary school ages 10-14 years were out of school. This situation is even more alarming with respect to female enrolment. Less than fifty percent boys and 60 percent girls of primary school ages 5-9 years

43 However, enrolment ratio improves among the higher socio-economic groups. Children of higher income and landholding groups tend to be more enrolled in schools than their counterparts belonging to poor income, landless and near landless groups,

and 47 percent boys and 79 percent girls of secondary school ages 10-14, years were out of school. Between ages 15-19 and 20-24, one hundred percent females were not enrolled in any educational institutions in 1979. The corresponding figures for males were 88 percent and 96 percent respectively.

The drastic fall in enrolment ratio beyond primary level (5-9 years) for girls may be attributed to (i) strict observance of purdah; (ii) lack of priority to female education; (iii) early age at marriage; (iv) involvement in domestic chores and above all (v) poverty. Male children, on the otherhand, participate in productive activities from very early age at 6 or 7 and by age 15-19, they get themselves deeply involved in these economic activities and contribute substantially to the family income. In this situation it is difficult on the part of many parents to get their wards enrolled and/or continue in schools over long time because this would lead to extra financial burden on the family budget on the one hand and losing of cash income and other useful household services from the children on the otherhand. These reasons were also mentioned by the parents while explaning non-enrolment of their children of primary school ages (see table 5.33).

Table 5.33

Distribution of responses to the question, "Do you have any children of primary school ages (6-10) who do not attend school ? If yes, state the reasons"

Responses	N	%
1. Attend school	36	41.86
2. Children work & earn money. Sending them to school will curtail household income	21	24.41
3. Children help in household chores	7	8.13
4. School envircnment is not congenial	4	4.65
5. Educated children disobey their parents.	2	2.32
6. Financial hardship	10	11.62
7. Education will make a person devoid of God	5	5.81
8. Others	1	1.16
	86	99.96

It can be seen from table 5.33 that the majority (58%) of the households who have children of primary school ages do not send their children to schools. The primary reason being that children participate in economic activities and sending them to school will greatly curtail their household income. The next important reason for not sending children to school is the financial hardship. The similar reasons were also adduced to explain the drop out of children from schools (see table 5.34). More than 70 percent of the respondents cited economic reasons for drop out of their children. Of the economic reasons, pre-occupation of children with important household works and other income earning activities(38%) was the most important reason, follwed by lack of money (26.19%). That the children, particularly those who are not currently attending schools participate in different important household and income earning activities can be seen from table 3.35

Table 3.35 shows that children who are currently attending school are more likely than their out of school age mates to be involved in works mostly around the house which require less manual labour. On the other hand, children who do not attend school are more likely to be involved in difficult labour-intensive jobs, such as farm

works, reparing of house and trading, etc. Children usually perform different types of works both at home and outside the house. They earn money and help their parents. In this situation, parents are reluctant to send their children to school, loast their family income will fall.

From the preceeding findings, it appears that unless the financial conditions of the parents are improved and/or alternative institutional arrangements are made of children from home to school, it is difficult to improve the literacy level of the village population.

Table 5.34

Distribution of responses to the question, "Do you have any primary school age (6-10 years) children who used to go to school previously but not dropped out ? If yes, state the reason(s) for drop out."

Responses		N	%
Economic:	1. Lack of money	11	26.19
	2. Lack of Food/clothing	-	-
	3. Lack of books, pencil and other stationaries	3	7.14
	4. Children don't have spare time as they participate in useful household works	7	16.66
	5. Children participate in economic activities outside the home	9	21.42
Personal:	6. Minor/too old	2	4.76
	7. Constantly suffer from various diseases	-	-
	8. Physically or mentally disabled	-	-
	9. Poor in learning (dull)	1	2.38
Social:	10. Neighbouring children do not attend school	2	4.76
	11. Girls, therefore not permitted to attend school	4	9.52
	12. Religious and cultural prejudices	1	2.38
Defects:	13. Lack of adequate educational facilities in school	-	-
	14. School is situated far away	-	-
	15. Lack of accommodation in school	2	4.76
		42	99.97

Table 5.35

Detail break down of children's (age 5-21) work according to sex and current status of school attendance

Activity	Not in school		In school	
	Male	Female	Male	Female
Not working	13 (14.28)	35 (22.42)	34 (26.98)	21 (38.18)
Cultivation	23 (25.27)	7 (4.48)	16 (12.69)	3 (5.45)
Plough level manure	6	x	4	x
Transplant harvest	4	x	3	x
Carry thresh parboil	3	4	2	1
Cut jute strip jute wash jute	3	x	2	x
pick chillies dig onions cut arum	7	3	5	2
Fishing	7 (7.69)	4 (2.56)	14 (11.11)	2 (3.36)
make nets	1	1	1	x
operate boats	2	x	3	x
Fish	4	3	10	2
Animal husbandary	18 (19.78)	27 (17.30)	11 (8.73)	8 (14.54)
graze cleaning crowshed cut fooder milk cows	11	4	9	1
tend fowl	2	19	1	6
tend goats	5	4	1	1

contd.....

Table 5.35 contd.

Activity	Not in school		In school	
	Male	Female	Male	Female
Labour & Trading	8 (8.79)	12 (7.69)	4 (3.17)	6 (10.90)
Petty trading	4	x	x	x
Home repair/ maintenance	3	3	2	2
Craft work in wood/bamboo	1	9	2	4
House work (food preparation)	22 (24.17)	71 (45.51)	47 (37.30)	15 (27.27)
Dry rice winow rice husk grain spices/dal	8	37	17	6
wash & peel food cooking serve meals others				
sweep carry water cut/carry firewood carry child wash clothes carry messages	14	34	30	9
All children(5-21)	91	156	126	55
Total working	78	121	92	34

5.11 Overview of the findings

The village under study seemed to be atypical of the country in terms of its economy, ecology, population density and high fertility. The village is poor in modern facilities and services and there is no capital resources worth mentioning. It had a population of 1350 living in 214 households, according to the census conducted in the month of June 1979. Given the land area of 485 acres, the population density is about 2.78 persons per acre or 6.85 per hectare. The age-structure reflects recent high rates of population growth: almost 44 percent of the villagers are less than 15 years old. The level of fertility is very high in the village as reflected in the Total Fertility Rate (TFR) which is estimated to be 6 per woman.

Marriage is universal in the village and age of marriage is very low. Men on an average married at the age of 23; while average age of marriage for women was only 14 years. Polygamy is also prevalent, although the number is limited. There are 8 polygynous households in the village, representing approximately 3% of all marriages. Kinship system in the village is patrilineal & patrilocal, where the household head is usually the father or eldest male member of the family. Marriage is exogamous and upon

marriage, women usually move to their husbands' fathers home and widows tend to live with their married sons than with their married daughters. Female headed households are very limited. Only 6 percent of the total households in the village are headed by females. These are mostly destitute women and some of them are engaged in begging.

Level of literacy in the village is very low. Only 37 percent of the village population aged five years and above are literate. Only 13.5 percent of males and 6.2 percent females aged five years and above completed primary education. Whatever little education is achieved by the villagers, this is mostly attained by the higher socio-economic class. Level of literacy among those having land 5 acres and above is at least two times higher than that of the level achieved by those having no land. More than half of the children of primary school ages 5-9 years and 61 percent of children of secondary school ages 10-14 years were out of school. The primary reason for not sending children to school is the preoccupation of children with important income earning activities and other household works. Therefore sending them to school will deprive the parents from income and services of their children. Financial hardship is also mentioned as one of the important factors

for not sending children to school. We, therefore, find that unless the financial conditions of the parents are improved and/or alternative institutional arrangements are made of children from home to school it is difficult to improve the literacy level of the village population.

Land is the most important means of production. However, access to this important means of production is confined to a few privileged households. More than fifty percent of the households do not claim ownership of any land other than homestead land. Moreover, land is unevenly distributed. For example, those households which own land 5 acres and above constitute only 8 percent of the land owning households of the village but they control 41% of the total arable land of the area. Whereas those who own less than one acre of land constitute 39 percent of the total land owning households but they control only 10 percent of the arable land of the area. Land available for cultivation in the village is very limited in view of the size of the population. If the total arable land (308 acres) are evenly distributed among all the households, each would get only 1.42 acres, an area barely sufficient to met the subsistence needs of an average sized household with six members and insufficient to meet the needs of larger households. In fact, nearly 70 percent of the households own land less than 1.60 acres, the minimum land area needed to provide enough food to

meet the basic minimum nutritional requirements of an average sized household in an average year. Given the unequal distribution of land, we find that a majority of the households does not control productive assets sufficient to ensure minimum food requirements.

Although, the majority of the villagers are dependent on agriculture either directly or indirectly for source of living but the benefit of income derived through crop production is largely reaped by the big farmers. Moreover, agriculture fails to keep a person employed throughout the year. As a result, the villagers diversify their sources of income for mere survival and possession of multiple occupations are the common practices, particularly among the landless and subsistence farmers. But the income derived from various sources are not even adequate to meet the basic minimum needs for a majority of households in the village.

Thus from the above analysis, the village is found to be a representative of the country. The physical and spatial characteristics of the village, economic resources, use of agricultural implements, ownership of livestock by land size group, household size and structure, population characteristics, land distribution, employment pattern and educational standard - all such factors clearly indicate that the village is a typical of the country. The vary

location of the village, the typical village huts and homesteads, the absence of modern facilities and services in the village are found almost similar to other villages of the country. In the course of research, rigorous attempt was made to observe the representativeness of the village and these were statistically varified and found correct.

CHAPTER 6

LABOUR UTILIZATION AND ECONOMIC VALUE OF CHILDREN : SPECIFIC ISSUES EMERGING FROM A RURAL ECONOMY OF BANGLADESH

Since the early 1970's Demographers and others with population issues have been showing increasing interest in the study of the value and cost of children. There is a variety of reasons for interest in this. An understanding of the value and cost of children can facilitate the planners, at macro level, to formulate appropriate population policy in the face of rapid population growth. Similarly, the labour contribution and perceived costs of children can guide the prospective parents, at micro level, in making rational decisions about the number of children they want and can afford. It is expected that a better understanding between parent - child relationship can ultimately ensure the economic and social wellbeing of families and children.

In recent years most of the studies of the value and cost of children are formulated on the background of these two socio-economic perspectives.

6.1 Utility of Children : Economic reasons

High fertility is considered rational behaviour on the part of parents in many peasant societies for various economic, social and phychological reasons.

The present thesis attempts to examine the extent to which economic forces regulate high fertility in rural Bangladesh by making an in-depth study of the actual benefits and costs of raising children.

6.1.1 Fertility Ideas and Attitudes

The value of children, in fact, depends on the particular circumstances in which a family or community lives. The value attached to children is consistent with the social and economic circumstances under which people struggle for survival. It is generally believed that high fertility levels prevail in societies which have favourable attitudes towards large family size.

The ideas and attitudes of people relating to fertility is not uniform in developed and developing countries. Studies in few developing countries have shown a positive correlation between child labour force participation and fertility (Hull 1975, Cain 1977, Nag et al 1978)[1].

1 Hull, Terence, 1975 "Each child brings its own fortune : An Inquiry into the value of Children in Javanese Village". Unpublished Ph.D. dissertation. Australian National University.

Cain, Mead T. 1977 "The Economic Activity of Children in a Village in Bangladesh". Population and Development Review 3. pp.201-227.

Nag, Moni, Benjamin N.F. White and R. Creighton Peet "An Anthropological Approach to the Study of Economic Value of Children in Java and Nepal". Current Anthropology, Vol.19, No.2, June 1978.

Unlike the parents of developing countries, parents in industrial societies are found more concerned with economic costs and motivated by emotional rewards of having children. Parents in less developed countries, especially in rural areas, want large families. They consider children as economic assets for good and valid economic reasons. Children in these societies are considered valuable to their parents at least in two possible ways : (i) as a source of productive agent and (ii) as a source of old-age security.

6.1.2 As a Source of Productive agent

Children in less developed countries participate in time-consuming but most essential household maintenance tasks from very early age level of 4-6 years and thus free the adults to participate in more productive activities (T. Hull 1975, Cain 1977, Suchart et al 1977)[2]. During peak agricultural seasons, sons also help their fathers on family farms or they may help them in family

2 Hull, T.H. 1975 op.cit.
Cain, Mead T. 1977 op. cit.
Suchart P. and Frederick A. Day 1977 Cost and Value of Children in rural Thailand in The Economic and Social Supports for High Fertility. Edited by L.T. Ruzicka, Canberra; The Australian National University, Department of Demography, pp.307-316.

business. Likewise, daughters aid their mothers in performing routine household chores. Other types of activities in which children are found economically useful include caring for younger siblings, tending animals, carrying fire wood, and the like.

6.1.3 As a source of financial security in old age and in emergencies

This type of economic assistance may take the form of supplemental income transfers from children to their parents. Or it may involve income in kind, such as parents sharing the living quarters of their grown-up children. In the absence of any institutional support of social security programme, such as public health and welfare measures, pension plans, private annuity and life insurance programme, children in developing countries are the only dependable source of support for their aged and physically disabled parents, irrespective of the fact whether a child brings a positive or negative rate of returns. The dependence on children gradually declines with the achievement of higher levels of living and better distribution of income.

6.2 Work inputs of Children to the household economy

Children in peasant societies, enter the household labour force from an early age of 4-6 years. These include sweeping, washing, child-rearing, fetching water, food preparing, cooking and so on. The overall work inputs of children to the household economy can be analysed under three heads :

a) Children's participation age;

b) Children's time-inputs to work;

c) Productivity and labour efficiency of children.

6.2.1 Children's participation age

Physical maturity, strength, skill of work performance and division of labour etc. influence the age at which a child starts working. Table 6.1 presents data on 56 useful activities of unmarried children aged 4 years and above by sex, indicating particularly the minimum, maximum and median ages at which children start working.

Data from table 6.1 indicate the very high degree of involvement of young males and females in various household tasks. The findings confirm the traditional pattern of work by sex i.e. girls are doing more household chores than boys, while boys are engaged more in occupational works like cultivation, animal husbandary, marketing and home repair/maintenance. Girls on average,

Table 6.1

Economic activities of unmarried children 4 years and above residing in parents households

ACTIVITY	MALES (150)				FEMALES (115)			
	% Ever participated[a]	Youngest age of entry[b]	Maximum participation age[c]	Median age of entry[d]	% Ever participated[a]	Youngest age of entry[b]	Maximum participation age[c]	Median age of entry[d]
CULTIVATION								
GENERAL :								
1. Plough	56.00	8	12	11.64	00	x	x	x
2. Level	56.66	8	10	10.38	00	x	x	x
3. Muddle	48.66	8	10	10.35	00	x	x	x
4. Weed(paddy kitchen/guarden	82.00	4	8	7.67	73.04	6	8	7.79
5. Hoe	72.66	6	9	8.84	53.91	6	9	8.35
6. Manure	43.33	7	11	11.56	00	x	x	x
7. Clod breaking	62.00	7	8	9.23	23.47	7	9	8.83
PADDY:								
8. Sowing	50.00	9	12	12.08	00	x	x	x
9. Transplant	55.33	9	12	11.76	00	x	x	x
10. Harvest	61.33	8	12	11.06	00	xx	x	x
11. Carry	76.66	7	8	8.22	60.00	7	8	8.23
12. Thresh	60.66	8	10	9.79	36.52	8	10	9.53
13. Parboil	21.33	10	12	11.83	36.52	8	10	10.12
JUTE:								
14. Cut/bundle	52.66	8	10	9.94	19.13	8	8	9.00
15. Strip	52.00	8	10	9.70	19.13	6	8	8.60
16. Wash	34.66	8	10	10.07	16.52	8	10	9.50
17. **OTHER:**								
17. Pick chillies/Dalspices	72.66	5	8	7.60	65.21	5	8	6.76
18. Dig onion/ Potato	76.00	6	9	8.04	68.69	6	8	7.79
19. Cut arum	82.00	5	6	6.16	74.78	4	6	6.08
FISHING:								
20. Make Nets	24.66	9	10	10.43	20.00	10	10	10.22
21. Operate Boats	28.00	10	10	10.75	00	x	x	x
22. Fish	82.00	5	6	6.36	73.04	5	6	6.37
ANIMAL HUSBANDARY								
CATTLE:								
23. Graze/Water	80.66	6	6	7.11	64.34	6	6	7.05
24. Clearing Cowshed	55.33	5	10	8.66	54.78	5	9	8.63
25. Cut Fooder	63.33	6	10	8.23	57.39	6	8	7.93
26. Milk Cows	38.00	10	12	12.26	11.30	12	12	12.83
OTHER:								
27. Tend Fowl	78.00	5	8	7.11	77.39	5	6	6.48
28. Tend Goats	76.00	6	8	8.11	47.82	6	8	7.88

ACTIVITY	MALES (150)				FEMALES (115)			
	% Ever participated[a]	Youngest age of entry[b]	Maximum participation age[c]	Median age of entry[d]	% Ever Participated[a]	Youngest age of entry[b]	Maximum participation age[c]	Median age of entry[d]
MARKETING:								
29. Purchase	79.33	5	8	8.10	46.95	6	8	7.92
30. Carry Goods	70.00	6	8	8.22	40.00	6	8	7.88
31. Tend Sale	59.33	8	12	8.10	26.95	8	8	8.25
HOME REPAIR/MAINTENANCE:								
32. Repair Thatch	40.00	7	12	10.75	15.65	9	10	10.42
33. Repair Floors	34.66	7	10	10.26	43.21	7	10	9.45
34. Repair Walls	55.33	7	10	10.02	42.60	7	10	9.81
35. Sharpen Tools	53.33	7	10	10.00	31.30	6	12	9.71
36. Clean Tools	69.33	6	8	9.96	48.69	6	8	7.70
COTTAGE INDUSTRY:								
37. Sew Khata	00	x	x	x	46.95	8	10	10.21
38. Sew Clothes	30.66	8	10	10.15	58.26	7	10	9.69
39. Weave Bamboo	66.00	6	10	9.20	58.26	6	10	9.37
HOUSE WORK:								
FOOD PREPARATION:								
40. Dry Rice	77.33	5	8	7.69	78.26	4	6	7.30
41. Winow Rice	42.66	8	8	8.76	64.34	7	8	8.76
42. Husk (Dheki)	25.33	8	12	11.63	51.30	8	10	9.77
43. Grind Spices	18.66	7	11	9.80	57.39	7	10	9.45
44. Grind Dal	20.66	7	10	9.30	60.00	7	10	9.06
45. Wash Dishes	75.33	5	5	6.58	82.60	5	6	6.11
46. Wash & Peel Food	73.33	5	8	7.70	74.78	5	6	7.39
47. Cook	28.66	8	12	11.25	55.65	7	10	10.02
48. Serve Meals	60.66	6	8	8.05	67.82	5	8	8.01
OTHER:								
49. Sweep	84.00	5	5	5.87	81.73	4	6	6.11
50. Wash Clothes	83.33	5	8	7.32	80.00	5	6	6.69
51. Carry Fire wood	85.33	5	6	6.29	81.73	4	6	6.27
52. Cut Firewood	64.00	6	8	8.22	64.34	6	8	7.96
53. Carry Child	85.33	4	5	5.29	86.95	4	5	5.20
54. Carry Water	85.33	4	6	5.79	86.95	4	6	5.89
55. Carry Hukka/ Lunch	76.66	4	5	5.55	60.86	4	5	5.41
56. Carry Message	82.66	4	6	5.83	66.08	4	6	5.82

a Percentages are unweighted.
b Youngest ages are based on at least three cases at that age.
c Maximum participation ages are based on at least ten cases at that stage.
d Decimals for median ages are calculated by using the formula: $L_1 + \frac{L_2 - L_1}{f}(M - c)$

Where, L_1 is the lower limit of the median age group; L_2 is the upper limit of the same group; f is the frequency of the median age group; M is the size of $(\frac{n+1}{2})$th item, and C is the cumulative frequency of the next lower group.

Youngest, maximum & median ages are not reported if overall percentages are less than 10 percent; 00 where participation are not reported.

are found participating in household maintenance activities[3] at about 5.3 years of age, while boys are found performing the same activities at about 5.6 years of age or more. That is, girls begin household maintenance works about three months earlier than boys. In directly productive activities[4], the youngest age of entry of both males and females also represent a little difference. In case of young males, it is 6.9 years and in case of girls, it is 6.7 years. Girls are found participating at a bit earlier age than boys. Maximum participation age of girls in directly productive activities and household maintenance works are recorded as 8.7 and 7.1 respectively comparing to 9.6 and 7.7 in case of boys.

Both boys and girls are found equally participating in directly productive activities and household maintenance works. But the most common type of activities performed by boys are : ploughing, sowing, transplanting, harvesting, marketing, boat operating, tending

3 Household maintenance activities include all indirectly productive works. These activities, though do not directly earn money income, but participants to these activities by providing their valuable time (or service) to the family can save money income or free the adult members of the household to participate in more productive activities.

4 Directly productive activities (alternatively called market production activities) include only those works from which a household receives or expects to receive cash income.

animals, carring messages, collecting fireweed, bringing water and carrying child etc. The activities in which girls are commonly engaged in are : sewing, parboiling, husking, grinding spices, sweeping, cooking, carrying child, collecting fireweed, bringing water and food preparation.

It should be noted that ploughing, leveling, muddling, manuring, sowing, transplanting and harvesting are the exclusive domain of males. Females often help in the process of cultivation after the harvesting is over in the cleaning up of the operation with such activities as carring, threshing, parboiling, drying and husking. The median age of entry of boys in major cultivation works (viz. ploughing, leveling, sowing, transplanting, harvesting etc.) is found in between the ages of 10.3 to 12.08 years. At the same time, they begin to engage in operating boats and home repair and maintenance works. Young boys around 14-16 years are found very efficient in farming. At this age they can work at levels of efficiency very close to those of adult men (see Section 6.2.2).

Girls are active in carrying child, washing clothes, cleaning utencils and dishes, sweeping, tending fowl, picking chillies and cutting arum by ages 5-6. On average, they begin to participate in most

rice processing and preparation activities between ages 8 and 9. In feed preparation, the highest median age is 10 for cooking followed by husking (Dekhi)[5], which require both stamina and skill.

It should be remembered that in many a case, physical maturity, strength of the body, skill of work performance, culturally prescribed division of labour and the extent of opportunities, limit the entry of a child into an economic activity.

For example, ploughing, transplanting and harvesting require great physical strength and stamina; milking of cows requires proficiency and skill; entry into an activity such as, operation of boats, making of nets, weaving of bamboos etc. requires the possession of requisite assets. In the absence of any of these factors, age alone can not determine the entry of a participant into a particular activity.

It is generally assumed that a family which does not possess requisite assets for certain activities, the participation of children in that family for that specific activity is delayed. In otherwords, the higher the availability of assets/capital, the

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5 It is used for husking grain. For detail, see glossary.

greater the participation in productive activity at an early age. It is, therefore, necessary to control the ownership of assets while examining the age of entry into an activity, particularly directly productive activities. Table 6.2 presents data on distribution of ages at which children begin to work, by land holding status of their parents. The major activities are classified under those requiring and not requiring assets, indicating participants dependence on such assets.

The findings on the whole, however, do not support the hypothesis that age at entry into productive activities is contingent upon availability of assets. On the contrary, the findings, in general, suggest that the lower the availability of assets (i.e. cultivable land) of the household, the lower the age at which children begin working. This may be attributed to the following reasons :

i) More children belonging to richer households go to school than these belonging to poorer households and school going children normally start working at a later age than children not going to school;

ii) Richer households can afford to employ outside labour to perform household tasks and hence, children belonging to such households are not required to begin work at an earlier age.

Table 6.2

Median ages at which unmarried children 4 years and older begin economic activities by economic class and sex

ACTIVITY	MALES			
	Landless 1&2[a] (n=80)	Economic class 3[b] (n=16)	Economic class 4[c] (n=29)	Economic class 5&6[d] (n=25)
REQUIRING ASSETS LAND:				
1. Plough ...	10.0	11.6	11.7	11.9
2. Weed ...	6.9	8.8	8.6	9.6
3. Hoe ...	8.5	9.1	9.2	9.2
4. Cold breaking ...	9.0	9.5	9.0	9.6
5. Transplant ...	10.8	11.7	12.0	12.4
6. Harvest ...	9.5	11.8	12.0	11.8
7. Carry ...	7.2	8.3	8.5	8.6
8. Thresh ...	9.2	10.1	10.4	10.6
9. Parboil ...	11.4	12.0	12.3	12.5
10. Cut, Strip & wash jute[1] ...	10.5	9.9	9.3	11.0
11. Dig Onion/Potato	7.5	8.9	8.9	9.6
FISHING:				
12. Make Nets ...	10.1	11.0	11.0	11.0
13. Operate Boats ...	10.2	11.0	11.0	11.6
LIVESTOCK:				
14. Graze Cattle ...	7.0	7.1	7.3	7.5
15. Clean Cowshed ...	8.3	8.6	8.8	8.8
16. Cut Feeder ...	7.5	8.2	8.3	8.6
17. Milk Cows ...	12.0	13.0	12.8	13.6
OTHER ASSETS:				
18. Clean Tools ...	7.5	8.5	8.5	10.3
19. Weave Bamboos ...	8.3	9.7	9.5	9.4
NOT REQUIRING ASSETS:				
20. Purchase ...	7.0	8.3	8.4	8.7
21. Carry Goods ...	8.1	8.4	8.8	8.9
22. Tend Sale ...	8.8	10.5	10.6	10.8
23. Sweep ...	6.2	6.7	6.9	6.9
24. Wash Clothes ...	7.3	6.6	7.9	8.3
25. Carry Firewood ...	6.1	6.0	6.7	7.1
26. Carry Child ...	5.0	5.3	5.8	6.0
27. Carry Water ...	5.3	5.8	6.0	7.0
28. Carry Messages ...	5.5	5.7	5.7	7.9

1 The age of entry into such activities as cutting, stripping and washing of jute is little higher for children originating from landless classes1and 2 compared to these children originating from economic classes 3 and 4. The sole departure from the overall finding may be attributed to the following. Only 3 acres of land in the village is given to jute cultivation & this is mostly grown by the middle farmers for domestic consumption. Therefore, opportunity for employment of male children of the landless & subsistence farmers is extremely limited.

ACTIVITY	FEMALES			
	Landless 1&2[a] (n=49)	Economic class 3[b] (n=29)	Economic class 4[c] (n=20)	Economic class 5&6[d] (n=17)
REQUIRING ASSETS				
1. Pick Chillies	5.3	7.2	6.5	7.6
2. Dig Onion/Potato	5.9	7.9	7.2	8.5
3. Cut Arum	4.9	6.3	6.2	6.9
4. Cut Fooder	6.5	8.0	8.0	10.0
5. Tend Fowl	5.2	7.0	7.0	8.2
6. Weave Bamboo	7.1	7.5	10.0	8.7
7. Grind Spices	7.3	8.2	9.3	9.7
8. Grind Dal	7.1	8.4	9.2	9.7
9. Husk(Dekhi)	10.3	10.9	11.5	11.8
10. Weed	6.4	7.7	7.8	7.6
11. Parboil	9.6	10.0	9.9	10.0
NOT REQUIRING ASSETS				
12. Dry Rice	6.4	7.5	6.8	8.4
13. Winow Rice	7.1	8.1	8.8	10.7
14. Wash Dishes	5.5	5.9	6.3	7.5
15. Wash/Peel Food	6.2	7.0	7.9	8.2
16. Cook	7.9	10.2	10.5	11.4
17. Serve Meals	6.6	7.5	8.3	8.8
18. Sweep	5.3	6.0	6.1	6.6
19. Wash Clothes	5.7	6.7	7.5	7.5
20. Carry Firewood	5.1	6.4	6.4	6.4
21. Carry Child	5.0	5.1	5.8	6.3
22. Carry Water	4.9	5.7	6.0	7.2
23. Carry Messages	5.4	5.8	5.8	6.1

Note 1 : Decimals for median ages were calculated by using the formula:

$$L_1 + \frac{L_2 - L_1}{f_1} (M - C)$$

Where, L_1 = Lower limit of the median age group;
L_2 = Upper limit of the same group;
f_1 = Frequency of the median age group;
M = Size of $\frac{(n+1)}{2}$ th item; and
C = Cumulative frequency of the next lower group.

Note 2 : 00 indicates total absence of participation in that activity.

Note 3 : a,b,c,d = For detail, see Chapter 5, Section 5.8.3.

Thus, the analysis reveals that children of all classes begin the most essential household and productive works at an early age. On an average, children of both sexes begin their economically useful lives around age 8. Male children, on an average, start household works by age 7.7 and female children by 7.1. In case of directly productive activities male children perform most of the productive works by an average age of 9.6 and that of female children by age 8.7. With the advancement of age, boys begin to participate in agricultural works. They start most of the cultivation works like ploughing, leveling, weeding, sowing, transplanting and harvesting etc. on an average by age 10.7. Similarly, by age 8.4 girls begin to participate in most of the food preparation works. Studies conducted in Bangladesh (Cain 1977, Khuda 1978)[6] and elsewhere (Caldwell 1977a, White 1975, T. Hull 1975, Okore 1977)[7] also point out the young ages at which children begin productive works in agricultural societies.

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6 Cain, Mead T. 1977, op. cit.

Khuda-e-Barkat, 1978 "Labour Utilization in a Village Economy of Bangladesh". Unpublished Ph.D. dissertation, Australian National University.

7 Caldwell, John 1977a "The Economic Rationality of High Fertility: An Investigation Illustrated with Nigerian Survey", Population Studies, Vol.XXXI, No.1 (March).

White, Benjamin 1975 "The Economic Importance of Children in a Javanese Village" in Moni Nag (ed). Population and Social Organisation, The Hague: Mouton Publishers pp.127-146.

Hull, T. 1975 op.cit.

Okore, A.O. 1977 "The Value of Children among ILO Households in Nigeria: A Study of Arochukwi Division and Urban Umuahia into Imo State". Unpublished Ph.D. Thesis. Australian National University, Canberra.

6.2.2 Children's Time-inputs to Work

A great emphasis was given to collect the labour utilization of children by allocating time in different work activities. As the economic benefits of fertility outcomes to parents are to a large extent depend on the productivity of children in the context of household economic organization, time-budgets were designed and exclusively used to record the allocation of time by children to different activities and the duration of time spent in these activities.

Time-budget data were collected from every member aged 5 years and above of 108 households of the village (this covers 50 percent of the total households) in the form of a sequential record of respondents activities twice in a month for full one year (July 1979 to June 1980). There were altogether 478 persons in the age categories 5 years and above in the above households. Of these, 236 were male and the remaining 242 female. On each visit the following informations were collected.

i) Complete listing of all types of work activities (General works, Market production activities, Home production activities) for every person in the household aged 5 years and above, both inside and outside the family, farm and business, during the 24 hour period preceeding the visit.

ii) Allocation of time to different types of works.

Total work-activities of 478 respondents were classified under three broad categories:

a) General works[8],

b) Market production activities[9]

c) Home production activities[10].

Though time allocation data on household members for a particular day were collected mainly by interviewing the household members on the following day, yet these were checked and supplemented by occasional observations.

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8 General works include sleeping (in day time), personal hygine, religious and social activities. The time devoted to schooling is also included under 'general works' category. However, time given to schooling is shown separately from those given to sleeping, personal hygine, religious and social activities.

9 Directly productive activities (alternatively called market production activities) include only those works from which a household receives or expects to receive cash income.

10 Household maintenance activities include all indirectly productive works. These activities, though do not directly earn money income, but participants to these activities by providing their valuable time (or service) to the family can save money income or free the adult members of the household to participate in more productive activities.

The average time-inputs (in hours) per person, per day in different work activities of males and females are shown in table 6.3 and table 6.4 respectively. Graphical illustration of these tables are also shown in figures 6.1 and 6.2 respectively.

Items of works shown in tables 6.3 and 6.4 need further clarification. The third item under market production activity is the agricultural works/crop production. It includes all works related to the production of field crops. Items like ploughing, leveling, muddling, weeding, sowing, transplanting, hoeing, manuring, harvesting, threshing, parboiling and kitchen gardening etc. are included under this item. 'Fishing' includes activities like actual participation in catching fish, making of nets and operation of boats. 'Tending animals' include works like grazing animals, clearing cowshed, cutting grass, milking cows and tending of fowl and goats. 'Sale' includes purchase of goods from different markets for sale, carrying of goods to the market and participation in actual selling activity in the market. 'Wage Labour' includes both agricultural and non-agricultural wage employment. 'Construction and repair works' include maintenance and repair of thatch, floor and walls of dwelling houses.

'Cottage industry' includes handicraft works, weaving of bamboos, carpentary and sewing works. 'Other productive works' include begging, collection of vegetables, and forest products etc. Home production activities include indirect productive works of housekeeping and food preparation activities. Items like marketing for consumption, cooking, washing utencils, collecting firewood, sweeping, laundering, bringing water, carrying messages, carrying child and serving patients etc. are included under this head.

The data in table 6.3 indicate that average time spent in 'market production' and 'home production' activities tend to increase sharply with the age upto 29 years and thereafter it tappers off gradually at a slower speed until one reached the very advanced age (i.e. 50 years and above) when participation in these activities falls drastically. Time devoted to leisure and schooling tend to vary inversely with the ages in most cases and that at the very highest age (i.e. 50 years and above) time devoted to leisure (i.e. sleeping) reaches the same level as that of young children in the age group 5-7. The finding is true for both male and female (see tables 6.3 and 6.4). This is also expected.

TABLE 6.3

AVERAGE TIME-INPUTS (IN HOURS) PER PERSON, PER DAY IN DIFFERENT WORK-ACTIVITIES AMONG MALES OF VARIOUS AGE-GROUPS IN A VILLAGE IN BANGLADESH.

ACTIVITIES	AGE GROUP AND SAMPLE SIZE									
	5-7 (n=19)	8-10 (n=28	11-13 (n=24)	14-16 (n=21)	17-19 (n=9)	20-24 (N=20)	25-29 (n=28)	30-39 (n=38	40-49 (n=23)	50+ (n=26)
GENERAL WORKS:										
1. Leisure[a]	5.27	5.18	4.23	3.52	3.48	4.06	3.47	4.36	4.17	5.26
2. Schooling	5.32	4.22	3.57	3.02	2.26	.08	1.12	00	00	00
MARKET PRODUCTION ACTIVITIES										
3. Agril.Works/Crop Production	.17	.34	.39	1.13	1.13	1.02	1.16	1.56	1.23	1.01
4. Fishing	.06	10	.09	.01	.03	.12	.08	.07	00	.04
5. Tending Animals	.12	.53	1.09	1.45	2.02	.57	.13	.31	.22	.25
6. Sale	00	.12	00	.27	.44	1.07	2.29	.31	.45	.34
7. Wage Labour	00	.43	1.26	2.26	3.19	4.37	4.30	4.48	4.35	2.43
8. Construction/Repairworks	00	00	.01	.06	00	.20	.16	.11	.19	.09
9. Cottage Industry	00	.02	.02	.36	.12	00	.01	.08	.20	.36
10. Others[b]	00	.05	00	00	00	.05	00	.04	.05	.07
HOME PRODUCTION ACTIVITIES										
11. Marketing for consumption	.11	.22	.25	1.26	1.28	1.32	1.50	.55	1.01	1.10
12. Cooking	00	.05	.37	.09	00	.17	00Ø	.14	.12	.08
13. Washing Utencils	.01	.13	.08	00	00	00	00	.03	.08	.01
14. Collecting Fire Wood	.18	.13	.16	.12	.10	.24	.18	.07	00	.05
15. Clearing House	.02	.03	.08	.20	00	.02	.05	.03	.02	.02
16. Laundering	.01	.05	.06	.05	.07	.05	.09	.04	.05	.03
17. Bringing Water	.09	.13	.13	.06	.12	.12	.08	.10	00	.01
18. Carry Message	.06	.17	.08	.04	.15	.12	.08	.09	.13	.03
19. Carry Child	.39	.33	.39	.26	.25	.24	.22	.10	.25	.39
20. Serve Patients	.04	00	.04	00	.10	.09	.04	.05	.02	.19
Total General Works	10.59	9.40	8.20	6.54	6.14	4.14	4.59	4.36	4.17	5.26
Total Market Production Activities	.35	2.39	3.26	6.34	7.33	9.20	8.53	8.16	7.49	5.39
Total Home Production Activities	1.31	2.04	2.44	2.47	2.47	3.17	3.04	2.00	2.08	2.31
TOTAL WORKS	13.05	14.23	14.30	16.15	16.34	16.51	16.56	14.52	14.14	13.36

a It includes sleeping (in day time), personal hygine, religion, and social activities
b It includes begging and collection of vegitables and Forest Production (' = Begging)
00 Hours for an activity does not necessarily mean that it is never performed by any member of the village.

TABLE 6.4

AVERAGE TIME-INPUTS (IN HOURS) PER PERSON, PERDAY IN DIFFERENT WORK ACTIVITIES AMONG FEMALES OF VARIOUS AGE GROUPS IN A VILLAGE IN BANGLADESH.

ACTIVITIES	AGE GROUP AND SAMPLE SIZE									
	5-7 (n=28)	8-10 (n=34)	11-13 (n=21)	14-16 (n=18)	17-19 (n=13)	20-24 (n=20)	25-29 (n=22)	30-39 (n=31)	40-49 (n=18)	50+ (n=37)
GENERAL WORKS										
1. Leisure[a]	5.11	5.16	5.24	5.00	5.12	4.21	4.20	4.12	4.41	5.39
2. Schooling	5.59	3.32	1.51	.41	00	00	00	00	00	00
MARKET PRODUCTION ACTIVITIES										
3. Agril. Works/Crop Production	.17	.19	.31	.22	.44	1.21	1.34	.52	1.02	.49
4. Fishing	.18	.12	.04	.12	00	00	00	00	.01	.05
5. Tending Animals	.10	.21	.19	.29	.25	.32	.28	.24	.27	.29
6. Sale	00	00	00	00	00	00	.03	00	.10	00
7. Wage Labour	00	00	00	00	00	00	00	1.27	.26	.22
8. Construction/Repair Works	.01	.04	.14	.09	.17	.12	.09	.09	.15	.05
9. Cotton Industry	.12	.05	.26	.55	.55	.41	.31	.46	1.20	.38
10. Others[b]	.08	.08	.05	.06	00	00	.01	.04	.09	.09
HOME PRODUCTION ACTIVITES										
11. Marketing for consumption	.06	.12	.10	00	00	00	.02	00	.06	.08
12. Cooking	.13	.19	1.18	2.58	3.42	3.56	4.15	4.09	3.26	1.55
13. Washing Utensils	.05	.04	.18	.25	.20	.26	.30	.27	.21	.11
14. Collecting Firewood	.09	.22	.20	.26	.22	.20	.21	.23	.24	.15
15. Clearing House	.04	.08	.18	.26	.26	.29	.31	.28	.23	.12
16. Laundering	.04	.04	.17	.15	.16	.20	.20	.16	.15	.09
17. Bringing Water	.10	.08	.14	.24	.21	.26	.22	.20	.13	.08
18. Carry Message	.01	.04	.16	00	00	00	00	00	00	.05
19. Carry Child	.54	1.59	1.19	1.04	1.10	.55	.59	.45	.34	.55
20. Serve patients	.02	.09	.06	.10	00	.14	.14	.03	.13	.08
TOTAL GENERAL WORKS	10.70	8.48	8.15	5.41	5.12	4.21	4.20	4.12	4.41	5.39
TOTAL MARKET PRODUCTION ACTIVITY	1.06	1.09	1.39	2.13	2.21	2.46	2.46	3.42	3.50	2.37
TOTAL HOME PRODUCTION ACTIVITY	1.48	3.28	4.36	6.08	6.37	7.06	7.34	6.51	5.55	4.04
TOTAL WORKS	12.04	13.25	13.30	14.02	14.10	14.13	14.40	14.45	14.26	12.20

a It includes sleeping (in daytime), personal hygine, religious and social activities.
b It includes begging and collection of vegetables and forest products (*=begging)
00 Hours for an activity does not necessarily mean that it is never performed by any members of the village.

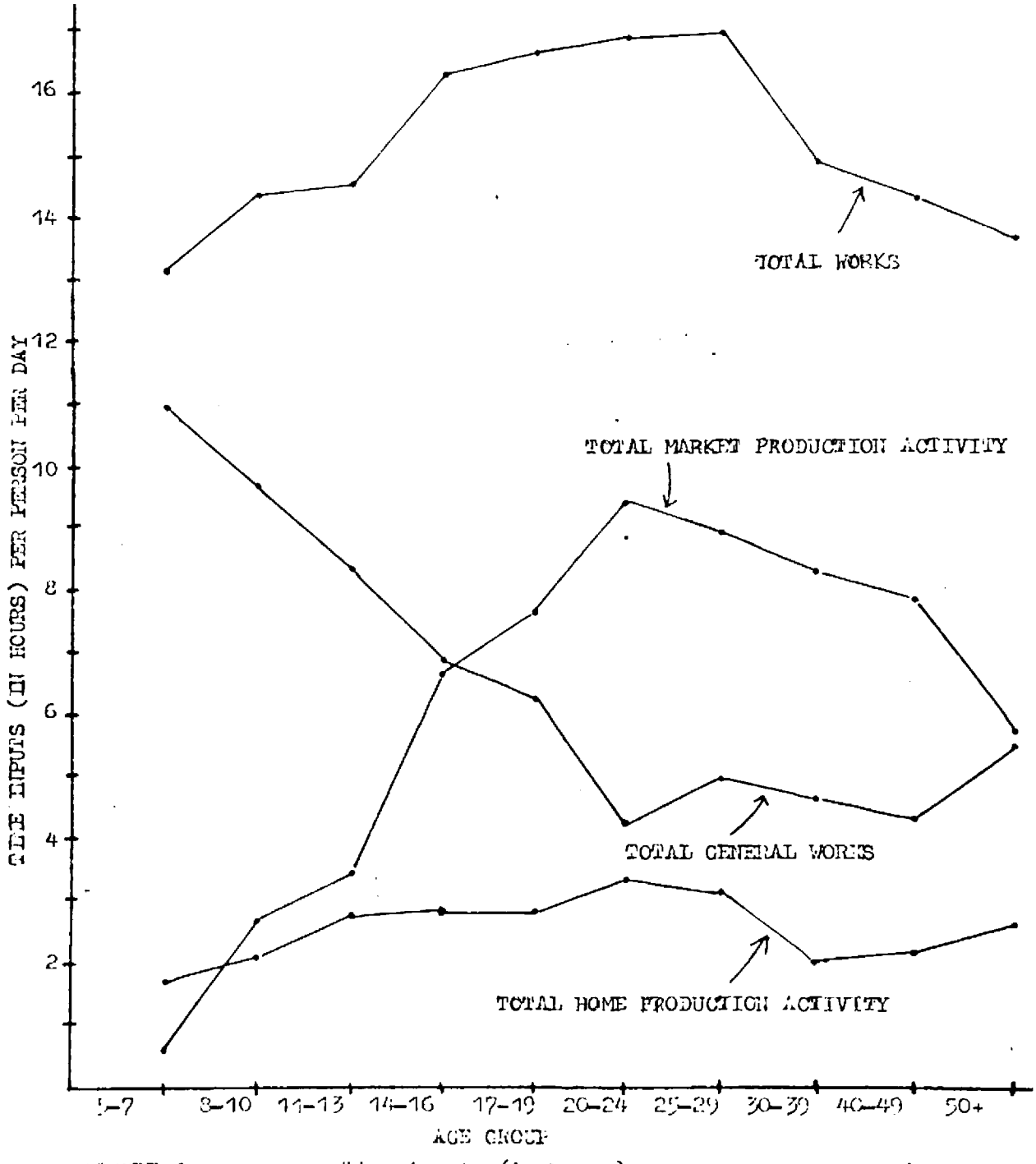

FIGURE 6.1 Average Time-inputs (in hours) per person, per day in different work-activities among Males of various age groups in a village in Bangladesh

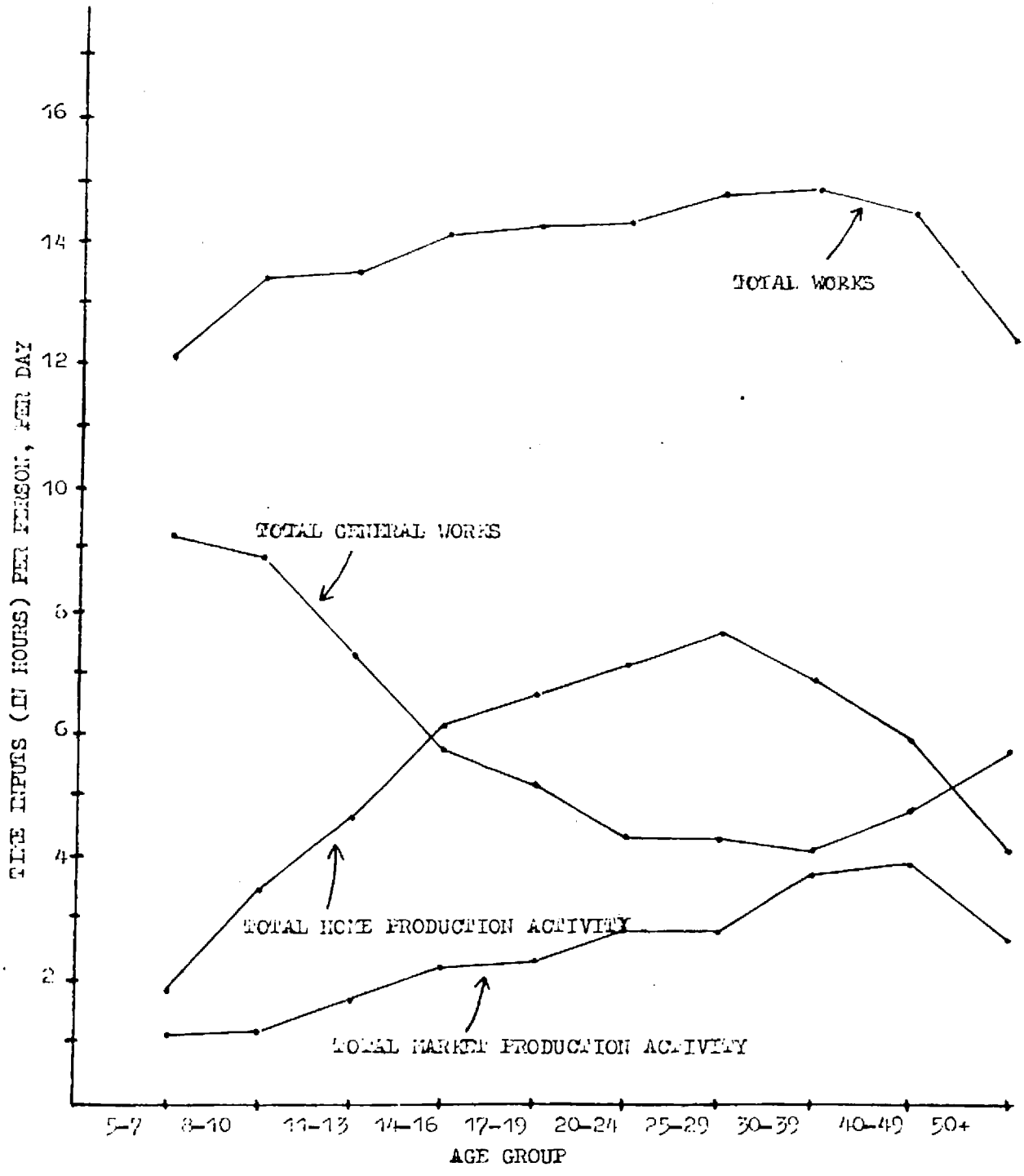

FIGURE 6.2 Average time-inputs (in hours) per person, per day in different work-activities among Females of various age groups in a village in Bangladesh.

The time devoted to schooling by each child is viewed as an investment time in this study. It has been included as an explanatory variable since the amount of economic time a child could contribute to the household would be influenced by the amount of time the child spends on schooling.

Children in the lower age groups of both sexes are found deveting more time in leisure and schooling. However, the time devoted to leisure far exceeds the time being devoted to scheeling. Male children on an average spend much time on schooling than female children. With the increase of age, time given to schooling declines sharply and in case of females this fall is more rapid than in case of males. Participation in schooling for female children almost ceases at ages 11-13, but some male children continue to study till the ages 25-29. However, females on average, spend more time on 'leisure' than males (see tables 6.3 and 6.4).

The findings are most rational in nature. A child is found spending more time on leisure in the lower ages, because the scope of his entrance to an activity relatively of higher efficiency at young ages is limited. As such, at relatively young ages children are found attending school. With the increase

of age, his responsibility towards his family increases and as a result his total time inputs to work begins to increase and the time devoted to schooling declines. Girls tend to attend school upto 13 years of age. After that age, parents stop sending their daughters to school due to religious obligations.

It can be seen from table 6.3 that male adults of ages 50 years and above spend on an average 8.10 hours per day in total market and home production activities. The bulk of this time (5.39 hours) is spent on market production activities and comparatively less time is spent on home production activities (2.31 hours). Children aged 5-7 years perform approximately more than one-fourth of these works as done by an adult 50 years and above. Their work time increases to more than one-half of an adult (50 + years of age group) by ages 8-10. By ages 11-13, they complete more than three-quarters of the adult's work and by ages 14-16 children's work, on average, exceed the total market and home production works of an adult.

If we consider alternatively, the average works of male adult of ages 40 years and above (9.57 + 8.10 ÷ 2 = 9.03 hours) relating to market and home production activities and compare it with children's work, then it will be found that children 8-10 years of age are doing more than 50 percent of an adult's work.

By ages 11-13 they complete almost 66 percent, by ages 14-16 about 93 percent and by ages 17-19 their working hours exceed the total market and home production works of an adult by more than 1.00 hour.

It can also be observed from the table that male on an average spend more time on market production activities than home production activities with the exception of the age group 5-7. The reverse is true for female (see table 6.4). Boys from ages 11-13 upto ages 17-19 are found spending more time on tending animals than the adults. Adults, on the other hand, tend to spend more time on wage employment.

Upto the age of 13, boys are found spending approximately more than 50 percent of their work time of market production activity into three major works, such as, crop production, fishing and tending animals. After the age of 13, attention is diverted to wage employment and increasingly more time is used for that activity. Again, under home production activity, with the increase of age, adults are found using more time in marketing and less time in child care.

Comparing the average time-inputs of males in figure 6.3 with that of females in figure 6.4, two important differences emerge :

i) females spend more time on home production activities and less on market production activities;

ii) the overall time utilization of females in different age groups are comparatively lower than those of males. They spend uniformly less time in directly productive works.

Similar findings were also reported by Cain (1977)[11] from a time allocation study in a village in central Bangladesh. However Cain found males and females were putting almost similar number of hours to works per day at every age. But, in this study, we find that males are putting more number of hours to work than females at every age.

The results in table 6.4 indicate that adult females, 40 years and above, are spending, on an average, 8.13 hours per day in market and home production activities. The bulk of this time is spent on home

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11 Cain, Mead T. 1977, op. cit. pp.216-217.
Cain in his study found that "both male and female adults (aged 22-59) work slightly more than nine hours per day on average. The bulk of work time for men is spent in directly productive work (8.0 hours), while the bulk of work time for women is spent in house work (7.5 hours). Although girls spend roughly the same total time working as boys at each age, they spend uniformly less time in directly productive work".

production activities (4.59 hours), while less is spent on directly productive works (3.14 hours). Female children aged 5-7 years perform approximately 35 percent of these works as done by an adult women 40 years and above. With the increase of age, the working hours of children also increase. As such, by ages 8-10, they complete more than 50 percent of these works, and by ages 11-13 they complete almost three-quarters of the works done by an adult, and by ages 14-16 they earn equal efficiency of an adult woman in performing home production and market production activities. Child care is an activity, where young female children 8-10 years of age are found devoting more time, and cooking is an activity where adult women 14 years and above, are found spending more hours.

The discussion of the foregoing analysis can be summarised by saying that children in the village (both boys and girls) spend more working hours both in market production and home production activities as they grow older. The reverse is found in case of general works. The overall time utilization of males in different age groups are comparatively more than those of females. Females spend more time on home production activities and less on directly productive works. With the increase of age, boys spend less time in child care and

more on crop production and wage employment. Similarly, as girls become elder, they spend more time on food preparation and cooking. By 14-16 years of age children of both sex attain the equal efficiency of an adult in performing home production and market production activities. By ages 17-19 their working hours exceed to that of an adult male or female in the village.

6.2.3 Work inputs by Economic Class

Economic activities of children when placed under different economic classes are found to vary. The pattern of work performed by children originating from different socio-economic background are not uniform. Children coming from higher economic class are assumed to perform white collar jobs (such as, management and supervisory works) as against those coming from poor economic class. When children of landless class are found engaged in works as 'wage labour', at that time, children of owners of productive assets are found engaged in supervision of cultivation works. Keeping all these factors into consideration, the data of work inputs of children in this study are placed by economic class.

Table 6.5 presents the average working hours of children per person, per day in different work activities by age, sex and economic class. The table provides some interesting results. First, male children of landless categories 1 and 2, below the age 20 are found devoting more time to market and home production activities (together) than those of the children originating from landed classes. By contrast, with few exceptions, male adults above the age 19 in the landless class are found spending proportionately less time in market production activities than those of the adults from landed classes. The result is not surprising. Because, children from the rich family attend school at earlier ages. This higher participation of children in school of the rich land-owning classes usually delay their participation in productive employment comparing to these children originating from landless classes (1 and 2). Moreover, the acquisition of more productive assets and completion of education in most cases after primary level, may permit the better offs to devote more time in market production activities after the age of 20. This finding completely differs from the finding of Mead Cain (1977)[12]. Cain in his study finds that males aged 10

12 Cain, Mead T. 1977, op.cit. p.217.

Table 6.5

Average time inputs (in hours) per person, perday in different work activities by Age, Sex and Economic Class.

Economic Class	AGE GROUP AND SIMPLE SEX																			
	5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=12)	F (n=13)	M (n=11)	F (n=16)	M (n=12)	F (n=6)	M (n=10)	F (n=7)	M (n=2)	F (n=6)	M (n=10)	F (n=13)	M (n=14)	F (n=10)	M (n=22)	F (n=11)	M (n=9)	F (n=8)	M (n=11)	F (n=13)
Landless 1 & 2																				
Total General Works	11.16	9.17	7.59	8.02	6.54	6.58	5.21	5.06	4.29	5.20	4.34	4.20	4.19	4.20	4.18	4.03	4.25	4.44	5.05	5.05
Total Market Produ. Activities	.57	1.09	2.50	1.58	4.25	1.48	6.29	1.58	9.17	2.42	8.19	4.09	8.48	4.00	7.40	4.51	6.11	3.52	6.52	3.85
Total Home Produ. Activities	1.34	.59	2.58	5.07	2.15	6.05	2.20	7.47	2.41	8.07	4.04	8.41	4.04	3.11	4.01	7.47	3.08	6.23	3.03	4.20
Total Works	13.47	11.25	13.47	14.47	13.54	14.31	16.10	14.51	16.27	16.09	16.57	16.50	17.11	16.41	13.59	16.41	13.44	14.59	15.00	14.30
Economic Class 3	(n=2)	(n=7)	(n=5)	(n=9)	(n=2)	(n=6)	(n=0)	(n=6)	(n=2)	(n=2)	(n=2)	(n=2)	(n=4)	(n=5)	(n=5)	(n=8)	(n=6)	(n=2)	(n=4)	(n=5)
Total General Works	10.42	9.10	8.19	9.19	10.59	6.26	00	6.11	4.23	5.17	3.59	4.32	6.19	4.50	4.20	4.10	3.58	4.36	6.04	6.01
Total Market Produ. Activities	.17	1.11	3.06	1.01	1.09	1.44	00	2.52	8.14	3.04	7.32	3.27	8.50	2.41	7.51	3.33	8.12	5.47	3.47	1.44
Total Home Produ. Activities	1.45	1.35	2.06	2.53	3.40	4.43	00	5.11	2.53	6.54	4.45	6.32	2.15	7.05	2.19	6.23	1.56	4.24	2.14	3.45
Total Works	12.44	11.56	13.33	13.13	15.48	12.53	00	14.14	15.30	15.15	16.16	14.31	17.24	14.16	14.30	14.06	14.06	14.47	12.05	12.10
Economic Class 4	(n=3)	(n=2)	(n=6)	(n=7)	(n=5)	(n=7)	(n=6)	(n=3)	(n=3)	(n=2)	(n=2)	(n=3)	(n=5)	(n=2)	(n=3)	(n=7)	(n=6)	(n=6)	(n=6)	(n=5)
Total General Works	10.37	8.20	10.15	9.19	8.44	7.21	5.51	5.58	8.54	4.31	3.52	4.08	4.08	4.31	4.33	4.17	4.54	4.50	4.51	3.40
Total Market Produ. Activities	.41	1.12	2.54	1.01	5.04	1.38	7.33	2.30	6.37	2.20	10.50	1.39	9.28	2.13	9.08	3.33	6.43	4.01	6.41	3.40
Total Home Produ. Activities	1.18	2.39	1.37	2.53	2.20	4.35	2.56	5.12	2.27	6.12	2.52	6.45	2.45	7.53	2.18	6.32	1.57	6.17	2.12	4.20
Total Works	12.36	12.11	14.26	13.13	16.08	13.34	16.20	13.40	17.38	13.03	17.34	12.32	16.19	14.37	15.59	14.22	13.34	15.08	13.44	13.22
Economic Class 5 & 6	(n=2)	(n=6)	(n=6)	(n=1)	(n=5)	(n=2)	(n=5)	(n=2)	(n=2)	(n=3)	(n=6)	(n=2)	(n=2)	(n=5)	(n=8)	(n=5)	(n=2)	(n=2)	(n=5)	(n=3)
Total General Works	11.21	9.85	12.11	8.32	6.50	8.23	9.30	5.34	7.55	5.40	4.29	4.24	5.18	3.49	5.13	4.22	3.51	4.34	5.48	5.55
Total Market Produ. Activities	.27	.53	2.04	.54	3.05	1.26	3.42	1.34	6.06	1.18	10.41	1.49	8.28	2.12	8.35	2.51	10.09	1.41	5.35	1.30
Total Home Produ. Activities	1.27	2.01	1.35	3.01	2.42	3.04	3.05	6.22	3.13	5.17	1.27	6.48	3.03	7.16	1.23	6.41	1.42	6.37	2.32	3.15
Total Works	13.15	12.47	15.50	12.27	12.37	12.53	16.17	13.30	17.14	12.15	16.37	13.01	16.55	13.07	15.31	13.54	15.42	12.52	13.45	9.40

Landless Category 1 refers to those households who claim ownership of no land, either homestead land or other land.

Landless Category 2 comprises those households who do not claim ownership of any land other than homestead land.

Economic Class 3 comprises those households, who possess less than 1.00 acre of land.

Economic Class 4 comprises those households who possess 1.00 - 2.50 acres of land.

Economic Class 5 refers to those households who posses 2.50 - 5.00 acres of land.

Economic Class 6 comprises those households who posses more than 5.00 acres of land.

Table 6.6

Average Time-inputs (in hours) per person, per day in General Works(Leisure & Schooling) by age, sex & economic Class

Economic Class	5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=12)	F (n=13)	M (n=1)	F (n=14)	M (n=12)	F (n=6)	M (n=10)	F (n=7)	M (n=2)	F (n=6)	M (n=10)	F (n=13)	M (n=19)	F (n=10)	M (n=22)	F (n=11)	M (n=9)	F (n=8)	M (n=11)	F (n=19)
Landless 1 & 2																				
Leisure	5.28	6.01	5.23	5.07	4.27	4.54	3.13	4.47	4.89	5.20	4.04	4.20	4.19	4.30	4.18	4.03	4.25	4.44	5.05	5.35
Schooling	4.48	3.16	2.36	2.55	2.27	1.44	1.08	.19	00	00	.30	00	00	00	00	00	00	00	00	00
Economic Class 3																				
Leisure	5.54	5.44	5.17	4.59	4.16	4.49	00	5.11	4.23	5.17	3.59	4.32	4.19	4.30	4.20	4.10	3.58	4.36	6.04	6.35
Schooling	4.48	3.26	3.02	4.20	6.43	1.37	00	1.00	00	00	00	00	2.00	00	00	00	00	00	00	00
Economic Class 4																				
Leisure	5.28	4.23	5.34	4.57	4.35	5.49	4.34	4.52	4.04	4.31	3.52	4.08	4.08	4.31	4.33	4.17	4.58	4.50	4.51	5.25
Schooling	5.09	3.57	4.21	4.22	4.09	1.32	1.17	1.06	4.30	00	00	00	00	00	00	00	00	00	00	00
Economic Class 5 & 6																				
Leisure	4.58	4.36	4.42	6.00	4.13	6.04	4.49	5.10	2.16	5.40	4.29	4.24	2.22	3.49	5.13	4.22	3.51	4.34	5.48	5.05
Schooling	6.23	5.17	7.29	2.32	2.37	2.19	4.41	.24	5.39	00	00	00	2.56	00	00	00	00	00	00	00

and older from landless households do considerably more work than those from the landed classes. In his opinion unequal control of productive assets limits the early productive employment of the poor, while permitting such employment among the better off. But, in this study unequal control of productive assets do not limit the employment of children of landless classes (1 and 2) in directly productive activities. Children of landless classes are rather found engaged as wage labour, where productive assets are not owned by them.

Secondly, this shows a clear difference in general works activity between the children of the landless and the landed classes. With few exceptions, male children of the rich land-owning households (upto 19 years of age) are found spending more time in general works (i.e. on leisure and schooling) than male children of the landless. This occurs due to greater utilization of time in school by the children of the landed classes. Boys from rich land-owning classes (particularly, to those of economic classes 5 and 6) aged 5-19 spend, on average, 5.21 hours per day in attending school and studying comparing to 2.12 hours per day, on average, to those of landless classes 1 and 2 (see table 6.6).

Thirdly, comparing to different economic classes, though the working-hours of male children differs in absolute terms, yet within landless classes 1 & 2 and economic class 4, male children are found acquiring

almost three-quarters of average total work efficiency of an adult (40 years and above) by ages 11-13, while in case of economic class 3 and economic classes 5 & 6, they acquire more than 60 percent of an adult efficiency by that stage. By ages 14-16 their total work efficiency (market and home production activities together) exceed the average total work efficiency of an adult (40 + age groups) within all economic classes, with the exception of economic classes 5 and 6. In case of economic classes 5 and 6, this occurs in the age group 17-19. Therefore, comparing the average number of hours worked of male children relative to adults in each economic class, the contribution of male children is found equally significant.

Fourthly, there exists an inverse relationship between economic status of a household and female work inputs. Female originating from poor economic class not only work longer hours but also participate more in directly productive economic activities compared to women originating from higher economic classes in almost every age-groups with the sole exception of the age group 5-7. The reasons are obvious. The poor cannot afford to sit idle. They have to work hard for their mere survival. And in this fight against poverty women from poor economic classes also join. They spend a considerable amount of time in wage employment, crop production and food

preparation which the women in most well-to-do households do not used to perform.

Comparing to males, females in all economic classes do proportionately more works in home production activities.

Again, in case of female children, they are equally found acquiring adult equivalent efficiency, like male children, within each economic class. Thus, regardless of economic class, children both males and females, do a great deal of works and in terms of time-inputs (i.e. hours of work) they, in their young ages, acquire the adult-equivalent efficiency.

6.2.4 Monthly Breakdown of Time-inputs

Bangladesh agriculture, the mainstream of economy is marked by seasonality. The study village is not an exception to it. It would be unwise to maintain that time-inputs of children are uniform in all months of the year. The result of this study is divergent from all the traditional stero-type studies in the sense that it shows the fluctuations of time-inputs of children which is positively related with the tempo of agricultural activities in the village. Agricultural operations must be carried out in time. Otherwise, produce would be adversely affected. To meet this demand, adequate labour input is necessary in time. Therefore, during

peak agricultural seasons, a household with a greater number of economically active members will be in a position to diversify and exploit multiple sources of income. During the lean agricultural seasons, work activities usually decline.

Table 6.7 provides a detail picture of the monthly breakdown of time-inputs of males. The same is repeated for females in table 6.8. Both from table 6.7 and 6.8 some interesting findings are noted.

i) Time utilization in different activities (both market production and home production) are not uniform in all months of the year.

ii) Males and females are found doing more works in busy agricultural seasons of the year. Aus is usually sown or transplanted in April and May and harvested in August and September. Whereas, Aman is transplanted in July and August and harvested in December and January. These are the peak agricultural seasons of the year. The time-input data maintain its conformity with the peak agricultural seasons of the village. Maximum number of working hours, irrespective of age and sex are recorded during these peak periods.

iii) During the slack months of agricultural seasons (i.e. October, November, February, March) time-inputs in different activities recorded a sharp fall for both males and females (see tables 6.7 and 6.8).

Table 6.7

Detail monthly break down of average time-inputs (in hours) per person, per day in different work activities among males of various age groups in a Peasant Community of Bangladesh.

Months	Monthly Break Down of average time-inputs (in Hours)																			
	5–7 (n=19)				8–10 (n=28)				11–13 (n=24)				14–16 (n=21)				17–19 (n=9)			
	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works
A	11.30	.55	1.52	14.17	10.19	3.20	2.26	16.05	8.06	3.58	3.20	15.04	7.40	6.49	3.16	17.45	6.46	7.59	3.07	17.52
S	11.24	.34	1.42	13.40	9.44	3.08	2.22	15.14	8.04	3.27	2.52	14.23	5.59	7.35	3.18	16.52	6.32	7.57	2.49	17.18
O	10.39	.16	1.02	11.57	8.48	2.09	1.34	12.31	8.24	3.20	2.32	14.16	5.54	7.28	1.58	15.00	5.52	7.00	2.30	15.22
N	11.23	.24	.44	12.51	9.07	2.06	1.26	12.39	8.02	2.52	2.17	13.11	7.20	5.46	2.24	15.30	6.00	6.56	2.58	15.54
D	11.35	1.00	2.13	14.48	10.03	3.04	2.31	15.38	8.33	3.58	3.15	15.46	8.07	7.10	3.13	18.30	6.34	8.13	2.44	17.31
J	11.06	.44	2.23	14.13	9.39	3.14	2.26	15.19	8.11	4.12	3.01	15.24	8.11	6.59	3.53	18.43	6.47	7.46	2.55	17.48
F	10.09	.25	.35	11.09	9.16	2.13	1.48	13.17	8.45	2.47	2.19	13.51	5.17	6.10	2.35	14.02	5.56	7.06	2.19	15.21
M	9.46	.18	1.09	11.13	8.42	2.10	1.34	12.26	8.26	3.02	2.30	13.58	5.34	6.56	2.23	14.55	5.50	7.23	2.39	15.52
A	11.49	.32	1.34	13.55	10.05	2.49	2.02	14.56	8.51	3.25	2.43	14.59	7.10	5.33	2.33	15.16	6.32	7.34	2.46	16.52
M	10.58	.33	1.24	12.57	10.28	2.36	1.56	15.00	9.01	3.42	2.41	15.24	7.19	5.55	2.55	16.09	5.52	7.[illegible]	3.05	16.49
J	10.35	.16	1.19	12.10	9.49	1.46	2.28	14.03	7.56	3.22	2.30	13.18	6.58	5.33	2.06	14.37	5.51	7.00	2.46	15.37
J	10.51	1.05	2.12	14.08	10.09	3.09	2.21	15.39	8.45	3.23	3.21	14.29	7.36	7.12	3.08	17.56	6.21	7.58	3.06	17.25
Total	131.45	7.02	18.11	155.58	116.05	31.44	24.58	172.47	100.04	41.08	32.51	174.05	82.45	78.48	33.12	195.15	74.55	90.41	33.24	198.20
Average	10.49	.35	1.31	13.05	9.40	2.39	2.04	14.23	8.20	3.26	2.44	14.30	6.54	6.34	2.48	16.16	6.14	7.35	2.47	16.36

	20–24 (n=20)				25–29 (n=28)				30–39 (n=38)				40–49 (n=23)				50+ (n=26)			
A	4.33	10.24	3.02	17.59	4.58	9.53	3.05	17.56	4.55	8.33	2.40	16.08	4.49	8.39	2.39	16.07	6.11	6.36	3.11	15.58
S	4.18	9.50	3.01	17.09	5.21	8.11	3.29	17.01	5.10	8.35	2.26	16.09	4.36	8.16	2.10	15.02	5.13	6.33	2.44	15.30
O	4.41	9.22	3.06	15.09	4.33	8.11	2.37	15.41	4.42	7.22	1.27	13.31	4.31	7.17	1.47	13.35	4.56	4.24	2.06	11.26
N	4.01	9.48	3.30	16.19	4.35	9.44	2.41	17.00	4.19	7.47	1.30	13.36	3.59	7.30	1.32	13.01	4.29	4.40	2.16	11.25
D	4.36	10.23	3.28	18.27	4.33	10.28	2.58	18.19	4.49	9.14	2.36	16.39	4.34	9.07	2.45	16.26	6.08	7.10	3.29	16.47
J	4.33	10.16	3.24	18.19	4.12	9.37	2.59	17.48	4.24	9.34	2.32	16.30	4.34	8.48	2.51	16.13	6.19	6.55	3.22	16.36
F	4.03	9.11	2.54	15.08	4.44	8.18	2.17	15.19	3.52	7.38	1.26	12.56	3.55	7.09	1.26	12.03	4.17	4.45	1.37	10.39
M	3.51	9.23	3.12	15.26	4.53	8.15	2.37	16.05	3.46	7.42	1.50	13.18	3.41	5.59	1.28	11.08	4.19	4.21	1.28	10.08
A	4.25	9.00	3.56	17.21	5.10	9.04	3.03	17.17	5.00	8.23	1.51	15.14	4.27	8.05	2.31	15.03	5.32	5.25	2.29	13.26
M	4.32	9.45	3.39	17.56	5.27	8.01	3.33	17.01	5.19	7.54	2.00	15.13	4.19	7.51	2.29	14.39	5.24	5.52	2.50	14.06
J	4.34	9.39	2.54	15.37	5.13	7.23	3.29	16.05	4.17	7.20	1.22	12.59	3.29	6.42	1.48	11.59	5.11	4.34	1.44	11.34
J	4.17	10.04	3.16	17.37	4.49	9.31	3.15	17.35	4.39	9.09	2.20	16.08	4.49	8.28	2.15	15.32	6.09	6.29	2.54	15.32
Total	50.54	112.05	39.22	202.21	59.48	106.36	36.43	203.07	55.12	99.09	24.00	178.21	51.23	93.44	25.41	170.48	65.08	67.44	30.15	163.07
Average	4.14	9.20	3.17	16.51	4.59	8.53	3.04	16.56	4.36	8.16	2.00	14.52	4.17	7.49	2.08	14.14	5.25	5.39	2.31	13.35

G.W. = General Works; M.P.A. = Market Production Activity; H.P.A. = Home Production Activity.

TABLE 6.8

Detail Monthly break down of average time-inputs (in hours) per person, per day in different work activities among Females of various age-groups in a peasant community of Bangladesh.

MONTH	MONTHLY BREAKDOWN OF AVERAGE TIME-INPUTS (IN HOURS) OF FEMALES.																			
	5-7 (n=28)				8-10 (n=34)				11-13 (n= 21)				14-16 (n= 18)				17-19 (n= 13)			
	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works	G.W.	M.P.A.	H.P.A.	Total Works
A	9.42	1.21	2.13	13.16	9.48	1.13	4.05	15.06	7.46	2.01	5.05	14.42	6.19	2.46	3.35	15.40	5.38	2.48	7.14	15.40
S	9.44	1.17	2.15	13.16	8.51	1.23	3.41	13.55	7.48	1.25	4.04	13.17	6.01	2.20	6.44	15.05	6.09	2.21	6.46	15.16
O	8.45	.49	1.04	10.38	8.28	.35	2.47	11.50	6.56	1.11	3.44	11.51	4.48	1.33	5.17	11.38	4.54	1.29	5.41	12.01
N	8.37	.35	1.18	10.30	8.34	.38	2.46	11.58	6.10	1.29	3.52	11.31	5.19	1.35	4.57	11.51	5.09	2.03	5.51	12.57
D	9.34	1.48	2.28	13.50	9.34	1.56	5.01	16.31	8.22	2.30	6.35	17.27	6.42	3.31	6.41	16.54	5.52	3.01	7.58	16.51
J	9.44	1.51	2.29	14.04	9.49	2.03	4.44	16.36	8.07	2.28	5.58	16.33	7.03	3.11	6.33	16.47	4.49	3.33	6.59	16.21
F	8.27	.35	1.25	10.27	7.59	.29	2.30	10.48	5.38	1.07	3.32	10.17	4.31	1.27	4.31	10.29	4.09	1.34	6.08	11.51
M	8.18	.40	1.24	10.22	7.24	.41	2.44	10.49	6.09	1.09	3.53	11.11	4.44	1.35	5.01	11.20	3.48	1.13	6.01	11.02
A	9.18	1.13	1.54	12.25	8.47	1.21	3.19	13.27	7.43	1.33	4.47	14.03	6.00	2.16	6.59	15.15	5.40	2.35	6.49	15.04
M	9.09	1.03	1.43	11.55	8.42	1.26	3.22	13.30	7.36	1.45	4.31	13.52	6.00	2.14	6.44	14.58	6.07	2.25	6.39	15.11
J	9.04	.45	1.15	11.04	8.07	.29	2.48	11.24	7.02	1.29	4.11	12.45	4.27	1.30	6.12	12.09	3.57	2.04	6.23	12.24
J	9.43	1.20	2.13	13.16	9.33	1.28	4.02	15.03	7.41	1.41	5.08	14.30	6.16	2.44	7.21	16.21	5.15	3.04	7.02	15.21
TOTAL	110.05	13.17	21.41	145.03	105.36	15.42	41.39	160.57	86.58	19.48	55.20	162.06	68.10	26.42	73.35	168.27	62.21	28.10	79.31	179.31
AVERAGE	9.10	1.06	1.48	12.04	8.48	1.09	3.28	13.25	7.15	1.39	4.36	13.30	5.41	2.13	6.08	14.02	5.12	2.21	6.37	14.70
	20-24 (n= 20)				25-29 (n= 22)				30-39 (n= 31)				40-49 (n= 18)				50+ (n=37)			
A	5.01	3.05	7.32	15.39	4.35	2.44	8.11	15.30	5.07	4.19	7.04	16.30	6.07	3.45	6.59	16.51	6.19	3.32	5.00	14.51
S	4.49	2.51	7.34	15.14	5.20	3.28	7.20	16.08	4.58	4.16	6.50	16.04	5.43	4.07	6.32	16.22	6.15	3.00	5.16	14.31
O	3.36	2.17	6.03	11.56	3.33	2.06	7.06	12.45	2.59	2.43	6.23	12.05	3.20	5.31	4.57	11.48	4.31	2.32	2.46	9.49
N	3.20	2.35	6.49	12.44	2.50	2.17	7.06	12.13	3.16	3.00	6.50	13.06	3.22	3.57	4.45	12.04	4.51	2.18	2.41	9.50
D	5.28	3.47	8.02	17.17	5.20	3.49	8.00	17.09	5.15	4.54	7.40	17.49	5.48	4.01	7.13	17.02	6.12	3.46	5.46	15.44
J	5.12	3.34	8.02	16.48	5.18	3.27	8.25	17.00	5.19	4.37	7.22	17.18	5.46	4.02	7.02	16.50	6.14	3.42	5.31	15.07
F	3.16	2.07	6.23	11.46	2.52	2.05	6.49	11.46	2.58	2.36	6.29	12.03	3.09	3.46	4.16	11.11	4.48	1.59	2.19	9.06
M	3.13	2.23	6.17	11.53	2.49	2.00	7.34	12.23	2.58	2.44	6.05	11.47	5.07	3.54	4.31	11.32	4.34	2.04	2.18	8.56
A	4.46	2.46	7.12	14.44	5.28	2.41	7.32	15.41	4.45	4.15	6.24	15.24	5.11	3.53	6.11	15.15	6.29	2.11	4.32	13.12
M	4.42	2.41	6.52	14.15	5.34	2.59	7.59	16.32	4.49	3.59	7.03	15.51	4.53	3.56	6.42	15.31	6.00	2.06	4.27	12.33
J	3.58	2.17	6.36	12.51	3.17	2.26	6.46	12.29	3.14	2.48	6.35	12.37	3.46	3.12	5.18	12.16	5.03	1.45	3.02	9.50
J	4.49	2.49	7.54	15.32	5.06	3.13	7.55	16.14	4.47	4.15	7.24	16.26	6.00	3.59	6.37	16.36	6.31	2.31	5.12	14.14
TOTAL	52.11	33.12	85.16	170.39	52.02	33.15	90.43	176.00	50.25	44.26	82.09	177.00	56.12	46.03	71.03	173.18	67.47	31.26	48.50	148.05
AVERAGE	4.21	2.46	7.06	14.13	4.20	2.46	7.34	14.40	4.12	3.42	6.51	14.45	4.41	3.50	5.55	14.26	5.39	2.37	4.04	12.20

Note: G.W - General Works M.P.A - Market Production Activity H.P.A.- Home Production Activity

The findings, therefore, suggest that participation in different activities go up and down with peak and lean of agricultural seasons. In otherwords, increased hours of work are positively related with peak periods and decreased hours with slack periods of the year.

Considering all works, average working hours of a boy of 5-7 years of age, varies from 14.48 hours in December to that of 11.09 hours in February. The difference is about 3.39 hours. Considering only productive works (both market and home), the average working hours varies from 3.17 hours in January to 1.00 hour in February, indicating 2.17 hours of difference.

This variation of working hours during the peak and slack agricultural seasons of the year is more or less uniform in all age and sex groups.

Considering total works, an adult 25-29 years of age, spend on average 18.19 hours in December and 16.05 hours in March. The difference is recorded as 2.14 hours. Similarly, considering only productive works (both market and home), the average working hours varies from 13.26 hours in December to 10.52 hours in March and June, indicating a difference of 2.34 hours.

In case of an adult 30 years and above, the maximum difference of working hours between peak (16.47 hours in December) and slack (10.08 hours in March)

agricultural periods is recorded as 6.39 hours of all works and 4.50 hours for productive works (considering 10.39 hours of productive works in December and 5.49 hours in March).

Considering only productive works (both market and home), the average working hours of a male adult of 40-49 years of age varies from 11.52 hours per day during the peak agricultural season of December to 7.27 hours per day during the slack agricultural season of March, indicating 3.25 hours of difference. Children aged 5-7 years perform about one-fourth of these productive works in December and one-fifth of these works in March. By ages 8-10, their work time increases close to 50 percent of an adult in December and March. By ages 11-13, they complete almost three-fifth of an adult's work in December and three-fourth in March and by ages 14-16 children's productive activities increases to 87 percent in December and in March it exceed the productivity of an adult by 25 percent. At ages, 20-24 children's time-inputs to work exceed the adults work only by 8 percent in December.

In case of females, considering total works, a girl 11-13 years of age, work on average 17.27 hours in December and 11.11 hours in March, indicating a difference of 6.16 hours. But, with respect to productive works (both market and home) her maximum working

hours stand 9.05 hours in December and minimum working hours 5.02 hours in March. The difference is calculated as 4.03 hours. The same trend is followed with respect to other age groups.

Considering only productive works (both home and market), the average working hours of a female adult of 40-49 years of age varies from 11.04 hours in December and 8.25 hours in February. The difference is 2.39 hours. Comparing this productive time-inputs of a female adult (40-49 age group) with children's work, it is found that female children 5-7 years of age are doing 38 percent of theseworks in December and 23 percent in February. By ages 8-10, they complete almost 62 percent of the works of an adult women in December and 35 percent in February. By ages 11-13, they complete almost 82 percent of works in December and 55 percent in February. By 14-16 years of age, their time contribution increases by 92 percent of an adult women in December and 70 percent in February. By ages 17-19, they reach adults equivalent efficiency in December (i.e. 99 percent) and almost close to that efficiency in February (i.e. 91 percent). At ages 20-24, their total time contribution in productive activities exceed the productive time contribution of an adult women by 6.7 percent in December and they reaches adult equivalent efficiency in February by that age limit.

From the above analysis, it appears that male children acquire adult equivalent efficiency at earlier ages (14-16 years) than female children (17-19 years). However, adult equivalent efficiency comes earlier in peak periods in case of females (17-19 years) comparing those of males (20-24 years).

Thus, in representing time-utilization data of children of a rural economy, one should be cautious about the seasonality of child labour force participation. Data collected from three months' or six months' study may effect the total working hours of children. Thus, in estimating the net productivity of children, their labour efficiency during different agricultural seasons of the year must be considered.

6.2.5 Seasonality in Work-inputs by Economic Class

Work-inputs of children not only vary by seasonal variations in agriculture, but this seasonal variation is also found to vary by economic class. Though participation of children in different activities go up and down in the peak and slack agricultural months of the year, yet, time contribution of children originating from different socio-economic background are found to vary.

Children originating from landless households usually do more works during peak agricultural seasons, comparing to those of big land owning classes. In slack agricultural months, the work activities of poor children usually go down. The results are obvious. Because, poor children originating from landless class normally devote more time and exploit multiple sources of income when timing of the peak opportunities of different income sources coincide. Whereas, during slack agricultural seasons, they normally remain unemployed due to non-availability works.

Considering the above facts, this study analyse the data in such a way as to show the seasonal variation of work-inputs of children by economic class. Detail monthly breakdown of average time-inputs (in hour) per person, per day of males and females by economic class under different age groups are presented in table 6.9 and table 6.10 respectively.

Findings of the tables based on males suggest that with few exceptions, males in landless classes 1 and 2 are found devoting more time in productive activities (both market and home) in peak agricultural periods of the year comparing to those of economic classes 5 and 6. Given the prevailing agricultural

Table 6.9

Detail Monthly breakdown of average time-inputs (in hours) per person, per day in different work activities among Males of various age groups by Economic Class in a peasant community in Bangladesh.

LANDLESS 1 & 2)

Months	Monthly break down of average time-Inputs (in hours) of Males																			
	5-7 (n=12)				8-10 (n=11)				11-13 (n=12)				14-16 (n=10)				17-19 (n=2)			
	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.
A	12.35	1.10	1.20	15.05	8.40	3.35	2.18	13.93	5.38	3.16	2.52	11.46	5.10	10.28	3.20	18.58	4.36	9.03	2.32	16.11
S	10.50	1.38	2.10	13.48	7.35	2.50	2.17	12.42	4.42	3.10	2.24	10.16	6.14	7.13	3.06	16.31	4.57	9.07	2.15	16.19
O	10.05	.30	1.30	12.05	5.50	2.30	2.48	11.08	9.18	5.57	1.20	16.15	8.24	8.30	1.12	18.06	5.40	9.05	2.22	15.07
N	11.35	1.32	1.28	13.35	6.54	2.40	2.35	12.09	5.52	4.20	2.12	12.24	5.34	9.45	2.08	17.27	3.42	9.15	2.30	15.27
D	11.11	1.15	1.50	14.16	8.17	2.35	3.58	14.30	4.40	4.13	3.55	12.28	5.50	9.40	3.20	18.50	3.47	10.04	2.35	16.26
J	12.35	.20	1.30	13.55	7.28	2.20	3.08	12.56	4.10	5.17	2.20	11.46	6.15	9.30	3.06	18.39	3.58	9.20	2.25	15.43
F	11.05	1.37	1.20	13.57	6.54	4.00	3.12	14.00	8.45	4.20	2.00	15.05	5.15	7.09	2.10	14.34	4.58	9.10	2.25	16.33
M	12.05	.40	2.50	15.15	6.55	3.15	2.35	12.45	9.85	4.48	2.12	16.45	6.05	5.15	1.40	13.12	3.30	9.38	3.10	16.38
A	11.05	1.02	1.40	13.47	8.50	2.45	2.50	14.25	9.40	4.10	2.08	15.58	4.00	7.10	1.20	12.30	9.40	9.12	2.20	16.12
M	11.10	1.10	1.10	13.30	10.50	2.00	3.10	16.00	8.50	5.00	1.14	15.04	4.18	8.20	2.10	14.48	3.50	9.10	3.30	16.10
J	10.33	1.03	1.30	12.03	8.55	2.10	4.15	15.20	7.18	5.10	1.10	13.38	4.02	8.05	1.30	13.35	3.56	8.50	2.20	15.06
J	10.11	1.20	1.20	12.31	9.40	3.20	2.50	14.50	4.10	3.40	3.35	11.25	5.05	10.45	3.00	18.50	3.45	9.10	2.58	15.53
TOTAL	135.12	11.27	18.48	165.27	95.48	34.00	35.36	165.24	82.48	53.00	27.02	162.50	64.12	101.48	28.00	194.00	53.89	111.24	32.12	191.24
AVERAGE	11.16	.57	1.54	13.47	7.59	2.50	2.58	13.47	6.54	4.25	2.15	13.54	5.21	8.29	2.20	16.10	4.29	9.17	2.41	16.27

Months	20-24 (n=10)				25-29 (n=19)				30-39 (n=10)				40-49 (n=9)				50+ (n=11)			
	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.	G.W.	M.P.A.	H.P.A.	T.W.
A	4.20	9.38	2.10	16.08	3.34	11.22	3.18	16.34	3.48	7.30	2.18	13.36	4.30	8.28	3.40	16.38	4.40	7.33	4.10	16.23
S	4.45	7.55	4.12	16.50	3.12	7.28	4.22	17.02	4.20	7.20	1.30	13.10	5.30	6.10	2.00	13.40	5.37	7.10	2.15	15.02
O	4.12	7.03	3.20	14.35	3.25	7.28	4.48	17.41	6.50	6.50	1.34	14.54	6.18	5.15	2.44	13.55	5.55	6.28	3.30	15.33
N	4.38	6.41	4.28	17.47	3.36	11.12	3.10	17.38	4.44	7.13	2.10	14.07	4.25	5.38	2.15	12.18	4.20	6.40	4.10	15.10
D	4.40	6.00	4.30	18.10	2.34	12.47	2.45	18.06	2.30	10.10	2.18	14.58	3.18	8.32	4.22	16.12	4.25	8.30	4.00	16.55
J	4.44	6.23	4.15	18.22	3.07	11.37	3.22	18.06	2.00	10.40	1.16	13.56	3.52	7.39	4.30	15.41	4.40	7.22	3.10	15.12
F	4.22	7.13	3.08	14.40	3.52	8.13	2.20	16.05	4.06	7.20	2.10	13.36	4.17	5.20	2.10	11.47	4.30	7.10	2.25	14.05
M	4.12	7.54	4.10	16.16	4.14	7.40	5.10	17.04	3.10	7.17	2.45	13.12	4.05	5.28	1.25	10.56	5.23	5.20	2.10	12.53
A	4.30	8.37	5.45	18.22	4.15	8.40	3.30	16.25	5.20	6.43	2.22	14.25	3.10	6.40	4.08	14.38	5.20	4.38	2.33	13.31
M	4.35	8.35	4.36	17.46	5.07	4.20	3.40	15.07	6.37	4.50	2.10	13.37	4.13	9.30	3.05	12.48	4.37	6.35	3.35	14.47
J	4.12	7.48	3.10	15.42	5.32	5.14	3.18	15.54	5.18	6.32	1.12	13.02	1.17	7.20	3.07	10.37	5.28	4.12	2.13	14.23
J	4.42	8.20	3.06	17.08	3.20	9.37	3.15	18.12	3.15	3.35	2.30	15.20	4.25	6.15	3.30	15.10	5.25	8.14	2.45	16.24
TOTAL	54.50	93.48	48.48	203.26	51.48	105.38	48.30	206.16	51.38	92.00	24.14	167.52	53.00	74.15	37.36	164.51	61.00	82.22	36.34	179.56
AVERAGE	4.34	8.14	4.04	16.57	4.19	8.48	4.04	17.11	4.15	7.40	2.01	13.59	4.25	6.11	3.08	13.44	5.05	6.52	3.03	15.00

ECONOMIC CLASS 31

Monthly break down of average Age-Inputs (in hours) of Milch

MONTHS	5-7 (n=2)				8-10 (n=5)				11-13 (n=4)				14-16 (n=0)				17-19 (n=2)			
	G.W.	M.F.A.	H.F.A.	T.W.	G.W.	M.F.A.	H.F.A.	T.W.	G.W.	M.F.A.	H.F.A.	T.W.	G.W.	M.F.A.	H.F.A.	T.W.	G.W.	M.F.A.	H.F.A.	T.W.
A	9.52	.38	2.27	12.57	9.20	3.20	3.02	15.42	10.18	2.17	4.04	16.39	00	00	00	00	5.32	9.10	3.21	18.05
S	11.01	00	2.12	13.13	8.05	4.13	3.11	15.29	11.13	2.16	3.28	16.57	00	00	00	00	4.13	9.00	3.18	16.31
O	9.23	00	.22	9.45	7.10	2.08	1.18	10.36	9.16	.20	4.15	13.51	00	00	00	00	4.10	7.13	2.00	13.23
N	11.07	00	.08	11.15	8.30	2.20	1.10	12.00	12.20	.08	3.15	15.43	00	00	00	00	4.26	7.25	2.10	14.01
D	11.30	.49	2.30	14.49	9.15	4.17	2.04	15.36	12.14	2.21	3.04	17.39	00	00	00	00	5.20	9.14	3.30	18.04
J	9.42	.35	3.23	13.40	8.30	5.10	2.05	15.45	11.18	2.00	3.46	17.04	00	00	00	00	5.40	9.07	3.22	18.09
F	12.20	00	.15	12.35	8.10	1.35	1.17	11.02	12.14	.11	3.25	15.50	00	00	00	00	5.10	6.50	2.00	12.00
M	8.38	08	1.10	9.48	7.05	1.45	1.05	9.55	9.13	.10	4.06	13.29	00	00	00	00	4.05	7.07	2.00	13.12
A	13.49	.03	1.08	15.00	8.33	3.17	2.03	13.53	10.14	1.04	3.30	14.48	00	00	00	00	4.19	8.28	3.15	16.02
M	10.27	.23	2.15	13.05	8.15	3.10	2.10	13.35	11.20	1.10	3.30	16.00	00	00	00	00	3.21	8.35	3.00	14.56
J	10.30	00	1.48	12.38	8.10	2.00	3.06	13.16	10.00	.39	3.10	13.49	00	00	00	00	3.47	7.40	3.00	14.46
J	9.45	.56	3.22	14.03	8.45	3.57	3.05	15.47	12.08	1.12	4.30	17.50	00	00	00	00	4.35	9.00	3.30	17.06
TOTAL	128.20	3.24	21.00	152.48	99.48	36.72	24.96	162.36	131.44	13.48	44.03	183.39	00	00	00	00	52.38	98.49	34.36	186.03
AVERAGE	10.42	.17	1.45	12.44	8.19	3.06	2.08	13.33	10.59	1.09	3.40	15.48	00	00	00	00	4.23	8.14	2.55	15.30

	20-24 (n=2)				25-29 (n=4)				30-39 (n=5)				40-49 (n=6)				50+ (n=1)			
A	5.07	9.22	3.24	17.53	6.20	9.35	2.10	18.05	5.04	8.10	3.30	16.44	5.14	8.38	2.18	16.10	7.20	4.00	3.04	14.24
S	4.16	9.12	3.35	17.03	6.30	8.30	3.18	18.18	5.30	9.22	3.19	17.10	3.31	9.15	2.16	15.02	7.30	4.30	3.00	15.00
O	3.14	6.24	5.38	14.46	5.42	7.38	2.10	15.30	3.45	7.38	1.22	12.15	4.10	7.30	1.30	13.10	5.30	1.51	1.06	8.27
N	5.21	5.32	5.40	14.33	6.16	10.20	2.02	18.38	4.04	7.10	1.17	12.31	3.12	7.40	1.22	12.14	5.22	2.31	1.12	9.05
D	4.13	9.28	4.03	17.44	6.20	9.35	2.25	18.20	5.22	8.38	3.30	17.00	5.17	9.22	2.20	16.59	6.30	5.30	3.38	15.38
J	4.09	9.25	4.06	17.39	7.10	7.22	2.08	16.40	4.06	9.17	3.22	16.45	5.14	9.14	2.15	16.43	6.45	5.35	3.40	16.00
F	3.60	5.43	5.10	14.53	5.50	7.40	2.12	15.42	2.28	6.43	1.20	10.31	2.36	7.48	1.27	11.51	3.52	2.29	1.27	7.48
M	3.32	5.20	5.12	14.04	6.20	7.32	2.06	15.58	3.25	6.52	1.40	11.57	3.12	3.12	1.30	8.14	3.30	2.40	1.16	7.26
A	4.30	7.15	5.38	17.23	6.30	10.10	2.14	18.54	5.08	9.17	2.18	16.43	4.10	9.10	2.25	15.45	6.20	4.30	2.36	12.56
M	3.36	7.55	5.30	17.01	6.15	10.10	2.10	18.25	5.10	8.10	2.10	15.30	3.37	9.00	2.26	15.03	6.38	4.28	2.30	13.36
J	3.16	6.18	5.11	14.45	6.10	7.40	2.10	16.00	3.18	6.30	1.41	11.29	2.08	8.10	1.34	11.52	6.46	2.20	1.28	10.34
J	4.38	8.30	4.26	17.34	6.25	9.58	1.55	18.18	4.42	8.25	2.20	15.27	5.18	9.05	1.49	16.12	6.42	5.00	2.22	14.04
TOTAL	47.51	90.24	57.03	195.18	75.48	106.00	27.00	208.48	52.02	94.12	27.48	174.02	47.39	98.24	23.12	169.15	72.49	45.04	26.49	145.02
AVERAGE	3.59	7.32	4.45	16.16	6.19	8.50	2.15	17.24	4.20	7.51	2.19	14.33	3.58	8.12	1.56	14.06	6.34	3.47	2.14	12.05

[illegible] CLASS A1

MONTHLY BREAKDOWN OF AVERAGE TIME-INPUTS (IN HOURS) OF MALES

MONTHS	5-7 (n=3)				8-10 (n=6)				11-13 (n=5)				14-16 (n=6)				17-19 (n=3)			
	O.W.	M.P.A.	H.P.A.	T.W.	O.W.	M.P.A.	H.P.A.	T.W.	O.W.	M.P.A.	H.P.A.	T.W.	O.W.	M.P.A.	H.P.A.	T.W.	O.W.	M.P.A.	H.P.A.	T.W.
A	11.27	.48	1.32	13.47	10.50	3.43	2.08	16.41	9.08	5.31	3.10	17.49	6.30	7.28	3.17	17.15	8.00	7.23	3.20	18.43
S	11.15	.41	1.48	13.14	10.48	3.15	2.00	16.03	9.10	5.10	2.30	16.50	4.28	9.15	3.20	17.03	8.38	7.18	2.30	18.26
O	11.10	.35	1.15	13.00	9.48	1.52	.48	12.28	8.44	4.53	2.13	15.50	4.10	8.20	2.27	14.57	8.21	6.20	2.10	16.51
N	11.20	.37	.17	12.14	9.37	1.37	.51	12.05	8.32	4.42	1.18	14.32	6.15	6.00	2.45	15.00	8.20	6.04	2.20	16.44
D	11.33	.49	2.25	14.47	10.22	3.10	2.00	15.32	9.00	5.00	3.10	17.10	7.05	8.00	3.41	18.46	9.00	6.17	2.34	17.51
J	11.31	.57	2.26	14.54	10.20	3.10	2.05	15.35	9.05	5.20	3.00	17.25	7.07	7.10	3.25	17.42	9.21	6.19	2.32	18.12
F	6.45	.33	.17	7.35	9.42	1.33	1.32	12.47	8.40	4.39	1.27	14.46	4.22	7.10	2.28	14.00	8.18	6.20	2.12	16.50
M	7.10	.34	.25	8.09	9.25	1.48	1.21	12.34	8.38	4.38	1.42	14.58	4.24	9.10	2.13	15.47	8.30	6.10	2.10	16.50
A	11.18	.37	1.14	13.09	10.43	3.00	2.00	15.43	8.23	5.10	2.10	15.43	6.30	7.08	3.00	16.38	9.03	6.19	2.19	17.4[illegible]
M	11.18	.38	1.12	13.08	10.38	3.05	1.14	14.57	8.36	5.17	3.00	16.53	6.28	7.17	3.19	17.04	8.22	7.11	2.28	18.0[illegible]
J	11.15	.02	1.18	12.35	9.55	1.27	1.20	12.42	8.20	5.10	2.10	15.40	6.20	6.10	2.35	15.05	8.19	6.30	2.10	16.55
J	11.22	1.21	1.57	14.40	10.52	3.08	2.05	16.05	8.34	5.16	2.10	16.00	6.33	7.32	3.12	17.17	8.58	7.12	2.40	18.30
TOTAL	127.24	8.12	15.36	151.12	123.80	30.48	19.24	173.12	104.50	60.46	28.00	193.36	70.12	90.40	35.12	196.04	102,50	79.23	29.25	211.38
AVERAGE	10.37	.41	1.18	12.36	10.15	2.34	1.37	14.26	8.44	5.04	2.20	16.08	6.51	7.33	2.56	16.20	8.34	6.37	2.27	17.38

MONTHS	20-24 (n=2)				25-29 (n=3)				30-39 (n=3)				40-49 (n=6)				50+ (n=6)			
A	4.15	11.25	3.14	18.54	4.14	9.27	3.19	17.00	4.32	9.17	3.19	17.08	5.17	7.21	2.19	14.57	5.28	7.31	2.19	15.18
S	4.15	11.14	3.08	18.35	4.22	9.31	3.10	17.03	4.29	9.21	3.35	17.25	5.14	7.30	2.12	14.56	5.17	7.22	2.20	14.59
O	3.10	10.27	2.40	16.17	4.18	9.19	2.14	15.51	4.32	8.10	1.30	14.12	4.21	6.00	2.08	12.29	4.10	6.00	1.21	11.31
N	3.50	10.38	2.22	16.50	4.08	9.10	2.12	15.28	4.20	9.26	1.18	15.04	4.19	6.29	1.20	12.04	4.09	6.10	1.32	11.51
D	4.10	11.10	3.20	18.40	4.20	10.25	3.19	18.04	5.11	9.20	3.02	17.33	5.26	7.16	2.10	14.52	5.22	7.22	3.18	16.02
J	4.10	11.00	3.04	18.14	4.18	10.21	3.13	17.58	5.18	9.10	4.02	18.30	5.21	7.10	2.59	14.50	5.28	7.28	3.23	16.17
F	3.32	10.22	2.21	16.15	3.22	9.04	2.10	14.36	4.26	9.12	1.12	14.50	4.10	6.30	1.00	11.40	4.21	6.08	[illegible]	[illegible]
M	3.22	10.10	2.10	15.42	3.30	9.10	2.16	14.56	4.20	8.17	1.38	14.15	4.18	6.28	1.35	12.21	4.10	6.05	1.17	11.32
A	4.00	10.26	3.20	17.46	4.18	9.05	3.21	16.42	4.17	9.15	1.18	14.50	5.22	6.15	2.45	13.52	[illegible]	6.20	2.18	13.57
M	4.25	11.13	3.16	18.54	4.14	9.14	3.04	16.32	4.20	9.20	2.19	15.59	5.17	6.20	2.20	13.57	5.02	6.18	2.10	13.30
J	3.48	10.40	2.18	16.38	4.10	9.07	2.16	15.33	4.23	9.19	1.15	14.57	4.28	6.00	1.40	12.08	4.16	8.05	1.38	11.59
J	3.50	11.15	3.18	18.03	4.22	9.23	2.28	16.13	4.51	9.26	3.18	17.07	5.18	7.80	2.04	14.42	5.12	7.29	3.22	16.03
TOTAL	46.27	130.00	34.21	210.48	49.34	113.14	33.08	195.50	54.39	109.33	27.58	191.50	58.51	80.35	23.22	162.48	58.14	80.14	26.22	164.50
AVERAGE	3.52	10.50	2.52	17.34	4.08	9.26	2.45	16.19	4.35	9.08	2.18	15.59	4.54	6.43	1.57	13.34	4.51	6.41	2.12	13.44

ECONOMIC CLASS 5 & 6 :

MONTHS	Monthly break down of average time-Inputs (in hours) of Males																			
	5-7 (n=2)				8-10 (n=6)				11-13 (n=5)				14-16 (n=5)				17-19 (n=2)			
	Q_1W_1	$M_1P_1A_1$	$M_1P_1A_1$	T_1W_1	Q_2W_2	$M_2P_2A_2$	$M_2P_2A_2$	T_2W_2	Q_3W_3	M.P.A.	M.P.A.	T.W.	Q_4W_4	$M_4P_4A_4$	$M_4P_4A_4$	T_4W_4	Q_5W_5	M.P.A.	M.P.A.	T.W.
A	12.07	1.06	2.12	15.25	12.28	2.40	2.18	17.26	7.21	3.29	3.15	14.09	11.20	2.31	3.12	17.03	8.38	6.21	3.17	18.16
S	11.52	.30	1.08	13.30	12.30	2.12	2.00	16.42	7.10	3.11	3.05	13.26	7.17	6.18	3.29	17.04	8.20	6.22	3.16	17.58
O	11.00	00	1.04	12.04	12.23	2.06	1.21	15.50	6.19	2.32	2.20	11.11	6.08	5.35	2.17	14.00	7.18	5.23	3.30	16.11
N	12.02	00	1.05	13.07	11.27	1.48	1.10	14.25	5.24	2.20	2.22	10.06	10.12	1.34	2.20	14.06	7.32	5.00	3.32	16.04
D	12.07	1.09	2.10	15.26	12.20	2.12	2.22	16.54	8.18	4.18	3.10	15.46	11.28	4.18	3.10	18.56	8.10	7.18	2.20	17.48
J	11.05	1.07	2.14	14.26	12.18	2.15	2.27	17.00	8.12	4.11	3.00	15.23	11.11	3.19	4.08	18.38	8.12	6.19	3.21	17.52
F	10.22	00	.30	10.52	12.18	1.44	1.12	15.14	5.23	2.00	2.25	9.48	6.13	4.12	3.09	13.34	7.20	6.10	2.41	16.11
M	11.10	00	.30	11.40	11.15	1.52	1.14	14.31	6.10	2.31	2.00	10.41	6.13	6.30	3.17	16.00	7.18	6.17	3.18	16.53
A	11.03	.28	2.13	13.44	12.16	2.14	1.15	15.45	7.08	3.15	3.05	13.28	11.00	2.22	3.20	16.42	8.17	6.20	3.13	17.50
M	11.00	00	1.08	12.00	12.10	2.08	1.10	15.28	7.20	3.20	3.02	13.42	11.12	2.10	3.16	16.38	8.16	6.14	3.24	17.54
J	10.18	00	1.00	11.18	12.15	1.29	1.10	14.54	6.08	2.29	1.50	10.07	10.32	2.27	2.13	15.12	7.23	5.00	3.26	15.49
J	12.08	1.05	2.11	15.24	12.20	2.10	1.23	15.53	7.10	3.25	3.08	13.43	11.10	3.18	3.11	17.39	8.16	6.30	3.16	18.02
TOTAL	136.14	5.24	17.25	159.04	146.10	24.50	19.02	190.02	82.03	37.01	32.22	151.26	113.56	44.26	37.02	195.24	95.00	73.14	38.34	206.48
AVERAGE	11.21	.27	1.27	13.15	12.11	2.04	1.35	15.58	6.50	3.05	2.42	12.37	9.30	3.42	3.05	16.17	7.55	6.06	3.13	17.14

	20-24 (n=6)				25-29 (n=2)				30-39 (n=8)				40-49 (n=2)				50+ (n=5)			
A	4.30	11.14	1.21	17.05	5.23	9.10	3.31	18.04	6.18	9.18	1.34	17.08	4.16	10.11	2.19	16.46	7.16	7.21	3.10	17.47
S	4.00	11.22	1.18	16.32	5.21	7.15	3.07	15.43	6.21	9.11	1.21	16.53	4.10	10.10	2.05	16.25	6.23	7.09	3.21	16.53
O	4.10	9.35	1.18	15.03	4.27	8.18	2.34	15.19	4.00	7.19	1.22	12.41	3.18	10.25	1.10	14.49	4.28	3.16	2.27	10.11
N	4.18	10.23	1.31	16.12	4.20	8.18	3.18	15.54	4.10	7.21	1.18	12.49	4.00	10.17	1.13	15.30	4.07	3.20	2.12	9.39
D	5.22	11.12	2.02	18.36	6.16	9.08	3.21	18.45	6.12	9.18	1.36	17.06	4.17	11.18	2.07	17.42	8.15	7.19	3.00	18.34
J	5.10	11.18	2.10	18.38	9.12	9.10	3.13	18.35	6.12	9.08	1.29	16.49	4.12	11.09	2.19	17.40	8.22	7.17	2.16	17.55
F	4.20	9.30	1.00	14.50	4.12	8.15	2.26	14.53	4.28	7.20	1.04	12.52	3.16	8.21	1.10	12.39	4.27	3.16	1.13	9.56
M	4.27	10.35	1.15	16.17	5.28	8.37	2.18	16.23	4.09	8.22	1.19	13.50	3.19	8.27	1.21	12.58	4.16	3.19	1.11	8.46
A	4.39	10.12	1.02	15.53	5.38	8.26	3.05	17.09	5.17	8.19	1.28	15.04	4.08	10.15	1.19	15.42	5.10	6.12	3.20	14.42
M	4.33	11.17	1.14	17.04	6.12	8.21	3.17	17.50	5.10	9.16	1.22	15.48	4.10	10.33	2.05	16.48	5.19	6.08	3.07	14.34
J	4.00	10.18	1.06	15.24	5.00	7.30	4.18	16.48	4.10	7.00	1.20	12.30	3.00	9.20	1.00	13.20	4.13	3.11	2.00	9.24
J	4.21	11.12	2.17	17.50	5.09	9.08	3.22	17.39	6.11	9.10	1.21	16.42	4.18	11.13	2.17	17.48	7.17	7.13	3.09	17.39
TOTAL	53.50	128.06	17.26	199.24	63.38	101.34	37.50	203.08	62.38	101.00	16.34	180.12	46.03	121.49	20.29	188.27	69.33	65.01	30.26	165.80
AVERAGE	4.29	10.41	1.27	16.37	5.18	8.28	3.09	16.55	5.13	8.25	1.23	15.01	3.51	10.09	1.42	15.42	5.48	5.25	2.32	13.45

Table 6.10

Detail monthly breakdown of average time-input's (in hours) per person, per day in different work activities among Females of various age groups by Economic class in a peasant community in Bangladesh.

LANDLESS 1 & 2:

Monthly breakdown of average Time-inputs (in hours) of Females

MONTHS	5-7 (n=13) G.W.	M.P.A.	H.P.A.	T.W.	8-10 (n=16) G.W.	M.P.A.	H.P.A.	T.W.	11-13 (n=6) G.W.	M.P.A.	H.P.A.	T.W.	14-16 (n=7) G.W.	M.P.A.	H.P.A.	T.W.	17-19 (n=6) G.W.	M.P.A.	H.P.A.	T.W.
A	9.12	1.11	1.18	11.41	9.16	1.12	6.17	16.45	6.28	2.12	6.36	15.16	5.18	3.04	8.31	16.53	4.36	4.18	9.26	18.20
S	10.18	1.12	1.10	12.40	7.40	2.13	4.30	14.23	7.10	1.04	4.20	12.34	5.18	2.24	7.22	15.04	6.40	2.16	9.14	18.10
O	9.12	1.07	.31	10.50	8.20	1.00	4.18	13.38	6.30	.44	4.20	11.34	3.20	.38	7.17	11.15	6.54	2.00	6.04	14.58
N	9.17	.44	.45	10.46	7.30	1.28	4.16	13.14	5.00	2.26	4.46	12.12	5.38	.30	6.15	12.23	6.30	2.20	6.36	15.26
D	9.16	1.13	1.09	11.38	9.18	2.05	7.17	18.40	8.00	2.14	8.20	18.34	7.04	3.12	8.10	18.26	5.04	2.04	11.06	18.14
J	9.12	1.26	1.12	11.50	9.10	2.07	7.15	18.32	7.10	2.12	8.53	18.15	7.14	3.06	8.20	18.40	4.26	4.30	7.20	16.16
F	9.11	1.12	.35	10.58	8.08	1.14	3.24	12.46	6.24	.45	4.28	11.37	3.20	1.10	6.26	10.56	4.34	2.42	8.40	15.26
M	8.17	1.11	.40	10.08	4.30	1.05	4.17	10.12	6.28	.56	4.36	12.00	4.12	.32	6.18	11.02	4.30	1.08	7.00	12.38
A	9.15	1.12	1.05	11.30	7.22	2.21	4.00	13.43	6.24	2.20	7.24	16.08	5.20	3.18	8.17	16.55	4.46	2.18	8.20	15.24
M	9.12	1.17	1.04	11.33	7.15	2.10	4.42	14.07	7.04	2.16	6.20	15.40	5.11	2.20	8.40	16.11	6.30	2.40	6.44	15.54
J	9.54	.42	1.05	11.41	8.02	1.08	5.00	14.02	6.48	2.20	6.14	15.22	4.00	.22	8.08	12.30	5.10	2.16	8.36	16.02
J	9.10	1.18	1.20	11.48	9.35	1.43	6.10	17.28	5.12	2.08	6.40	15.00	5.19	3.02	9.38	17.59	4.20	4.24	8.20	17.04
TOTAL	111.24	13.45	11.54	137.03	96.26	19.38	64.26	177.30	79.38	21.37	73.57	174.12	61.14	23.38	93.22	178.14	64.00	32.26	97.26	193.52
AVERAGE	9.17	1.09	.59	11.25	8.02	3.38	5.07	14.47	6.38	1.48	6.05	14.31	5.06	1.58	7.47	14.51	5.20	2.42	8.07	16.09

MONTHS	20-24 (n=13) G.W.	M.P.A.	H.P.A.	T.W.	25-29 (n=10) G.W.	M.P.A.	H.P.A.	T.W.	30-39 (n=11) G.W.	M.P.A.	H.P.A.	T.W.	40-49 (n=8) G.W.	M.P.A.	H.P.A.	T.W.	50+ (n=19) G.W.	M.P.A.	H.P.A.	T.W.
A	4.18	4.25	9.23	18.06	4.20	4.28	10.05	18.53	4.37	6.14	7.25	18.16	5.11	4.16	7.59	17.26	6.13	5.32	6.06	17.51
S	4.12	3.42	8.30	16.24	6.15	6.14	6.22	18.51	5.22	5.30	7.28	18.20	5.20	4.28	7.10	16.58	6.07	4.12	6.33	16.52
O	3.08	3.21	7.20	13.49	3.21	3.42	7.22	14.25	3.10	3.00	7.37	13.47	4.22	4.10	5.19	13.51	4.22	3.10	3.22	10.54
N	4.03	4.18	8.29	16.50	3.22	2.22	7.24	13.08	3.26	3.18	8.30	15.14	4.29	4.00	5.18	13.47	4.17	3.19	3.10	10.46
D	5.07	4.15	8.30	17.52	4.20	5.38	8.18	18.16	4.10	7.06	7.28	18.44	5.28	4.10	8.20	17.58	6.02	5.25	6.08	17.35
J	5.06	4.12	8.30	17.48	4.06	4.12	9.45	18.03	4.40	6.37	7.35	18.52	5.15	8.15	8.22	17.52	6.00	5.12	6.03	17.15
F	4.12	3.38	8.22	16.12	3.10	3.28	7.28	14.06	3.10	3.29	7.10	13.49	4.00	4.14	3.10	11.24	5.21	3.20	1.18	9.59
M	4.17	4.10	8.21	16.48	3.15	3.32	8.10	14.57	3.23	3.06	8.35	15.04	5.15	3.22	4.13	12.50	5.08	3.18	2.15	10.41
A	4.12	4.10	8.10	16.32	7.05	3.00	8.16	18.21	4.20	5.10	8.10	17.40	5.00	3.26	6.17	14.43	6.03	2.10	5.18	13.31
M	4.10	5.00	7.20	16.30	7.04	3.10	8.15	18.29	4.28	5.10	8.20	17.58	4.10	3.10	7.00	14.20	6.11	2.38	5.10	13.59
J	5.06	4.20	7.49	17.15	3.15	4.06	7.10	14.31	3.25	3.12	7.52	14.09	3.08	3.00	5.21	11.29	5.09	7.20	3.30	10.59
J	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.10	9.35	18.15	4.27	6.21	7.35	18.23	5.12	3.54	8.10	17.16	6.10	4.21	5.05	13.36
TOTAL	52.01	49.49	100.14	202.04	54.03	48.02	98.10	200.15	48.38	58.13	93.25	200.16	56.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AVERAGE	4.20	4.09	8.21	16.50	4.30	4.00	8.11	16.41	4.03	4.51	7.47	16.41	4.44	3.52	6.23	14.59	5.35	3.45	4.30	13.50

G.W = General Works; M.P.A.= Market production Activities; H.P.A.= Home Production Activities; T.W. = Total works.

ECONOMIC CLASS II

	Monthly breakdown of average Time-inputs (in hours) of Females																			
	5 - 7 (n=7)				8 - 10 (n=6)				11 - 13 (n=6)				14 - 16(n=6)				17 - 19 (n=2)			
	G.W.	M.P.A.	H.P.A.	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W
A	10.10	1.23	2.04	13.41	10.25	1.15	3.28	15.08	7.17	2.12	5.17	18.46	7.24	3.29	5.16	16.09	6.18	3.22	6.0	[illegible]10
S	10.06	1.11	2.17	13.34	9.17	.32	3.28	13.17	7.09	2.17	4.10	13.36	6.08	3.18	6.10	15.36	6.22	3.00	6.10	15.40
O	9.40	1.19	.30	10.59	8.10	.29	2.10	10.49	6.14	1.32	4.28	12.14	5.18	2.13	4.16	11.47	4.08	2.10	7.10	13.28
N	8.04	.28	1.08	9.40	9.14	.16	2.25	11.55	5.35	1.00	4.17	10.52	5.10	2.24	4.12	11.46	4.09	2.18	7.22	13.49
D	9.31	2.16	2.15	14.02	10.17	2.10	4.16	16.43	7.11	2.23	6.21	15.55	7.18	4.14	5.17	16.49	6.07	4.21	7.19	17.47
J	10.12	2.11	2.11	14.35	10.26	2.25	3.19	16.10	7.18	2.17	5.19	14.54	7.24	4.12	5.06	16.44	6.16	4.14	7.09	17.39
F	8.09	.21	1.18	9.48	8.16	.12	1.22	9.50	4.07	1.13	4.12	9.32	5.26	2.04	4.09	11.39	4.10	2.29	7.17	13.56
M	8.14	.32	1.10	9.56	8.15	.40	2.12	11.07	5.10	1.03	4.19	10.32	5.09	2.16	4.12	11.37	4.05	2.26	7.28	13.59
A	9.11	1.29	2.03	12.48	9.17	1.14	3.35	14.06	7.23	1.14	4.21	12.58	6.11	2.23	6.14	14.48	6.12	3.29	6.32	16.13
M	9.08	1.10	1.12	11.30	10.00	1.21	3.21	14.42	6.13	2.20	4.20	12.53	6.11	2.17	6.00	14.33	6.17	3.20	6.13	15.50
J	8.00	.39	.30	9.09	8.00	.20	1.38	9.58	6.12	1.10	4.13	11.35	5.12	2.10	5.06	12.30	3.10	2.26	7.10	12.46
J	10.06	1.15	2.10	13.31	10.13	1.20	3.23	14.56	7.22	2.08	5.20	14.50	7.18	3.26	6.11	16.55	6.11	3.14	6.23	15.48
TOTAL	110.01	14.14	18.58	143.13	111.50	12.14	34.37	158.41	77.11	20.49	56.37	154.37	74.14	34.26	62.13	170.53	63.25	36.49	82.51	183.05
AVERAGE	9.10	1.11	1.35	11.56	9.19	1.01	2.53	13.13	6.26	1.44	4.43	12.53	6.11	2.52	5.11	14.14	5.17	3.04	6.54	15.15

	20-24(n=2)				25-29(n=5)				30-39(n=8)				40-49(n=2)				50+(n=5)			
A	5.14	4.16	6.24	15.54	5.19	2.13	7.10	14.42	5.16	3.19	7.19	15.56	6.86	5.18	5.18	17.02	7.24	2.16	4.22	14.02
S	5.13	4.19	7.31	17.03	5.14	3.09	7.17	15.40	4.00	4.10	6.19	14.29	5.20	6.15	5.17	16.52	7.11	1.27	5.08	13.46
O	3.28	3.19	6.19	13.06	4.21	2.05	7.11	13.37	3.17	3.16	6.11	12.44	2.26	5.13	4.00	11.39	5.19	1.30	3.00	9.49
N	3.23	3.16	6.13	12.57	3.22	2.12	6.14	11.48	3.15	3.17	6.21	12.53	3.24	5.14	3.19	11.57	6.32	1.20	2.11	10.03
D	5.22	4.11	7.14	16.47	5.14	3.19	8.18	16.51	5.21	4.12	7.18	16.51	6.30	6.18	5.10	17.58	7.16	3.18	5.23	15.57
J	5.10	4.23	7.20	16.53	5.18	3.09	8.10	16.37	5.13	4.17	7.29	16.59	6.04	6.27	5.24	17.55	7.18	3.13	5.21	15.51
F	3.24	2.10	5.33	11.07	3.30	2.13	6.13	11.56	3.19	3.11	5.16	11.46	2.36	5.16	3.14	11.06	5.20	1.14	2.14	8.48
M	3.00	2.37	5.12	10.49	3.18	2.00	6.26	11.44	3.12	3.12	4.13	11.37	2.20	5.20	3.21	11.07	4.28	1.17	2.28	8.13
A	5.17	4.12	6.16	15.45	5.10	3.12	7.13	15.35	4.16	4.11	6.10	14.37	5.38	6.21	5.08	17.07	7.22	1.14	4.19	12.55
M	5.10	3.18	6.39	15.07	5.36	3.13	7.14	16.03	4.23	3.09	6.19	13.51	5.00	6.03	5.23	16.26	6.21	1.15	4.07	11.43
J	4.14	2.14	6.10	12.46	3.10	2.08	6.13	11.31	3.10	3.13	6.17	12.40	3.04	5.13	3.16	11.33	6.22	1.27	3.15	11.04
J	5.27	3.11	7.21	15.59	4.29	3.21	7.18	15.08	5.18	3.10	7.21	15.49	6.22	6.18	4.00	16.40	7.17	1.16	5.10	13.43
TOTAL	54.22	41.26	78.25	174.13	54.01	32.14	84.57	171.12	50.00	42.37	76.33	169.10	55.10	69.22	52.50	177.22	78.10	20.47	46.58	145.55
AVERAGE	4.32	3.27	6.32	14.31	4.30	2.41	7.05	14.16	4.10	3.33	6.23	14.06	4.56	5.47	4.24	14.47	6.31	1.44	3.55	12.10

G.W = General Works; M.P.A = Market Production Activity; H.P.A = Home Production Activity; T.W = Total Works.

ECONOMIC CLASS 5:

MONTHS	Monthly breakdown of average Time-inputs (in hours) of females																			
	5-7(n=2)				8-10(n=7)				11-13(n=7)				14-16(n=3)				17-19(n=2)			
	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W
A	9.16	1.19	3.15	13.50	10.11	1.11	3.20	14.42	8.23	2.22	5.09	15.54	6.23	2.08	6.10	14.41	5.19	2.14	6.40	14.13
B	9.13	1.21	3.16	12.55	10.16	1.20	3.23	14.59	8.15	1.08	4.20	13.43	6.08	2.15	6.10	14.33	5.23	2.42	6.19	14.24
C	7.23	.26	2.00	9.50	9.17	.22	2.12	11.51	6.19	1.17	4.00	11.36	5.18	2.06	3.17	10.41	3.27	1.25	5.13	10.05
D	7.21	.33	2.10	10.04	9.15	.12	2.20	11.47	6.30	1.16	4.12	11.58	5.15	2.20	4.11	11.46	4.15	2.06	5.10	11.33
E	9.19	2.17	3.19	14.54	9.23	2.11	4.19	15.53	8.18	3.10	6.22	17.50	7.12	3.26	6.06	16.44	6.10	3.12	7.18	15.40
J	9.14	2.26	3.16	14.56	10.17	2.16	4.12	16.45	8.16	3.09	5.20	16.45	7.17	3.16	5.12	15.45	5.16	3.11	7.15	15.42
F	7.18	.32	2.22	10.12	8.10	.18	2.13	10.41	5.22	1.12	3.15	9.49	5.08	1.21	3.14	9.43	3.30	1.12	4.21	9.03
M	7.30	.27	2.20	10.17	8.06	.29	2.16	10.51	6.28	1.11	4.28	12.07	5.15	2.20	4.09	11.44	3.19	1.06	5.22	9.47
A	8.36	1.12	2.09	11.57	9.14	1.19	2.28	13.01	8.22	1.19	4.18	13.59	6.12	2.14	6.07	14.33	5.18	3.13	6.09	14.40
M	8.10	1.13	2.24	11.47	9.20	.48	2.17	12.25	7.80	1.11	4.08	12.39	6.08	3.00	6.10	15.18	5.22	2.15	7.10	14.47
J	8.10	1.16	2.15	11.41	8.10	.20	2.21	10.51	6.23	1.10	4.12	11.45	5.11	2.13	5.20	12.44	3.24	2.08	6.19	11.51
J	9.29	1.01	3.00	13.50	10.08	1.25	3.17	14.50	8.17	1.13	5.13	14.43	6.12	3.19	6.17	15.48	4.26	3.13	7.10	14.49
TOTAL	100.02	14.26	31.46	146.13	111.47	12.11	34.38	158.36	88.13	19.38	54.57	162.48	71.39	29.58	62.23	164.00	54.09	27.59	74.26	156.34
AVERAGE	8.90	1.12	2.39	12.11	9.19	1.01	2.53	13.13	7.21	1.38	4.35	13.34	5.58	2.30	5.12	13.40	4.31	2.20	6.12	13.03
	20-24(n=3)				25-29(n=2)				30-39(n=7)				40-49(n=6)				50+ (n=5)			
A	5.27	2.21	7.04	14.52	5.30	2.26	8.12	16.08	5.22	4.14	6.21	15.57	6.18	3.16	7.16	16.50	6.14	4.12	6.21	16.47
B	5.31	1.10	7.08	13.49	5.24	2.17	8.22	16.03	5.18	4.10	7.16	16.44	6.14	4.18	7.21	17.53	6.26	4.08	6.10	16.44
C	3.22	1.14	5.10	9.46	5.11	1.21	7.18	11.50	3.13	2.11	5.28	10.52	3.27	3.30	5.11	12.08	4.12	2.00	2.16	8.28
D	2.30	1.31	6.15	10.16	2.20	2.17	7.25	12.02	3.08	3.09	6.16	12.33	3.00	5.17	5.10	13.27	4.20	3.14	3.12	10.46
E	5.12	3.26	8.10	16.48	6.27	3.10	7.15	16.52	5.17	4.12	8.27	17.56	6.07	4.22	7.09	13.38	6.18	4.12	7.14	17.44
J	5.17	2.19	8.11	15.47	6.17	3.19	7.21	16.57	5.12	4.11	7.14	16.37	6.21	5.08	7.08	16.37	6.22	4.08	6.28	16.58
F	2.20	1.11	5.21	8.52	2.24	1.17	7.10	10.51	3.08	2.15	7.13	12.36	3.24	3.21	5.12	11.57	4.21	2.09	3.23	9.53
M	2.23	1.17	6.14	9.54	2.24	1.12	9.16	12.52	3.07	2.14	5.14	10.35	2.14	5.32	4.11	11.57	4.20	2.18	2.12	8.50
A	4.19	1.22	7.09	12.50	5.25	2.25	7.23	15.13	5.12	4.15	5.30	14.27	5.35	4.26	6.09	16.08	6.22	3.11	5.15	14.48
M	4.18	1.10	7.07	12.35	5.20	2.22	9.15	16.57	5.11	4.18	6.18	15.47	5.12	4.18	7.06	16.36	6.16	3.17	5.12	14.45
J	3.25	1.20	6.00	10.45	3.22	2.20	7.14	12.56	3.07	3.18	6.16	12.43	4.18	3.19	6.13	13.42	3.23	2.09	3.09	8.41
J	5.27	1.25	7.09	14.03	6.10	2.12	8.27	16.49	4.08	4.10	7.22	15.40	6.00	5.27	7.16	16.43	6.26	3.15	6.21	16.02
TOTAL	49.33	19.46	80.58	150.17	54.14	26.38	94.38	175.30	51.25	42.37	78.25	172.27	58.00	48.14	75.22	181.36	65.00	38.13	57.13	160.26
AVERAGE	4.06	1.33	6.45	12.32	4.31	2.13	7.53	14.37	4.17	3.33	6.32	14.22	4.50	4.01	6.17	15.08	5.25	3.11	4.46	13.22

G.W = General Works; M.P.A = Market Production Activities; H.P.A = Home Production Activities; T.W = Total Works.

ECONOMIC CLASS 5461

MONTHS	Monthly breakdown of average Time-inputs (in hours) of Females																			
	5-7(n=6)				8-10(n=2)				11-13(n=2)				14-16(n=2)				17-19(n=3)			
	G.W	M.P.A	H.P.A	T.W	G.W.	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W	G.W	M.P.A	H.P.A	T.W
J	10.18	1.22	3.18	14.58	9.22	1.23	4.09	14.54	9.45	2.16	4.11	16.12	6.16	2.11	7.33	16.00	7.17	2.19	6.14	15.50
A	10.13	1.31	2.13	13.57	9.19	1.16	3.17	13.52	8.56	1.17	3.19	13.32	6.10	2.24	6.25	14.59	6.21	1.19	6.19	13.59
S	10.16	1.25	2.18	13.59	8.11	1.27	3.22	13.00	8.40	1.11	3.26	13.17	6.31	1.23	7.13	15.07	6.12	1.27	5.13	12.52
O	9.17	.22	1.16	10.55	8.06	.30	2.28	11.04	8.42	1.13	2.10	10.05	5.15	1.15	6.17	12.47	5.08	.23	4.19	9.50
N	9.16	.29	1.11	10.56	8.18	.36	2.15	11.09	7.35	1.14	2.13	11.02	5.14	1.08	5.10	11.32	5.17	1.28	4.16	11.01
D	10.11	1.25	3.09	14.45	9.20	1.17	4.13	14.50	9.38	2.14	5.17	17.09	5.15	3.10	7.12	16.37	7.09	2.26	6.10	15.45
J	9.10	.15	1.26	10.51	7.21	.13	2.21	9.55	6.38	1.20	2.15	10.13	4.10	1.12	4.14	9.36	4.24	.24	4.12	9.00
F	9.13	.29	1.24	11.06	8.24	.29	2.10	11.03	6.31	1.26	2.10	10.07	4.21	1.13	5.28	11.02	3.18	.13	4.15	7.46
M	10.12	1.00	2.17	13.29	9.14	.30	3.14	12.58	8.42	1.19	3.07	13.08	6.19	1.09	7.18	14.46	6.25	1.20	6.14	13.59
A	10.08	.31	2.11	12.50	8.13	1.24	3.10	12.47	9.50	1.13	3.14	14.17	6.31	1.19	6.06	13.56	6.19	1.27	6.31	14.17
M	10.14	.23	1.09	11.46	8.18	.18	2.12	10.48	8.47	1.16	2.06	12.09	3.27	1.15	6.11	10.53	4.08	1.24	3.25	8.57
J	10.09	1.25	2.21	13.55	8.17	1.24	3.20	13.01	8.54	1.14	3.17	13.25	6.17	1.08	7.20	14.45	6.05	1.27	6.17	13.49
TOTAL	118.37	10.37	24.13	153.27	102.23	10.47	36.11	149.21	100.38	17.13	36.45	154.36	66.46	18.47	76.27	162.00	68.01	15.37	63.25	147.03
AVERAGE	9.53	.53	2.01	12.47	8.52	.54	3.01	12.27	8.23	1.26	3.04	12.53	5.34	1.34	6.22	13.30	5.40	1.18	5.17	12.11

	20-24(n=2)				25-29(n=5)				30-39(n=5)				40-49(n=2)				50+(n=8)			
A	5.10	1.17	7.18	13.45	3.13	2.09	7.19	12.41	5.11	3.20	7.13	15.44	6.31	2.12	7.25	16.08	5.24	2.10	3.11	10.45
S	4.20	2.13	7.10	13.43	4.28	2.11	7.20	13.59	5.10	3.12	6.18	14.40	6.00	1.29	6.21	13.50	5.15	2.15	3.14	10.44
O	4.22	1.15	5.22	10.59	3.17	1.16	6.32	11.05	2.14	2.27	6.15	10.56	3.05	1.12	5.10	9.33	4.13	1.30	2.28	8.11
N	3.26	1.14	6.16	10.56	2.14	2.17	7.21	11.52	3.13	2.16	6.13	11.42	2.36	1.16	5.12	9.04	4.16	1.18	2.10	7.44
D	6.11	3.15	8.14	17.40	5.17	3.08	8.11	16.36	6.10	4.08	7.28	17.46	5.00	1.14	8.14	14.36	5.12	2.09	4.20	11.41
J	5.13	3.22	8.06	16.41	5.29	3.07	8.25	17.01	6.11	3.22	7.10	16.43	5.23	2.10	7.13	14.54	5.16	2.15	4.12	11.43
F	3.10	1.30	6.18	10.58	2.24	1.22	6.24	10.10	2.15	1.28	6.17	10.00	2.36	2.13	5.27	10.16	4.00	1.11	2.19	7.30
M	3.14	1.27	5.23	10.04	2.18	1.17	6.23	9.58	2.09	2.24	6.16	10.49	2.40	1.15	6.18	10.13	4.22	1.22	2.15	7.59
A	3.15	1.21	7.13	13.49	4.12	2.08	7.16	13.36	5.12	3.22	6.16	14.50	4.32	1.17	7.13	13.02	6.11	2.08	3.15	11.34
M	5.08	1.18	6.21	12.47	4.17	3.10	7.14	14.41	5.16	3.21	7.14	15.51	5.10	2.14	7.18	14.42	5.12	1.12	3.19	9.43
J	3.08	1.14	6.18	10.40	3.21	1.12	6.26	10.59	3.10	1.30	6.14	10.54	4.42	1.16	6.24	12.22	5.18	1.06	2.15	8.39
J	4.10	2.21	7.36	14.07	5.16	3.09	6.22	14.47	6.15	3.20	7.17	16.52	6.26	2.17	7.04	15.47	6.11	1.13	4.13	11.37
TOTAL	52.47	21.47	82.35	156.09	45.46	26.26	85.13	157.25	52.26	34.10	80.11	166.47	54.49	20.13	79.25	154.27	61.00	19.49	37.11	118.08
AVERAGE	4.28	1.49	6.48	13.01	3.49	2.12	7.06	13.07	4.22	2.51	6.41	13.51	4.34	1.41	6.37	12.52	5.05	1.39	3.06	9.50

G.W = General Works; M.P.A = Market Production Activities; H.P.A = Home Production Activities; T.W = Total Works.

system of the country, small land holdings, seasonality in agricultural crop, fluctuations in employment opportunities and poor economic conditions, members of landless households (1 and 2) will try to seize the maximum benefits during the peak agricultural seasons when opportunities to earn income from multiple sources coincide. Thus, unequal control of productive assets though encourage the better off to devote more time in production activities, yet it does not limit the productive employment of poor in the peak agricultural seasons. With the increase of age (after the age of 19 years), though male adults of landless classes 1 and 2 are found working fewer hours on average and spending proportionately less time in market production activities than the adults from landed classes 5 and 6, yet, considering from the point of view of peak agricultural seasons, male adults, in most cases, of landless classes 1 and 2 are found working more hours and contributing more time in market production activities, than those of landed classes 5 and 6.

Considering only two busy months, December and January, the average differences in productive work hours (both market and home) between the highest (economic classes 5 and 6) and the lowest (landless classes 1 and 2) economic classes for males ages 8-10 and older, with only few exceptions, is calculated as 2.28 hours in December and 1.54 hours

in January. For example, in case of 8-10 years age group, the difference is 1.39 hours in December and .46 hours in January; for 11-13 age group, .20 hours in December and .26 hours in January; for 14-16 age group, 5.32 hours in December and 5.09 hours in January; for 17-19 age group, 3.01 hours in December and 2.05 hours in January. The trend is more or less same with an exception of two age groups till it reaches to the last age limit of 50 (fifty) years and above, where the difference is recorded as 2.11 hours in Deeember and 1.02 hours in January. It has been observed from the sample, that most of the persons of 20-24 age groups of landless classes 1 and 2 are non-agricultural workers, who used to visit Sylhet town for seeking jobs and those of 40-49 years are engaged in petty trade. As a result, work-inputs of these two age groups of landless classes 1 and 2 are found lower comparing to these of economic classes 5 and 6.

With regard to females, the findings of table 6.10, however, suggest that lower the cultivable land area of the household, the higher is the total time utilization and rate of participation in peak agricultural seasons of the year. With few exceptions, females in landless agricultural households are found devoting more time both in market and home production activities in peak agricultural periods of the year than their counterparts of

landed classes. Considering only two busy months, December and January, the difference in total number of work hours between the lowest (landless classes 1 and 2) and the highest (economic classes 5 and 6) land owning classes for females ages 8 years and over is approximately 2.24 hours in December and 2.17 hours in January. Females of landless households in most ages, particularly at the middle and higher ages, spend a greater part of their time in wage employment and crop production which the female of landed households do not need to perform. In peak periods, agricultural activity increases and the seasonal opportunity to diversify and exploit multiple sources of income encourage poor women to work more hours to augment their subsistence living.

6.2.6 Effects of Family Size on Children's Work-inputs

It is generally assumed that with the increase of the size of family, working hour per child will diminish. Thus, smaller families with smaller number of children are assumed to do more works than these in larger families. In order to find out the validity behind this assumption, the time-input data of all unmarried children were presented by family size. Table 6.11 shows the distribution of working hours of own children[13] by family size.

13 Own children refers to all unmarried children who are currently residing with their parents, in their parents households.

The above assumption is not found valid in the present study. The findings of the table exhibit a positive relationship between average work inputs and number of children. It can be seen from the table that higher the number of children residing in a particular family, the higher is the average work-inputs of children. Thus, children in large families are considered not less but more productive than those in small families. This is, perhaps, due to the following reasons :

i) The presence of older children, in large families, may encourage young ones to participate in all kinds of work;

ii) Young children in large families participate in time-consuming household works and free the adults to participate in more productive activities;

iii) As families grows large, adults and older children work outside in order to maximise their labour efficiency, children then assume a greater responsibility for household tasks. Households with a small number of children will tend to tie the women to domestic chores, while large families can be liberating to adult women and advance the stage of household economy.

Table 6.11

Distribution of working hours, per person, per day of own children, residing in parents households by family size

Activity	Family Size			
	0-1	2-3	4-5	6+
General works[1]	7.14	7.07	6.57	6.35
Market production activity	3.18	3.20	3.42	4.21
Home production activity	3.06	3.33	3.38	4.19
Total works	13.38	14.00	14.17	15.15

1 It includes leisure time.

When time-input data, shown in table 6.11 are presented by economic class (Table 6.12), it also represents a positive relationship between the size of the family and the work inputs of children. It can be seen from the table that with the increase of family size by land holding status, work-inputs of children also increases. In one children family, in landless classes 1 and 2, a children is found devoting, on average 5.21 hours per day in productive works (taken together both market and home production activities), as against 6.24 hours in 2-3 children family, 7.07 hours in 4-5 children family and 8.18 hours in a family where 6 and above number of children are residing. The same trend is observed in case of other economic classes. What is important to

Table 6.12

Distribution of working hours per person, per day of own children, residing in parents households by family size and economic class

Economic Class	Family size															
	0-1				2-3				4-5				6+			
	G.W.	MPA	HPA	T.W.	G.W.	MPA	HPA	T.W.	G.W.	MPA	HPA	T.W.	G.W.	MPA	HPA	T.W.
Landless 1 and 2	6.12	2.58	2.23	11.33	5.57	3.14	3.10	12.21	5.47	3.38	3.29	12.54	5.51	4.10	4.08	14.00
Economic class 3	6.56	3.11	3.25	13.32	6.52	3.20	3.40	13.52	6.31	3.47	3.45	14.03	6.39	4.23	4.21	15.23
Economic class 4	7.30	3.13	3.27	14.10	7.28	3.16	3.38	14.22	7.20	3.40	3.41	14.41	-	-	-	
Economic class 5&6	8.18	3.50	3.09	15.17	8.11	3.32	3.44	15.27	8.10	3.43	3.37	15.30	7.15	4.30	4.28	16.13

G.W = General Works; M.P.A. = Market Production Activity;
H.P.A= Home Production Activity; T.W = Total Works.

note is that with the increase of family size and land-holding status work contribution per child increases.

Thus family size has a positive effect on children's total economic time, implying that as the family size increases, the economic time contribution per child to the family increases. For leisure time, as the family size increases, leisure per child to the family decreases. This may be the result of increased time contribution of children in productive works which minimises the average work-inputs of a household. This finding rejects the hypothesis of chayanov who postulates positive association between time given to leisure and size of the family.

6.2.7 Work inputs of a household by Son and Daughter

In rural Bangladesh, sons are preferred for various economic, social and religious reasons. It is assumed that sons provide the family labour and they eventually assume the responsibility for the household and the running of the farm themselves. They are expected to help their parents in old age as the daughters usually marry out and are less likely to provide financial support. Sons are also preferred for continuation of family name and for carrying out the funeral and post funeral activities for their deceased parents. Work inputs of a household by son and daughter are presented in table 6.13. The table indicates the different work-

inputs of a household from having a son and daughter. The data of the table were taken from households having "only sons" and "only daughters". In the study village, only 18 households were found having 'only son(s)'

Table 6.13

Average work-inputs of a household, per person, per day, of son and daughter by age, in a village community in Bangladesh

AGE GROUP	ONLY SON (n=37) (number of Households=18)				ONLY DAUGHTER (n=29) (number of households=10)			
	G.W.	MPA	HPA	T.W.	G.W.	MPA	HPA	T.W.
5-7	10.28	.59	1.10	12.37	9.43	1.18	1.31	12.32
8-10	8.19	2.46	2.25	13.30	7.59	1.22	3.29	12.50
11-13	8.27	2.45	2.20	13.32	6.51	1.34	4.39	13.04
14-16	6.43	7.01	2.17	16.01	5.49	2.18	5.59	13.06
17-19	5.22	8.10	2.41	16.13	-	-	-	-
20+	5.08	8.30	2.51	16.29	-	-	-	-

G.W= General Works; M.P.A= Market Production Activity; HPA= Home Production Activity; T.W= Total Works.

as against 10 households having 'only daughter(s)'. A total of 37 sons and 29 daughters were recorded. The findings of the table suggest that household(s) with only son(s) are doing more works and devoting more time than those with only daughter(s). Work inputs of sons in all age groups are found more comparing to those of

daughters. The higher average work-inputs of sons compared to daughters in the village is related to the fact that sons contribute to the families resources by working on the families' farm and perform more directly productive works than daughters. All agricultural activities beginning from ploughing to harvesting are performed by sons, while daughters engage mostly in food preparation and household works. Sons are also found attending school more than daughters. This may also account for higher average total working hours of sons than daughters in a household.

The time allocation data when further broken down into economic classes and represented under similar differential work-inputs of 'only son(s)' and 'only daughter(s)' characteristics (see table 6.14), they indicate that the more closely the households approaches to landlessness, the less work is done by the adults (20 years and above). It appears that children, particularly sons, upto 19 years of age from poor households allocate more time to income earning production time, than do their richer counterparts. The result is obvious. Because, sons from landed class tend to attend school at earlier age and this limit the early productive employment of sons from a rich family. Again, completion of primary education and acquisition of productive assets

Table 6.14

Detail breakdown of average work-inputs of a household per person, per day, of sons and daughters, by economic class in a village community in Bangladesh

LANDLESS 1&2

AGE GROUP	ONLY SON (n=11) (number of households=5)				ONLY DAUGHTER (n=9) (number of households=3)			
	G.W.	MPA	HPA	T.W.	G.W.	MPA	HPA	T.W.
5-7	10.27	1.10	1.18	12.55	9.12	1.41	1.52	12.45
8.10	8.15	2.52	2.31	13.38	7.10	1.34	4.27	13.11
11-13	-	-	-	-	-	-	-	-
14-16	6.10	7.50	2.22	16.22	5.03	2.21	7.10	14.34
17-19	-	-	-	-	-	-	-	-
20+	4.48	7.51	3.42	16.21	-	-	-	-

ECONOMIC CLASS 3	ONLY SON (n=8) (number of households=4)				ONLY DAUGHTER (n=6) (number of households=2)			
5- 7	-	-	-	-	9.51	1.17	1.32	12.40
8-10	8.24	2.40	2.19	13.23	-	-	-	-
11-13	8.10	2.49	2.47	13.46	6.20	1.42	5.07	13.09
14-16	-	-	-	-	5.57	2.32	5.42	14.11
17-19	5.22	8.10	2.41	16.13	-	-	-	-
20+	5.31	7.52	3.11	16.34	-	-	-	-

ECONOMIC CLASS 4	ONLY SON (n=8) (number of households=4)				ONLY DAUGHTERS (n=6) (number of households=2)			
5- 7	10.36	.57	1.10	12.43	-	-	-	-
8-10	-	-	-	-	8.19	1.24	3.02	12.45
11-13	8.30	2.58	2.14	13.42	7.22	1.27	4.11	13.00
14-16	6.50	7.02	2.17	16.09	-	-	-	-
17-19	-	-	-	-	-	-	-	-
20+	5.12	8.50	2.40	16.42	-	-	-	-

ECONOMIC CLASSES 5&6	ONLY SON (n=10) (number of households=5)				ONLY DAUGHTERS (n=8) (number of households=3)			
5- 7	10.22	.52	1.02	12.16	10.07	.56	1.10	12.13
8-10	-	-	-	-	8.27	1.07	2.58	12.32
11-13	8.42	2.28	2.20	13.30	-	-	-	-
14-16	7.10	6.12	2.13	15.35	6.28	2.02	5.04	13.34
17-19	-	-	-	-	-	-	-	-
20+	5.29	9.28	1.52	16.49	-	-	-	-

G.W= General Works; MPA = Market Production Activities; HPA = Home Production Activities; T.W. = Total Works.

permit the sons of landed households to devote more time in productive activities after the age of twenty.

In case of daughters, the data indicate that the more closely the households approaches to landlessness, the more work is done by daughters. Daughters from poorer households spend more time on wage-employment and household activities which the daughters of landed households do not need to perform.

However, a conflict is found among the villagers relating to the desire for a small family on the one hand and sex preference on the other. Ninety two percent of parents in the village having one daughter, want at least three sons, as against eighty four percent of parents having one son, do not want any daughter till the desire number of three sons are born. Alternatively, majority of the parents below three sons do not want any daughter and parents with one daughter want at least three sons. Thus, parents in the village were not found to control their fertility till their sex preference is achieved.

6.3 Productivity and Labour Efficiency of Children

The productivity and labour efficiency of children and adults in different occupations of the study village have been estimated on the basis of an intensive investigation of 108 households with the "Time-budget schedule" for more than a year. Children in the village were found participating in various directly productive and household maintenance activities from the early age of 5 or so. Table 6.15 indicates that the intensity of work of children rises steeply over early adolescence and approaches close to that of an adult (40-49 years of age group) by ages 14-16.

Table 6.15

Average time-expenditure (in hours) per person, per day by age and sex on productive activities (i.e. both market and home production activities)

AGE GROUP	MALES			FEMALES		
	M.P.A.	H.P.A.	T.W.	M.P.A.	H.P.A.	T.W.
5- 7	.35	1.31	2.06	1.06	1.48	2.54
8-10	2.39	2.04	4.43	1.09	3.28	4.37
11-13	3.26	2.44	6.10	1.39	4.36	6.15
14-16	6.34	2.47	9.21	2.13	6.08	8.21
17-19	7.33	2.47	10.20	2.21	6.37	8.58
20-24	8.20	3.17	11.37	2.46	7.06	9.52
25-29	8.53	3.04	11.57	2.46	7.34	10.20
30-39	8.16	2.00	10.16	3.42	6.51	10.33
40-49	7.49	2.08	9.57	3.50	5.55	9.45
50+	5.39	2.31	8.10	2.37	4.04	6.41

M.P.A = Market Production Activity; H.P.A = Home Production Activity; T.W = Total Market.

The data reflect the conditions of works of children in village Muiyarchar. But this participation of children in productive activities is a partial picture of the whole story. Mere knowledge in participation level will not adequately answer the questions related to value of children. We must know the intensity of involvement in terms of productivity and also whether children produce more or consume more when this production/consumption ratio changes. It is yet pre-mature to make any final judgement on this issue, but a number of observations can be made on the basis of information received in the course of our study.

It is extremely difficult to measure the productivity and labour efficiency of children in absolute term. However, the productivity and labour efficiency of children relative to adult efficiency can be measured by considering (i) the age of entry into a particular activity, (ii) the average number of hours spent in various productive activities, and (iii) the approximate financial return per day of labour in the various occupations.

The mean and median ages at which unmarried children four years and above begin different economic activities are shown in tables 6.1 and 6.2. Generally, efficiency of children in performing certain activities do not vary greatly at relatively young ages. However, once they start working, their efficiency increases, and with the increase of age they attain maturity and perfection.

The data in table 6.15 indicates that children of both sexes work for long hours at early ages of 8. Male children aged 14–16 years work, on average, as long as or longer than adults (40+). Girls by ages 14 or 15 also work to those of an adult women (40+). Thus, with the increase of age, the average number of hours spent in various productive activities increases sleeply and by age 14 or so children of both sexes attain almost adult efficiency.

Table 6.16 summerises the approximate average financial return per person, per day by age group. The data on average daily wage were collected from our "income-expenditure schedule".

It should, however, be remembered that wage rate cannot determine accurately the labour efficiency, because, employment relations are closely related with variety of social relations.

Detail information relating to wage data were collected in the plot by plot survey during the peak agricultural seasons of the year, whereas during the lean periods wage data were collected by interviewing the wage earners through our income-expenditure schedule. The cost of meal and payment in kind were also calculated on the basis of quantity received at the prevailing

Table 6.16

Average daily wage (in Taka) per person, per day of a male worker in different months of the year

AGE GROUP	AVERAGE DAILY WAGE[1] (IN TAKA)											
	N	Aug/Sept[2]	N	Oct/Nov.*	N	Dec/Jan.[3]	N	Feb/March*	N	April/May[4]	N	June/July[5]
1	2	3	4	5	6	7	8	9	10	11	12	13
5- 7	2	12.10	2	9.18	4	12.18	1	9.22	3	12.16	1	11.14
8-10	7	12.27	4	9.52	13	12.32	1	9.66	7	12.27	6	12.11
11-13	11	13.12	3	10.53	17	14.00	2	10.78	9	12.86	12	12.17
14-16	17	16.22	7	10.62	23	16.42	6	10.86	13	16.10	14	12.36
17-19	21	17.50	9	12.74	21	17.57	6	12.10	15	17.94	18	12.54
20-24	24	17.62	13	12.81	26	18.81	11	12.32	17	18.42	18	13.10
25-29	29	18.12	17	13.18	32	19.33	16	12.96	21	19.50	21	13.52
30-39	23	18.21	11	13.27	20	19.42	8	13.76	18	19.78	17	14.66
40-49	16	18.24	9	13.41	17	20.48	9	13.81	13	20.40	12	15.72
50+	14	18.16	6	13.40	18	20.26	4	13.67	10	20.12	9	15.50

1 Average daily wage is calculated on the basis of ten hours work from 6 a.m. to 5 p.m. with a break of 1.00 hour for lunch. Daily wage includes payments both cash and kind. Cost of food consumed at the house of the employer is also added with it.

2 Aus crop is harvested and Aman crop is sown/transplanted in these months in the village.

3 Aman crop is harvested in these months.

4 Aus crop is sown/transplanted in these months.

5 Partly Aus harvest and Aman transplantation occur in the month of July.

* Slack agrioultural months.

market price of commodities[15]. The seasonal variation of harvest and sowing returns of labour from both crops are evident from the table 6.16. The average daily wage was recorded as maximum in the months of December and January, which were the Aman harvesting seasons of the village, whereas during the lean months of February, June and October wage rates were recorded a sharp fall. The data of table 6.16, however, suggest that by age 14-16, male children acquired a level of efficiency which is more than 75 percent to that of an adult (40+) in all months of the year.

Aside from cultivation, which requires household resources (like land and capital) or high return occupations (such as harvesting and wage labour), the access of male children in other directly productive activities earn equal efficiency, at much earlier age, to that of an adult. Activities like animal care, handicrafts and small-scale trade are performed efficiently by young boyes 7-8 years of age and their work efficiency in these jobs are no less inferior to that of an adult.

Calculation of work efficiency of females is a difficult task. Women mostly perform household activities. There is little scope for women in the village to work outside. As such, wage-employment is limited. Only in few cases, women are found engaged as maid-servants in some few

15 Daily wage rate rises to Taka 12 plus two meals a day during Aman harvesting and Aus transplanting. For Aus harvesting and Aman transplanting, the rate is Taka 10 plus two meals for an adult (40+). Cost of per meal is found to vary from Taka 3 to Taka 4. In slack agricultural months no meal is provided by the employers.

well-to-do houses within the village and outside. In case of women, labour market is more imperfect with respect to wage determination and access to employment. An attempt was made to calculate the average daily wage of females in the post harvest period of Aman crop. The data are presented in table 6.29. Wage data for women in other months were not available. Women, in general, were found to earn efficiency immediately after entering a job. Here age will not stand as a barrier. Most of the common household tasks which women perform, such as washing, sweeping, child care, carrying water, carrying firewood etc. Soon after entering these activities a young girl earn equal efficiency to that of an adult women. In some of the activities, such as, cooking, husking, grinding etc. age, physical strength and body weight are requisite pre-conditions which limit the entry of a young girl to these occupations.

Most of the household works of women are interlinked and these are of shorter duration. A young girl may be found efficient in one particular task, but she may be less efficient in the complete functioning of the work. Therefore, work efficiency of women is best judged by the overall performance, rather than for specific activities. With the increase of age and maturity, women develop managerial skill and this increase their efficiency.

6.4 Cost of Child rearing in Muivarchar

It is generally believed that higher fertility in less developed countries, arises from the fact that an average benefits of parents from having children are relatively greater than the cost of bearing and raising them. This belief appears to be supported by various studies (Cain 1977, Hull 1975, Nag et al. 1978, Barkat 1978)[16] examining the phychological and economic returns and cost of children.

The purpose of this section is to give some empirical content of the costs of children and to examine the net economic value of children on the basis of this empirical results.

6.4.1 Economic Vs Non-economic Costs

Costs corresponds to the disadvantages of children. In general, these refer to what parents must give up or sacrifice to obtain the benefits from children. In short, all negative general values of children are included under costs.

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16 Cain, Mead T. 1977, op. cit, pp.201-207.
Hull, T.H. 1975, op.cit.
Nag, Moni, Benjamin N.F. White and R.C. Peet, 1978, op.cit. pp.293-306.
Khuda-e-Barkat, 1978, op.cit.

The costs of children can be broadly divided under two heads, viz. (i) Economic Costs, and (2) Non-Economic Costs. Economic costs, in turn, is further divided into (i) Direct maintenance costs and (ii) indirect or opportunity costs (Esphenshad 1977; Leibenstain 1974, Mueller 1972)[17]. The expenditure incurred on food, clothing, education and medicine usually fall under direct maintenance costs. Opportunity costs, on the other hand, reflects the opportunities which parents forgo on account of having children. Parents may forgo some of their consumption expenditure, savings or investment, or they may relinquish some of their valuable time in child-care activities, which may reduce their participation in income-earning activities. Again, non-economic costs are purely psychological in nature. It reflects the psychological burdens (such as : anxiety over children's health and future welfare, frustations over misbehaviour etc.) which children impose on parents. But, here an attempt is made to deal only with the direct economic costs of raising children.

17 Esphenshade, Thomas J. 1977 "The Value and Cost of Children", Population Bulletin, Vol.32, No.1 (April, pp.3-47.

Leibenstain, Harvey 1974 "An Interpretation of the Economic Theory of Fertility: Promising Path or Blind Alley?" Journal of Economic Literature 12(2), pp.457-479 (June).

Mueller, Eva 1972a, "Economic Costs and Value of Children: Conceptualization and Measurement" in J.J. Fawcett (ed). The Satisfactions and Costs of Children, Honolulu : East-West Center Press, p.182.

6.4.2 Direct Maintenance Costs

Table 6.17 provides certain informations on direct maintenance costs of children. Here average expenditure incurred on food items per person, per day and those on education, clothing and medicine per person, per month is presented. The table indicates a positive relationship between food costs and age of the respondents representing lower expenditure on food items at lower ages[18]. The same relationship is found true with regard to the quantity of food consumed, (see table 6.19). Food costs for children are low during the first few years (0-4 years) of life. This might be the result of two factors :

i) First, breast-feeding is the common practice upto 12 to 18 months and in some cases upto two years. During this period, food expenses for a child are limited to some boiled rice, boiled potato and banana etc.

ii) Second, besides parents, other kin-members of the household, such as, grand parents, uncles and aunts are also often sources of extra food for the child.

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18 But it declines at higher ages resulting from decreased quantity of food consumption.

Table 6.17

Average cost/Expenditure (in Taka) incurred on food items per person, per day; and on education, clothing and medicine per person, per month among males and females of various age groups in a peasant community in Bangladesh.

ITEMS OF EXPENDITURE	Age Group And Earning Sex																					
	0-4		5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=52)	F (n=32)	M (n=19)	F (n=26)	M (n=28)	F (n=34)	M (n=24)	F (n=21)	M (n=21)	F (n=18)	M (n=9)	F (n=13)	M (n=20)	F (n=20)	M (n=28)	F (n=22)	M (n=38)	F (n=31)	M (n=23)	F (n=18)	M (n=26)	F (n=37)
Food	2.55	1.73	3.58	3.73	4.03	4.24	4.81	4.87	5.21	5.46	6.69	5.03	6.99	6.13	7.17	6.65	8.06	6.03	6.97	5.81	6.71	6.35
1. Rice	1.21	.62	1.84	1.80	2.32	2.37	2.64	2.74	3.09	3.04	3.69	2.96	3.50	3.33	3.53	3.68	3.69	3.30	3.54	3.42	3.30	3.13
2. Pulses	.06	.05	.10	.09	.09	.11	.09	.10	.07	.10	.10	.08	.11	.10	.09	.09	.09	.16	.13	.09	.10	.08
3. Wheat	.04	.02	.05	.09	.08	.07	.09	.10	.08	.10	.15	.07	.12	.14	.08	.07	.10	.10	.14	.11	.10	.07
4. Fish/Meat	.65	.44	.91	.98	.87	1.03	.96	.93	.89	1.02	.95	.93	1.21	1.08	1.29	1.40	1.43	1.12	1.15	1.04	1.13	1.13
5. Fruits	.18	.08	.22	.13	.09	.12	.16	.09	.06	.19	.19	.04	.20	.18	.34	.04	.04	.11	.08	.07	.27	.08
6. Biscuits	.19	.20	.10	.14	.08	.07	.07	.06	.02	.02	.01	.01	.05	.05	.05	.03	.05	.04	.08	.01	.02	.02
7. Betal nuts/ Betal leaves/ Tobacco/ Cigarettes.	00	00	.01	.03	.09	.08	.40	.33	.66	.49	1.15	.56	1.30	.69	1.29	.65	2.02	.67	1.33	.55	1.16	.68
8. Milk/Curd/Sweat	.04	.16	.03	.17	.08	.05	.03	.14	.02	.01	.03	.01	.03	.03	.05	.15	.17	.13	.16	.13	.23	.09
9. Vegetables	.18	.16	.32	.30	.33	.34	.37	.38	.34	.49	.42	.37	.47	.47	.45	.54	.49	.41	.38	.39	.40	.37
10.EDUCATION	.03	.02	1.85	1.76	1.79	2.09	5.18	4.27	14.47	2.36	8.05	00	14.59	00	10.31	00	00	00	00	00	00	00
CLOTHING	2.98	1.91	8.16	4.83	6.58	3.76	21.65	5.35	14.87	8.16	11.36	19.54	16.92	19.27	15.16	19.00	14.06	8.59	17.63	9.38	12.79	7.06
MEDICINE	0.68	.55	1.08	.31	.79	.90	1.05	1.48	1.02	1.49	.06	3.80	2.24	4.90	2.83	18.53	2.01	4.00	4.12	4.20	6.96	4.65
TOTAL(Tk.P.M)	3.66	2.48	11.09	6.90	9.16	6.75	27.88	11.10	30.36	12.01	19.47	23.34	23.69	24.17	28.30	37.53	16.07	12.59	21.75	13.58	19.75	11.71

Thus, upto 7 years, the average food costs of a child, per day varies from Tk.1.73 to Tk.3.73. The maximum daily food cost is recorded as Tk.8.06, in case of a male 30-39 years of age. Thus, the variation between the highest and the lowest figure stands Tk.6.33, which depends on the age and sex of the child. It is interesting to note that upto 16 years of age, with a single exception (0-4 years), female children are found consuming a little bit more than their male counterpart. The quantity of consumption shown in table 6.19 also corroborate this. But the difference is very insignificant. Beyond the age 16, however, the more is spent on food by male adults than those of females.

The staple food stuffs which adults consume are rice or wheat taken with dal, fish and vegetables. In case of big landowning households, these items are mostly produced in their land. But, in case of landless parents, the cost of food-stuff is considerable. Table 6.18 shows the distribution of food costs by economic class. It appears from the table that per capita expenditure on food items increases with the increase of socio-economic status. It increases significantly in economic classes 5 and 6, but decreases slightly in the medium and low landholding category.

Table 6.18.

Average cost/expenditure (in Taka) incurred on food items per person, per day; and on education, clothing and medicine per person, per month among males and females of various age groups by Economic class, in a peasant community in Bangladesh.

ITEMS OF EXPENDITURE BY ECONOMIC CLASS	0-6 M	0-6 F	7-7 M	7-7 F	8-10 M	8-10 F	11-12 M	11-12 F	13-15 M	13-15 F	16-19 M	16-19 F	20-24 M	20-24 F	25-29 M	25-29 F	30-39 M	30-39 F	40-59 M	40-59 F	60+ M	60+ F
	(n=32)	(n=17)	(n=12)	(n=13)	(n=11)	(n=16)	(n=12)	(n= 6)	(n=10)	(n= 7)	(n= 2)	(n= 6)	(n=10)	(n=13)	(n=19)	(n=10)	(n=22)	(n=11)	(n= 9)	(n= 8)	(n=11)	(n=9)
Landless 1 & 2																						
Food (Total)[1]	1.97	2.22	3.20	3.05	3.53	3.65	4.41	4.19	4.28	4.96	6.19	4.81	8.92	5.71	6.94	4.97	7.47	5.34	6.28	5.94	6.44	5.32
Education	00	00	.57	.25	.67	.43	.91	2.60	4.58	3.42	00	00	18.18	00	00	00	00	00	00	00	00	00
Clothing	1.74	.96	4.48	3.05	3.40	2.90	4.68	4.25	7.71	5.70	9.17	13.39	12.60	10.13	13.57	10.57	8.30	4.92	7.91	5.09	8.45	4.91
Medicine[2]	.63	.56	.24	.10	.24	.07	.15	.71	00	.97	00	.42	.42	2.49	1.18	2.86	2.12	1.41	2.21	1.00	8.48	2.52
TOTAL	2.37	1.52	5.27	3.40	4.31	3.40	5.74	7.56	12.09	10.09	9.17	13.81	31.17	12.62	14.75	13.43	10.92	6.33	10.12	10.09	16.99	6.73
	(n=10)	(n=5)	(n=2)	(n=7)	(n=5)	(n=9)	(n=2)	(n=6)	(n=3)	(n=6)	(n=2)	(n=2)	(n=4)	(n=2)	(n=4)	(n=5)	(n=5)	(n=8)	(n=6)	(n=2)	(n=4)	(n=5)
Economic Class 3																						
Food(Total)[1]	2.14	1.02	3.28	3.48	3.93	4.17	4.90	4.96	00	5.10	6.77	4.65	6.94	5.99	6.98	5.74	7.78	6.13	7.03	5.35	6.86	6.32
Education	.11	00	.56	.58	1.41	1.60	8.42	1.85	00	00	00	00	00	00	19.88	00	00	00	00	00	00	00
Clothing	1.49	.60	4.54	3.88	1.99	6.34	21.45	5.70	00	9.12	3.17	15.42	18.58	12.67	13.90	13.30	9.78	7.44	15.12	5.00	14.25	5.40
Medicine[2]	.79	.65	2.08	.69	.63	.71	1.00	.74	00	.80	00	5.67	00	6.12	00	6.18	1.25	6.20	3.79	4.30	3.31	6.38
TOTAL(n=Col.M)	2.39	1.25	7.18	5.15	4.03	8.65	30.87	8.29	00	9.92	3.17	21.09	18.58	18.79	33.15	19.48	11.03	11.64	18.91	9.30	17.56	11.78

CONTD.

ITEMS OF EXPENDITURE BY ECONOMIC CLASS	AGE GROUP AND SAMPLE SIZE																					
	0–4		5–7		8–10		11–12		13–16		17–19		20–24		25–29		30–39		40–49		50+	
	M (n=4)	F (n=2)	M (n=3)	F (n=2)	M (n=6)	F (n=7)	M (n=5)	F (n=2)	M (n=6)	F (n=3)	M (n=3)	F (n=2)	M (n=2)	F (n=3)	M (n=3)	F (n=2)	M (n=3)	F (n=2)	M (n=6)	F (n=6)	M (n=6)	F (n=2)
Economic Class 4																						
Food (Total)[1]	2.80	1.62	3.79	4.10	4.28	4.35	4.98	5.15	5.59	5.88	6.86	5.87	6.97	5.99	7.10	7.89	8.21	6.15	7.23	5.97	6.73	6.53
Education	00	00	2.50	3.94	1.22	3.58	2.40	5.52	10.03	30	11.14	00	00	00	00	00	00	00	00	00	00	00
Clothing	3.83	1.53	4.89	5.04	7.32	3.22	31.60	7.12	16.86	8.83	17.69	21.38	16.00	14.30	15.83	23.92	13.46	11.69	19.42	6.92	19.67	1.46
Medicine[2]	.35	.22	.89	.32	.21	.34	.25	.90	1.39	1.54	.22	6.12	6.30	7.16	8.56	48.42	4.21	2.58	2.68	4.70	1.69	.71
TOTAL(F+C+M)	4.19	1.75	8.28	9.30	8.75	7.14	34.25	13.54	28.28	10.37	29.05	27.50	22.30	21.40	24.39	72.34	17.67	14.67	22.10	11.62	21.36	4.17
	(n=6)	(n=7)	(n=2)	(n=6)	(n=6)	(n=2)	(n=5)	(n=2)	(n=5)	(n=2)	(n=2)	(n=3)	(n=6)	(n=2)	(n=2)	(n5)	(n=8)	(n=5)	(n=2)	(n=2)	(n=5)	(n=8)
Economic Class 5 & 6																						
Food(Total)[1]	5.30	2.07	4.05	4.30	4.36	4.78	4.98	5.20	5.78	5.90	6.94	4.82	7.14	6.83	7.68	8.03	8.81	6.51	7.34	6.00	6.81	4.75
Education	00	.10	3.75	2.26	3.88	2.75	8.98	7.09	29.00	00	21.08	00	00	00	22.00	00	00	00	00	00	00	00
Clothing	4.85	4.95	18.75	7.37	13.62	2.58	28.89	4.33	20.06	9.00	15.42	28.00	20.51	40.00	17.35	28.20	24.21	10.33	28.08	16.50	8.79	5.08
Medicine[2]	.96	.76	1.12	.11	2.38	2.50	2.78	3.58	1.68	2.66	00	3.00	2.25	3.91	1.58	16.67	.47	5.41	7.78	6.80	14.69	.10
TOTAL(F+C+M)	5.81	5.41	23.62	9.76	19.58	7.83	40.65	15.00	50.74	11.66	36.50	31.00	22.96	43.91	40.91	44.87	29.68	15.74	35.86	23.30	23.48	14.18

1. Items like rice, pulses, wheat, fish, meat, fruits, biscuits, betalnuts, betal leaves, tobacco, cigarettes, milk, sweet and vegetables etc. are included under food item.

2. It includes Allopath, Homeopath and Kabiraji treatment.

The average quantity of consumption of major food items per person, per day by age and sex is presented in table 6.19 and the same is repeated in table 6.20 by economic classes. Table 6.19 indicates that with few exceptions, per capita consumption of rice increases with the increase of age. This trend continues upto 24 years of age for males without any break and for females it continues upto 16 years. With some break it rises again for both males & females till the age 50 is reached. At ages 50 and over consumption of rice again starts falling for both sexes. Food consumption depends not only on age, other variables like physical strength, body-structure, nature of employment and socio-economic status also play important roles in determining the quantity of food that a person will take. As per Keynesian hypothesis marginal propensity to consume in case of the poor is higher comparing to that of the rich. As such, poor individuals spend more money on consumption and less on other amenities of life like education, clothing and medicine. This has been reflected from table 6.20. Table 6.20 indicates that males and females from big landowning classes are spending more money for smaller quantity of food which eventually justifies qualitative consumption. Moreover, expenditure on education, clothing and medicine of landed classes are higher (in table 6.20) comparing to landless classes, which again justifies spending of more money for better amenities of life.

Again, table 6.17 also provides important information on education, clothing and medical expenses. The estimates of education, clothing and medicine are done by age and sex groups, representing the average expenditure per person, per month.

Boys of the village, in most cases, are found attending school upto 16 years and in case of girls attendence in school is limited upto 13 years. Most of these education are concentrated upto primary and secondary level.

Children going to Maktab (religious school) and those studying upto class V are exempted from tuition fees; although expenses for books, stationaries, school dress, transport and other miscellaneous items have to be met by the family. So long as the child is in primary school (i.e. studying upto class V) educational expenses are relatively low. We find that educational expenses of both boys and girls are low in earlier ages. As soon as a child finishes primary school, and if he is sent to secondary school, then cost will rise, since tution fees have to be paid, in addition to expenses for books and stationaries. The table (6.17) indicates that the monthly educational costs of boys rises from Tk.1.79 of 8-10 years age group to that of Tk.14.47 in 14-16 years age group. And in case of girls, the rise is only a little

Table 6.19

Data showing the average quantity of major food items consumed per person, per day by age and sex.

Items of expenditure	0-4		5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=52)	F (n=32)	M (n=19)	F (n=28)	M (n=28)	F (n=34)	M (n=24)	F (n=21)	M (n=21)	F (n=18)	M (n= 9)	F (n=13)	M (n=20)	F (n=20)	M (n=28)	F (n=22)	M (n=38)	F (n=31)	M (n=23)	F (n=18)	M (n=26)	F (n=37)
FOOD																						
1. Rice	4.12 (1.21)	2.37 (.62)	6.25 (1.84)	6.25 (1.80)	7.75 (2.32)	8.00 (2.37)	8.75 (2.64)	9.25 (2.74)	10.16 (3.07)	10.25 (3.04)	2.37 (3.69)	10.00 (3.96)	12.00 (3.50)	11.50 (3.35)	11.87 (3.53)	12.12 (3.68)	12.50 (3.69)	11.37 (3.30)	12.37 (3.54)	12.12 (3.42)	11.37 (3.30)	10.62 (3.10)
2. Pulses	.12 (.06)	.09 (.05)	.19 (.10)	.20 (.09)	.18 (.09)	.21 (.11)	.17 (.09)	.18 (.10)	.10 (.05)	.20 (.10)	.18 (.10)	.17 (.08)	.21 (.11)	.20 (.10)	.17 (.09)	.20 (.09)	.18 (.09)	.36 (.16)	.24 (.15)	.17 (.09)	.18 (.10)	.17 (.08)
3. Wheat	.18 (.04)	.14 (.02)	.22 (.05)	.34 (.09)	.38 (.08)	.33 (.07)	.42 (.09)	.46 (.10)	.20 (.04)	.44 (.10)	.72 (.15)	.37 (.07)	.56 (.12)	.64 (.14)	.41 (.08)	.35 (.07)	.46 (.10)	.50 (.10)	.62 (.14)	.51 (.11)	.46 (.10)	.34 (.07)
4. Fish/meat	.75 (.35)	.49 (.44)	1.12 (.91)	1.25 (.98)	1.00 (.87)	1.25 (1.03)	1.13 (.98)	1.12 (.93)	1.08 (.91)	1.37 (1.02)	.12 (.95)	1.12 (.93)	1.62 (1.21)	1.37 (1.08)	1.75 (1.29)	1.75 (1.40)	1.87 (1.43)	1.25 (1.12)	1.50 (1.15)	1.37 (1.04)	1.75 (1.13)	1.62 (1.33)
5. Fruits	00 (.18)	00 (.08)	00 (.22)	00 (.13)	00 (.09)	00 (.12)	00 (.16)	00 (.09)	00 (.06)	00 (.19)	00 (.19)	00 (.04)	00 (.20)	00 (.18)	00 (.34)	00 (.04)	00 (.04)	00 (.11)	00 (.08)	00 (.07)	00 (.27)	00 (.18)
6. Biscuits	00 (.09)	00 (.20)	00 (.10)	00 (.14)	00 (.08)	00 (.07)	00 (.07)	00 (.08)	00 (.05)	00 (.02)	00 (.01)	00 (.01)	00 (.05)	00 (.04)	00 (.05)	00 (.05)	00 (.05)	00 (.04)	00 (.06)	00 (.01)	00 (.02)	00 (.02)
7. Betelnuts/ B.leaves/ Tobacco/ Cigarettes	00 (.00)	00 (.00)	00 (.01)	00 (.03)	00 (.09)	00 (.08)	00 (.40)	00 (.33)	00 (.66)	00 (.49)	00 (1.15)	00 (.56)	00 (1.30)	00 (.69)	00 (1.29)	00 (.65)	00 (2.02)	00 (.67)	00 (1.33)	00 (.55)	00 (1.16)	00 (.58)
8. Milk/sweet/ curd	.17 (.04)	.64 (.16)	.06 (.09)	.69 (.17)	.35 (.08)	.17 (.05)	.13 (.05)	.56 (.14)	.04 (.01)	.04 (.01)	.18 (.05)	.05 (.01)	.15 (.03)	.10 (.05)	.19 (.05)	.57 (.15)	.67 (.17)	.47 (.12)	.61 (.16)	.50 (.13)	1.00 (.23)	1.13 (.29)
9. Vegetable	.87 (.18)	.69 (.16)	1.62 (.32)	1.62 (.30)	1.62 (.33)	1.62 (.34)	1.75 (.37)	2.00 (.38)	1.33 (.35)	2.12 (.49)	1.87 (.42)	1.75 (.37)	2.25 (.47)	2.00 (.47)	2.00 (.45)	2.45 (.54)	2.16 (.49)	1.87 (.41)	1.75 (.38)	1.87 (.39)	1.87 (.40)	1.87 (.37)

Note: 1. Figures in the parenthesis indicates the price in taka and those set within the parenthesis indicate quantity measured in terms of "Chattack" (A chattack is one-sixteenth amount of a seer). Quantity of major food items consumed are measured in terms of Chattack

2. 00 refers that quantity of consumption of other food items (such as : Fruits, Biscuits, Betelnuts, Tobacco, Cigarettes etc) are not reported. These are expressed in terms of price.

Table 6.20

Data showing the average quantity of major food items consumed by age, sex and economic class

Items of expenditure by Economic Class	Age group and sample size																					
	0-4		5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=32)	F (n=17)	M (n=12)	F (n=13)	M (n=11)	F (n=16)	M (n=12)	F (n= 6)	M (n=10)	F (n= 7)	M (n=2)	F (n=6)	M (n=10)	F (n=3)	M (n=19)	F (n=10)	M (n=22)	F (n=11)	M (n=9)	F (n=8)	M (n=11)	F (n=10)
Expenses 1-2																						
1. Rice	4.00 (.91)	3.50 (.80)	7.00 (1.76)	6.50 (1.62)	8.00 (2.12)	8.00 (2.20)	10.00 (2.64)	9.50 (2.45)	10.50 (2.65)	11.00 (2.93)	14.00 (3.69)	11.00 (2.77)	15.00 (3.74)	13.00 (3.38)	14.00 (3.50)	12.00 (2.89)	16.00 (4.35)	12.50 (3.16)	13.00 (3.27)	13.50 (3.31)	14.00 (3.64)	12.50 (3.11)
2. Pulses	.12 (.06)	.12 (.06)	.12 (.06)	.25 (.10)	.25 (.09)	.25 (.10)	.12 (.07)	.12 (.07)	.12 (.05)	.25 (.11)	.33 (.19)	.12 (.05)	.12 (.06)	.25 (.14)	.25 (.12)	.25 (.10)	.25 (.12)	.66 (.18)	.25 (.10)	.25 (.13)	.25 (.15)	.25 (.10)
3. Wheat	.25 (.06)	.25 (.06)	.50 (.13)	.25 (.06)	.50 (.11)	.50 (.12)	.50 (.10)	.50 (.10)	.25 (.04)	.50 (.14)	1.00 (.31)	.50 (.10)	1.00 (.31)	.50 (.09)	.50 (.09)	.50 (.10)	.50 (.13)	.75 (.16)	.50 (.13)	.75 (.17)	.50 (.10)	.50 (.07)
4. Fish/meat	.75 (.56)	.75 (.60)	1.00 (.79)	1.00 (.71)	1.00 (.76)	1.00 (.76)	1.00 (.85)	1.00 (.78)	.75 (.59)	1.00 (.88)	1.00 (.75)	1.50 (.98)	2.00 (1.12)	2.00 (1.11)	2.50 (1.56)	1.50 (.98)	1.50 (1.00)	1.00 (.80)	1.50 (.92)	2.00 (1.10)	2.00 (1.02)	1.50 (.95)
8. Milk	.04 (.01)	.75 (.19)	.04 (.01)	.50 (.11)	.16 (.04)	.04 (.01)	.04 (.01)	.04 (.01)	00 (.00)	00 (.00)	00 (.00)	00 (.00)	00 (.00)	00 (.00)	00 (.00)	00 (.00)	.04 (.01)	.04 (.01)	.40 (.10)	.40 (.08)	.04 (.01)	.32 (.07)
9. Vegetables	1.00 (.17)	1.00 (.24)	1.50 (.29)	1.50 (.26)	1.50 (.26)	2.00 (.33)	2.00 (.34)	2.00 (.35)	1.50 (.29)	2.00 (.38)	2.00 (.38)	2.00 (.38)	2.00 (.41)	2.00 (.41)	2.00 (.41)	2.00 (.36)	2.00 (.39)	2.00 (.37)	2.00 (.39)	2.00 (.41)	2.00 (.40)	2.00 (.39)
	n=13)	(n=5)	(n=2)	(n=7)	(n=5)	(n=9)	(n=2)	(n=6)	(n=x)	(n=6)	(n=2)	(n=2)	(n=2)	(n=2)	(n=4)	(n=5)	(n=5)	(n=8)	(n=6)	(n=2)	(n=4)	(n=5)
Expenses 1-2																						
1. Rice	4.00 (1.06)	1.50 (.32)	6.00 (1.65)	6.50 (1.71)	8.00 (2.31)	8.50 (2.56)	7.50 (2.71)	11.00 (3.03)	00 (00)	11.00 (3.05)	14.00 (3.91)	10.00 (2.81)	11.00 (3.11)	12.50 (3.52)	12.00 (3.44)	12.00 (3.56)	13.00 (3.62)	12.50 (3.42)	12.00 (3.39)	12.00 (3.58)	11.00 (3.06)	12.50 (3.30)
2. Pulses	.16 (.13)	.10 (.05)	.16 (.06)	.25 (.13)	.16 (.09)	.20 (.11)	.16 (.09)	.25 (.11)	00 (.00)	.16 (.06)	.00 (.04)	.25 (.12)	.33 (.17)	.16 (.07)	.16 (.07)	.16 (.11)	.00 (.11)	.20 (.14)	.25 (.18)	.20 (.10)	.16 (.09)	.25 (.12)
3. Wheat	.25 (.07)	.25 (.05)	.10 (.02)	.50 (.12)	.50 (.12)	.50 (.11)	.50 (.12)	.50 (.13)	00 (00)	.25 (.12)	1.00 (.23)	.25 (.05)	.50 (.09)	1.00 (.17)	.33 (.06)	.14 (.03)	.50 (.09)	.75 (.16)	1.00 (.18)	.53 (.08)	.75 (.15)	.75 (.15)
4. Fish/meat	.75 (.53)	.20 (.15)	1.50 (.96)	1.00 (.78)	1.00 (.84)	1.00 (.78)	1.50 (1.12)	1.00 (.81)	00 (00)	1.00 (.87)	1.00 (.88)	1.00 (.81)	2.00 (1.62)	1.00 (.92)	2.00 (1.59)	1.50 (1.39)	1.50 (1.11)	1.00 (.95)	1.00 (.99)	1.00 (.88)	1.00 (1.03)	1.00 (1.05)
8. Milk	.20 (.14)	.33 (.19)	.08 (.02)	.08 (.08)	.16 (.08)	.12 (.08)	.08 (.08)	.20 (.05)	00 (00)	.16 (.04)	00 (00)	00 (00)	00 (.00)	.04 (.01)	.12 (.03)	.08 (.01)	.04 (.01)	.25 (.06)	.75 (.18)	.50 (.11)	1.50 (.41)	1.00 (.30)
9. Vegetables	1.00 (.16)	.75 (.11)	2.00 (.31)	2.00 (.38)	2.00 (.30)	2.00 (.35)	2.00 (.39)	2.00 (.34)	00 (00)	2.00 (.35)	2.00 (.37)	1.50 (.26)	2.00 (.43)	2.00 (.41)	2.00 (.44)	2.50 (.48)	2.00 (.42)	2.00 (.44)	2.00 (.45)	2.00 (.50)	2.00 (.36)	2.00 (.32)

Items of Expenditure by Economic Class.	Age Group and Sex																			
	0-4		5-7		8-10		11-13		14-16		17-19		20-24		25-29		30-39		40-49		50+	
	M (n=4)	F (n=3)	M (n=3)	F (n=2)	M (n=6)	F (n=7)	M (n=5)	F (n=7)	M (n=6)	F (n=3)	M (n=3)	F (n=2)	M (n=2)	F (n=3)	M (n=3)	F (n=2)	M (n=7)	F (n=6)	M (n=4)	F (n=6)	M (n=6)	F (n=5)
Economic Class 4																						
Food																						
1. Rice	3.50 (1.19)	2.00 (.55)	6.00 (1.87)	6.50 (2.04)	8.00 (2.41)	8.50 (2.56)	9.00 (2.84)	9.00 (2.81)	10.00 (3.14)	10.00 (3.10)	11.00 (3.45)	10.50 (3.56)	11.50 (3.55)	10.50 (3.36)	10.50 (3.37)	14.00 (4.89)	10.50 (3.25)	11.00 (3.41)	12.50 (3.81)	12.00 (3.31)	11.00 (3.46)	9.00 (2.84)
2. Pulses	.16 (.06)	.08 (.04)	.33 (.18)	.20 (.10)	.16 (.09)	.16 (.09)	.16 (.09)	.14 (.07)	.14 (.07)	.12 (.08)	.12 (.06)	.16 (.08)	.25 (.12)	.16 (.08)	.16 (.09)	.25 (.12)	.16 (.09)	.25 (.13)	.14 (.07)	.16 (.09)	.20 (.10)	.08 (.04)
3. Wheat	.16 (.05)	00 (.00)	.05 (.01)	.50 (.13)	.33 (.06)	.33 (.06)	.50 (.10)	.33 (.08)	.16 (.03)	.75 (.19)	.75 (.15)	.75 (.14)	.50 (.10)	.75 (.13)	.50 (.10)	.50 (.11)	.75 (.15)	.50 (.09)	1.00 (.23)	.75 (.14)	.50 (.12)	.16 (.02)
4. Fish/Meat	1.00 (.93)	.50 (.41)	1.00 (.86)	1.00 (1.03)	1.00 (.81)	1.00 (.87)	1.00 (.94)	1.00 (.92)	1.00 (.98)	2.00 (1.22)	1.00 (.97)	1.00 (.99)	1.00 (.92)	1.00 (.99)	1.00 (.93)	2.00 (1.48)	2.00 (1.37)	1.00 (1.01)	2.00 (1.58)	1.00 (1.01)	1.50 (1.08)	2.00 (1.98)
8. Milk	.25 (.08)	1.00 (.26)	.12 (.03)	.20 (.05)	.08 (.02)	.04 (.01)	.08 (.02)	1.00 (.30)	.04 (.01)	00 (00)	.12 (.03)	.20 (.05)	.20 (.05)	.75 (.87)	.16 (.04)	.25 (.07)	.12 (.03)	.08 (.02)	.50 (.15)	.50 (.14)	.12 (.03)	2.00 (.50)
9. Vegetable	1.00 (.20)	.50 (.12)	1.50 (.31)	1.50 (.30)	1.50 (.38)	1.50 (.37)	1.50 (.37)	2.00 (.43)	2.00 (.39)	1.50 (.37)	2.00 (.39)	2.00 (.44)	3.00 (.62)	2.00 (.52)	2.00 (.44)	1.50 (.36)	1.50 (.36)	2.00 (.42)	1.50 (.31)	2.00 (.46)	2.00 (.46)	1.50 (.39)
	(n=6)	(n=7)	(n=2)	(n=8)	(n=6)	(n=2)	(n=5)	(n=2)	(n=5)	(n=2)	(n=2)	(n=3)	(n=6)	(n=2)	(n=2)	(n=5)	(n=8)	(n=5)	(n=2)	(n=2)	(n=5)	(n=8)
Economic Class 5 & 6																						
1. Rice	5.00 (1.69)	2.50 (.73)	6.00 (2.08)	5.50 (1.83)	7.00 (2.45)	7.00 (2.34)	8.50 (2.92)	8.00 (2.70)	10.00 (3.42)	9.00 (3.09)	10.50 (3.51)	8.50 (2.86)	10.50 (3.61)	11.50 (3.44)	11.00 (3.81)	10.50 (3.50)	10.50 (3.56)	9.50 (3.23)	11.00 (3.71)	11.00 (3.69)	9.50 (3.25)	9.50 (3.26)
2. Pulses	.12 (.06)	.08 (.04)	.16 (.08)	.18 (.05)	.16 (.08)	.25 (.15)	.25 (.12)	.25 (.14)	.08 (.04)	.58 (.19)	.20 (.10)	.16 (.08)	.16 (.08)	.25 (.12)	.14 (.07)	.14 (.07)	.12 (.06)	.33 (.81)	.33 (.81)	.08 (.04)	.12 (.06)	.16 (.06)
3. Wheat	00 (00)	.05 (.01)	.25 (.05)	.10 (.02)	.20 (.04)	00 (00)	.20 (.08)	.50 (.09)	.20 (.04)	00 (00)	.12 .03)	00 (00)	.25 (.06)	.33 (.87)	.33 (.08)	.25 (.05)	.10 (.02)	00 (00)	.00 (00)	.20 (.04)	.12 (.06)	.25 (.05)
4. Fish/Meat	.50 (.57)	.50 (.64)	1.00 (1.02)	2.00 (1.42)	1.00 (1.08)	2.00 (1.74)	1.00 (.95)	1.50 (1.20)	1.50 (1.16)	1.50 (1.12)	1.50 (1.22)	1.00 (.94)	1.50 (1.20)	1.50 (1.31)	1.50 (1.29)	2.00 (2.08)	2.50 (2.25)	2.00 (1.72)	1.50 (1.82)	1.50 (1.18)	1.50 (1.40)	2.00 (1.79)
8. Milk	.33 (.09)	.50 (.10)	00 (00)	2.00 (.50)	1.00 (.20)	.50 (.15)	.33 (.08)	1.00 (.20)	00 (00)	00 (00)	.50 (.10)	00 (00)	.33 (.08)	.12 (.03)	.50 (.12)	2.00 (.50)	2.50 (.62)	1.50 (.40)	.84 (.20)	.60 (.17)	2.00 (.46)	1.50 (.36)
9. Vegetables	.50 (.19)	.50 (.17)	1.50 (.38)	1.50 (.30)	1.50 (.37)	1.00 (.29)	1.50 (.38)	2.00 (.41)	1.50 (.30)	3.00 (.89)	1.50 (.33)	1.50 (.40)	2.00 (.46)	2.00 (.55)	2.00 (.53)	3.00 (.93)	3.00 (.80)	1.50 (.39)	1.50 (.38)	1.50 (.38)	1.50 (.39)	2.00 (.41)

Note: 1. Figures in the parenthesis indicates the price in Taka and those not within the parenthesis should indicate quantity measured in terms of 'chatrak' (A chattack is one-sixteenth amount of a seer). Quantity of consumption of Major food items are calculated in terms of chatrak.

2. The sign 00 represents no consumption in that age and sex group.

bit more than 100 percent from Tk.2.09 of 8-10 years age group to Tk.4.27 in 11-13 years age group. The educational expenses of boys are higher comparing to that of girls, since parents spend more money in terms of education of their sons than their daughters. In many cases, private/house tutors are engaged for male children. Boys after 16 and girls after 13 years of age are found irregular in attending school. Because of this high cost of education, poor parents often limit their children's education to primary schooling.

Representing these data by economic classes, table 6.18 also suggests the increased cost of education after primary level and here the cost is found higher among the big landowning classes, since the children of landed parents spend additional amounts in purchase of stationaries, transport and tiffin.

Though monthly costs of clothing appear to be substantial, yet, young children in the village are found, in most cases, to use the clothes of their elders. One shirt, one ganji (under shirt), and one lungi (a particular type of dress used commonly by males to cover the lower portion of the body) are found sufficient for daily use of an adult male, while one or two others are made for occasions, like going to

outside to attend a wedding or for visit to a relation's house in town or elsewhere. New clothes are mostly prepared on the eve of some big occasions like Eid (it is a religions festival of the Muslims) or Marriage. In some cases, after the good harvest, clothes are purchased. However, the demand for clothes grow for those children who attend school or reside in town for higher education or engage in some trade over there. Analysing the expenses of clothing by economic class, table 6.18 suggests that, in general, landholding has a positive effect of expenditure on clothing, implying that as the landholding size increases, the expenses on clothing also increases.

Expenditure on medicine by parents in the raising of children is not substantial in the village, since the hospital facilities are few and far between. Though delivery cost of women is calculated separately, yet this has been included under medicine. In the village, babies are mostly delivered by the local traditional mid-wives (Dais) and medicines are supplied by local unqualified doctors and hakims. The traditional mid-wives (who are usually old women, spend most of their time in doing some other jobs and attend to births as a supplementary activity) who usually attend the mother with her primitive surgical skills, provide a source of pre-natal and post-natal care as well as also delivering the baby. As village

is less developed, therefore, people rely on traditional lower cost health services. Few go to hospital, which is situated about five miles away from the village. Those who go to hospital, mostly being the relatively richer households and those who have developed complications relating to child birth.

We have the records of 56 births during the study period. Husbands of all these households were asked to recall costs incurred on the delivery of the last child and this is presented in table 6.21

Table 6.21

Average costs (in Taka) incurred on the delivery of the last child

ITEMS OF EXPENDITURE	HUSBANDS
1. Doctor/Nurse/Midwife/Hakim	27.18 (19.50)
2. Medicine (Homeopath/Alopath/Kabiraji)	33.21 (23.83)
3. Special Food	36.62 (26.28)
4. Ceremony	42.36 (30.39)
TOTAL (Taka)	139.37) (100.00)
Number of Respondents	56

Note: Figures in the parenthesis represent the percentage.

As per the opinion of husbands, the average costs related to the delivery of the last child is recorded as Tk.139.37. However, table 6.21 indicate that the actual costs of delivery is about one-fifth of the total costs. Traditional mid-wife usually do not take any fees. In most cases, old sarees (womens dress) of the house-wife and some amount of rice is given to her. In addition to this, she is also served with meals on the occasions of her visits during and after child birth. In few cases, money is paid in cash. The payment to a mid-wife or to a nurse actually depends on the economic conditions of the family.

The table indicates that about 40 percent of the costs incurred on the delivery of the last child is spent on various ceremonies. Whether such ceremonies are held or not, and if such ceremonies are held, the amount of money spend depends on the following :

i) the child which is born, whether it is a first child,

ii) whether the child is a boy, and

iii) the economic conditions of the household.

It is, of course, true that big landowning households usually spend more money on various items related to child birth. As such, expenses on medicine are found

to be higher in big landowning classes comparing to those of landless classes 1 & 2 (see table 6.18).

6.4.3 Monthly Breakdown of Direct Costs

It is assumed that per capita expenditure on food and other items are not uniform in all months of the year. These will vary with the tempo of agricultural activities in the village. Table 6.22 provides a detail picture of the monthly breakdown of direct maintenance costs of males. The same is repeated for females in table 6.23[19].

Some interesting results are noticed from the findings of both the tables.

i) Per capita expenditure on food and other items are found to vary with the ebb and flow of agricultural seasons. Aus. crop is usually harvested in August and Aman crop in December and January. In some cases, from the latter part of November, harvesting of Aman crop started. Generally, after the harvesting, farmers earn money by selling their crops in the market. As such, per capita expenditure in those months are recorded higher. February is the lean month when agricultural activities start falling and prices of food stuffs begin to rise. As such, per capita expenditure in the month of February rises. Again, transplantation of Aman crop starts from the last part of July. During the transplantation period more cash is required for proper

19 Difficulty in determining the actual quantity of consumption of items like edu. clothing & medicine enforces the researcher to put data by actual per capita expenditure basis.

TABLE 6.22

Detail monthly break down of average total expenditure (in taka) incurred on food items per person, per day and on education, clothing and medicine, per person per month among Males of various age groups in a peasant community in Bangladesh.

DETAIL MONTHLY BREAKDOWN OF AVERAGE TOTAL EXPENDITURE (IN TAKA) OF MALES

Months	3-4 (n=32)		5-7 (n=13)		8-10 (n=28)		11-13 (n=24)		14-16 (n=21)		17-19 (n=9)	
	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M
A	2.59	10.19	3.99	30.48	4.10	26.13	5.65	56.68	6.14	22.60	7.80	42.00
S	2.53	7.79	4.05	13.27	3.67	10.33	5.33	21.59	5.80	3.49	6.64	2.08
O	2.95	1.32	3.56	.42	3.69	.63	4.39	1.98	4.74	18.13	6.82	7.50
N	3.19	6.55	3.59	3.96	4.92	7.19	5.48	11.51	6.00	17.99	7.41	24.51
D	2.69	1.40	3.78	5.39	4.75	7.18	4.45	40.45	4.49	21.61	6.79	22.58
J	2.68	7.79	3.47	22.81	3.32	10.26	3.78	51.52	4.22	59.08	7.30	11.00
F	2.78	3.08	4.30	14.76	4.28	31.81	4.55	45.08	5.60	55.18	6.92	24.25
M	2.31	.33	2.97	7.75	3.99	3.71	4.78	5.83	4.87	35.85	6.38	11.57
A	2.58	2.42	3.17	7.58	3.94	4.89	4.89	43.18	5.00	25.95	6.21	28.49
M	2.19	1.01	3.45	6.31	3.96	3.57	4.56	22.46	5.12	33.12	6.15	20.00
J	2.00	2.35	3.43	17.37	4.23	2.63	4.77	25.01	5.24	32.39	6.26	23.49
J	2.56	.11	3.22	00	3.47	1.67	5.07	9.28	4.66	1.35	5.81	16.16
TOTAL	30.65	44.34	42.98	133.10	48.32	110.00	57.75	[illegible]	61.48	348.72	80.09	238.65
AVERAGE	2.55	3.69	3.58	11.09	4.03	9.16	4.81	27.88	5.15	27.39	6.69	19.47

Months	20-24 (n=20)		25-29 (n=28)		30-39 (n=38)		40-49 (n=25)		50+ (n=26)		TOTAL FOOD	TOTAL E+C+M	AVERAGE FOOD (Per day)	AVERAGE E+C+M (Per month)
	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M				
A	7.31	34.41	8.26	21.35	8.29	27.43	7.13	27.26	7.14	15.56	68.20	314.38	6.20	26.58
S	7.14	11.50	7.84	36.74	8.38	17.65	6.67	18.95	7.39	13.21	65.14	162.60	5.92	13.78
O	7.58	17.48	7.02	24.87	8.27	4.61	6.13	2.03	6.94	17.92	65.09	96.89	5.64	8.81
N	7.47	20.25	7.88	17.98	8.43	5.88	6.63	23.95	7.34	16.16	68.34	155.93	6.21	13.17
D	6.94	31.03	6.83	33.26	8.56	24.13	6.29	23.55	7.59	54.10	63.16	267.68	5.74	22.33
J	6.13	82.21	5.54	14.54	8.26	21.13	6.43	46.50	7.14	27.59	58.27	354.41	5.30	32.22
F	7.32	3.00	7.75	29.96	8.29	29.33	8.06	5.36	7.16	32.54	67.01	274.35	6.09	22.94
M	6.28	12.47	6.87	8.84	7.58	14.74	7.19	4.54	6.21	.94	59.52	106.57	5.41	9.69
A	7.48	8.14	7.37	28.84	8.12	7.81	7.35	25.75	6.41	12.53	62.72	193.58	5.70	17.60
M	6.52	29.21	7.03	39.73	7.93	9.25	7.09	32.13	6.04	12.29	60.04	211.08	5.46	19.19
J	7.05	16.27	7.55	61.21	7.71	24.40	7.33	43.36	5.50	17.32	61.07	265.80	5.55	24.16
J	6.55	18.34	6.18	22.11	7.01	6.33	7.37	9.59	5.93	10.75	57.49	95.89	5.25	8.72
TOTAL	83.93	[illegible]	86.12	333.63	96.83	192.89	83.67	260.97	80.55	237.00	758.01	2459.16	68.45	227.19
AVERAGE	6.99	23.69	7.17	28.30	8.06	16.07	6.97	21.75	6.71	19.75	62.75	204.26	5.70	18.93

Note: E+C+M refers to expenditure on Education, Clothing and Medicine.

TABLE 6.23

Detail monthly breakdown of average total expenditure (in Taka) incurred on food items per person, per day and on education, clothing and medicine, per person, per month among females of various age groups in a peasant community in Bangladesh.

MONTHS	DETAIL MONTHLY BREAKDOWN OF AVERAGE TOTAL EXPENDITURE (IN TAKA) OF FEMALES																				TOTAL FOOD	TOTAL E+C+M	AVERAGE FOOD (Per day)	AVERAGE E+C+M (Per month)
	1-4 (n=32)		5-7 (n=28)		8-10 (n=34)		11-13 (n=21)		14-16 (n=18)		17-19 (n=13)		20-24 (n=20)		25-29 (n=22)		30-39 (n=31)		40-49 (n=16)		50+ (n=37)					
	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M	Food	E+C+M		
A	1.84	8.39	3.86	23.18	4.29	13.46	5.49	16.57	6.47	17.66	6.16	17.91	6.72	38.11	7.65	47.53	6.48	5.30	7.13	3.25	6.95	14.92	63.02	196.28	5.73	18.75
B	2.16	3.30	3.78	9.2-	3.46	11.43	4.79	5.05	5.83	28.00	5.14	32.83	6.64	19.47	7.96	29.98	6.15	28.89	6.92	16.09	5.91	12.37	59.04	196.67	5.37	17.88
C	1.52	.73	4.14	4.26	4.07	1.92	4.65	12.47	5.28	3.35	4.90	5.75	5.85	2.50	7.28	38.30	6.15	5.82	5.30	3.27	6.27	.72	55.41	85.09	5.04	7.74
D	2.11	2.10	4.60	6.09	4.62	11.50	4.67	9.52	6.08	12.40	5.26	1.25	6.82	15.14	6.73	66.50	6.53	24.53	4.91	16.13	7.19	25.07	59.48	190.23	5.41	17.29
E	2.17	2.19	4.11	11.15	5.16	4.04	5.12	20.48	5.15	11.57	5.49	89.58	6.43	14.64	6.12	28.50	6.27	9.12	5.22	6.54	6.48	23.68	57.72	21.49	5.25	23.14
F	1.86	4.22	3.55	1.54	4.71	4.87	4.72	12.25	4.73	15.53	4.62	00	6.86	7.75	6.42	27.20	5.89	14.86	4.51	34.69	6.79	14.39	52.66	137.65	4.79	12.51
G	1.62	2.85	5.51	12.47	4.42	7.34	4.85	12.51	5.87	1.58	5.03	26.17	6.09	48.29	7.79	50.37	6.35	10.80	6.38	10.50	6.12	15.00	58.03	197.88	5.27	17.99
H	1.54	.42	4.34	2.33	4.59	8.59	5.09	6.25	4.78	13.54	5.16	29.25	6.18	18.75	6.72	26.99	6.02	12.75	5.79	3.65	6.37	7.50	56.28	156.32	5.11	14.20
I	1.57	1.60	5.46	4.52	3.97	2.91	4.56	3.25	6.31	13.13	5.40	4.25	5.93	18.77	6.17	48.50	5.97	2.84	6.52	7.42	6.05	1.09	55.89	108.08	5.08	9.83
K	1.37	.73	5.13	2.81	5.99	2.51	4.87	16.38	5.31	8.37	4.49	22.87	5.89	30.45	5.91	58.54	5.94	8.35	6.08	7.75	5.65	5.53	52.63	164.47	4.78	14.95
L	1.50	1.55	5.45	3.05	3.73	3.14	5.24	14.97	5.52	14.03	4.73	42.35	6.72	67.53	5.46	20.77	5.49	27.50	5.83	23.42	5.69	11.31	55.26	235.60	4.85	21.42
M	1.91	1.45	5.19	2.57	3.57	3.39	4.41	3.49	4.24	5.00	4.08	6.17	5.44	8.80	5.61	7.15	5.18	.39	5.21	18.22	5.66	8.11	48.10	67.02	4.37	6.09
TOTAL	23.77	29.82	44.82	82.83	50.88	91.10	58.46	135.19	69.53	144.16	60.46	280.18	73.57	290.20	79.82	450.35	72.42	151.15	69.80	162.91	75.09	140.59	671.62	194.48	61.05	176.79
AVERAGE	1.73	2.48	3.73	6.90	4.24	6.75	4.87	11.10	5.46	12.01	5.03	23.34	6.13	24.17	6.65	37.53	6.06	12.59	5.81	13.58	6.25	11.71	55.96	162.20	5.08	14.74

Note: E+C+M refers to expenditure on Education, Clothing and Medicine.

cultivation of crops. Farmers in the village during sowing/transplantation period, suffer from cash constraint. As a result, expenditure on food and clothing during that time register a sharp of decline. We can sum up the discussion by saying that cultivators start getting cash from the late part of November up to January after Aman harvest and in the months of August and September after Aus harvest. Expenditure on food, clothing and other items in those months rises. Rise in expenditure in other lean periods, is the result of increased prices of rice and additional expenditures incurred in ceremonies like eid and marriages which occured in those months during the course of this study.

ii) The variation of expenditure both in case of males and females over the months are not very significant in case of food. The maximum variation over different months is recorded as Tk.1.09 for males and Tk.1.36 for females in food. But, with regard to expenditure on education, clothing and medicine, the per capita expenditure variation extends from Taka 8.72 to Taka 32.22 in case of males and for females, it lies in between Taka 6.09 to Taka 21.42.

iii) Food expenditure of males in all months of the year are recorded higher comparing to the food expenditure of females. Only with few exceptions, the average expenditure on education, clothing and medicine of males are also recorded higher comparing to those of females.

The data and the analysis of the monthly breakdown of direct costs provide some normal behaviour on the part of the people of Muiyarchar. The hypothesis that males spend more than females and the rise of per capita expenditure after crop harvest and fall in per capita expenditure in lean periods, are borne out by the data.

6.4.4 Distribution of Costs by Family Size

It is assumed that with the increase of family size, the average cost, per child, in the family will increase. But, in the course of the study this assumption was not hold good. Table 6.24 shows the distribution of average expenditure (in Taka) per person, per day on food items and per person, per month on education, clothing and medicine of children residing in parents household by age, sex and family size.

With few exceptions, the findings of the table exhibits a negative relationship between the size of the family and the average expenditure per children, implying that higher the number of children residing in a particular family, the lower is the average expenditure per child on food, education, clothing and medicine.

As children do not belong to the same age group, and command the same taste for all items of food, as such, increase in family size do not effect the food costs of children at uniform rate. Young children used

Table 6.24

Distribution of average expenditure (in Taka) per person, per day on food and per person, per month on Education, clothing and medicine of own children residing in parents household by Family Size

AGE GROUP	AVERAGE EXPENDITURE (IN TAKA) BY FAMILY SIZE							
	0-1		2-3		4-5		6+	
	FOOD[1]	E+C+M[2]	FOOD[1]	E+C+M[2]	FOOD[1]	E+C+M[2]	FOOD[1]	E+C+M[2]
0- 4	5.60 ctk[3] (2.25)	- (3.87)	5.34 (2.19)	- (3.92)	5.49 (2.21)	- (3.70)	5.07 (2.03)	- (3.55)
5- 7	9.79 (3.62)	- (11.0)	9.75 (3.60)	- (10.72)	9.56 (3.46)	- (10.50)	9.57 (3.44)	- (10.42)
8-10	12.05 (4.27)	- (9.10)	11.91 (4.16)	- (9.25)	11.77 (4.11)	- (9.00)	11.72 (4.10)	- (9.12)
11-13	12.84 (4.55)	- (19.17)	12.90 (4.58)	- (18.17)	12.62 (4.44)	- (16.10)	12.40 (4.39)	- (16.00)
14-16	14.47 (5.08)	- (26.28)	14.40 (5.02)	- (25.10)	14.32 (4.98)	- (24.15)	14.06 (4.92)	- (22.71)
17-19	16.86 (5.83)	- (28.66)	16.66 (5.73)	- (27.42)	16.60 (5.69)	- (26.10)	16.26 (5.61)	- (24.82)
20-24	18.17 (6.05)	- (28.69)	17.78 (5.91)	- (29.15)	17.76 (5.87)	- (28.17)	17.58 (5.82)	- (24.12)
25-29	19.05 (6.44)	- (30.37)	18.67 (6.31)	- (24.12)	18.50 (6.21)	- (21.12)	18.22 (6.07)	- (20.10)
30+	20.77 (6.47)	- (18.72)	20.26 (6.41)	- (18.20)	20.33 (6.29)	- (16.28)	20.20 (6.29)	- (14.05)

1 Items like rice, pulses, wheat, fish, meat, milk and vegetables are included under Food. It represents the sum of average total quantity of food taken by an individual per day along with its price.

2 E+C+M refers to Education, Clothing and Medicine. It represents the sum of average total expenditure on education, clothing and medicine.

3 Quantity of food are measured in terms of chattack (A chattack is one-sixteenth part of a seer).

Figures in the parenthesis indicate the price and those not in the parenthesis indicate the quantity.

to consume less. Thus, as family grows large, the average food consumption declines. Again, parents with more children are usually found not sending their all children to school. This might be the reason, as to why the average expenditure per child on education is found falling with the increase of family size. Moreover, young children are usually found using the old books, stationaries and clothes of their elders. This also minimises the average expenditure, per child on education and clothing, as family size increases. However, expenditure on medicine in the raising of children is not substantial in the village, where people rely on traditional lower cost health services. As such, average expenditure, per child on medicine are found declining with the increase of family size. This might be the reasons of low average costs, per child, when family size increases.

6.4.5 Intra- Family Distribution of Costs

In a patriarchal family, the head of the household is the father or the oldest kin-member. Here all members of the family live together under the authority of a patriarchal head. His authority over other members and over household affairs by peasant customs implied both autocratic rights and extensive duties of care and protection. Children in patriarchal family are the subordinate members of the household. Their mode of

behaviour relating to consumption and production is determined by the patriarch. Women, in spite of their burden of labour (both housework and field work) and their functional importance in a peasant household are always placed under the authority of a male. As a result, intra-family consumption pattern is such that father consumes more, which is followed by mother son, daughter and other relations.

The same information is represented in table 6.25. The table indicates that sons are consuming more than daughters and this has been found true in all age groups. Though mothers are found consuming less than fathers, yet the consumption of both fathers and mothers are recorded a little bit more than the consumption of both sons and daughters. Other kin-members of the household usually consume less than the family members. This is more true in case of females than those of males.

However, the growth of the family create additional consumption pressures. The patriarch in that case, try to expand his landed property and income by buying or renting additional land and equipment and, at times, employing his family's labour in trades or in some other occupations. Thus, the growing up of children and the use of their additional labour to family's farm help to minimise the consumption needs in a peasant family.

TABLE - C35

Table showing the average quantity of food taken per person, perday along with price by intra-family pattern (i.e. Son, Daughter, Father, Mother & Others)

INTRA-FAMILY DISTRIBUTION

Age Group	Son (n=151)[1] Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable	Daughter (n=122)[2] Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable
0-4	3.12 (1.17)	.13 (.07)	.22 (.04)	.73 (.43)	.30 (.04)	.07 (.21)	2.73 (.83)	.13 (.06)	.18 (.04)	.56 (.44)	.27 (.14)	.75 (.19)
5-7	6.19 (1.82)	.14 (.07)	.33 (.06)	1.37 (1.27)	.18 (.04)	1.88 (.39)	5.75 (1.75)	.17 (.09)	.20 (.06)	1.18 (1.09)	.73 (.22)	1.37 (.38)
8-10	7.75 (2.28)	.18 (.10)	.44 (.09)	1.37 (1.27)	.65 (.16)	1.48 (.37)	7.58 (2.29)	.24 (.13)	.47 (.10)	1.25 (1.07)	.18 (.05)	1.37 (.38)
11-13	8.73 (2.54)	.22 (.14)	.46 (.09)	1.50 (1.33)	.22 (.06)	1.73 (.43)	8.73 (2.63)	.28 (.13)	.28 (.08)	1.83 (1.05)	.52 (.14)	1.87 (.38)
14-16	10.12 (2.91)	.24 (.15)	.58 (.12)	1.15 (1.58)	.12 (.05)	1.87 (.40)	10.00 (3.08)	.28 (.15)	.38 (.10)	1.56 (1.31)	00 (00)	1.87 (.31)
17-19	11.87 (3.49)	.29 (.18)	.31 (.16)	1.50 (1.50)	.35 (.10)	1.87 (.44)	10.83 (3.34)	.26 (.18)	.30 (.10)	1.00 (.80)	.20 (.06)	2.00 (.38)
20-24	13.00 (3.61)	.29 (.18)	.88 (.17)	1.73 (1.59)	.28 (.05)	2.09 (.45)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
25-29	12.64 (3.76)	.33 (.21)	.98 (.19)	1.85 (1.55)	.39 (.13)	2.33 (.56)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
30-39	13.00 (3.98)	.37 (.19)	1.00 (.20)	1.73 (1.44)	.12 (.03)	2.30 (.61)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
40-49	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
50+	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)

Age Group	Father (n=[illegible]) Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable	Mother (n=[illegible]) Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable
0-4	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
5-7	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
8-10	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
11-13	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
14-16	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)
17-19	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	12.46 (3.62)	.25 (.15)	.62 (.13)	1.25 (1.32)	.12 (.04)	1.83 (.45)
20-24	.75 (3.78)	.35 (.19)	1.00 (.20)	2.08 (1.50)	00 (00)	2.00 (.46)	12.75 (3.71)	.25 (.15)	.38 (.12)	1.30 (1.23)	1.37 (.42)	2.30 (.48)
25-29	13.85 (3.86)	.39 (.21)	1.33 (.27)	2.17 (1.77)	.25 (.07)	2.33 (.62)	13.12 (3.83)	.29 (.16)	.62 (.13)	2.12 (1.67)	.87 (.26)	2.12 (.52)
30-39	13.75 (4.05)	.85 (.30)	1.05 (.21)	2.12 (1.84)	.77 (.24)	2.62 (.66)	13.12 (3.82)	.39 (.21)	.75 (.16)	1.75 (1.47)	.20 (.08)	1.87 (.44)
40-49	13.37 (3.94)	.58 (.30)	1.17 (.24)	2.12 (1.81)	.80 (.16)	2.12 (.54)	13.00 (3.84)	.27 (.14)	.67 (.14)	1.36 (1.33)	.61 (.23)	1.67 (.45)
50+	12.62 (3.77)	.58 (.32)	1.25 (.26)	2.00 (1.73)	.48 (.14)	2.12 (.55)	12.00 (3.47)	.18 (.10)	.37 (.09)	1.75 (1.40)	.08 (.02)	2.30 (.54)

Age Group	Male (n=36)[3] Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable	Female (n=72)[4] Rice	Pulses	Wheat	Fish/ Meat	Milk	Vegetable
0-4	4.00 (1.06)	.08 (.04)	.14 (.03)	.50 (.36)	.04 (.01)	[illegible] (.15)	2.75 (.72)	.10 (.05)	.16 (.04)	.40 (.37)	00 (00)	.37 ([illegible])
5-7	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	00 (00)	5.50 (1.35)	.12 (.08)	.12 (.03)	.50 (.37)	00 (00)	[illegible]
8-10	7.00 (1.97)	.12 (.06)	.20 (.04)	.75 (.62)	.08 (.02)	.75 (.13)	6.85 (1.87)	.18 (.17)	.38 (.09)	.83 (.65)	.04 (.01)	[illegible]
11-13	8.50 (2.51)	.30 (.16)	.36 (.07)	2.00 (1.64)	.38 (.03)	1.25 (.32)	7.75 (2.30)	.15 (.08)	.37 (.09)	1.00 (.80)	1.00 (.30)	[illegible]
14-16	9.75 (2.83)	.44 (.27)	.42 (.09)	2.25 (1.34)	.28 (.01)	1.37 (.35)	9.25 (2.43)	.22 (.11)	.50 (.13)	1.00 (.78)	00 (00)	[illegible]
17-19	11.00 (3.27)	.11 (.06)	.31 (.08)	1.50 (1.30)	.30 (.15)	1.50 (.40)	10.16 (2.92)	.33 (.16)	.50 (.11)	1.17 (.92)	00 (00)	[illegible]
20-24	12.30 (3.54)	.18 (.11)	.30 (.11)	1.35 (1.19)	.28 (.08)	1.66 (.45)	10.50 (3.30)	.14 (.08)	.25 (.06)	1.00 (.80)	.75 (.22)	[illegible]
25-29	12.75 (3.69)	.20 (.11)	.41 (.08)	1.50 (1.28)	.50 (.15)	2.33 (.58)	11.30 (3.41)	.20 (.12)	.53 (.11)	1.50 (.85)	.20 (.06)	[illegible]
30-39	12.00 (3.54)	.14 (.10)	.47 (.14)	1.83 (1.58)	1.08 (.32)	2.30 (.54)	14.30 (3.93)	.40 (.22)	.30 (.12)	2.00 (1.57)	00 (00)	[illegible]
40-49	15.20 (3.75)	.25 (.13)	.12 (.02)	2.00 (1.60)	00 (00)	2.00 (.50)	11.50 (3.58)	.16 (.14)	.25 (.17)	1.30 (.80)	.50 (.15)	[illegible]
50+	15.00 (3.75)	.25 (.13)	.12 (.02)	1.00 (.75)	.04 (.01)	2.30 (.50)	11.62 (3.40)	.25 (.12)	.42 (.13)	1.75 (1.45)	2.00 (.60)	[illegible]

1. Out of 151 sons, 43 are of [illegible] 0-4 years of age.
2. Out of 122 daughters, 26 are of 0-4 years of age.
3. Out of 36 other male relations, 9 are of 0-4 years of age.
4. Out of 72 other female relations, [illegible] of age.

Note: a. Figures in the Parenthesis indicate the Price.

b. Quantity of consumption of major food items are calculated in terms of Chattak (which is one-sixteenth of a seer)

c. The sign 00 indicates that no person of this age group is reported, and that of (00) indicates no Price.

6.4.6 Indirect Costs

Besides direct costs, parents also bear various types of indirect (or opportunity) costs in raising children. Indirect costs are measured by the earning potential which parents forgone as a result of bearing and rearing children. Curtailment of consumption expenditure, reduction of savings and investment, and giving up of income-earning possibilities (or time) are some of the important results of indirect costs.

Indirect costs involve opportunities forgone when time spent in child care. Child care is universally considered as the mother's responsibility. Therefore, it effects the mother's time. In the analysis of indirect costs women's actual or potential market wage is usually used as an indicator of the value of her time. If she is employed, the opportunity cost of the time she spends on children is the wage rate she earns from employment. If she is not employed, however, the value of time at home is greater than the wage rate could earn in the market. The assumption underlying this argument is that an women works only when the wage she can earn is greater than the marginal value to her of the forgone leisure or home activity. Otherwise, she does not work (Yoram Ben-Porath, 1973, pp.697-704)[20].

20 Yoram Ben-Porath 1973 "Labour Force Participation Rates and the Study of Labour", Journal of Political Economy, 81, No.3, May/June, pp.697-704.

Conversely this argument implies that for any two women with identical opportunities for home production (i.e. the same family size and composition), the women with a high potential market wage is more likely to work than the other. Hence, other things being equal, women who work have a higher price of time than the non-working women and will tend to have fewer children. In the study village, for example, no mother is found working to a distant place outside the family as a regular wage earner and hence home production or child care does not affect the mother's time in income earning activity. Here, an attempt is made to measure the effects of indirect costs under two heads :

a) Opportunities forgone by mothers on account of their work, if they are to look after young children; and

b) Opportunities forgone on account of their inability to work immediately before and after the child birth.

Women of the village are found spending a significant portion of their time in child care activities. It is observed that of the total home activities, women 17 years and above spent on average 13.86 percent of their time on child care, while young girls upto 16 years of age spent on average 32.25 percent of their time on child care (see table 6.4).

Usually, children upto 4 years of age are looked

after by their mothers. The responsibility of child care is also shared by other members of household. In the village, the scope of outside employment for women are rare. Few women of landless classes 1 and 2 work in the neighbouring households for 3-4 hours and in most cases they perform post-harvest activities. The findings of work activities of women in the village suggest that opportunity cost of raising children are quite low, because the roles of women as mother and worker are not incompatible, and since the responsibility of looking after young children is shared by other members of the household (particularly by young boys and girls).

Pregnent women of the village usually reside in confinement in a separate room in the households of their own during the time of their child-birth. This creates a number of problems :

First, it creates inconvenience to other members of the household who used to sleep in the room before their confinement;

Second, women under confinement cannot move out of the room and hence cannot devote time to work;

Third, other members of the household usually spend some amount of time in looking after these women, which represents the amount of time forgone from work on the part of such persons.

It has been observed that after the delivery of the last child, women on average do not participate in any directly prodactive activities for about 30 to 35 days. Male respondents (i.e. the fathers of 56 new born babies) said that the average number of days lost by their wives after delivery of the last child was 35.02 days. The opportunity costs of this child birth depends on the time of the year when the child is born and the nature (or type) or works carried out by women. In rural Bangladesh, women are normally found engaged in post-harvest operations and in non-farm activities. Therefore, if children are born in the post-harvest period, then in that case, the mothers lose a significant amount of their work time. Moreover, most women do not spend any time during the first few days of their child birth in any household maintenance work. The number of days women refrain from such activities, however, depends on:

i) the existence of other elder female member in the household, who could carry out these activities;

ii) the economic conditions of the household i.e. whether the household can employ the wage labour to carry out these works;

iii) Thus, the total amount of time lost depends on the timing of the cropping season when the baby is born, the type of activities normally carried out by these women, the availability of other female-members in the household and the health condition of the child and the mother.

6.5 Net Economic Value of Children : An Estimate

An attempt is made here to measure the net economic value of children in village Muiyarchar. Net productivity of children at different ages can be calculated by considering the economic contribution of children along with the economic costs of rearing them.

Table 6.26 presents an illustrative calculation of the net productivity of male children. Column 2 and 3 of the table are based on extensive calculation of food costs along with other expenses on education, clothing and medicine as presented in table 6.17. Column 5 presents productive time-inputs (table 6.3), and returns of labour in columns 6 to 11 are calculated from monthly wage data of table 6.16, representing seasonal wage differential. Finally, net productivity are calculated for each age group in columns 12 to 17 on the basis of those monthly wage variations.

Several striking findings emerge from table 6.26. First, male children consume substantially more than they produce (in all months of the year) until they reach 14-16 years of age.

Second, male children from the early ages of fourteen (14) start to compensate their consumption. With the increase of age, net productivity per child increases (up to 29 years of age) and by age twenty (20), they produce almost twice as much as they consume only in peak agricultural months.

Table 6.26

Calculation of net Productivity per person, per day of males using consumption and production data.

AGE GROUP	CONSUMPTION			PRODUCTION							NET PRODUCTIVITY					
	Per capita expenditure on Food[a] (Tk)	Per capita expenditure on E+C+M[b] (Tk)	Per capita total expenditure (Tk)	Productive Time inputs[c] (Hours)	Average returns of labour per person, per day						Net production - per person, per day					
					August/[d] September	October/[e] November	December/[f] January	February/[g] March	April/[h] May	June/[i] July	August/[j] Sept.	Oct./[k] Nov.	December/[l] January	Feb./[m] March	April/[n] May	June/[o] July
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0 - 4	2.55	.12	2.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.67	-2.67	-2.67	-2.67	-2.67	-2.67
4 - 7	3.58	.36	3.94	.35	0.70	0.53	0.71	0.53	0.70	0.64	-3.24	-3.41	-3.23	-3.41	-3.24	-3.30
8 - 10	4.30	.30	4.33	2.39	3.25	2.52	3.26	2.55	3.25	3.20	-1.08	-1.81	-1.07	-1.78	-1.05	-1.13
11 - 13	4.81	.92	5.73	3.26	4.50	3.61	4.80	3.70	4.41	4.17	-1.23	-2.12	- .93	-2.03	-1.32	-1.56
14 - 16	5.21	1.01	6.22	6.34	10.65	6.97	10.78	7.13	10.57	8.11	+4.43	+ .75	+4.56	+0.91	+4.35	+1.89
17 - 19	6.69	.64	7.33	7.33	13.21	9.61	13.26	9.13	13.54	9.46	+5.88	+2.28	+5.93	+1.80	+6.21	+2.13
20 - 24	6.99	.78	7.77	8.20	14.72	10.67	15.67	10.26	15.35	10.91	+6.95	+2.90	+7.90	+2.49	+7.58	+3.14
25 - 29	7.17	.94	8.11	8.53	16.09	11.70	17.17	11.51	17.32	12.01	+7.78	+3.59	+9.60	+3.40	+9.21	+3.90
30 - 39	8.06	.53	8.59	8.16	15.05	10.96	16.05	11.37	16.35	12.11	+6.46	+2.37	+7.46	+2.73	+7.76	+3.52
40 - 49	6.97	.72	7.69	7.49	14.25	10.48	16.00	10.79	15.94	12.28	+6.56	+2.79	+8.31	+3.10	+8.25	+4.59
50 +	6.71	.65	7.36	5.39	10.26	7.57	11.44	7.72	11.36	8.75	+2.90	+ .21	+4.08	+0.36	+4.00	+1.39

a Source: Table 6.17

b Expenditure on Education, clothing and medicine per person, per day are calculated from monthly data (see table 6.17)

c Source : Table 6.3

d Source : Table 6.16, column 3

e Source : Table 6.16, Column 5

f Source : Table 6.16, column 7

g Source : Table 6.16, column 9

h Source : Table 6.16, column 11

i Source : Table 6.16, column 13

j Column 6 - Column 4

k Column 7 - Column 4

l Column 8 - Column 4

m Column 9 - Column 4

n Column 10- Column 4

o Column 11- Column 4

Third, comparing the net productivity of slack agricultural months (October/November; February/March; June/July) with that of peak agricultural seasons (August/September; December/January; April/May), male children are found more productive in peak periods. During peak agricultural months maximum job opportunities tend to mobilize male children to participate in different income-earning activities. Whereas, during the slack agricultural months job opportunities decline. As such, male children, though start to compensate their consumption of slow rate from the age of fourteen, but they cannot produce on average, more than 45 percent as much as they consume until they reach twenty-five years of age.

Mead Cain in his study in a village in Bangladesh found that "male children consume more upto nine years of age and they become net producers sometimes between ages ten and thirteen". His study fails to take into account the monthly wage data. The present study is more accurate in the sense that it has taken into consideration wage data of different peak and slack agricultural months of the year.

However, the analysis presented above cannot claim its complete perfection. These are conservative estimates based on certain assumptions. Wage data cannot determine accurately the labour productivity, when rate and access

to wage employment vary for a number of reasons other than a worker's efficiency. Moreover, productive time-input co-efficients of all economic classes are not uniform. Application of wage data in different economic classes will give different results, and accordingly net economic returns will vary.

Table 6.27 shows the net productivity of male children by economic class. The table indicates that male children from landless classes 1 and 2 start to acquire productive efficiency at earlier ages comparing to those of economic classes 5 and 6. Comparing landless classes 1 and 2 with that of economic classes 5 and 6, it is found that male children of economic classes 1 and 2 start to compensate their consumption from the age of eleven. They compensate more during peak agricultural months and less in the lean periods. Whereas male children of economic classes 5 and 6, cannot compensate their consumption until they reach 17 years of age. This however, is not true for all months. Only in peak agricultural months economic classes 5 and 6 start to compensate their consumption by age seventeen; but during lean agricultural months they cannot compensate their consumption till the age of twenty. Again, where by age fourteen, male children of landless classes 1 and 2 produce almost twice in the slack months and three-times in the peak agricultural

months as much as they consume, in that case, males from economic classes 5 and 6 cannot produce more than twice in peak agricultural months until they reach twenty years of age. However, during slack agricultural months their net productivity cannot exceed more than seventy five percent, by that age, of what they consume.

In case of economic class 3, male children start to compensate their consumption from the age of seventeen and in case of economic class 4, they start to compensate their consumption from the age eleven during peak agricultural months and from the age fourteen during lean periods. This difference occurs, because male children of economic class 4 are found devoting more time in market production activities at earlier ages, comparing to those of economic class 3. Variation of productive time-inputs by economic class thus give different results. Average returns of labour and calculation of net productivity thus depends on productive time-inputs of children, on the one hand and the wage data of lean and peak agricultural months, on the other. The less is the productive time-inputs (hours) and lower is the wage rate (during slack months), net productivity will be delayed. The more is the time devoted on market production activities and more is the

Table 6.27

Calculation of net productivity per person, per day of males by Economic class using consumption and production data

Landless classes 1 & 2:

AGE GROUP	CONSUMPTION				PRODUCTION						NET PRODUCTIVITY					
	Per capita expenditure on food a (Tk)	Per capita expenditure on E+C+M b (Tk)	Per capita Total expenditure (Tk)	Productive Time inputs c (Hours)	Average returns of labour per person, per day						Net production - per person, per day					
					August/d Sept.	Oct./e Nov.	Dec./f Jan.	Feb./g March	April/h May	June/i July	Aug./j Sept.	Oct./k Nov.	Dec./l Jan.	Feb./m March	April/n May	June/o July
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0 - 4	1.97	0.07	2.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.04	-2.04	-2.04	-2.04	-2.04	-2.04
5 - 7	3.20	0.17	3.37	.57	1.14	0.87	1.15	0.87	1.15	1.05	-2.23	-2.50	-2.22	-2.50	-2.22	-2.32
8 - 10	3.53	0.14	3.67	2.50	3.47	2.58	3.49	2.73	3.47	3.43	-0.20	-1.09	-0.81	-0.94	-0.20	-0.24
11 - 13	4.41	0.19	4.60	4.25	5.79	4.65	6.18	4.76	5.67	5.37	+1.19	+0.05	+1.58	+0.16	+1.07	+0.77
14 - 16	4.28	0.40	4.68	8.29	13.66	9.00	13.92	9.21	13.65	10.48	+8.98	+4.32	+9.24	+4.53	+8.97	+5.80
17 - 19	6.19	0.30	6.49	9.17	16.24	11.82	16.31	11.23	16.65	11.64	+11.75	+7.33	+11.82	+6.74	+12.16	+7.15
20 - 24	6.92	1.03	7.95	8.19	14.69	10.65	15.64	10.24	15.31	10.89	+6.74	+2.70	+7.69	+2.29	+7.36	+2.94
25 - 29	6.94	0.49	7.43	8.48	15.94	11.59	17.01	11.40	17.16	11.89	+8.51	+4.16	+9.58	+3.97	+9.73	+4.46
30 - 39	7.47	0.36	7.83	7.40	13.96	10.17	14.88	10.54	14.93	11.23	+6.13	+2.34	+7.05	+2.71	+7.10	+3.40
40 - 49	6.28	0.33	6.61	6.11	11.27	8.29	12.66	8.53	12.61	9.72	+4.66	+1.68	+6.05	+1.92	+6.00	+3.11
50+	6.44	0.55	6.99	6.52	12.46	9.20	13.91	9.38	13.81	10.64	+5.47	+2.21	+6.92	+2.39	+6.82	+3.65

Economic Class 3:

AGE GROUP	CONSUMPTION				PRODUCTION						NET PRODUCTIVITY					
	Per capita expenditure on Food [a] (Tk.)	Per capita expenditure on E+C+M [b] (Tk.)	Per capita total expenditure (Tk.)	Productive Time inputs [c] (hours)	Average returns of labour for persons per day						Net production-per person, per day					
					August/ Sept. [d]	Oct./ Nov. [e]	Dec./ Jan. [f]	Feb./ March [g]	April/ May [h]	June/ July [i]	Aug./ Sept. [j]	Oct./ Nov. [k]	Dec./ Jan. [l]	Feb./ March [m]	April/ May [n]	June/ July [o]
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0 - 4	2.14	0.07	2.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.21	-2.21	-2.21	-2.21	-2.21	-2.21
5 - 7	3.28	0.23	3.51	.17	0.34	0.26	0.34	0.26	0.34	0.31	-3.17	-3.25	-3.17	-3.25	-3.17	-3.20
8 - 10	3.93	0.13	4.06	3.06	3.88	2.95	3.81	2.99	3.80	3.75	-0.26	-1.11	-0.25	-1.07	-0.26	-0.31
11 - 13	4.90	1.02	4.92	1.09	1.50	1.21	1.65	1.23	1.47	1.39	-3.42	-3.71	-3.32	-3.69	-3.45	-3.53
14 - 16	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
17 - 19	6.77	0.10	6.87	8.14	14.40	10.48	14.46	9.96	14.77	10.32	+7.53	+3.61	+7.59	+3.09	+7.90	+3.45
20 - 24	6.94	0.61	7.55	7.32	13.31	9.65	14.17	9.28	13.87	9.86	+5.76	+2.10	+6.62	+1.73	+6.32	+2.31
25 - 29	6.98	1.10	8.08	8.50	16.00	11.64	17.07	11.44	17.22	11.94	+7.92	+3.56	+8.99	+3.36	+9.14	+3.86
30 - 39	7.78	0.36	8.14	7.51	14.29	10.41	15.24	10.80	15.52	11.50	+6.15	+2.27	+7.10	+2.66	+7.38	+3.36
40 - 49	7.03	0.63	7.66	8.12	14.95	10.99	16.79	11.32	16.72	12.89	+1.29	+3.33	+9.13	+3.66	+9.06	+5.23
50 +	6.86	0.58	7.44	3.47	6.87	5.06	7.66	5.17	7.61	5.86	-0.57	-2.38	-0.22	-2.27	+0.17	-1.58

Economic Class 41

AGE GROUP	CONSUMPTION				PRODUCTION						NET PRODUCTIVITY					
	Per capita expenditure on Food a (Tk.)	Per capita expenditure on E+Q+M b (Tk.)	Per capita total expenditure (Tk.)	Productive Time inputs c (hours)	Average returns of labour per person, p.day						Net production on - per person, per day					
					August/ Sept.d	Oct./ Nov.e	Dec./ Jan.f	Feb./g March	April/ May h	June/i July	August/j Sept.	Oct./k Nov.	Dec./l Jan.	Feb./m March	April/n May	June/o July
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0 - 4	2.80	0.13	2.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.93	-2.93	-2.93	-2.93	-2.93	-2.93
5 - 7	3.79	0.27	4.06	.41	0.82	0.62	0.83	0.63	0.83	0.76	-3.24	-3.44	-3.23	-3.43	-3.23	-3.30
8 - 10	4.28	0.29	4.57	2.34	3.14	2.44	3.16	2.47	3.14	3.10	-1.43	-2.13	-1.41	-2.10	-1.43	-1.67
11 - 13	4.96	1.14	6.10	5.04	6.64	5.33	7.09	5.46	6.51	6.16	+0.54	-0.77	+0.99	- 0.64	+0.41	+0.60
14 - 16	5.59	0.94	6.53	7.33	12.24	8.01	12.39	8.19	12.15	9.33	+5.71	+1.48	+5.86	+1.66	+5.62	+2.50
17 - 19	6.86	0.96	7.82	6.37	11.57	8.42	11.62	8.00	11.87	8.29	+3.75	+0.60	+3.80	+0.18	+4.05	+0.47
20 - 24	6.97	0.74	7.71	10.50	19.14	13.87	20.37	13.34	14.95	14.19	+11.53	+6.16	+12.66	+5.63	+12.24	+6.48
25 - 29	7.10	0.81	7.91	9.26	17.09	12.43	18.23	12.22	18.39	12.75	+9.18	+4.52	+10.32	+4.31	+10.46	+4.84
30 - 39	8.21	0.58	8.79	9.08	16.63	12.11	17.73	12.56	18.06	13.38	+7.84	+3.32	+8.94	+3.77	+9.27	+4.59
40 - 49	7.23	0.73	7.96	6.43	12.25	9.00	13.75	9.27	13.70	10.55	+4.29	+1.04	+5.79	+1.31	+5.74	+2.59
50 +	6.73	0.71	7.44	6.41	12.13	8.95	13.54	9.13	13.44	10.35	+4.69	+1.51	+6.10	+1.69	+6.00	+2.91

AGE GROUP	CONSUMPTION				PRODUCTION						NET PRODUCTIVITY					
	Per capita expenditure on Food [a] (Tk.)	Per capita expenditure on E+C+M [b] (Tk.)	Per capita total expenditure (Tk.)	Productive time inputs[c] (hours)	Average returns of labour per person-per day						Net production - per person, per day					
					August/ Sept.[d]	Oct./ Nov.[e]	Dec./J Jan.	Feb./g March	April/h May	June/i July	August/j Sept.	Oct./k Nov.	Dec./l Jan.	Feb./m March	April/n May	June/o July
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0 - 4	3.70	0.19	3.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.49	-3.49	-3.49	-3.49	-3.49	-3.49
5 - 7	4.05	0.78	4.83	.27	0.54	0.41	0.54	0.41	0.54	0.50	-4.29	-4.42	-4.29	-4.42	-4.29	-4.33
8 - 10	4.36	0.65	5.01	2.04	2.53	1.96	2.54	1.99	2.53	2.50	-2.48	-3.05	-2.47	-3.02	-2.48	-2.51
11 - 13	4.98	1.35	6.33	3.05	4.04	3.24	4.31	3.32	3.96	3.75	-2.29	-3.09	-2.02	-3.01	-2.37	-2.58
14 - 16	5.78	1.69	7.47	3.42	6.00	3.92	6.07	3.94	5.95	4.57	-1.47	-3.55	-1.40	-3.53	-1.52	-2.90
17 - 19	6.94	1.21	8.15	6.06	10.67	7.77	10.71	7.38	10.94	7.64	+2.52	-0.38	+2.56	-0.77	+2.79	-0.51
20 - 24	7.14	0.75	7.89	10.41	18.87	13.68	20.09	13.16	19.67	13.99	+10.98	+5.79	+12.20	+5.27	+11.78	+6.10
25 - 29	7.68	1.36	9.04	8.28	15.34	11.15	16.36	10.97	16.51	11.44	+6.30	+2.11	+7.32	+1.93	+7.47	+2.40
30 - 39	8.84	0.82	9.63	8.25	15.32	11.16	16.34	11.58	16.64	12.33	+5.69	+1.53	+6.71	+1.95	+7.01	+2.70
40 - 49	7.34	1.19	8.53	10.09	18.51	13.61	20.78	14.01	20.70	15.05	+9.98	+5.08	+12.25	+5.48	+12.17	+7.42
50 +	6.81	0.78	7.59	5.25	9.82	7.25	10.97	7.40	10.89	8.39	+2.24	-0.54	+3.38	-0.19	+3.30	+0.80

a Source: Table 6.17

b expenditure on Education, clothing and Medicine per person, per day are calculated from monthly data (see table 6.17)

c Source : Table 6.3

d Source : Table 6.16, column 3

e Source : Table 6.16, column 5

f Source : Table 6.16, column 7

g Source : Table 6.16, column 9

h Source : Table 6.16, column 11

i Source : Table 6.16, column 13

j column 6 - column 4

k column 7 - column 4

l column 8 - column 4

m column 9 - column 4

n column 10- column 4

o column 11- column 4

wage rate (during peak agricultural months), net productivity will be ensured comparatively at an earlier age.

In the next table (6.28), the calculations are repeated and these are presented in terms of average daily requirements of caloric consumption. The purpose of calculating this table is to show 'from what age male children are found net producers with minimum wage and minimum productive time inputs'. Because, using higher time-inputs and higher wage-rate, one can show that children become net producers even at a earlier age. Moreover, this table provides certain additional information relating to cumulative product net of consumption of exact age. Here in calculating the net productivity of children, the productive time-inputs co-efficients for economic classes 5 and 6 are used. The rational behind the use of productive time-inputs of economic classes 5 and 6 is that the productive time-inputs co-efficients for other economic classes (landless class 1 & 2, and economic class 3 and 4) are comparatively higher for young male children.

It is evident from the table 6.28 that male children become net producers sometime between the ages of 14 and 20. By age 24, their cumulative production exceed their cumulative consumption. A man between the ages 20-24 consumes the minimum necessary calories for his age

Table 6.28

Calculation of net productivity of Male children based on wage data of slack agricultural months indicating minimum wage rate (October/November)[a]

AGE GROUP	Average daily per person calorie requirements[b]	Productivity per unit time coefficients[c]	Productive time input coefficient[d]	Average daily product gross (calories)[e]	Average daily product net of consumption (calories)[f]	Exact age (X)	Cumulative product net of consumption of exact age (X)[g]
1	2	3	4	5	6	7	8
1	1,043	0.0	0.0	0.0	-1,043	1	-1,043
1- 4	1,368	0.0	0.0	0.0	-1,368	5	-6,515
5- 7	1,201	0.68	0.03	101	-1,100	8	-9,815
8-10	1,201	0.71	0.27	949	- 252	11	-10,571
11-13	1,728	0.78	0.40	1544	- 184	14	-11,123
14-16	2,158	0.79	0.57	2229	+ 71	17	-10,910
17-19	2,158	0.95	0.81	3809	+1,651	20	-5,957
20-24	2,539	0.95	1.39	6537	+3,998	25	+14,033
25-29	2,539	0.98	1.10	5337	+2,798	30	+28,023
30-39	2,413	0.99	1.10	5391	+2,978	40	+57,803
40+	1,848	1.00	1.00	4951	+3,103	-	-

a The purpose of calculating this table is to show 'from what age male children are found productive with minimum wage and minimum productive time-inputs'. Here productivity per unit time co-efficients are calculated from wage data of Oct/Nov. Becaase, the returns of labour in other months are considerably higher.

b Source: Clen "An Analysis of Per Capita Foodgrain Availability, Consumption and Requirements in Bangladesh: A Systematic Approach to Food Planning". Bangladesh Development Studies 3, No.2 (1975), Table 5, Column e.

c Source: Table 6.16, column 5. Calculated by taking child wage as a proportion of average adult (40+) wage.

d Source: Table 6.5. Calculated by taking child productive work hours a proportion of adult (40+) productive work hours for economic classes 5 & 6.

e Column 3 X column 4 X 4951.

f Column 5 - column 2.

g Column 6 X person-years in age group indicated in Col.1.

group 2,539 calories per day. But, he is found producing more than two times as much food as he consumes. By applying time-input data of any economic class other than 5 & 6, representing higher time-inputs and by using wage rate of any other months other than October/November, representing higher wage rate, one can, however, show that children become net producers even at a earlier age.

It is very difficult to calculate the net productivity of female children. Because, within the village are found mostly engaged in household maintenance works participation in directly productive activities by females are more or less limited. Only few women in the village are found engaged in post harvest operations and in non-farm activities. Most of them are represented from landless category 1 and 2.

However, an attempt was made to calculate the wage rate working women engaged in post harvest operation. Wage data on Aman harvest are available. As such, calculation of net productivity of females, on the basis of Aman harvest is presented in table 6.29.

Fifty eight working female children and adult women in the village were interviewed in the course of the study during Aman harvest season in the months of December and January 1979. Females were found mostly paid in kind, in terms of goods. In addition to this, they were mostly

Table 6.29

Calculation of Net Productivity Per Person, Per day of Females, using Consumption and Production data

AGE GROUP	CONSUMPTION			PRODUCTION				NET PRODUCTIVITY
				Wage Data[c]				
	Per capita expenditure on Food[a] (Tk.)	Per capita expenditure on E+C+M[b] (Tk)	Per capita total expenditure (Tk)	N	Average daily wage per person per day based on Aman Harvest (Tk)	Productive time inputed (Hours)	Returns of labour based on wage data[e]	Average daily net surplus of production over consumption[f]
1	2	3	4	5	6	7	8	9
0- 4	1.73	.08	1.81	0	0.0	0.0	0.0	-1.81
5-7	3.73	.23	3.96	1	4.11	1.06	1.13	-2.83
8-10	4.24	.22	4.46	3	6.23	1.09	1.79	-2.67
11-13	4.87	.37	5.24	3	9.06	1.39	3.73	-1.52
14-16	5.46	.40	5.86	5	9.37	2.13	5.19	- .67
17-19	5.03	.77	5.80	8	9.42	2.21	5.53	- .27
20-24	6.13	.80	6.93	9	9.57	2.46	6.61	- .32
25-29	6.65	1.25	7.90	13	9.64	2.46	6.64	-1.26
30-39	6.03	.41	6.43	10	9.61	3.42	8.88	+2.45
40-49	5.81	.45	6.26	3	9.17	3.50	8.78	+2.52
50+	6.25	.39	6.64	3	8.14	2.37	5.32	-1.32

a Source: Table 6.17.

b Expenditure on Education, Clothing and Medicine Per Person Per day are calculated from monthly cost data (see table 6.17).

c Average daily wage of females are calculated on the basis of four hours work from 9 a.m. to 1 p.m. Daily wage includes payments both cash and kind cost of food consumed at the house of the employer is also added with it.

d Source: Table 6.4 ,

e Source: Table 6.29, column 6.

f Column 8 - column 4.

served with meals. On average, it extended upto four hours. Table 6.29 indicates that female children cannot compensate their total consumption by the time they leave their parents household[21]. Between the ages 30-49 female adults produce a little bit more than what they consume. However, though female children and adult women spend lesser time in market production activities, yet they perform household chores and may be just as useful as men.

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21 The mean age at first marriage of females in the study village was calculated as 14.2 years.

CHAPTER - 7

THE ROLE OF CHILDREN AS OLD AGE SECURITY

7.1 Introduction

Children in peasant society are usually considered as a source of security and economic support to their parents, particularly in times of distress and in old age. The environment in which the people of rural areas live is inherently uncertain. Parents in our peasant society have no insurance against illness or accidents and as such social security benefits as old age pensions or unemployment insurance are totally absent. In this situation, children provide the best and perhaps the only source of security to their parents during that time.

In peasant societies, children not only provide care and sustenance to their old parents in times of sickness and difficulty, but the material contribution of children also create a sense of security of mutual obligations. It is also true that "one's own children are unquestionably the preferred source of support,

largely because it is not simply the material contributions involved but also personal relations" (Hull, V.J. 1977)[1]. The close personal ties which parents derive from their children cannot be substituted by any other form of material gain.

The degree of care and help given by children to their elderly parents is assessed in this study by considering (i) the parental control of children both before and after their (children) marriage, and (ii) the living arrangements of elderly persons.

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1 Hull, Valerie J. 1977 "Social and Economic Support for High Fertility in Peasant Communities : General Issues Emerging from Specific Research" in The Economic and Social Supports for High Fertility. Edited by L.T. Ruzicka, Canberra : The Australian National University, Department of Demography, pp.241-250.

7.2 Demographic Survey of Elderly Persons

In rural Bangladesh, children can provide maximum service to their parents by living together in the same house or in the neighbourhood. In an interview, residential pattern of elderly persons were recorded and all other information relating to the behaviour of their children were also studied. The data employed here are those collected from 77 (seventy seven) elderly persons of the village under study. An elderly person is defined here as one whose stated age is 55 years and above. According to this definition, there are altogether 107 elderly persons in the village. But, interview is taken in only 77 cases. In a household, where more than one elderly persons are found, only the eldest member was selected for interview. This has resulted in the exclusion of 30 cases from the study. Women in the same age-group, particularly those who lost their husbands were given the preference in interview to evaluate the role of children as old age security to their widow mothers.

Table 7.1 presents the detail breakdown of demographic profile of the elderly persons, their relationship with the head of the household and residential pattern of their children.

The elderly persons have on an average five living children - three sons and two daughters. The majority of the children (81 percent of sons and 68 percent of

Table 7.1

Demographic Profile of 77 elderly persons, representing headship position and living arrangements of their surviving children by Age, Sex and Marital status.

Age Group (Elderly Persons)	Number of Elderly persons.		Relationship with the head of the family						Living number of children			Children living with the village				Children living out side			
			He/She himself/ herself is the head		Son		Other relations		Age Group of Surviving children (years)	Son	Daughter	Son		Daughter		Son		Daughter	
												Unmarried	Married	Unmarried	Married	Unmarried	Married	Unmarried	Married
	M	F	M	F	M	F	M	F											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
55 - 60	18	11	4	2	14	7	-	2	<20	136	125	126	-	78	62	10	-	7	36
60 - 65	11	24	2	-	9	23	-	1	20 - 29	51	25	24	13	3	12	5	9	-	16
65 - 70	5	3	1	-	4	3	-	-	30 - 39	24	12	3	8	-	8	-	13	-	4
70 +	2	3	-	-	2	3	-	-	40 - 49	9	9	-	3	-	9	-	6	-	4
									50 +	3	1	-	3	-	1	-	-	-	-
	36	41	7	2	29	36	-	3		223	172	153	27	81	36	15	28	7	60

daughters) particularly the unmarried ones (at least 90 percent) live in the study village or in the neighbourhood. However, the majority of the married children, particularly the daughters live outside the village. This is consistent with exogenous marriage pattern prevailing in Bangladesh.

There are only few elderly persons (9) who report themselves as head of the households. The absolute majority of them live with their sons as reflected in their relationship with the head of the household. This point has become clear from table 7.2.

7.3 Residential Pattern of Elderly Persons

In peasant societies, the degree of care and help given by children to their elderly parents can be closely scrutinized by considering the residential pattern of the latter. Table 7.2 presents the residential pattern of 77 elderly persons of the village.

From table 7.2, the tendency of elderly parents in the village to live more with their sons than with their daughters or other relations has become clear. The number of cases living with sons (36) is much more higher than the number living with daughters (3). Only one single male member and two single female members are found living alone. They are the heads of their respective households. The male one is a widower and the single two women are

Table 7.2

Residential pattern of 77 elderly persons in the village Muiyarchar by composition of household

Composition of household	Elderly Male (Widower(s)	Elderly Female (Widow(s)	Elderly Couples	Total (n=77)
1. Living alone	1 (20.0)	2 (4.9)	-	3 (3.9)
2. Elderly person(s) head of the household (children are living with elderly persons)	-	-	6 (19.3)	6 (7.8)
3. Living with son(s) (along with their spouses, if any)	-	9 (22.0)	3 (9.7)	12 (15.6)
4. Living with Daughter(s) (along with their spouses, if any)	-	2 (4.9)	-	2 (2.6)
5. Living with Grand Children(s) (along with their spouses, if any)	-	1 (2.4)	-	1 (1.3)
6. Living with son(s) & daughter(s) (along with their spouses, if any)	1 (20.0)	6 (14.7)	10 (32.3)	17 (11.0)
7. Living with son(s), daughter(s) and Grand children(s)	-	5 (12.2)	4 (12.9)	9 (11.7)
8. Living with son(s) & Grand children(s) (along with their spouses, if any)	3 (60.0)	13 (31.7)	8 (15.8)	24 (31.2)
9. Living with daughter(s) and Grand children(s) (along with their spouses, if any)	-	1 (2.4)	-	1 (1.3)
10. Living with other relations viz, Brother, Cousin, Uncle, Nephew (along with their spouses, if any)	-	1 (2.4)	-	1 (1.3)
11. Living with Sister(s), Sister(s) Son (along with their spouses, if any)	-	1 (2.4)	-	1 (1.3)

Note: Figures in the parenthesis represent percentages.

widows. They have no children of their own and they are engaged in begging for livelihood. Usually, a person with no living children prefer to live with their relatives or tend to adopt a child of his close relations to ensure his support in future. But, these three elderly single persons have no close relatives of their own and therefore virtually living a lonely life. In addition to these three single cases, six more cases are found, where elderly couples are living in their own houses as heads of the household. Children in those cases are living with their parents.

Out of 77 cases, only 17 cases are found living with their sons and daughters and 9 cases with sons, daughters and their grand children. The number of cases living with married sons (24) are higher than the number of cases living with married daughters (1). This is consistent with our patriarchal kinship system where a son usually lives with his parents either in the same household or in a separate household in the neighbourhood with his wife. But, for the daughters, they usually leave their parental house and move to their husband's father home. Again, widows tend to live with sons than with their daughters. This is also varified by our data as we see that 22 widows live with their sons, compared to 3 who live with their daughters. This indicates that sons are more preferred than daughters and elderly persons depend more on sons for their old age care and security.

7.4 Parental Control of Children

Parental control of children is best determined by the 'intergenerational flow of wealth'. The behaviour of children before and after their marriage actually determine the degree of help and care they provide to their parents.

7.4.1 Stages in Life Cycle

Children normally spend a good part of their life as subordinate members of their parents households. It is taken for granted that unmarried children remaining at home in the peasant society should help their parents until they marry. When children are young, parents support them. The children during the initial phase of their life depend on their parents for their material and normal needs and this total responsibility towards their children is recognized and accepted by the parents. When the children are grown up, parents expect them to participate informing and in household chores, if they are unable to send them to school beyond the primary level. During that time, children also contribute their labour in different forms within and outside the house. They help their father on the farm, carry water and fuel and sell products to the market, bring messages and so on and so forth etc. But, still at this stage of life cycle, they cannot produce more than they consume. The third phase in which when they produce more than they consume.

The successful children in that stage tend to reciprocate the earlier investment of their parents by direct material contributions of goods and services. In this study, children, on average, of both sexes are found to begin their economically useful lives around age 8. By ages 14-16, they earn almost equal efficiency of an adult in performing home production and market production activities and by ages 17-19 their working hours exceed to that of an adult 50 years and above.

7.4.2 Mutual Dependence between Parents and Children Survey Analysis - Some Specific Issues

The degree of mutual dependence between children and the parents in the study village was found very deep. Elderly persons of the village were asked some specific questions relating to their old age support and security. These testified the mutual dependence between children and their parents.

7.4.2.1 Financial Assistance

Parents in Bangladesh irrespective of their need expect financial help from their earning children, particularly sons. In order to asses the magnitude of this expectation, the elderly parents were asked whether they received financial support from their children? The responses are provided in table 7.3 by marital status of children.

Table 7.3

Responses to question "Do your children provide financial assistance or send money regularly to your home?" (n=74)*

Marital Status of Children	Yes	%	No	%
1. Married children residing with family in town	7	9.4	1	1.4
2. Married children residing in town, but family at home	16	21.6	4	5.4
3. Married children residing with family at home	21	28.4	6	8.1
4. Unmarried children residing in town	4	5.4	2	2.7
5. Unmarried children residing at home	8	10.8	5	6.8
TOTAL	56	75.6	18	24.4

* Out of 77 elderly persons, three had no children and therefore they were excluded from the perview of the above analysis.

It can be observed from the table that absolute majority of the respondents (76 percent) admitted that they received money or financial assistance regularly from their children irrespective of whether they were residing in the village or in the town with or without spouse. Only a majority of the respondents (24 percent) replied that they did not receive financial assistance or remittance from their children. In fact, it is quite uncommon for children, particularly sons working either in town or in the village, not to remit or provide financial assistance to parents living in the village. Even those who did not receive

regular help from their children also admitted that they received financial assistance from their children occasionally.

The financial assistance is provided for the maintenance of parents and to meet various social and religious obligations, such as, feasts, festivals, marriage ceremony etc. and for defraying educational expenses of brothers and sisters. This has been borne out by data presented in Table 7.4.

Table 7.4

Responses to question, "For what specific purpose(s) children usually help you financially (either regularly or occasionally"?)

(n=74)

Purposes	Number	%
1. Maintenance/Gift	32	43.2
2. Education of brothers/sisters	12	16.2
3. Feasts, Festivals and Marriage	16	21.7
4. Purchase of Land	4	5.4
5. Repairing of Houses	3	4.0
6. Repayment of Loan(s)	2	2.7
7. Cultivation	5	6.8

It is considered to be a duty on the part of an earning son whether he resides within or outside the village to send money to their parents whether it is requiredm or not.

7.4.2.2 Other Forms of Assistance

Children provide not only financial assistance, but they also help in kind by providing goods and services. The elderly persons were asked to identify the types of help in kind they received from their children. Table 7.5 provides distribution of the above question.

Table 7.5

Responses to question, "Other than financial help what other forms of help children usually send to your home"?

(n=74)

Items of help (other than financial help)	Number	%
1. Food	33	44.6
2. Clothes	14	18.9
3. Household items (mainly Groceries)	10	13.5
4. Cosmetics	2	2.7
5. Stationaries	6	8.1
6. Utencils/crokeries	5	6.1
7. Furniture	1	1.4
8. Consumer durables	3	4.0

It can be seen from the above table that nearly half of the respondents (44.6 percent) received different kinds of food items from their children. The other important items received by the parents included clothes, groceries, stationaries etc. These items received in kind are no less important than the monetary assistance received from children in the welfare of the family.

7.4.2.3 Participation in Family-Decision Making

The views of elderly persons were given due recognition while taking family decision. The respondents were asked whether they were consulted by their children while taking important decisions regarding family affairs. The responses were given in table 7.6.

Table 7.6

Responses to question, "Do your children consult you in taking any important decision relating to family affairs"?

(n=74)

Responses	Number	%
Yes	61	82.4
No	7	9.5
No response	6	8.1

More than four-fifth of the respondents admitted that they were consulted by their children while taking important family decisions.

7.4.2.4 Parental Control Over land

Parental control over land is a very powerful mechanism through which they control the labour of their children and ensure economic support in old age participation in family decision making.

Respondents were asked whether they had distributed their landed property among their children. Out of 77 cases,

three had no children and ~~thirty~~ twenty two had no landed property of their own and therefore, they were excluded from the purview of the above question. Of the remaining fifty-two cases, only two respondents admitted to have distributed land among their children. Those who did not distribute their land were further asked to "state the reasons as to why land was not distributed among their children"? The reasons are provided in table 7.7.

Table 7.7

Responses to question, "Why land was not distributed among children"?

(n=50)

Responses	Number	%
1. Children will not provide any care or assistance	11	22.0
2. Monetary support from children for family expense will fall or it will be totally withdrawn	13	26.0
3. In old age (when they will become inactive) children will no more come to provide any help	16	32.0
4. They will not be respected and consulted in any family decision making by their children	10	20.0

It appears from table 7.7 that land was not distributed among children because of the fear on the part of the elderly parents that once distribution is made children would not provide any care or assistance (22%). They

also thought that monetary support from children for family expenses would be reduced or it would be totally withdrawn (26) if land is distributed. Nearly one-third (32) of the respondents felt that children would not spontaneously come forward to help them when they grow old and become inactive. An additional 20 percent maintained the view that once land is distributed they would not be respected and consulted in family decision making by their children. From the above findings, it appears that parents tend to hold on their rights over property as long as they can in order to ensure their economic security.

Thus, it is clear that children are desired not only for an economic necessity of the present or for the future care and sustenance, but also for old age guarantee of residential security. Therefore, one can reason emphatically that in the face of pressing economic needs of the present and in the absence of any social security programme in future, children are the best form of security available to their parents.

CHAPTER - 8

SUMMARY OF THE DISCUSSION, CONCLUSION AND POLICY RECOMMENDATION

8.1 Summary of the Discussion

This chapter summerises the discussion and outlines, in brief, the future research needs to improve our knowledge on labour utilization and economic value of children.

Bangladesh is one of the largest[1] and densely[2] populated countries of the world. The population of the country is growing approximately at the rate of 3 percent per annum. This high rate of population growth is further contributing to the widespread miseries[3] of the people by intensifying the pressure on limited natural resources and inadequate socio-economic infrastructure of the country.

1 Population of Bangladesh was 76 million in 1974 (see Bangladesh Bureau of Statistics 1974 Population Census Report, National volume). The estimated population in 1980 was 88 million (see Bureau of Statistics. 1979 Statistical Year Book of Bangladesh, p.61).

2 Population density for the country as a whole was 1286 persons per square mile in 1974 (see, Bangladesh Bureau of Statistics. 1974 Bangladesh Population Census Report, National Volume).

3 About 33 percent of the agricultural labour force in rural Bangladesh are unemployed (Planning Commission, 1980); 37 percent of rural household do not possess any arable land (Bangladesh Bureau of Statistics, 1979) and at least sixty percent of rural families in Bangladesh are poor by conventional indices of poverty and malnutrition (A.R. Khan, 'Poverty and Inequality in Rural Bangladesh', In Poverty and Landlessness in Rural Asia, A WEF study, ILO, Geneva, 1977; Nutrition Survey of Rural Bangladesh 1975-76, University of Dacca, 1977).

The implications of high fertility on socio-economic development of the country have been well recognized by the policy planners and they have chalked out costly and also ambitious national programmes of population control.[4] The major emphasis of these programmes was to curb population growth by improving the supply of contraceptives. These programmes have not been very successful in showing a visible impact.[5]

This poor performance naturally divert the attention to the question, as to why the rapid growth of population on national economy is not inducing sufficient number of people in Bangladesh to restrict their fertility, when both traditional and modern means of fertility control are open to them? In Bangladesh and elsewhere, neither the village nor the state at macro level are the locus of decisions

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4 See Government of the People's Republic of Bangladesh, Ministry of Planning : First Five Year Plan, 1973-78; Second Five Year Plan, 1980-85.

5 According to Bangladesh Fertility Survey only 10 percent of currently married women and also exposed to pregnancy were practicing contraception in 1975 (see Ministry of Health and Population Control: Bangladesh Fertility Survey, 1975).

governing human reproduction or production. These decisions are most often taken at micro level by the households and individuals in view of the socio-economic situations which they face. Household is considered as the basic economic unit of the society and it reflects the life style of individual couples more accurately. In order to assess the reasons for prevelence of high fertility, it is necessary to know much more about decision-making processes and criteria of the household. The socio-economic context of fertility in rural Bangladesh at the household level must be clearly understood to chalk out appropriate policies to curb population growth in Bangladesh. Thus, the design of efficient population policies in Bangladesh and elsewhere requires an accurate assessment of the factors that determine fertility choices at the individual - household level.

Keeping the above framework in mind a typical rural community (village Muiyarchar) in the district of Sylhet is selected for an intensive study to determine the behaviour of parents and the role of children at household level. This thesis takes a rigorous apprach to ascertain the causes of high fertility, where technique of data collection involves a blend survey and participant observation method. The researcher lived in the village for long eighteen months and conducted all interviews himself.

However, all work-assistants for this study were recruited from local elderly educated persons of the village, who were by profession local primary school teachers and intimately familiar with the households from where they collected data. This made for greater response reliability and resulted in a very low rate of non-response.

The data set used in this study was the result of a survey of 214 households in the village. All households were stratified under six economic classes, according to the ownership of land. Each of the six economic classes were further stratified into three annual income categories on the basis of their respective yearly income. These strata were further sub-divided according to life-cycle stage of the parents into eight demographic sections. Fifty percent of the total households were taken as sample size for this study, on the basis of random stratified sampling. All sample households were taken more or less from the above six economic classes, three annual income catagories and eight demographic sections. However, it may be mentioned that Landless class I was not represented by all demographic sections. As such, a total of 108 households were taken.

In order to collect information from different angles, sixteen types of extensive and very broad based questionnaries were framed. Though the scope of research was broad and a wide range of data was collected yet the holistic task was to determine, the reproductive behaviour of parents at household level.

The total land area of the village was about three-quarter of a square mile (approximately 485.00 acres). Of all land owned, 66 percent (304.05 acres) were arable land and the remainder was used for settlement and for other purposes. It was observed that 51.39 percent of total households and 44.95 percent of total population of the village own no arable land at all. Landholdings were unevenlly apportioned within the village. Other than landless group, the average size of land was 3.58 acres per household. But the skewness of the distribution could be gauged by noting that only 8 households (3.73 percent) of economic class 6 or 7.55 percent of total population of the village owned 162.50 acres of land with an average of 20.31 acres per household or 1.59 acres per person. However, the landownership pattern observed in this village was not different from the pattern observed in the rest of the country.

A total of 263.05 acres or nearly 86.51 percent of the cropped area was found devoted to the production of rice, 10.19 percent to other food crops and only a very small quantity of land covering only 10 acres or 3.88 percent of the cropped area were used for non-food crops. Implements used for cultivation were old and primitive. No modern implements like tractor or power tiller was used by any household in the village. Bullocks provided the main motive power for cultivation.

Economic activity was mainly based on agriculture, with 85 percent of the households depended on agricultural works as their primary or secondary source of employment. (For 43% of all households agricultural work was the primary occupation and for additional 42% of the households, it was the second most important occupation). Non-agricultural wage-labour was the primary occupation for 30 percent of all households and was a secondary occupation for an additional 32 percent.

37 percent of the village population, age 5 years and above were literate. The corresponding levels for male and female population were 48 percent and 24 percent respectively. Although the overall literacy level of the village was very low, but it was still higher than the national average[6].

Fourty-four percent of total population (or 594 persons) were below 15 years of age. The sex ratio of males and females was recorded as 114 males per 100 females, and the dependency ratio was calculated as 87, which was comparatively lower than the national dependency ratio (106 in 1974). The high dependency ratio of the village resulted from the large proportion of children in the population. Only 4.70 percent of the total dependency

6 According to 1974 census, the literacy rates for males and females were 31 percent and 13 percent respectively in rural areas.

ratio was attributed to the aged people. The density of population in the village was recorded as 2025 persons per square mile or 782 persons per kilometer. The high density of population had resulted excessive pressure on family structure, the result of which was the growth of individualistic spirit and breaking up of joint families. The majority of households in the village were of single nuclear family units, consisting of husbands, wife and their unmarried children. Of all households, 78.50 percent were nuclear, supplemented nuclear and sub-nuclear in structure. Only 17.75 percent of all households were joint in structure i.e. contained more than one married couple. The average size of households in the village was six persons. However, family size varied according to family type and economic class. Leaving out eight households of single persons, the average size of one generation family (sub-nuclear and nuclear) was 5.3 persons, of a two generation family 6.9 persons and of a three generation family 9.3 persons. The mean household size increased with the increase of the ownership of land[7].

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7 In landless category 1 and 2, the mean household size was recorded as 2.8 and 5.7 respectively. Whereas in economic classes 3,4,5 and 6, the average family size was found as 5.9, 6.8, 8.0 and 12.7 respectively. It thus, appeared that average family size was larger in relatively big land owning households.

The village provided a crude birth rate of 41.48 per 1000 population and the general fertility rate as 160 per 1000 of female population (the national crude birth rate was calculated as 47 per 1000 and general fertility rate as 158 per 1000 of female population). Both the data maintained their conformity with the national data. Similarly crude death rate in the village was recorded as 20 per 1000 population (national crude death rate was calculated as 18 per 1000 of population). The infant mortality rate of the village (125 infant deaths per 1000) was found comparatively lower than the national data of infant mortality (132 per 1000). As is common in many less developed countries, there was a significant migration to towns, but in this study, out-migration (only 23 cases) and in-migration (only 16 cases) practically had no effect in reducing or increasing the pressure of population in the village.

The marital status of population in the study village indicate that there were no women twenty-three or older who had never married and no men greater the age of thirty-eight who had never married. The mean age at first marriage for all ever-married men was found 25.0 and the mean age at first marriage for all ever married women was found 14.2.

This, then, was a vignette of socio-economic and demographic conditions obtaining in the village at the time of survey. The village had a primary school, two rice-mills and some electrification, yet it was found lacking in many other modern amenities. There was no irrigation system, no medical dispensary, no secondary school, no all-weather road, and communication was totally disrupted for three months each year by the monsoon.

The present study provides empirical evidence to the issue raised earlier as to why fertility is not checked? Given the prevailing social, economic and demographic setting in Muiyarchar, high fertility and large number of children constitute rational economic behaviour. It has been observed that fertility level in Muiyarchar, like other parts of rural Bangladesh (viz., Char Gupalpur of Mymensingh district, or Barkait of Comilla district) is high and children in Muiyarchar do contribute positive economic time benefits to the household and that it is a strong motivation for the household to have large number of children.

Children in the village, both boys and girls of all economic classes were found equally participating in directly productive activities and household maintenance works from very early age of 6-8 years. The most common type of activities performed by boys were : ploughing,

sowing, transplanting, harvesting, marketing, boat operating, tending animals, collecting firewood, carrying messages, bringing water, and earring child etc. Girls, on the other hand, were found mostly engaged in sewing, parboiling, husking, grinding, sweeping, carring child, collecting firewood, bringing water and food preparation. On average, children of both sexes begin their economically useful lives around age eight. Male children, on average, start household works by age 7.6 and female children by age 7.2. In case of directly productive activities, male children perform most of the productive works by an average age 9.4 and that of female children by age 8.6. With the maturity of children, boys began to participate in agricultural works, and on average, by age 10.2 they start most of the food preparation works.

The time contributions of children to the household are found to vary with the age, sex and economic class of the household. In general, children spend less working hours during the first few years (5-7 years) and the working hours gradually increase as they grow older and then drop off sharply when they become old. By that time, they eventually leave the household. Male children aged 14-16 years, work on average, as long as or longer than adults (40+). Girls by ages 14 or 15 also work to those of an adult women (40+). Thus, with the increase of age, the average number of hours spent in various productive activities

increases steeply or by age 14 or so children of both sexes attain almost adult efficiency. The findings indicate that overall time utilization of male children are comparatively higher in all age-groups than those of females. Females spend more time on home production activities and less on directly productive works. The time-benefits per child to the household are found maximum for the low and medium households. However, for the higher economic classes the costs are expected to be relatively higher and the benefits lower. It shows that the children in landless category 1 and 2 contribute the greatest amount of economic time benefits to the household. A closer look into the household characteristics revealed that children from poor households allocate more time to income earning production time, including child care, then do their richer counterparts. For leisure time, with the increase of age, leisure per child decreases.

Monthly breakdown of time-input data indicate that children of both sexes contribute more time during busy agricultural seasons of the year, while during slack months of the year, time contribution in different productive activities sharply fall.

Household size has a positive effect on the child's total economic time, implying that as the household size increases, the economic time contribution per child to

the household also increases. With few exceptions below the age 20, ownership of land has a negative effect on both home and market production time of the male child for landless classes 1 and 2, implying that as the land-holding increases, the economic time contribution to the household of per male child decreases. The reverse is the case after the age of 20. In case of females, with few exceptions, economic time contribution per child in market and home production activities decreases with the increase of landholdings. As observed, land holding, in general, has a positive effect on leisure time of the child. Leisure time per child is decreased with more education in low income households comparing to medium and high income households. Schooling time has a negative effect on all economic time variables for all economic classes, and a positive effect on leisure time. This is probably the basic reason for large incidence of school dropouts in the village.

If the cost of bringing up a child in the village is considered, one will find that it is relatively very cheap for individual families. The basic expenses in the village are on food followed by clothing, education and medicine. Concerning the food consumption pattern of the village, it has been observed that what is consumed

by children, especially those under ten years of age, is far less than that consumed by an adult. While the average daily food cost of a child 0-7 years varies from Taka 1.73 to Taka 3.73, in that case, the maximum daily food cost of a male adult 30-39 years is recorded as Taka 8.06.

As regards the cost of education is concerned, it is found relatively low, so long the child is in primary school. But, as soon as a child finishes primary education, and if he is send to secondary school, then cost will rise, since tuition fees have to be paid, in addition to expenses for books and stationaries. Because of this high cost of education, poor parents often limit their children's education upto primary schooling.

Though monthly costs of clothing appear to be substantial in relation to medical expenses, yet it does not constitute any problem. Young children in most cases use the clothes of their elders. New clothes are normally purchased on the eve of some big occasions (like Eid or Marriage).

Expenditure on medicine by parents in the raising of children is not substantial. As village is less developed, therefore, people rely on traditional lower cost health services. Few go to hospital, which is situated about five miles away from the village. The persons who go to hospitals are usually represented from big landowning classes. In other cases, those who develop certain complications relating to child birth normally

visit the hospital.

The total cost related to the delivery of a child is calculated approximately Taka 139 per delivery. While this appears to be reasonably high, about 56 percent of this is spent on special food and ceremonies, and a relatively small amount is spent on actual delivery. It is of course, true that big landowning households usually spend more money on various items related to child birth.

The findings of the study suggest that male children consume substantially more than they produce until they reach 14-16 years of age. Male children from the early age of 14 start to compensate their consumption, and by age 20, they produce almost twice as much as they consume. This applies to peak agricultural months. Whereas, in slack agricultural seasons, the work opportunities of male children decline. As such, in slack months of the year, they cannot compensate more than 45 per cent of their consumption even at a higher age of 25. Considering net productivity by economic class, male children of landless classes 1 and 2 are found acquiring economic efficiency at an earlier age (at age 11) comparing to those of economic classes 5 and 6 (at age 17). This, however, is not true for all months. Only in peak agricultural months, male children of economic classes 5 and 6 start to compensate their consumption by age 17, but during lean agricultural months, they cannot compensate their consumption till the age of 20.

In case of female children, it is observed that they cannot compensate their total consumption by the time they leave their parents households. Only between the ages 30-49 female adults are found productive. However, though female children and adult women spend lesser time in market production activities, yet they perform household chores and may be just as useful as men.

The role of children as old age security was also discussed and it was found that children provide economic support to their parents in times of distress and in old age. Seventy six percent elderly persons of the village admitted that they received money or financial assistance from their children irrespective of whether they (children) were residing in the village or in the town with or without spouse (for detail see Chapter 7). The data used in this study provides empirical evidence that at micro level an increase in the number of family members constitute a utility rather than a disutility to the household.

8.2 Concluding Remarks

On the basis of the existing knowledge, the present study permits to formulate at least two firm conclusions relating to the fertility behaviour of parents in peasant societies at household level. That in a society, (i) where children contribute to the household production from early childhood and mitigate the pervasive and substantial economic risks that confronts households, where the net positive economic value of children are higher and where children are considered as a guaranteed source of security and economic support to their parents in times of sickness and old age, high fertility would be a rational behaviour. (ii) Similarly, in a society, where majority of parents have no insurance against illness or accidents, and such social security benefits as old age pensions or unemployment insurance are non-existent, the economic utility of children among the poor classes will exist and the pattern of unconstrained reproductive behaviour appears to be rational.

A limited policy that seems to make contraceptive supplies and services widely acceptable cannot alone be expected to have a significant impact on aggregate fertility. Such a policy in no way can check the powerful incentive for high fertility, nor it can work against the risk or eliminate sources of risk or effect the productivity of children. Unless acceptable alternatives to children as a source of social and economic support are found and parents

and parents are provided legitimate alternatives to children, it is unlikely that couples at micro level will pay little attention to the propaganda of small family size norm and therefore fertility would be higher.

Keeping in view with the above conclusions, the following section deals with the policy recommendations.

8.3 Policy Recommendation

In most of the developing countries particularly in rural areas, children are viewed as productive agents. Because, from early childhood children participate in useful household and economic activities. Sons are found to help their father in family farm or in family business. Daughters also aid their mother in performing household chores. Other type of activities in which children are found useful include carrying child, tending animals, carrying firewood and the like. Moreover, children in developing countries are also considered as a source of financial security to their parents in old age and in emergencies. In fact, these are the major reasons why parents in developing countries and particularly those of rural areas want large families.

In order to bring about a significant reduction in fertility, efforts should be made to make parents of developing countries and particularly those of rural population more independent and self-sufficient. Parents

will become independent and self-sufficient only when a society modernizes and achieve high levels of economic and social development. In the absence of any institutional support of social security programme (such as : public health and welfare measures, pension plans, private annuity and life insurance programme) thoughout the country and particularly in rural areas, children will remain as the only dependable source of support for their widow mothers, aged and physically disabled parents[8]. Therefore, inorder to replace the role of children in providing economic and social security to parents, attention should be given to introduce social security system, small saving institutions, pension funds and other such devises. Government in peasant societies should develop social security systems for the aged, so that with such protection elderly couples would not need large number of

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8 The motive for wanting many children seems to be still important in many less developed countries where there is little non-family provision for old-age assistance. In Bangladesh, for example, less than 2 percent of woring population is covered by pension plans. In Hongkong, less than 5 percent of the working population is covered by government or private pension plans (Betty Jamie Chung, "Costs and Benefits of Children in Hongkong: Measurement in a Pilot Study" in James T. Fawcett ed. The Satisfactions and Costs of Children: Thesis, Concepts, Methods, Honolulu: East-west Population Institute, East-West Centre (1972, p.215).

Charles Holm has detected a tendency for the limitation and expansion of social Insurance Programmes to be associated with subsequent reduction in fertility. See Charles F. Holm, "Social Security and Fertility: An International Perspective", Demography, Vol.12, No.4 (November 1975), pp.629-644.

children (particularly sons) to be assured of support when they can no longer manage on their own. There are many ways of financing an old-age security system, depending on the nature of the economy. In a developing country like Bangladesh, where there is the dearth of finance, in that case, as an alternative to a government operated system, one may conceive of an old age support system administered by rural agricultural co-operative institutions of farmers. Members of such association would contribute in their peak working years and thus become eligible for a kind of old-age-pension. Or government may create new fund out of new taxes or savings under the development effort for financing the required amount of old-age-pensions. Life insurance is an important means of old-age-support in more developed countries and should be promoted more energetically in Bangladesh including the rural areas. People usually treat life insurance premiums as obligatory expenses rather than savings. This can ultimately work as a safeguard against old-age and economic utility of children would then decline. Aside from old age security system and life insurance, peasants in rural areas should be encouraged to develop their habits of savings in post offices and banks. Rural Banking in Bangladesh can play an important role in this respect.

A couples expectation of costs for a given child depends not only on expected prices of goods and services to be purchased in the market but also on the couples aspiration for the child. Desire for a higher quality child (educated and healthier) increases perceived costs per child and this higher price for child services, other things being equal, will lead to lower children.

However, once children in peasant societies are allowed to attend school, either by choice or by legal compulsion, then this may decrease the participation of children in both market production and home production activities. Participation of children in school for longer period of time and greater investment in education of children is often suggested by many (Holsinger and Kasarda 1976, De Tray 1976)[9] as one of the mechanisms to induce a lower demand for additional children among the parents. By studying forty-nine countries of the world Kasarda (1971)[10] in his research observed lower fertility

9 Holsinger Donald B. and Kasarda, John D. 1976, "Educational and Human Fertility : Sociological Perspectives", in Ronald Ridker (ed). Population and Development, Bultimore: The Johns Hopkins University Press.

De Tray, Dennis, N. 1976 "Population Growth and Educational Policies: An Economic Perspective"in Ronald Ridker (ed). Population and Development, Baltimore: The Johns Hopkins University Press.

10 Kasarda John D. 1971 "Economic Structure and Fertility: A Comparative Analysis", Demography 8(3) (August), pp.307-317.

in those countries where more children in the age group 5-14 are found enrolled in schools, comparing to those countries where large proportion of children of the same age group are found participating in economic activities rather than going to school. Thus, keeping other things constrant policies dealing with increasing enrolment rate by reducing child labour contributions can substantially check fertility and increase the net economic price of children.

But in the rural society of Bangladesh, there are several practical impediments towards inducing parents to put their children in school for a longer period of time. In a society like ours where most of the parents in the village live at subsistence or below subsistence level, where the net economic returns from children are higher, where financial constraints are the major hurdle of providing education to children, where the return from investment in education per child is very uncertain (in a situation of high mortality), and where there is a tremendous dearth of school facilities in rural areas[11], under

11 According to the statement of Bangladesh Bureau of Statistics, 1978, there are only 39914 (39684 for boys and 230 for girls) primary and 8327 secondary schools (7217 for boys and 1110 for girls) for children 5 years and above (However, if we confine to potential school going ages, say 5-19, this figure comes to 28 millions. Ref: Population Census of Bangladesh 1974). Not only there is a dearth of overall school facilities in the country but there is also an uneven distribution. Availability of primary schools in urban area per thousand population aged 5-19 years is estimated to be 1.16 in contrast to 1.31 in rural areas but only 7.81% of the population of this age live in urban areas.

the circumstances, parents would not be encouraged to send their children to school.

However, there are several different ways one may try to induce parents to keep their children to school. Government may prohibit child labour by legislation and declare it as a punishable offence or compel parents to send their children to school by introducing compulsory free education upto secondary level. But mere compulsory measure will not solve the problem. Because, education of children in our country conflicts with their value to parents as agricultural helpers. Parents in the study village generally have a greater reluctance to send their children to school, due to greater economic utility of children. Parents have come to realize that, by educating their children, they only make them as unemployed drifters who feel themselves to be too good to farm for their parents. In the study village and elsewhere in rural Bangladesh many such young people are found, who after failing to find a job in the twon have returned to idle about near their relatives. Such children become a liability, rather than an asset. Parents are also aware of the correlation between education and migration outside the village. They know that once a boy become educated, he must go outside the village in Sylhet town or in Dacca city to find suitable employment. This makes it difficult

for parents to reap the benefits of their sacrifice. Even if the boy finds employment, it often takes him years to get established. For this reason, investment in education and school attendance after primary level seems to be decling. However, government may minimise the dropouts during and after the primary stage by adopting certain realistic measures in the form of providing subsidies and monetary incentives and thus relieve the burden of cost of schooling for many parents. If the system of education is based concerning to improve the living conditions of the masses, if the system is geared to create more employment opportunities in rural areas and if the conventional system of schooling is designed to allow more rural children to participate in educational programme, then compulsory measure, in that case, would bring some real benefits.

However, in a society, where one out of every seven children born in rural areas still fails to survive, where one cannot preserve family name or property without children where children elevate the parents position in the community, in that case introduction of old age security, development of suitable savings media for farmer, prohibition of child labour by legislation, introduction of free compulsory education upto secondary level, and redistribution of large

and medium size landholdings to small units by land reform policy may work to reduce the economic value of children in a society to some extent - but it cannot totally eliminate the economic utility of children to their parents. Because, children are the greatest and foremost "treasure" of parents and that in the socio-economic setting within which people live, children are an asset.

APPENDICES

A.1 HOUSEHOLD TIME BUDGET FORM

Description of activities performed by an individual, five (5) years and above, per day from 5.00 a.m. in the morning upto 11.00 p.m. at night

Household No._____

Individual Identification No._____

Date_____(Morning)	Time	Date_____(Morning)
	5.00 a.m.	
	6.00 a.m	
	7.00 a.m	
	8.00 a.m	
	9.00 a.m	
	10.00 a.m	
	11.00 a.m	
	12.00 a.m	

Date_____(Afternoon, Evening, Night)	Time	Date_____(Afternoon, Evening, Night)
	1.00 p.m	
	2.00 p.m	
	3.00 p.m	
	4.00 p.m	
	5.00 p.m	
	6.00 p.m	
	7.00 p.m	
	8.00 p.m	
	9.00 p.m	
	10.00 p.m	
	11.00 p.m	

Signature of the Investigator_____

Date of Investigation_____

A.2 ACTIVITY CODES

General Works:

1. Rising from Sleep/Going to Latrin/Washing face, Hands, Legs etc.
2. Bath/Toilet
3. To Perform "OZU"/To say Prayers/To go to Mosque/ To read Quran
4. To Eat/To take Food/Tea/To Eat anything (All consumption activities) excluding Betal-leaves & Betalnuts & Cigarettes.
5. To read Books/Attend School/Attend Tutor (Attendence in School or Tutor include travel time)/All activities relating to Study.
6. To attend in any function in school (Not related to Study)
7. To attend in any Social activity related to marriage/Eid/Aqiqa/Milad/Birth/Death/Shalish/ Political meeting/Tablig etc.
8. To go to any other place not related with social activity, such as, Walking/to go to a relations house/to a friends house.
9. Sleep during the day/To take rest/To gossip/Tosmoke/ To eat Betal-leaves and betal-nuts etc.
10. To perform Physical Exercise/To Play.
11. To become Sick (If one is found sick, he is so considered as sick for all day. Activities relating to toilet, eating, sleeping in day time, rest etc. are coded as sick).

Productive Activities:

12. Cultivation of Paddy

12(1) Clean Land
12(2) Plough/level/muddle

12(3) Sow/Transplant/Weed/Other related pre-harvest activities, such as, apply manure, fertilizer, insecticide, pesticide, negotiate share-crop contract etc.

12(4) Harvest/Carry

12(5) Carry only

12(6) Thresh/supervision of threshing

12(7) Dry/supervision of drying

12(8) Crashing with 'Dheki'/with machine/

12(9) Storing of seeds/other post-harvest activities of paddy (It includes supervision works, borrowing and lending of money; but, excludes activities like drying, husking, winnowing, parboiling, marketing etc.)

13. Jute Cultivation

13(1) Preparation of land for cultivation of jute/clean/plough/level

13(2) Sow/weed

13(3) Harvest and bundle/carry to Bari

13(4) Keeping the jute bundles beneath the water

13(5) Strip/wash

13(6) Dry/other related activities, such as, use of manures, chemicals, fertilizer, plot supervision, storing of jute and patshula

14. Vegetable Cultivation

14(1) Preparation of land for cultivation of vegetables/clean/plough/level

14(2) Pick tomatoes/other types of vegetables

14(3) Pick chillis

14(4) Collect potatoes/other types of vegetables from under-ground

14(5) Collect oil seeds and dal (mug, moshur, kolai) from the field

14(6) Collect betal-nuts/betal-leaves/coconut/orange/ pineapple etc. from trees

15. Fishing Activities

15(1) Catching of fish
15(2) Making of fish nets, rods, traps and dams
15(3) Operate boats for carring fish
15(4) Guarding the catch
15(5) Preparing bait
15(6) Marketing the catch

16. Animal Care

16(1) Tend cattle (cow, buffalo, goat)
16(2) Collecting fodder and feed for animals
16(3) Clean cow-shed
16(4) Washing the body of cattle/bath
16(5) Draw milk from cow/goat
16(6) Tend chickens/ducks/geese

17. Sale

17(1) Tend sale (it includes different types of agricultural and cottage industries products, milk, vegetables, cattle, chickens, ducks, geese, birds, bamboo and bamboo products etc.
17(2) Carring goods to market for sale
17(3) Prepare different food items (such as, sweets, parata, luchi, semai, cakes, muri, chira, piaji, 'achar' prepared from mango and other fruits etc.) from consumption and sale these foods in the market

18. Wage Labour

18(1) The work of a barbar
18(2) The work of a launderer
18(3) The work of a Boat-man

18(4) The work of a Rikshaw driver
18(5) The work of a Car/Baby-taxi driver
18(6) The work of a Carpenter/Mason
18(7) The work of the owner of a shop or a paid employee
18(8) The work of a Teacher/Doctor/Nurse/Hakim or any person employed in any Government or private job not mentioned earlier
18(9) The work of a servant/maid-servant
18(10) The work of a daily labour/supervision of the works (the nature of works is to be mentioned)

19. Construction, Repair and Maintenance of Own Home and Property (not mentioned earlier)

19(1) Repair of floor including maintenance
19(2) Repair and maintenance of roof
19(3) Repair and maintenance of wall
19(4) Construction of new huts, structure/overall repair of huts, structure/other repair, construction
19(5) Clean and sharpen tools

20. Cottage Industry
20(1) Making of cane and bamboo products
20(2) Weaving
20(3) Sewing
20(4) Other cottage industry products made of wool, cotton etc.

21. Other Productive Works
21(1) Hunting
21(2) Gathering vegetables/wild fruits from jungles and other food
21(3) Begging

22. Marketing
22(1) Purchase of goods from neibouring shops
22(2) Purchase of goods both from near and distant place, either for household consumption, use or sale

22(3) Shopping for household consumption alone/carrying purchased goods from the market

Household Activities:

23. Food Preparation
23(1) Clean rice/winnow
23(2) Grind lentil
23(3) Grind spices
23(4) Wash food/Cut/Peel/Skin etc. (vegetables)
23(5) Cut fish and meat
23(6) Cook/prepare Tea
23(7) Serve meals/carring food to the field

Other Household Tasks:

23(8) Wash or clean dishes
23(9) Collect firewood/tinder/cow-dung
23(10) Sweep/Wash or clean houses
23(11) Wash or clean clothes
23(12) Carry water
23(13) Send messages
23(14) Carry Child
23(15) Serve patient

24. Unemployed

24(1) Looking for work-agricultural or non-agricultural (unspecified)

24(2) Looking for workers : agricultural or non-agricultural (unspecified).

A.3 LIST OF ACTIVITIES OF UNMARRIED CHILDREN IN MUIYARCHAR (4 YEARS AND ABOVE)

Household No._____

Individual Identification No._____

List of Activities	Never Done	Has done not for wage	Has done for wage	Age at first entry
1. Carry Child				
2. Carry water				
3. Carry hukka/ lunch to field				
4. Carry messages				
5. Make purchase at market				
6. Carry firewood				
7. Cut firewood				
8. Carry goods to market				
9. Tend sale at market				
10. Graze and water animals				
11. Cleaning Cowshed				
12. Cut fooder				
13. Milk cows				
14. Tend fowl				
15. Tend goats				
16. Repair thatch				

List of Activities	Never done	Has done not for wage	Has done for wage	Age at first entry
17. Repair thatch				
18. Repair walls				
19. Sharpen tools				
20. Clean tools				
21. Sweep				
22. Wash clothes				
23. Wash dishes				
24. Wash and peel food				
25. Cook				
26. Serve meals				
27. Grind/dal				
28. Grind spices				
29. Husk (Dekhi)				
30. Winow rice				
31. Dry rice				
32. Sew Kata				
33. Sew clothes				
34. Weave bamboo				
35. Make nets				
36. Operate boats				
37. Fish				
38. Plough				
39. Level				
40. Puddle				
41. Weed(either paddy or kitchen guarden)				
42. Hoe				
43. Manuring				
44. Clod breaking				

List of Activities	Never done	Has done not for wage	Has done for wage	Age at first entry
45. Sowing				
46. Transplant paddy				
47. Harvest paddy				
48. Carry paddy				
49. Thresh paddy				
50. Parboil rice				
51. Cut/bundle jute				
52. Strip jute				
53. Wash jute				
54. Pick chillis/ dal/spices				
55. Dig onions/ potato				
56. Cut arum				

Name of the Investigator_____

Date of Investigation_____

Time of Investigation_____

SUPPLEMENTARY TABLES

Detail Profile of Out-migrants (July 1977/June 1980) by Land Holding and Annual Income Catagory

Out-Migrants (July 77 to June 80)	Land Holding Catagory (in acres)	Annual Income Catagory (Tk)	Age-Groups (Years)	Level of Education Grade Completed)	Present Occupation	Average Records of visit (per person per year)	Average duration of stay per person per day)	Average contribution of children to their parents (per person, per year) Remittances (Tk.)	Food (Tk)	Clothing (Tk)	Grocery Items (Tk)	Utensils Stationery (Tk)	Medicine (Tk)	Consumers Durable Tk.	Percentage contribution of Total Household (per Household per year)
MALES (n=43	Landless 1&2= 17		11-13 = 1		Students = 6	14 Times	64 days	-	-	-	-	-	-	-	-
	/1.00 Acre = 4	/6,000 = 8	14-16 =5	3-5 = 27	Businessmen=10	7 "	28 "	2,580/-	892/-	714/-	182/-	141/-	81/-	582/-	45.9
	1.00-2.50 = 6	6.000-12,000=14	17-19 = 4	6-8 = 8	Clerks =2	5 "	37 "	1,130/-	319/-	84/-	61/-	46/-	32/-	-	27.8
	2.50-5.00 = 5	12,000+ = 21	20-24 = 5	9-10= 4	Officials = 2	1 "	12 "	1,294/-	611/-	465/-	146/-	112/-	210/-	-	31.5
	5.00 + = 11		25-29 = 9	Intermediate=2	Job Seekers=9	18 "	85 "	-	-	-	-	-	-	-	-
			30-39 =13		Ordinary Labour = 8	2 "	39 "	2,152/-	657/-	886/-	167/-	184/-	178/-	896/-	56.8
			40-49 = 6	Degree Level=2	Skilled Labour = 5	1 "	26 "	5,322/-	914/-	2438/-	217/-	442/-	218/-	2317/-	82.6
					School Teacher = 1	4 "	43 "	932/-	210/-	122/-	81/-	38/-	71/-	-	24.2
FEMALES (n=24)	Landless 1&2=10		8-10 = 1	'0'Level=21	Students = 5	11 Times	78 Days	-	-	-	-	-	-	-	-
	/1.00 Acre=8	/6,000=13	11-13= 3		Male-Servants = 2	4 "	36 "	164/-	32/-	26/-	-	-	14/-	-	3.9
	1.00-2.50=7	6,000-1,200=18	14-16=19	1-3 = 26	Housewives=8 (1)	3 "	27 "	-	184/-	48/-	-	-	27/-	-	1.8
	2.50-5.00=14	12,000+ = 24	17-19=18	4-6 = 8	Married Daughters=40	1 "	18 "	172/-	346/-	128/-	37/-	23/-	52/-	-	8.4
	5.00 + =16		20-24= 3												
			25-29= 7												
			30-39= 4												

(1) Right house wives are also the married daughters of 'elderly persons', who were formaly married within the village, but are now staying with their husbands in Sylhet town.

S.T.2 Detail Breakdown of Annual Income of 214 Households of Village Muiyarchar

Level of Annual Income (Taka)	Number of Households	Percentage
Less than 1,200.00	3	1.40
1,201.00-1,800.00	2	0.93
1,801.00-2,400.00	2	0.93
2,401.00-3,000.00	10	4.67
3,001.00-3,600.00	13	6.07
3,601.00-4,200.00	14	6.54
4,201.00-4,800.00	19	8.87
4,801.00-5,400.00	9	4.20
5,401.00-6,000.00	16	7.47
6,001.00-6,600.00	18	8.41
6,601.00-7,200.00	15	7.00
7,201.00-7,800.00	11	5.14
7,801.00-8,400.00	10	4.67
8,401.00-9,000.00	4	1.86
9,001.00-9,600.00	7	3.27
9,601.00-10,200.00	5	2.33
10,201.00-10,800.00	11	5.14
10,801.00-11,400.00	5	2.33
11,401.00-12,000.00	4	1.86
12,001.00-15,000.00	16	7.47
15,001.00-20,000.00	9	4.20
20,901.00-25,000.00	3	1.40
25,001.00-30,000.00	1	0.46
30,001.00-40,000.00	4	1.86
40,001.00-50,000.00	2	0.93
50,001.00-90,000.00	1	0.46
TOTAL	214	99.87+

+ Totals may not add to 100.0 due to rounding error.

S.T.3 Calculation of Average Annual Income of 214 Households of Village Muiyarchar from S.T.2

m	dx	f.dx
600.00	-7,500.50	-22,501.50
1,500.50	-6,600.00	-13,200.00
2,100.50	-6,000.00	-12,000.00
2,700.50	-5,400.00	-54,000.00
3,300.50	-4,800.00	-62,400.00
3,900.50	-4,200.00	-58,800.00
4,500.50	-3,600.00	-68,400.00
5,100.50	-3,000.00	-27,000.00
5,700.50	-2,400.00	-38,400.00
6,300.50	-1,800.00	-32,400.00
6,900.50	-1,200.00	-18,000.00
7,500.50	-600.00	-6,600.00
8,100.50	0	0
8,700.50	+600.00	+2,400.00
9,300.50	+1,200.00	+8,400.00
9,900.00	+1,800.00	+9,000.00
10,500.50	+2,400.00	+26,400.00
11,100.50	+3,000.00	+15,000.00
11,700.50	+3,600.00	+14,400.00
13,500.00	+5,400.00	+86,400.00
17,500.50	+9,400.00	+84,600.00
22,500.50	+14,400.00	+43,200.00
27,500.50	+19,400.00	+19,400.00
35,000.50	+26,900.00	+107,600.00
45,000.50	+36,900.00	+73,800.00
70,000.50	+61,900.00	+61,900.00

m = Mid-value

x = Assumed mean (8100.50)

dx = Deviation from assumed mean

f = Frequency (shown in column 2, S.T.2)

f.dx= Frequency multiplied by dx.

dx= Total deviation (calculated from assumed mean)

Thus, $a = x + \frac{dx}{n}$ = Tk.8749.09

GLOSSARY

Acre ... = A measure of land equal to 4840 square yards or 100.00 decimal.

Anchra = It is an agricultural implement. When the seeds have begun to shoort, the soil is loosened and weeds are removed by anchra or oomb.

Aqika = Entertainment of poor and relatinns by slaughtering a domestic animal on the occasion of the birth of a child.

Aus = The most important cultivable crop of the village is Aus. It is usually sown in the months of April-May and harvested in the months of August and Septembber. A total of 177.00 acres of land in the village are found under Aus cultivation. Average per acre production of Aus in the village is 12 maunds.

Aman = Aman is another important cultivable crop of the village. It is usually sown in the months of July-August and harvested in the months of November and December. A total of 78.05 acres of land in the village are found under Aman cultivation. Average per acre production of Aman crop in the village is 15 maunds.

Bigha = A measure of land equal to one-third of an acre or 0.33 decimal.

Bari = A Bari is a unit of two or more patrilineally related households. Very often, bari in the village consist of a father and his sons, all of whom are heads of separate households, a group of brothers and a group cousins.

Boro = Boro is type of crop cultivated in the village. December and January are the sowing season of Boro crop. This crop is usually harvested in April and May. Total cultivable area of this

crop in the village is only 8.00 acres. Average yield per acre of Boro crop in the village is 20 maunds.

Chula = It is a fireplace or hearth where foods are cooked.

Chattack = A measure of weight equal to one-sixteenth of a seer.

Changerkhal= It is a small river enriched by waters of a large stream of Surma and passes nearly two miles to the north of the study village 'Muiyarchar'

Dheki = It is used for husking grain. A dheki is made of a long beam with pastle affixed at the end, which is supported by two posts at about two-third length from the head. The shorter end is depressed by the foot, and the pestle is thus raised into the air, the weight is then removed and the pestle falls into a small hole in which the grain is placer.

Girhasta Paribars = It refers to high status Muslim families.

Imam = A pious muslim, having religious education, always attached with a mosque and lead the five times prayer.

Jeels = Low lying areas being filled with large body of water entirely surrounded by land. It looks like small lakes, locally known as jheels.

Kata = It is one-tenth of an acre, or equal to 0.10 decimal.

Kachi = An agricultural implement for harvesting, alternatively, called rake.

Kodali = An agricultural implement used for digging, alternatively, called spade. It is made of iron.

Khandan Paribars	=	It refers to high status Muslim families.
Kamla Paribars	=	It refers to landless families.
Maund	=	It is a measure of weight, equal to forty seers or 82.3 lbs.
Moi	=	Harrow is locally known as Moi. It is an agricultural implement, framed with iron spikes.
Ozu	=	It is the legal purity consisting of washing the face, two hands, two feet and wiping over the head with wet fingures.
Patshula	=	Jute sticks are usually called patshula.
Purdah	=	It is a religious prejudice which prevent women from their free movement outside home.
Pacca	=	A construction built with cement and bricks.
Salish	=	Amicable settlement of disputes between two persons or parties.
Seer	=	It is a measure of weight, equal to sixteen chattack or 2.05 lbs.
Sitalpati	=	It is a good quality mat made of cane.
Surma	=	It is a river in Sylhet district.
Taka	=	Currenty of Bangladesh. It is equivalent to 100 paisa.
Tablig	=	To preach the message of Allah and the code of shariat to others.
Tehsil Office	=	It is an office where land records of the village is available.

REFERENCES

Alamgir, Mohiuddin, 1978, Bangladesh : A Case of Below Poverty Level Equilibrium Trap, Dacca, Bangladesh Institute of Development Studies, pp.5-18.

Agency For International Development (AID), 1977, Report on the Hierarchy of Interests in Land in Bangladesh, Table D111, Washington D.C.

Agency For International Development (AID), 1978, Congressional Presentation, Fiscal Year 1980, Annex viii - Population Planning, Health and Education/Human Resources.

Agency For International Development (AID), 1971, Bureau for Technical Assistance, Office of Population, Population Programme Assistance, US Government Printing Office, Washington, p.23.

Arnold, Fred et.al 1975, The Value of Children: A Cross National Study, Vol.1, Introduction and Comparative Analysis, East-West Population Institute, Honolulu.

Adepoju, A. 1974, Rural-Urban Socio-Economic Links: The Example of Migrant in South-West Nigeria", In S. Amin (ed). Modern Migrants in Western Africa. Oxford University Press, pp.127-137.

Balakrishnan, T.R. 1973, "A Cost Benefit Analysis of the Barbados Family Planning Programme", Population Studies, 27(2), pp.353-364.

Bangladesh Fertility Survey, 1975, Ministry of Health and Population Control, Government of the People's Republic of Bangladesh (First Report).

Bangladesh Bureau of Statistics, 1978, Statistical Pocket Book of Bangladesh, Dacca, Government Printing Press.

Berelson, Bernard 1973, "The Value of Children: A Taxonomical Essay", in the Population Council Annual Report 1972, Population Council, New York, pp.17-27.

Berelson, Bernard 1976, "Social Science Research on Population", Population and Development Review, Vol.2.

Banks, J.A. 1954, Prosperity and Parenthood: A Study of Family Planning Among the Victorian Middle Classes, Routledge and K. Paul, London.

Ben-Porath, Y. 1974 "Notes on the Micro Economics of Fertility", International Social Science Journal, 26(2), pp.302-314.

Becker, Gray S. 1960 "An Economic Analysis of Fertility", in Demographic and Economic Change in Developed Countries, pp.209-231. Universities National Bureau of Conference Series 11, Princeton, N.J : Princeton University Press for the National Bureau of Economic Research.

Blandy, Richard J. 1974, "The Welfare Analysis of Fertility Reduction", Economic Journal, 84(333): March, pp.109-129.

Blake, Judith 1965, "Demographic Science and the Re-direction of Population Policy", Journal of Chronic Diseases 18: pp.1181-2000.

Blake, Judith 1968, "Are Babies Consumer Durable? A Critique of the Economic Theory Reproductive Motivation", Population Studies 22(1), pp.5-25.

Blake, Judith 1971, "Reproductive Motive and Population Policy", Bio-Science, 21(5): pp.215-220.

Blake, Judith 1972, "Fertility Control and the Problem of Voluntarism", University of California International Population and Urban Research and Institute of International Studies. Reprint No.442, Berkeley. Reprinted from "Scientists and World Affairs". (Proceedings of the 22nd Pugwash Conference on Science and World Affairs, 7-12. September, 1972. London n.d) pp.279-288.

Bogue, D.J (ed) 1967, Sociological Contribution to Family Planning Research, Chicago: Community and Family Study Centre, Univeraity of Chicago.

Burhanuddin, A.F.M. 1973 "Abortion as a Measure of Population Planning: Relevance for Bangladesh". Proceedings of the Seminar on Family Planning 21-25 November, 1972. Ministry of Health and Family Planning, Dacoa, November,

Busfield, John 1972 "Age at Marriage and Family Size: Social Causation and Social Selection Hypothesis", Journal of Bio-Medical Science, 4, no.2, January, pp.117-134.

Carleton, Robert O. 1965 "Labour Force Participation: A Stimulus to Fertility in Paerto Rice", Demography 2: pp.233-239.

Cain, Mead T. 1977 "The Economic Activity of Children in a Village in Bangladesh", Population and Development Review 3,3 pp.201-227.

Cain, Mead T. 1980 "Risk, Fertility and Family Planning in a Bangladesh Village", Studies in Family Planning, Vol.11, No.6, June.

Cain, Mead T. and A.B.M. Khorshed Alam Mazumder 1980 "Labour Market Structure, Child Employment and Productive Behaviour in Rural South Asia", Centre for Population Studies Working Papers, No.56, May, the Population Council, One Dag Hammarskjold Plaza, New York, New York 10017, U.S.A.

Cassen, Robert and Wolfson, Margaret 1978 "Planning for Growing Population", Development Centre of the Organization For Economic Co-operation and Development, Paris.

Caldwell, John C. 1976 "Towards a Restatement of Demographic Transition Theory: An Investigation of Conditions before and at the onset of Fertility Decline Employing Primarily African Experience and Data", Population and Development Review, 2(3), pp.321-366.

Caldwell, John C. 1977a "The Economic Rationality of High Fertility: An Investigation Illustrated With Nigerian Survey", Population Studies, Vol.xxxi, No.1, March.

Caldwell, John C. (ed) 1977b The Persistence of High Fertility: Population Prospects in the Third World, Family and Fertility Change Series, No.1, Changing African Family Companion Series, Canberra: The Australian National University, Department of Demography.

Caldwell, John C. 1977c "Measuring Wealth Flows and Rationality of Fertility: Thoughts and Plans Based on the First Place on African Work", in The Economic and Social Supports for High Fertility, Edited by L.T. Ruzicka, Canberra: The Australian National University, pp.439-454.

Choi, C.Y. and K.C. Chan 1973 "The Impact of Industrialization on Fertility in Hongkong: A Demographic, Social and Economic Analysis", Social Research Centre, Chinese University of Hongkong, Hongkong (mimeo).

Chung, B.J. and A.K. Wong 1976 "Contemporary Chinese Women and the Industrial Society in Hongkong: Changing Roles and Family Values", Monograph (under preparation).

Chaudhury, Rafiqul Huda 1971 "Differential Fertility by Religious Groups in East Pakistan", Social Biology, Vol.18, No.2 (June).

Chaudhury, Rafiqul Huda 1977a "Married Women in Non-Agricultural Occupations in a Metropolitan Urban Area of Bangladesh - Some Issues and Problems", Bangladesh Development Studies, Vol.IV, No.2, April. pp.153-200.

Chaudhury, Rafiqul Huda 1977b "Education and Fertility in Bangladesh", Bangladesh Development Studies, Vol.V, No.1, January, pp.81-107.

Chaudhury, Rafiqul Huda 1977c "Female Status and Fertility Behaviour in a Metropolitan Urban Area of Bangladesh". A Paper Presented at the Conference on Women and Development held in Dacca from 28th March - 1st April.

Chaudhury, Rafiqul Huda 1978a "Determinants and Consequences of Rural Out-Migration: Evidence from some villages in Bangladesh". Oriental Geographer, Vol.XXII, Nos.1 and 2 (January and July).

Chaudhury, Rafiqul Huda 1978b "Some Aspects of Seasonal Dimensions to Rural Poverty". A Paper Presented at the conference on Seasonal Dimensions to Rural Poverty held at the Institute of Development Studies, Sussex University, U.K. July, pp.3-6.

Chaudhury, Rafiqul Huda 1979 "Social Aspects of Fertility: With Spacial Reference to Developing Countries. Bangladesh Institute of Development Studies, Dacca.

Chayanov, A. 1925 Organizatsiya Krest Yanskogo Khozyaistava. Translated as "The Theory of Peasant Economy", Danial Thorner, p.54.

Cisneros, A.J. 1975 Proposed Survey on "Values and Social Factors Related to Children and their Meaning in Bolivian Family", Centro de Investigaciones Sociales, Academia Nacional de Bolivia.

Clark, Colin 1970 "The Economic and Social Implications of Population Control", in Population Control. Edited by A. Allison, London; Penguin Book.

Concepcion, Mercedes B. and E.M. Murphy 1967 "Wanted: A Theory of Demographic Transition", in International Union For the Scientific Study of Population, Contributed Papers, Sydney Conference, Australia 21 to 25 August, 1967, pp.5-13.

Collver, A. and F. Langlois 1962 "The Female Labour Force in Metropolitan Areas: An International Comparison", Economic Development and Cultural Change, 10(4), pp.367-385.

Conde, Julien 1973 "Rapid Population Growth in Developing Countries", in Planning for Growing Population. Edited by Robert Cassen and Margaret Wolfson, pp.26-48.

Coale, A.J. 1965 "Factors Associated with the Development of Low Fertility: A Historic Summary". Proceeding of the World Population Conference, Vol.11, pp.205-209.

Coale, A.J. 1973 "The Demographic Transition Reconsidered", Paper Presented at the International Population Conference of the International Union for Scientific Study of Population, Liege, Vol.II, pp.53-71.

Coale, A.J. 1974 "The History of Human Population", Scientific America, September, Vol.231, No.3, New York,p.43.

Coale, A.J. and E.M. Hoover 1958 Population Growth and Economic Development in Low Income Countries. Princeton, Princeton University Press.

Commission on International Development 1969 Partners in Development, Praeger Publishers, New York, p.137.

Davis, Kingsley 1955 "Institutional Patterns Favouring High Fertility in Underdeveloped Areas", Eugenics Quarterly, 2(1), pp.33-39.

Davis, Kingsley and J. Blake 1956 "Social Structure and Fertility; An Analytical Framework", Economic Development and Cultural Change, 4(3), pp.211-235.

Davis, Kingsley 1967 "Population Policy: Will Current Programmes Succed"? Science, No.3802, 10 November, pp.730-739.

De Tray, Dannis N. 1976 "Population Growth and Education Policies. An Economic Perspective", in Population and Development. Edited by Ronald Ridker, Baltimore. The John Hopkins University Press.

Department of Census and Statistics, The Population of Sri Lanka 1974 Government Printing Press.

Demeny, Paul 1974 "The Population of the Under-Developed Countries", Scientific America, September, pp.149-150.

Demeny, Paul 1965 "Investment Allocation and Population Growth", Demography, 2, pp.203-232.

Dorn, Harold F. 1963 "World Population Growth", Population Dilemn. Edited by Philip, M. Hauser. New Jersey: Prentice Hall, pp.7-28.

Driver, Edwin D. 1963 "Differential Fertility in Central India". Princeton, New Jersey, Princeton University Press.

Dube, D.C. et.al. 1974 Fertility Behaviour of Working and Non-Working Women, National Institute of Family Planning.

Duesenberry, James 1960 Comments on an Analysis of Fertility by Gray S. Becker, in Demographic and Economic Change in Developed Countries, Universities National Bureau Conference Series 11, Princeton University Press for the National Bureau of Economic Research, Princeton, N.J. p.233.

Easterlin, R.E. 1975 "An Economic Frame Work for Fertility Analysis", Studies in Family Planning, 6(3), pp.54-63.

Easterlin, R.E. 1969 "Towards a Socio-Economic Theory of Fertility: A Survey of Recent Research on Economic Factors in American Fertility", in Fertility and Family Planning: A World View, Michigan, Ann Arbor, University of Michigan Press, pp.127-150.

Enke, S. 1957 "Speculations on Population Growth and Economic Development", Quarterly Journal of Economics, 71, 1, pp.19-35.

Enke, S. 1960 "The Economics of Government Payments to Limited Population", Economic Development and Cultural Change, 8, 4, pp.339-348.

Espenshade, Thomas J. 1977 "The Value and Cost of Children", Population Bulletin, Vol.32, No.1, April, pp.3-47.

Fawcett, James T. et. al. 1974 "The Value of Children in Asia and the United States: Comparative Perspectives", Papers of the East-West Population Institute, No.32, Honolulu.

Fawcett, James T. 1976a "The Value and Costs of the First Child", Paper Presented at the Conference on the First Child, California, March, pp.23-26.

Fawcett, James T. 1976b "The Value and Cost of Children: Converging Theory and Research": A Paper Presented at the Annual Meeting of the American Psychological Association, Washington D.C., September 2-7. Published in The Economic and Social Support for High Fertility, Canberra: The Australian National University, 1977, pp.91-114.

Fernado, Dallas, F.S. 1974 "Differential Fertility in Sri Lanka", Demography, Vol.11, No.3.

Fernando, Dallas, F.S. 1975 "Changing Nupitality Patterns in Sri Lanka 1901-1971", Population Studies, Vol.29, No.2, pp.179-190.

Freedman, Ronald et. al, 1959 "Fertility and Economic Activity of Women in Guatemala City, 1964". Demography, 7(3), pp.273-283.

Freedman, Ronald 1961-62 "The Sociology of Human Fertility: A Trend Report and Bibliography", Current Sociology, 10/11(2): i-iii, pp.35-121.

Freedman, Ronald 1963 "The Relation of Economic Status to Fertility". American Economic Review, 53(3), 1968. pp.414-426.

Freedman, Ronald and Berelson, Bernard 1974 "The Human Population", Scientific America, September, p.39.

Fertility in Bangladesh, Bangladesh Fertility Survey, 1979. National Institute of Population Research and Training, Dacca, June.

Government of the People's Republic of Bangladesh, Ministry of Planning: First Five Year Plan, 1973-78.

Government of the People's Republic of Bangladesh, Ministry of Planning: Second Five Year Plan, 1980-85.

Government of the People's Republic of Bangladesh. Population Policy and Programmes in Bangladesh, Dacca. Ministry of Health and Population Control; Population Control and Family Planning Division, June 1976.

Government of the People's Republic of Bangladesh. The Two-Year Plan, 1978-80 and the Second Five Year 1980-85 Plans. Vol.1, Dacca. Population Control and Family Planning Division, September, 1977.

Government of the People's Republic of Bangladesh. Statistical Year Book of Bangladesh, 1979 Bangladesh Bureau of Statistics, Ministry of Planning.

Grilches, Zvi 1974 "Comment", Journal of Political Economy, 82(2): s 219-221 (March/April).

Hull, T.H. 1975 "Each Child Brings its Own Fortune: An Enquiry into the Value of Children in a Javanese Village". Unpublished Ph.D. Dissertation, Australian National University, Canberra.

Hull, T.H. 1977 "The Influence of Social Class on the New and Effective Demand for Children in a Javanese Village", in The Economic and Social Support for High Fertility. Edited by L.T. Ruzicka, Canberra: The Australian National University, Department of Demography, pp.287-306.

Hull, Valerie J. 1977 "Social and Economic Support for High Fertility in Peasant Communities: General issues Emerging from Specific Research", in The Economic and Social Supports for High Fertility, Edited by L.T. Ruzicka, Canberra: The Australian National University, Department of Demography. pp.241-250.

Hansan, Y. 1976 "Socio-Economic Background of Students in Higher Education: A Case Study of Dacca University" Dacca. The Foundation for Research on Educational Planning and Development, Bangladesh (Mimeo).

Henry, Louis 1961 "Some Data on Natural Fertility", Eugenics Quarterly 8(2), pp.81-91.

Hoffman, Lois W. and Martin L. Hoffman 1973 "The Value of Children to Parents", in Psychological Perspective on Population, Edited by James T. Fawcett, New York, Basic Books, pp.19-76.

International Planned Parenthhood Federation (IPPF), 1982 Facts, Figures on Family Planning in South-East Asia and Ocenia Regions, Kualalampur, p.2.

Jones, G.W. 1977 "Economic and Social Support for High Fertility: Conceptual Framework", in the Economic and Social Support for High Fertility. Edited by L.T. Ruzicka, Canberra: The Australian National University, pp.3-47.

Kapadia, K.M. 1958 Marriage and Family in India, Oxford University, London, 2nd Edited.

Kagitcibasi, C. 1975 The Turkish National Value of Children Survey Conducted at the Bogazici University, Istanbul, Field Work Stage.

Khan, Azizur Rahman 1972 The Economy of Bangladesh, London The Macmillan Press Limited, p.17.

Khuda-e-Barkat 1977 "Value of Children in a Bangladesh Village", in The Persistence of High Fertility: Part 2. Edited by John C. Caldwell, Canberra, Department of Demography. The Australian National University, pp.681-728.

Khuda-e-Barkat 1978 "Labour Utilization in a Village Economy of Bangladesh". Unpublished Ph.D. Dissertation, Australian National University, Canberra.

Krik, Dudley 1969 "Natality in the Developing Countries: Recent Trends and Prospects", in Fertility and Family Planning. Edited by Behraman et al., Ann Arbor: The University of Michigan Press. pp.75-98.

Krik, Dudley 1971 A New Demographic Transition? in National Academy of Science, "Rapid Population Growth: Consequences and Policy Implications, John Hopkins Press, Baltimore, pp.123-147.

Leibenstein, H. 1954 "Theory of Economic-Demographic Development", Princeton: Princeton University Press.

Leibenstein, H. 1957 "Economic Backwardness and Economic Growth". Studies in the Theory of Economic Development, New York: John Wiley and Sons.

Leibenstein, H. 1974 "An Interpretation of the Economic Theory of Fertility: Promising Path or Blind Alley", Journal of Economic Literature, 12(2), pp.457-479.

Leasure, J.W. 1963 "Factors Involved in the Decline of Fertility in Spain, 1900-1950", Population Studies, 16(3), pp.271-284.

Lesthaeghe, R. and E. Van De Walle 1976 "Economic Factors and Fertility Decline in France and Belgium", in Economic Factors in Population Growth, Macmillan, London.

Mamdani, M. 1972 "The Myth of Population Control", New York: Monthly Review Press.

Marx, K. 1867 The Capital, D. Torr (ed), London 1939.

Mc Nicoll, Geofrey 1975 "Community Level Population Policy: An Exploration", Population and Development, Vol.1, No.1, p.3.

Mitchell, Juliel 1971 Women's Estate, Penguine, Harmondsworth, p.157.

Mincer, Jacob 1963 "Market Prices, Opportunity Costs, and Income Effects", in Measurement in Economics: Studies in Mathematical Economics and Econometrics in Memory of Yehuda Grunfeld. Edited by Carl Christ et. al. Standford University Press, Standford, pp.67-82.

Muller, Eva 1972a "Economic Cost and Value of Children: Conceptualization and Measurement", in The Satisfactions and Costs of Children. Edited by J.J. Fawcett, Honolulu: East-West Center Press, p.182.

Mueller, Eva 1972b "Economic Motives for Family Limitation: A Study Conducted in Taiwan", Population Studies, Vol.27, No.3, pp.383-403 (November).

Mueller, Eva 1976 "The Economic Value of Children in Peasant Agriculture", in Population and Development: The Search for Selective Interventions. Edited by Ronald G. Ridker, Baltimore: Johns Hopkins University Press.

Nag, Moni 1962 "Factors Affecting Human Fertility in Non-Industrial Societies: A Gross Cultural Study", New Haven, Yale University Publications in Anthropology, No.66.

Nag, Moni et al. 1978 "An Anthropological Approach to the study of the Economic Value of Children in Java and Nepal", Current Anthropology, Vol.19, No.2, June, pp.293-306.

Nadkarni, M.V. 1976 "Over Population and Rural Poor", Economic and Political Weekly, 11, 31, pp.1163-1172.

Namboodiri, Krishnan N. 1972 "Some Observations on the Economic Framework for Fertility Analysis", Population Studies, 26(2), July, pp.185-206.

National Impact Survey Report 1968-69 Pakistan Population Council, Karachi 1973.

Nelson, R.R. 1956 "A Theory of the Low Level Equilibrium Trap in Underdeveloped Countries", American Economic Review, 46, 5, pp.894-908.

Nasra, M. 1974 "The Role of Inter-Spousal Communication in Adoption Family Planning Methods: A Couple Approach", The Pakistan Development Review, Vol.XIII, Winter, No.4, pp.452-469.

Nerlov, Marc 1974 "Household and Economy: Toward a New Theory of Population and Economic Growth", Journal of Political Economy, 82(2), Part 2, pp.5200-5218.

Notostein, Frank W. 1945 "Population: The Long View", in Food for The World, Edited by Theodore W. Schultz, University of Chicago Press, Chicago, pp.36-57.

Notestein, Frank W. 1953 "Economic Problems of Population Change". 8th International Conference of Agricultural Economists, p.16.

Ogburn, William F. 1922 "Social Change with respect to Culture and Original Nature". Viking, New York, pp.200-280.

Okore, A.O. 1977 "The Value of Children among Ibo Households in Nigeria: A Study of Arochukwi Division and Urban Umuahia into Imo State". Unpublished Ph.D. Thesis, Australian National University, Canberra.

Okediji, et. al. 1976 "The Changing African Family Project: A Report with Special Reference to the Nigerian Segment", Studies in the Family Planning, 7(5); pp.126-136.

Pakrashi Kanti 1968 "On Female Infanticide in India", Bulletin of Cultural Research Institute, Nov.7, pp.33-47, New York, Julian Press.

Pearson, Lester B. et. al. 1969 Partners in Development: Report of the Commission on International Development, New York: Praeger, p.197.

Peek, Peter 1975 "Family Composition and Married Female Employment: The Case of Chile", International Labour Organization (ILO). Population and Employment Division, Working Paper No.13.

Population Reference Bureau, Inc 1978 World Population Data Sheet, Washington D.C.

Presser, H.B. 1971 "The Timing of the First Birth, Female Roles and Black Fertility". The Milbank Memorial Fund Quarterly, 19(3), pp.329-361.

Rahman, Shafiqur 1979 "Population Programme in Bangladesh and its Impact on Projected Area", Fertility in Bangladesh, Bangladesh Fertility Survey, National Institute of Population Research and Training, Dacca, June, pp.142-152.

Rahman, A. et.al. 1979 "Some Estimates of Current Levels of Fertility and Mortality in Bangladesh: Preliminary Analysis of the Pregnancy Histories of Bangladesh Fertility Survey", National Institute of Population Research and Training, Dacca, June, pp.41-47.

Ranade, S.N. and P. Ramchandran 1975 Women and Employment, Bombay, Tata Institute of Social Sciences.

Repetto, Robert 1972 "Son Preference and Fertility Behaviour in Developing Countries, Studies in Family Planning, Vol.3, No.4, April, pp.70-76.

Repetto, Robert 1976 "Direct Economic Costs and Value of Children", in Population and Development: The Search for Selective Interventions. Edited by Ronald G. Ridker, Johns Hopkins University Press, Baltimore, London, pp.77-97.

Repetto, Robert 1978 "Comments" on an article, "An Anthropological Approach to the Study of the Economic Value of Children in Java and Nepal" by Moni Nag et. al. in Current Anthropology, Vol.19, No.2, p.304.

Ridker, Ronald G. 1976 "Perspectiveness on Population Policy and Research", in Population and Development: The Search for Selective Interventions". Edited by R.G. Ridker, Johns Hopkins University Press, Baltimore, London, pp.1-35.

Robinson, Warren C. and D.E. Horlachar 1971 "Population Growth and Economic Welfare", Reports on Population/ Family Planning 6, February, pp.1-39.

Rosario, F.Z. 1973 "A Researcher's Guide to Social-Psychological Communication Variables in Family Planning Research", East-West Communication Institute, Honolulu.

Ryder, N.B. 1959 "Fertility", in The Study of Population: An Inventory and Appraisal. Edited by P.M. Hauser and O.D. Duncan, University of Chicago Press, Chicago.

Ryder, N.B. 1973 "Comment", Journal of Political Economy, 81(2): s 65-69 (March/April), p.2.

Ryder, N.B. 1975 "Reproductive Behaviour and the Family Life Cycle", in United Nations: The Population Debate, Dimensions and Perspectives, New York, Vol.2, pp.278-288.

Samuel, T.J. 1965 "Social Factors Affecting Fertility in India", The Eugenics Review, 157(1): pp.5-15.

Stycos, Mayone J. 1965 "Female Employment and Fertility in Lima, Peru". Milbank Memorial Fund Quarterly, 43(1), pp.42-54.

Suchart, P. and Frederick A. Day 1977 "Cost and Value of Children in Rural Thailand" in The Economic and Social Supports for High Fertility. Edited by L.T. Ruzicka, Canberra: The Australian National University, Department of Demography, pp.307-316.

Sweet, J.A. 1968 "White-non-White Differentials in the Labour Force Activity of Married Women in the U.S.A", Paper Presented at the Annual Meeting of the Population Association of America.

Schultz, Theodore W. 1974 "Fertility and Economic Values", in Economics of Family: Marriage, Children and Human Capital, University of Chicago Press, Chicago, pp.3-22.

Schultz, Theodore W. 1973 "A Preliminary Survey of Economic Analysis of Fertility", The American Economic Review, 63(2), pp.71-78.

Simon, L. 1969 "The Value of Avoided Births in Underdeveloped Countries", Population Studies, 23,1, pp.61-68.

Spengler, J. J. 1966 "Values in Fertility Analysis", Demography, 3(1), pp.109-130.

Srinivasan, K; P.H. Reddy and K.N.M. Ranju 1978 "From One Generation to Next: Changes in Fertility, Family Size Preferences and Family Planning in an Indian State between 1951 and 1975", Studies in Family Planning, Vol.9, November 10-11, pp.258-270.

Statistical Pocket Book of Bangladesh, 1978, Government of the People's Republic of Bangladesh, Ministry of Planning, Statistical Division.

Sweezy, Alan 1975 "Recent Light on the Relation Between Socio-Economic Development and Fertility Decline", Caltech Population Program Occasional Paper, Series 1, No.1.

Tabbarah, Raid B. 1971 "Towards a Theory of Demographic Development", Economic Development and Cultural Change, 19(2), pp.257-276.

Thorner, Danial 1962 "Peasant Economy as a Category in Economic History", in Peasant and Peasant Societies, Edited by Theodor Shanin, pp.202-218.

Turner, Jean 1974 "Economic Context and the Meaning of Children to Parents in Chile", Paper Presented at the Second International Conference of the Association for Cross Cultural Psychology, Kingston, Ontario, August (Minco).

United Nations 1961 "The Mysore Population Study", New York, p.139.

United Nations 1972 Population and Vital Statistics, Report 1, New York, July.

United Nations Development Programme 1972 A Forward Look at the Strategy, Role and Financial Requirements of UNFPA, 1972-75, UNFPA/PCC/IV/4, February, pp.2-65.

United Nations Department of Economics and Social Affairs 1972 "Measures, Policies, and Programmes Affecting Fertility With Particular Reference to National Family Planning Programme, Population Study, No.51, New York.

USAID and Bangladesh Bureau of Statistics, The Land Occupancy Survey of Bangladesh, Dacca, 1977.

Vande Wallo, Etienne and John Knodel 1967 "Demographic Transition and Fertility Decline: The European Case", in International Union for the Scientific Study of Population, Contributed Papers, Sydney Conference, Australia, 21 to 25 August.

White, Benjamin 1975 "The Economic Importance of Children in a Javanese Village", in Population and Social Organization. Edited by Moni Nag, The Hague, Mouton.

White, Benjamin 1976 "Production and Reproduction in a Javanese Village", Unpublished Ph.D. Thesis submitted at the Columbia University, U.S.A.

Willis, Robert J. 1973 "A New Approach to the Economic Theory of Fertility Behaviour", Journal of Political Economy, 81(2), s 14-69, (March/April Supplement 2).

Whelpton, P.K. and C.V. Kiser (eds) 1958 Social and Psychological Factors Affecting Fertility, 5, Milk bank Memorial Fund, New York.

Wong, A.K. 1977 "The Value of Children and the Household Economy in an Urban Setting: A Review of Current Value of Children Studies in Developing WorId", in The Economic and Social Supports for High Fertility, Edited by L.T. Ruzicka, Canberra: The Australian National University, Department of Demography.

Wolf, E.R. 1966 Peasants, Prentice Hall, p.2.

Yang, Martin 1948 A Chinese Village: Taiton, Shantung Province, Kegan Paul, Trench and Trubner, London, p.84.

Yang, Kuo-Shu "Taiwan, Republic of China", in Social and Psychological Aspects of Fertility in Asia, Edited by David H.P. and Lee, S.J. Korean Institute for Research in Behavioral Sciences, Seoul.

Yoram Ben-Porath 1973 "Labour Force Participation Rates and the Study of Labour", Journal of Political Economy, 81, No.3, May/June, pp.697-704.