CHAPTER III

DIMENSIONS OF RURAL POVERTY

INTRODUCTION

Total population of the country in 1987 was 105.5 million[1] in a territory of 55,598 square miles. The density of population works out to 1898 persons per square mile. Urban population constituted 15.2 per cent of the total population in 1981. The growth rate of population per annum in 1984-85 was 2.17%.[2] The latest data available from the Labour Force Survey (LFS) of 1983[3] shows that out of the employed persons, 10 years and above in 1983-84, 58.7% were engaged in agriculture, forestry, fishing; 10.8% were employed in the secondary sector and 30.2% were in the tertiary services. Data regarding secteral composition of Gross Domistic Product (GDP)[4] shows that in 1985/86, at

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1. 1987 Annual Country Review of Bangladesh — UNFPA (United Nations Population Fund) Cooperation, UNFPA, Dhaka, 1988, P. Annex - 2.

2. Statistical Pocket Book of Bangladesh 1986, Bangladesh Bureau of Statistics, Government of the Peoples Republic of Bangladesh, Dhaka, P.4.

3. Final Report of Labour Force Survey, 1983-84, Bangladesh Bureau of Statistics, Government of the Peoples Republic of Bangladesh, 1986, P.42.

4. Bangladesh Economic Survey 1985/86, Government of the Peoples Republic of Bangladesh, 1986, P.2.

1984/85 factor cost, agriculture etc. contributed 50.51% to the GDP, 13.1% of the GDP was generated in the secondary sector and 36.4% in the tertiary sector.

World Development Report identified 37 low income developing countries with per capita GNP of US $400 or less in 1985.[5] Bangladesh is one among them. Per capita GNP of Bangladesh in 1985 was US $ 150. In the list of 37 countries the report has mentioned GNP of 31 countries. Out of these, only Ethopia has per capita GNP of US $110 which is less than that of Bangladesh. Two countries e.g. Burkino-Faso and Mali have GNP at the same level (i.e. US $ 150). Thus Bangladesh occupies one of the lowest positions in the world in terms of per capita GNP.

The present chapter on 'Dimensions of Poverty' examines various aspects of poverty problem of rural Bangladesh.

GROWTH AND POVERTY

Traditionally poverty has not been considered to be a distinct problem. In general economists used to regard continuing and sustained growth as panacea for poverty.

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5. World Development Report 1987, World Bank, Washington.

However in the recent years poverty as a distinct problem has received wide attention. This is because although in the long run sustained growth may remove harsher forms of poverty, in the short run and the medium run there may arise tremendous problems due to inadequate trickledown of the benefits of growth, slow rates of growth and high rate of population growth. Further, the rise of social consciousness finds certain aspects of poverty, such as lack of subsistence to vast masses socially and politically unacceptable. According to M.S. Ahluwalia, "The fact of poverty is not new: it was always self-evident to those familiar with economic realities: what is new is the suspicious that economic growth by itself may not solve or even alleviate poverty within any "reasonable" time period. Indeed it is often argued that the mechanism which promotes economic growth also promotes economic concentration and a worsening of the relative and perhaps absolute position of the lower income groups. This pessimistic view has led to some questioning of growth oriented development strategies which assume that the poverty problem would be solved without much difficulty if growth would be accelarated".[6] Thus, it became clear to the development scientists that growth of economy alone could ensure neither political stability nor an environment

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6. M.S. Ahluwalia, "Income inequality: Some Dimensions of the Problem" in Holis Chenery et.al.(ed), Redistribution with growth, Oxford University Press, London, 1974, P.1.

conducive to the continuation of the existing socio-economic structure. Some degree of social justice in the distribution of benefits of the growth was thought to be required for easing political tensions. Therefore, the next decade became one of assuring distribution of fruits of growth and development to all people. Since the distribution of benefits is very closely related with inter-group and inter-class relations, socio-economic structure also became an area of study. "Distribution of benefit" has been emphasised again and again during the last few years though with little success.[7]

Kuznets Hypothesis

The issue of relationship between growth and poverty had been a matter of debate for a long time. The matter of debate was whether development in the past had been accompanied by such an increase in inequality as a result of which the poor have benefited little from overall growth. Lewis's model based on classical economics, later extended by Ranis, Fei and George Jane-Rogen and others and neo-classical model to which

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7. M.A. Momin, "The Integrated Rural Development Programme in Bangladesh and its Growth - equity contradiction", Community Development Journal, Oxford University Press, Vol.22 No.2, April, 1987, P.105.

contributions have been made by Meade, Schultz, Mellor and Rutton, do not suggest growth to be inimical to the low income earners whether they are in agriculture and in rural areas or in manufacturing and services sector and in urban areas.[8] But Kuznets hypothesised that the process of development was likely to be accompanied by a substantial increase in inequality in income distribution and at a relatively advanced stage of development the trend would be reversed.[9]

Later on, Kuznets hypothesis was confirmed to some degree by a number of studies using different cross-country data.[10] But among the authors who supported Kuznets hypothesis, there are differences of opinions. For example, Adelman and Morris argued that the cross-country data suggested that there was no automatic, or even likely trickling down of the

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8. C.H. Shah, paper on "Growth, poverty levels and policy options", (Unpublished), 1981, P.28.

9. S. Kuznets, "Economic growth and Income inequality", American Economic Review, Vol.XLV, 1955, P.1-28; S.Kuznets, "Quantitative Aspects of the Economic Growth of Nations, VIII: Distribution of Income by size", Economic Development and Cultural Change, Vol.XI, No.2, Part-II, January 1963, P.1-69.

10. I. Adelman and C.T. Morris, Economic Growth and Social Equity in Developing Countries, Standford University Press, Standford, 1973, P.185, 188; F. Paukert "Income Distribution at different levels of development: A survey of evidence", International Labour Review, CVIII, No.2-3, 1973, P.121; B. Chenery and M. Syraquin, Patterns of Development, 1950-1970, Oxford University Press, 1975, P.60-63; M.S. Ahluwalia, "Inequality Poverty and Development", Journal of Development Economics, 3 Sept., 1976, P.307 - 342. Quoted in M.S. Ahluwalia et al, Growth and Poverty in Developing Countries, World Bank Staff Working Paper, N.309 (Revised), 1979, P.12.

benefits of economic growth to the poorest segments of the population in low-income countries. On the contrary, the absolute position of the poor tends to deteriorate as a consequence of economic growth.[11] Ahluwalia has argued that while the cross-country evidence points to increasing inequality in the early stages, this does not completely off set the effect of growth. Income levels of the poorer quintiles are likely to rise but much more slowly than the average.[12]

In another study, with information for 18 countries, Ahluwalia observed that in some of the countries over all growth of the economy was also accompanied by growth of income of the lowest 40% of the population. Onethird (i.e. six countries out of these 18 countries) witnessed a higher rate of growth of income of the lowest 40% than the overall growth rate for the country. These countries also included underdeveloped countries like Srilanka and Taiwan.[13]

Indian Experience

In the Indian context, Ahluwalia has given time series information from 1955-56 to 1973-74 regarding agricultural output per head of population basing on the indices like

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11. I. Adelman and C.T. Morris, Op.cit., P.189
12. M. S. Ahluwalia (1976), Op.cit., P.12
13. M. S. Ahluwalia (1974), Op.cit., P.11-16.

(i) Index of food grains production, (ii) Index of agricultural production (all crops), and (iii) The net domestic product (Net value added) in agriculture at constant (1960-61) prices. None of these indices show a significant positive trend.[14] Ahluwalia added, "this stagnation parallels the observed lack of any trend improvement in the incidence of poverty over the period and can be argued to be one of its principal causes".[15] Then using regression analysis, he examined the relationship between the incidence of poverty and agricultural performance and his results showed that improved agricultural performance is definitely associated with reduction in the incidence of poverty.[16] This relationship is also confirmed by testing an alternative hypothesis that the incidence of poverty depends not only on the current year's level of production but also on the level in the previous year.[17]

Agricultural Growth and Poverty

Association of poverty and agricultural performance, perhaps, is explained in the following way. When there is a good performance of agriculture, good crops increase the employment opportunities for the agricultural labourers who

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14. M.S. Ahluwalia, Rural Poverty in India: 1956-57 to 1973-74, World Bank Staff Working Paper N.279, 1978, P.25-26.

15. Ibid., P.25.

16. Ibid., P.25.

17. Ibid., P.28.

are composed of small, marginal farmers and landless labourers. As a result of good season, there is an increase in demand for labour, leading to an increase in employment and rise in wage, rate. At the same time because of the abundance of production the prices of agricultural commodities stabilise themselves. This reduces the inequality of income and also the percentage of rural people below the poverty line. On the other hand with the poor performance of agricultural production, agricultural labourers fall in severe underemployment situation. Because with the decrease of agricultural production demand for agricultural labourers also decreases and wage rate also may decrease. At the same time, because of the fall in agricultural production, situation of scarcity emerges, leading to a rise in prices of foodgrains and other commodities. This situation pushes large number of small and marginal farmers and landless labourers below the poverty line. Some rich farmers, for example, during the drought period, those who have irrigated land can get higher prices for their products. Thus the rise in income of few economically viable landowners and the fall in the income of the large number of economically weak people create wide income inequality between few rich and large number of poor people.

In the Asian context, in a series of empirical studies in seven countries e.g. Bangladesh, India, Indonesia, Malaysia, Pakistan, Philippines and Srilanka it has been observed that

except in Bangladesh about which we will discuss later on, in other six countries despite a fairly rapid increase in average income per head, poverty in rural areas has tended to rise. In these countries food production increased at a faster rate than the population. In Pakistan food production may have grown fractionally faster than the population. In Srilanka and Malaysia the difference between the growth rate of food production and population has been very large. In India population and food production have grown at the same rate, while cereal production has expanded faster than the population. In the period 1956-57 to 1973-74 agricultural output per head increased 1.3% a year in Bihar, 3.2% in the Punjab, 1.0% in Tamil Nadu and 1.4% in Uttar Pradesh. That is, per capita agricultural output increased significantly in all the states studied, yet the data indicate that only in Tamil Nadu did the incidence of rural poverty fail to increase. Thus it is unlikely that the major explanation for the persistence and even an increase in poverty is slow agricultural growth. Therefore, the claim that the growing poverty of Asia is due to a World Food Shortage or to failure of food production in Asia to keep up with population is untenable.[18] Therefore, although the growth of production is a requisite of economic development, there is no necessary

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18. Keith Griffin and A.R. Khan, "Poverty in the third world: Ugly facts and fancy Models", World Development, Vol.6, N.3, 1978, P.295-304.

connection between increase of production and improvement in the conditions of the poorer sections of the population.

Now coming to Bangladesh situation regarding growth and poverty, the country faces twin problems of lack of adaquate growth and widespread poverty. In the next section we shall examine the growth of Bangladesh economy in terms of changes in (i) per capita Gross National Product (GNP) (ii) per capita private consumption expenditure (iii) per capita availability of food. In the latter sections we discuss the poverty problem of the country.

2. GROWTH OF BANGLADESH ECONOMY

Per Capita GNP

Generally per capita GNP is taken as an indicator of growth. The following table shows the amount of GNP per capita in Bangladesh during the last few years.

Inspite of the fact that during the period from 1973-74 to 1986-87 per capita GNP increased almost every year (except decrease in 1976-77, 1979-80, 1981-82 and zero growth in 1984-85) the amount is still at a very low level. The rate of increase is also not significant. From Table-1, it will be noticed that there is a considerable slowing down in the rate of growth of per capita GNP during the last six years 1980-81 to 1986-87 as compared to the earlier six years 1973-74 to 1979-80. Over the

Table - 1

Per Capita GNP at Constant

Prices with 1973-74 = 100

Years	Per capita GNP at factor cost at constant prices of 1973-74 (TK)	Percentage Variation over Previous year
1	2	3
1973-74	906	
1974-75	936	+ 3.3
1975-76	981	+ 4.8
1976-77	974	- 0.7
1977-78	1028	+ 5.5
1978-79	1051	+ 2.2
1979-80	1041	- 1.0
1980-81	1086	+ 4.3
1981-82	1073	- 1.2
1982-83	1104	+ 2.9
1983-84	1114	+ 0.9
1984-85	1114	0
1985-86	1142	+ 2.5
1986-87 (Provisional)	1171	+ 2.5

Sources : Estimated from per capita GNP at factor cost at current prices and national income deflator. Statistical Year Books of Bangladesh, 1980, 1984-85, 1987, Bangladesh Bureau of Statistics, P.392-393; 684, 688; 494, 498.

period 1980-81 to 1986-87 the per capita GNP increased by only 8% (from TK 1086 to TK 1171) as compared to an increase of 15% (from TK 906 to TK 1041) during 1973-74 to 1979-80. In a poverty striken country this slackening in the rate of growth of per capita GNP is unfortunate.

Per Capita Private Consumption Expenditure

A more direct measure of the level of living of people is per capita private consumption expenditure. The following table shows the changes in per capita annual private consumption expenditure at constant prices.

Table-2 shows that during the period from 1973-74 to 1986-87 (i.e. since independence to till today) per capita private annual consumption expenditure increased from TK 893 to TK 1067. It will be noticed that the per capita private consumption expenditure after 1980's has increased at a slower pace as compared to the six years period before 1980. During 1973-74 to 1979-80, the per capita private consumption expenditure increased by 10% (from Taka 893 to 985) and by only 5% (from Taka 1014 to 1067) during 1980-81 to 1986-87. During both the sub-periods, the growth rate in per capita private consumption expenditure is lower than the corresponding growth rate in per capita GNP. Thus during 1973-74 to 1979-80 the per capita GNP increased by 15% but the per capita private consumption

Table - 2

Per Capita Annual Private Consumption Expenditure

at Constant Prices with 1973-74 = 100

Years	Per capita private annual consumption expenditure at constant prices with 1973-74=100 (TK)	percentage variation over previous year
1	2	3
1973-74	893	
1974-75	922	+ 3.2
1975-76	989	+ 7.3
1976-77	921	- 6.9
1977-78	979	+ 6.3
1978-79	950	- 3.0
1979-80	985	+ 1.6
1980-81	1014	+ 2.9
1981-82	1035	+ 2.1
1982-83	1050	+ 1.4
1983-84	1045	- 0.5
1984-85	1042	- 0.3
1985-86	1052	+ 1.0
1986-87 (Provisional)	1067	+ 1.4

Source : Estimated from total annual private consumption expenditure at current prices and national income deflator. Statistical yearbooks of Bangladesh, 1980, 1984-85, 1986, 1987. Op.Cit. P.395, 392, 691, 684, 755, 748, 501, 494.

expenditure increased by only 10%. During 1980-81 to 1986-87 the per capita GNP increased by 8% but the per capita private consumption expenditure increased by only 5%. Thus not only that the growth of per capita GNP is rather slow in Bangladesh, rate of growth of per capita private consumption is even slower. The stubbornness of poverty ratio is to be understood in this context.

Per Capita Availability of Food

A more specific idea about the poverty situation can be obtained from the statistics of the availability of food grains. An estimation of per capita availability of food grains including minor cereals during the period from 1972-73 to 1984-85 is given in Table-3.

As there can be seen from the table, there was 13% increase in the per capita availability of food grains in 1984-85 as compared to 1972-73. But if we take into account the fact that agricultural production and therefore the availability of food grains fluctuates from year to year, it is better to take a triennium average. Accordingly the per capita availability of food grains during 1972-73 to 1974-75 and 1982-83 to 1984-85 was 370.6 Lbs and 402.2 Lbs respectively. That is an increase of only 8.5%. This vividly brings out the infirmity in the growth process from the point of view of its impact on poverty.

Table - 3

Per Capita Availability of Foodgrains

including Minor Cereals

Years	Net prodc-tion (000 tons)	Impo-rts (000 tons)	Net Availa-bility (000 tons)	Estimated popula-tion (million)	Per capita Availabi-lity of foodgrains (Lbs per annum)	Index 1972-73 =100
1	2	3	4	5	6	7
1972-73	9083	2825	11908	74.3	359.0	100.0
1973-74	10711	1666	12377	76.4	362.9	101.1
1974-75	11014	2558	13572	78.0	389.8	108.6
1975-76	12526	1445	13971	79.9	391.7	109.1
1976-77	11686	795	12481	81.8	341.8	95.2
1977-78	12841	1609	14450	83.7	386.7	107.7
1978-79	12861	1162	14023	85.6	366.9	102.2
1979-80	13067	2826	15893	87.7	405.9	113.1
1980-81	14423	1061	15484	89.9	385.8	107.5
1981-82	14062	1226	15288	91.6	373.8	104.1
1982-83	14741	1841	16582	93.6	396.8	110.5
1983-84	15126	2100	17226	95.7	403.2	112.3
1984-85	15471	2534	18005	99.2	406.6	113.2

Source : Calculated from Statistical yearbook of Bangladesh, 1980, Op.cit., P.564 and Statistical yearbook of 1986, Op.cit., P.908.

From the above analysis of growth performance of Bangladesh economy in terms of growth of per capita GNP, changes in per capita private annual consumption expenditure and per capita availability of foodgrains a comparision can be made among them. If we compare three year average of per capita GNP (at factor cost at 1973-74 constant prices), per capita private consumption expenditure (at constant prices of 1973-74 prices) and per capita availability of foodgrains the picture is as follows:

Table - 4

Changes in Growth Indicators

	During 1973-74 to 1975-76 (TK)	During 1982-83 to 1984-85 (TK)	Percent of growth
1	2	3	4
1. Average Annual per capita GNP	941	1111	18
2. Average Annual per capita private consumption expenditure	935	1046	12
3. Average Annual per capita availability of foodgrains (Lbs)	382	402	5

It is seen from the above table that while growth is 18% in per capita GNP, 12% in per capita private consumption expenditure, growth in case of per capita availability of

foodgrains was only 5%. Thus the percolation effect from the point of view of poverty striken population is week indeed, if agricultural output is considered the best indicator of growth from the point of view of the poor.

3. REVIEW OF EARLIER ATTEMPTS AT MEASUREMENT OF POVERTY

Food and Nutrition Approach

The Institute of Nutrition and Food Sciences (INFS) of the Dhaka University attempted to examine the poverty situation of Bangladesh through (i) changes in per capita food and nutrition intake over a period of time, (ii) estimation of nutritional status (or extend of malnutrition) of a population. It is the estimation of proportion of population with energy intake below some norms called requirements.[19] At the recommended required point a line is drawn and the proportion of population below this line are termed as poor. Among the nutrients calories occupy an important place.

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19. T.N. Srinivasan, "Malnutrition: some measurement and policy issues", Journal of Development Economics, Vol.X, 1981. Quoted in S.P.Gupta, Structural Dimensions of Poverty in India, Mittal Publications, 1987, P.8.

Data regarding food and nutrition status of the people are provided by the three nutrition surveys conducted at three points of time. First Nutrition Survey of East Pakistan (now Bangladesh)[20] was conducted in 1962-64 by the sponsorship of the Government of Pakistan with financial and technical support from the United States Department of Health, Education and Welfare. Logistic and technical support was provided by FAO (Food and Agriculture Organization) and UNICEF (United Nations International Children's Emergency Fund). The survey covered one rural location in each of the then seventeen districts and five urban locations. 10,595 individuals in the rural areas and 4,137 individuals in the urban areas were covered by the dietary sample. This survey, for the first time, brought to light how wide and deep was the prevalence of malnutrition among our people and provided enormous information on food and nutritional situation of the country.[21] Another Nutrition survey was conducted in 1975-76 after independence. During the period from 1962-64 to 1975-76 population of the country had also increased from 61 million to about 80 million. The 1975-76 Nutrition Survey[22] studied

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20. Nutrition Survey of Rural Bangladesh, 1975-76, Institute of Nutrition and Food Science, Dhaka University, Dhaka, 1977, P.1.

21. Nutrition Survey of East Pakistan, U.S.Department of Health, Education and Welfare, Washington, U.S.A., 1966. Quoted in Nutrition Survey of Rural Bangladesh, 1981-82, Institute of Nutrition and Food Science (INFS), University of Dhaka, Bangladesh, 1983, P.1.

22. Nutrition Survey of Rural Bangladesh 1975-76, Op.cit. P.2,5; Nutrition Survey of Rural Bangaladesh, 1981-82, Op.cit., P.2.

twelve locations of the country, three from each of the four administrative divisions from 160 randomly chosen census circles of Bangladesh Fertility Survey. In general, 60 households were studied from each location.

The 1975-76 survey provided considerable information. It highlighted malnutrition as a problem of national significance and identified the extent, magnitude and distribution of malnutrition in rural Bangladesh and its relationship with various socio-economic parameters. The survey findings were used extensively by the Government as well as various internal and external agencies in the formation of policies and programs to address problems of hunger and malnutrition.[23]

The latest survey on nutrition was conducted in 1981-82. The 1981-82 survey was a repeat survey in some of the locations surveyed in 1975-76. Only one tribal and one urban industrial location were added in the present survey. They were selected purposively from sylhet and Narayanganj area. Thus in this survey total fourteen locations were selected. In 1981-82 even the timing of the survey in ten locations out of twelve locations of 1975-76 were chosen to

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23. Nutrition Survey of 1981-82, Op.cit., P.1.

coincide with that of 1975-76 in order to avoid seasonal differences. A total of 597 households belonging to different union parishad taxation category were thus surveyed from the twelve cross-sectional locations using five different questionnaire. The same selection procedure was used for tribal survey. In case of industrial area survey, however, a stratified random sampling procedure was followed on the basis of skills of labourers and a total of 70 households were investigated from unskilled, semi-skilled and highly skilled labour category.[24] Most important special features of 1981-82 survey compared to the 1975-76 are[25]: (i) It quantifies the distribution of foods and nutrients amongst family members according to age and sex, (ii) it relates nutritional parameters to socio-economic characters statistics of population groups.

Changes in Per Capita Consumption of Food and Nutrition

The changes in per capita food consumption by sources during the three nutrition survey periods (i.e. over nearly 20 years) are shown in the following table :

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24. Nutrition Survey of 1981-82, Op.cit., P.2

25. Ibid., P.7.

Table - 5

Per Capita Food Intake By Sources

(Grammes/day)

Sources	YEARS			CHANGES (%)		
	1981-82	1975-76	1962-64	1981-82 compared to 1975-76	1981-82 compared to 1962-64	1975-76 compared to 1962-64
1	2	3	4	5	6	7
1.Cereals	487.9	523.0	545.8	- 6.7	- 10.6	- 4.2
2.Legumes	8.0	23.8	27.6	-66.4	-71.0	-13.8
3.Animals	44.0	44.0	56.5	0	-22.1	-22.1
4.Roots	62.7	52.3	80.6	+19.9	-22.2	-35.1
5.Vegetables	120.1	125.7	142.0	- 4.5	-15.4	-11.5
6.Others	41.8	38.5	33.4	+ 8.6	+25.1	+15.3
7.Total	764.5	807.3	885.9	- 5.3	-13.7	- 8.9

Source : K.Ahmed and N.Hassan, "On Nutritional Surveillance in Bangladesh", The Bangladesh Development Studies, Vol.X, No.3, 1982, P.82; Nutrition Survey of 1981-82 Op.cit., P.12.

Now coming to changes in per capita nutrient intake, INFS calculated energy requirement for all age and sex on the basis of FAO/WHO (World Health Organization) suggested methodology to the 2273 calories per person per day.[26] If INFS calculation is taken as standard it can be seen from the following table that, not only the current actual per capita calorie, intake in rural Bangladesh falls short of the required level

26. Adhoc Expert Committee. Energy and Protein requirements, WHO Technical Report, Series No.522, WHO, Geneva, 1973. Quoted in Nutrition Survey, 1981-82, Op.cit., P.6.

but the gap between the requirement and the actual intake has also widened over time. If protein intake is taken, even though the 1981/82 actual intake level was higher than the required quantum of 45.3 gm. per person per day,

Table - 6

Per Capita Nutrient intake in Rural Bangladesh

(1962-64, 1975-76, 1981-82 Nutrition Surveys results)

Nutrients	Requirement (Calculated by INFS as per FAO/WHO suggested Methodology)	1962/64	1975/76	1981/82
1	2	3	4	5
Calorie(KCal)	2273	2301	2094	1943
Protein (gm)	45.3	57.9	58.5	48.4

Sources : Nutrition Survey 1981-82, Op.cit., P.22.

It is just marginally above the required amount and from the tendency of rapid rate of decrease in protein intake over the last few year it may be infered that protein intake will subsequently fall below the required quantum.

Changes in the Proportions of Poor

The Nutrition Survey findings show that proportions of households which fail to meet amount of calories and protein in rural areas of the country have increased during 1975-76 to 1981-82 indicating growing incidence of poverty. This can be observed from the following table():

Table - 7

Proportion of Households Meeting Calorie & Protein Requirements (in percent)

1975-76, 1981-82

1	1975-76 2	1981-82 3
1. Percentage of households meeting 80% of calorie requirement	35	49
2. Percentage of households not meeting the full calorie requirement	59	76
3. Percentage of households meeting 80% of protein requirement	16	31
4. Percentage of household not meeting the full protein requirement	29	52

Source : Nutrition Survey 1981-82, Op.cit., P.26, 29; Atiq Rehman et al, A Critical Review of Poverty Situation in Bangladesh in the Eighties, Vol.I, Dhaka, 1987, P.84.

From the table it is seen that the percentage of households meeting only 80 per cent of the required colorie increased from 35 per cent in 1975-76 to 49 per cent in 1981-82. The increase of households not meeting full colorie requirement has increased from 59 per cent in 1975-76 to 76 per cent in 1981-82. In case of deficiency of protein similar situation is observed. Therefore as per INFS estimation poor people in terms of deficit of calorie and protein consumption requirement have increased over this two periods of time.

Income Approach

According to this approach the poverty line is determined on the basis of the level of income necessary to satisfy the minimum need of life. The cost of the minimum diet corresponding to the prescribed required minimum calorie is estimated. Then the costs of other essential non-food items are added. The aggregate thus obtained stands for the income requirement at the poverty line.

Determination of minimum diet or minimum consumption requirement is also associated with many complications like (i) find an acceptable criterion for the choice of the minimum consumption basket, (ii) choose representative item within each consumable group and, (iii) determine appropriate prices to value the minimum consumption bundle. However, a number of attempts have been made to determine such minimum diets for

the poor nations of south-east Asia.[27] The two diets frequently mentioned in the Indian subcontinent are those recommended by the FAO and Sukhatme.[28] The items included in FAO and Sukhatme diets are cereals, pulses, gur-sugar, milk, meat, fish and eggs, fruits, vegetables, roots, oil and fat. In a recent study the FAO recommended items have been adjusted for dietary habits and practices with the rural areas of Bangladesh.[29] This study considering the fact that rural poor of Bangladesh consume very little of meat, milk and sugar have prepared alternative diet baskets deducting these items. The study has also left out fifty per cent of the required costs of fruits and vegetables with the assumption that these are consumed by the rural people mainly from their own produce in the kitchen gardens.

The table-8 shows the cost of the minimum diet as per FAO recommendation and as per its modified varision in the context of Bangladesh.

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27. Poverty and Landlessness in Rural Asia, ILO, Geneva, 1977, P.138-139, 43-44; P.V. Sukhatme, Feeding India's growing millions, Asia Publishing House, Bombay, 1965; V.M. Dandekar, "On measurement of Poverty", Economic and Political Weekly (EPW), Vol.XVI, N.30, July, 1981, P.1242.

28. Poverty and Landlessness in Rural Asia, Op.cit.,P.44.

29. Q.K. Ahmad and Mahabub Hussain, Rural Poverty Alleviation in Bangladesh-Experiences and Policies, FAO, 1984.

Table - 8

Cost of Minimum Dietary Pattern at Current Prices

(Taka per capita per day)

for Rural Areas

Years	FAO Recommended	Adjusted for Bangladesh dietary practice
1	2	3
1963-64	1.15	0.78
1973-74	3.56	2.47
1976-77	4.41	3.89

Source : Q.K. Ahmad and Mahabub Hussain, Op.cit., P.15.

Ahmad and Hussain identified poverty line not merely on the basis of minimum consumption bundle of food items. In order to identify povertyline income, along with costs of minimum consumption bundle of food item they have also adjusted for cost of some non-food item which they called absolutely necessary non-food consumption e.g. clothing, fuel and lighting, housing and miscellaneous. Eventhough the household expenditure survey of 1976-77 indicated that in the rural areas of Bangladesh the above mentioned non-food items in total accounts for about 25 per cent (other 75 per cent on food items), considering the fact that housing and much of the expense on fuel in rural Bangladesh involve little cash cost, Ahmed and Hussain added only 15% (as cost of non-food items) to the costs of food to estimate the poverty line incomes. Thus the poverty

line income set in this study is rather conservative. The following table shows the poverty line incomes determined by FAO and their modified levels adjusted in the Bangladesh context by the above authors.

Table - 9

Poverty Line Incomes at Current Prices for Rural Bangaldesh

Years	Taka per Household per Month	
	FAO Recommended	Adjusted for Bangladesh
1	2	3
1963-64	220	148
1973-74	722	501
1976-77	894	586

Source : Q.K. Ahmad & Mahabub Hussain, Op.cit.,P.15; Rural Poverty in Bangladesh,-A Report to the like minded group, North-South Institute, Canada, 1985,P.68.

Based on the above poverty line incomes the percentages of population below povertyline for these years have also been estimated by Ahmad and Hussain which are given in the following table:

Table - 10

The Percentage of Rural Population Below the Povertyline

Years	FAO	Ahmad & Hussain
1	2	3
1963-64	75.0	52.0
1973-74	74.5	55.7
1976-77	83.0	61.1

Source : Q.K. Ahmad and Mahabub Hussain, Op.cit., P.16.

Thus as per FAO recommendation the proportion of population below poverty line increased from 75% in 1963-64 to 83% in 1976-77. As per Ahmad and Hussain's study it increased from 52% to 61% during the same period.

In the Indian context there are differences of opinion among the Economists regarding the balanced diet method of measurement of poverty. For example, according to Rao, "The balanced diet-approach is .....preferable to the calorie intake approach, and this is what-writers like Bardhan, Rudra and, others have done, unlike Dandekar and Rath who have only used the calorie intake criterion."[30] But this method has been criticized by A.K. Sen. According to him, "if such measure is generally accepted the tendency of the policy makers would be to concentrate on people whose level of living is close to the poverty level."[31] He suggested that poverty measures to be modified in two directions as "(i) we should be concerned not merely with the number of people below the poverty line but also with the amounts by which the incomes of the poor fall short of the specific poverty level, and (ii) the bigger the shortfall from the poverty level,

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30. V.K.R.V. Rao, "Nutritional Norms by Calorie intake and Measurement of Poverty", Bulletin of the International Statistical Institute, Proceedings of the 41 session, Vol.XLVII-Book 1, Invited papers, P.645-654. Quoted in V.M.Dandekar, "On Measurement of Poverty" EPW, Vol.XVI, No.30, July 25, 1981, P.1242.

31. A.K.Sen, "Poverty inequality and uneployment-some conceptual issues in measurement", special number, EPW, August,1973, P.1457-1464. M.Alamgir, "Some Analysis of Distribution of Income, consumption, saving and poverty", The Bangladesh Development Studies, Vol.11,N.4,1974,P.783.

the greater should be the weight per unit of that shortfall in the poverty measure.[32]

4. OUR ESTIMATE OF POVERTY THROUGH CONSUMPTION EXPENDITURE APPROACH

We shall examine poverty situation of rural Bangladesh through private consumption expenditure. Latest data of private consumption expenditure of rural households are available from Bangladesh Household Expenditure Survey (HES) of 1983-84. Matters to be examined here are, (1) Distribution of private consumer expenditure among various household expenditure groups; (2) Pattern of consumption expenditure which examines distribution of the total consumer expenditure of various household expenditure groups between major items such as food, fuel, clothing, housing etc; (3) Household expenditure groups with nutritional inadequacy.

Distribution of Private Consumer Expenditure

HES of 1983-84 provides data regarding distribution of rural households according to monthly household expenditure groups in 1983-84. For each expenditure household group, average monthly expenditure per household is also given. HES data are given in the following table:

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32. A.K. Sen (1973), Op.cit., P.1463.

Table - 11

Distribution of Households by Monthly Household Expenditure Groups in Rural Bangladesh, 1983-84

Monthly Household Expenditure Groups (Taka)	Percent of Household	Average No. of Members per Household	Average Monthly Consumption Expenditure per Household (Tk)	Average Monthly Consumption Expenditure Per Capita (TK)
1	2	3	4	5
⟨500	4.17	2.93	383	131
500- 749	9.75	3.64	642	176
750- 999	14.58	4.31	976	203
1000-1249	14.58	4.85	1114	230
1250-1499	14.06	5.49	1374	250
1500-1999	19.13	6.05	1712	283
2000-2499	9.66	7.18	2200	306
2500-2999	5.54	7.74	2701	349
3000-3999	5.45	9.40	3416	363
4000-4999	1.33	9.64	4368	453
5000-5999	0.95	11.50	5399	469
6000-6999	0.43	10.44	6635	636
7000-7999	0.09	9.00	7816	868
8000+	0.28	10.83	10340	955
All Groups	100.00	5.70	1612	283

Source : Report of the Bangladesh Household Expenditure Survey, 1983-84, Bangladesh Bureau of Statistics, 1988, P.113, 123.

From the above table it is seen that average monthly expenditure per household for all groups in 1983-84 was TK 1612. It means that per capita monthly expenditure was TK 283 and annual consumption expenditure per capita was TK 3396 for all expenditure groups taken together. The average household size was 5.7. It can also be observed from the table that 57.14 per cent of rural households have expenditures below the national average per capita consumption expenditure. The households with monthly expenditure of Takas less than 500, 500-749, 750-999, 1000-1249, 1250-1499 are below the average per capita level of expenditure.

Pattern of Consumption

Distribution of the total consumer expenditure between major items such as food, fuel, clothing, housing etc. is index to judge the standard or quality of living. The poor have to devote a large part of their expenditure to food and fuel so that little is left for purchasing the other necessary materials. The following table shows the distribution of rural consumption expenditure between major items of expenditure at different levels of total expenditure in 1983-84.

Table - 12

Distribution of Consumption Expenditure on Major Items by Monthly Household Expenditure Groups in 1983-84 in Rural Bangladesh

Monthly Household Expenditure Groups (in Taka)	Percent of House-hold	Average Monthly Consumption Expenditure per household (Tk)	Percentages of Monthly Consumption Expenditure					
			Food & Drinks	Fuel & Lighting	Clothing & Footwear	Housing & House-rent	House hold Effects	Miscella-neous Items
1	2	3	4	5	6	7	8	9
<500	4.17	383	67.8	12.3	6.1	8.2	0.6	4.9
500 - 749	9.75	642	69.4	11.1	7.3	6.2	0.6	5.4
750 - 999	14.58	876	69.9	10.5	7.0	5.9	0.7	6.1
1000-1249	14.58	1114	70.2	9.6	7.1	5.8	0.6	6.7
1250-1499	14.06	1374	70.7	8.9	6.0	6.2	0.6	7.7
1500-1999	19.13	1712	68.3	8.2	7.4	6.6	0.8	8.7
2000-2499	9.66	2200	67.6	7.2	8.2	6.6	0.8	9.6
2500-2999	5.54	2701	66.3	6.6	7.6	6.5	1.2	11.9
3000-3999	5.45	3416	63.4	6.5	7.9	7.8	1.3	13.2
4000-4999	1.33	4368	61.6	6.2	9.5	8.1	.9	13.8
5000-5999	0.95	5399	57.6	5.1	10.9	9.3	2.3	14.9
6000-6999	0.43	6635	56.2	4.6	8.5	10.5	1.9	18.3
7000-7999	0.09	7816	50.6	4.8	23.0	2.8	1.6	17.1
8000 +	0.28	10340	39.3	4.0	11.3	12.5	2.2	30.8
All Groups	100	1612	66.7	8.0	7.7	6.8	0.9	9.9

Source : Report of the Bangladesh Household Expenditure Survey, 1983-84, Op.cit., P.123

From the table it can be observed that the rural household in the expenditure groups 2000-2499 and below spend 75% or more on food and fuel. Afterwards this percentage declines.

Households with Nutritional Inadequacy

To ascertain the incidence of poverty, we need the data about quantity of food consumed. This is shown in Table-13. Above data show that barring few exceptions, the consumption of major food items which include cereals as well as non-cereal items such as fish and vegetables, increase as we move from the poorest to the better off households in terms of monthly household expenditure. As a result, per capita daily intake of calories increases as we move towards better household expenditure groups. The conversion of weight of food items into calories is done at the rate of 1 gm = 2.64 K.Calories. This is based on the data available from HES 1983-84. It may be noted that this is lower than Dandekar and Rath conversion of 1 gm into 3.3 K.Cal. This is because Dandekar and Rath refer to cereals only while our data include cereals as well as non-cereal items of food. To compensate for this, Dandekar and Rath had added 200 calories presumed to be obtained from non-cereals.[33] We do not have to make any adjustment for this.

We take 2273 calories per capita as daily normal nutritional requirement. This amount is estimated by the

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33. V.M. Dandekar and Nilikantha Rath, Poverty in India, EPW, Vol.VI, N.1, January 1971, P.29.

Table - 13

Per Capita Daily Consumption of Major Food Items and Per Capita Daily Intake of Calories by Monthly Household Expenditure Groups in Rural Bangladesh - 1983-84

Monthly Household Expenditure Groups (Tk)	Percent of Households	Average Number of Members per Household	Per Capita Daily Consumption of Major Food Items (Grams)	Per Capita Daily Intake of Calories	Average Monthly Consumption Expenditure per Household (Tk)	Average Monthly Consumption Expenditure per Capita (Tk)
1	2	3	4	5	6	7
∠500	4.17	2.93	443	1170	383	131
500 - 749	9.75	3.64	579	1529	642	176
750 - 999	14.58	4.31	635	1676	876	203
1000 - 1249	14.58	4.85	712	1880	1114	230
1250 - 1499	14.06	5.49	745	1967	1374	250
1500 - 1999	19.13	6.05	803	2120	1712	283
2000 - 2499	9.66	7.18	830	2191	2200	306
2500 - 2999	5.54	7.74	903	2384	2701	349
3000 - 3999	5.45	9.40	933	2463	3416	363
4000 - 4999	1.33	9.64	1039	2743	4368	453
5000 - 5999	0.95	11.50	1011	2669	5399	419
6000 - 6999	0.43	10.44	1234	3258	6635	636
7000 - 7999	0.09	9.00	1485	3920	7816	868
8000 +	0.28	10.83	1209	3192	10340	955
All groups	100.00	5.70	782	2064	1612	283

Source : Estimated from Report of the Bangladesh Household Expenditure Survey, 1983-84, Op.cit., P.153 Also Report of the Bangladesh Household Expenditure Survey, Op.cit., P.113, 123. From the above report (P.23-24), it has also been calculated that in 1983-84 each gram of food items contained 2.64 calories.

Institute of Nutrition and Food Sciences (INFS) as per FAO/WHO suggested methodology. Looking at the table we find that the household monthly expenditure group Taka 2000-2499 corresponds to average daily per capita Calorie intake of 2191 and per capita monthly expenditure of Taka 306 and the household monthly expenditure group Taka 2500-2999 corresponds to average daily per capita calorie intake of 2384 and per capita monthly expenditure of Taka 349. Thus there is an increase of 193 calories per day for an increase of Taka 43 in monthly expenditure. Therefore for obtaining 2273 calories per capita per day (82 calories more than 2191 corresponding to average per capita monthly expenditure of Taka 306), a per capita monthly expenditure Taka 306 plus Taka 18 = Taka 324 per capita would constitute the poverty line. This would mean that households below Taka 2326 expenditure per month (324 x 7.18 family size in the expenditure group Taka 2000-2499 will come to Taka 2326) would fall below the poverty line. 9.66 per cent households fall in the expenditure group Taka 2000-2499. Thus 6.30 per cent of the households from this group will fall below the poverty line. So the total number of rural households below the poverty line are 4.17% + 9.75% + 14.58% + 14.58% + 14.06% + 19.13% + 6.30 = 82.57% of the households. It may be noted that these households are smaller in size compared to the households above the poverty line. Therefore the population below the poverty

line would be lower than the figure of 83% for the households. Taking the family size into account we find that 74% of the population falls below poverty line.

5. CONSEQUENCES OF POVERTY FOR QUALITY OF LIFE

The quality of life is judged in terms of several indicators such as longevity, literacy, mortality rates etc. Here below we examine the indicators of quality of life with reference to poverty in Bangladesh.

Life Expectancy and Death Rate

The following table shows the situation regarding life expectancy and death rate.

Table - 14

Life Expectancy and Death Rate

Indicators	Years										
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1	2	3	4	5	6	7	8	9	10	11	12
1. Life Expectancy at Birth (Years)	42	NA	NA	42	49	46	48	48	50	50	51
2. Crude Death Rate (Per Thousand Population)	18	NA	NA	18	16	18	18	17	16	15	15

Source : World Development Reports, 1978, 1980, 1981, 1982 1983, 1984, 1985, 1986 World Bank, Washington.

From the table it can be observed that the life expectancy at birth for males and females together increased from 42 years in 1975 to 51 years in 1985. A decreasing trend is observed in the crude death rate, from 18 per thousand of population in 1975 to 15 in 1985. Yet the longevity is very low and death rates are high even by the standards of underdeveloped countries.

Infant and Child Mortality Rate

The data regarding infant (less than one year old) mortality rates are given in the following table.

Table - 15

Infant Mortality Rate (Per Thousand)

Year	Rural	Urban
1	2	3
1980	103.4	80.7
1981	112.5	99.4
1982	123.2	103.0
1983	120.8	98.8
1984	120.8	115.7

Source : Socio-Economic Indicators of Bangladesh, Bureau of Statistics, 1986, P.127.

It may be observed from the table that infant mortality rate had a increasing trend both in the rural and urban areas. Increasing tendency in infant mortality rate tells about the inadequacy, of health facilities in the country. The report on socio-economic indicators mentioned, "infant mortality rate not only reflects the magnitude of those health problems which are directly responsible for the death of infants, such as diarrhoeal and respiratory infectious diseases and perinatal conditions, but it also reflects the level of antenatal and postnatal care of mother and infant, family planning policy, the environmental health situation and, in general, the socio-economic development of a society".[34]

Another important aspect to be observed from the above table is the rural urban differential in infant mortality rate. In all years from 1980 to 1984 infant mortality rates in the rural areas was higher than that in the urban areas. Rural urban difference can also be observed in death rate of children age 1-4 years. This is seen in the table - 16.

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34. Socio-Economic indicators of Bangladesh, Op.cit., P.126

Table - 16

Children Death Rate (Per Thousand)

Year	Rural	Urban
1	2	3
1980	13.2	8.0
1981	17.5	9.4
1982	23.6	9.1
1983	26.2	10.5
1984	18.0	9.8

Source : Socio-Economic indicators of Bangladesh, Op.cit., P.129

Rural-urban differential in infant and child mortality rate is associated with the discrimination in health facilities among the two areas. Most of the available health facilities are in the urban areas. The rural people are in worse position in comparision with their urban counter part. For example, less than 10 per cent of available doctors work in the rural areas where 90 per cent of the total population live there. While number of population per doctor in the urban areas is 1,176, the figure is 95,294 in the rural areas and while number of population per hospital bed in the urban areas is 770, the figure is 21,315 for the rural areas.[35]

35. K.V. Sundaram and S.N. Misra, Rural Development: Capitalist and Socialist Paths, Vol.IX, Concept Publishing Company, New Delhi, 1985, P.284.

Literacy

Literacy rate of a country is an important indicator because it shows the extent to which the population of a country has acquired this attribute and reveals the socio-economic condition of the country in general. Data for literacy rate of population 5 years and above from the three population censuses i.e. in 1961, 1974, 1981, are presented in the table.

Table - 17

Literacy Rate

Census Years	Literacy Rate (%) Population 5 years and above
1	2
1961	21.5
1974	24.3
1981	23.8

Source : Bangladesh Population Census 1981. Analytical findings and National Tables, Bangladesh Bureau of Statistics, P.79.

From the table it can be observed that the literacy rate of persons five years and above have increased in 1974 compared to 1961. But in 1981, the rate has decreased. One definitional problem in these censuses should be kept in view. The 1961 Census defined literacy as the ability

of a person to read in any language with understanding. Therefore, this definition counts the persons who can read any clear print with understanding irrespect of whether they can write or not. In 1974 Census literacy rate was defined as the ability of a person to both read and write. But 1981 census treated literacy in line with International usage when a person can write a letter in any language. With all the definitional changes, it can be seen that Bangladesh literacy rate is extremely low.

Inspite of the fact that primary education in Bangladesh is free, there are several considerations which compel many parents either not to enrol or to drop-out their children. Many parents cannot afford to provide their children with food, clothes, books, papers, pencils and other necessities to be able to attend schools. Sometimes they depend on the earnings of the children. In many cases minor boys and girls work in others' houses either as wage labour or as domestic servants. Other factors related with the concerned phenomenon are: In order to get a white collar job in the offices the children have to study at least for 15 to 20 years. Even then due to the limited employment prospects there is uncertainity in getting an adequate job. Further the parents take into account the fact that the educated children become averse to manual work as a result of which they would not do any agricultural work in the field and other vocations which involve manual work. Because of

all these reasons many parents either do not want to send their children to the school or even if they initially send them, they are withdrawn before completion of primary school.

6. EXTENT OF POVERTY AMONG DIFFERENT AGRARIAN CLASSES

In an economy like Bangladesh where agriculture is the key sector of development, man's relation with land is a determining factor of his class position in the society. Thus various agrarian classes are formed on the basis of landholding pattern of the rural people. Their levels of living vary according to their agrarian class position (i.e. landholding position). Therefore for examination of the extent of poverty among different agrarian classes, we shall examine differentiation among various landholding groups in respect of availability of food and nutrition, health and education facilities. This type of investigation will indicate the extent of poverty among different agrarion classes. Available data give evidence regarding this.

From the Table - 18, it can be observed that only with few exceptions there is a positive relationship between landholding size and food intake and nutrient intake both in 1975/76 and 1981/82. The exception is that both in 1975/76 and 1981/82 the landless people had more food intake, calorie

Table - 18

Average Daily Food and Nutrient Intake by Different Landholding Groups

Landholding (Acres)	Food Intake (Gm/Person)		Nutrient Intake/Person			
			Calorie (K)		Protein (Gm)	
	1975/76	1981/82	1975/76	1981/82	1975/76	1981/82
1	2	3	4	5	6	7
0	694	712	1925	1775	52.9	44.4
0.01 - 0.49	683	673	1924	1672	52.6	44.3
0.50 - 0.99	745	699	2035	1777	57.7	44.8
1.00 - 2.99	785	763	2193	1986	62.5	47.7
3.00 & above	843	873	2375	2222	67.6	55.2

Sources : Nutrition Survey of 1981/82, Op.cit., P.54, 59;
Nutrition Survey of 1975/76, Op.cit., P.105,108;
Rural Poverty in Bangladesh, Op.cit., P.75.

and protein consumption than the marginal farmers with landholding of (0.01 - 0.49) acres. Even in 1981/82 the landless people had more food intake than the farmers with landholding of (0.50 - 0.99) acres. This situation is explained by the fact that a section of the landless people is engaged in white or semi-white collar jobs, some others are in petty business or cottage industries, as a result of which they have an income stream which can support a higher food intake than the income stream of the marginal landholding

households.[36] Besides the relationship of food and nutrition consumption with landholding pattern, another interesting aspect of the table is the change of food and nutrition consumption during the two survey periods. It is visible from the table that food intake of the landless people and farmers with landholding of three acres and above had increased during the period from 1975/76 to 1981/82. But food intake of other landholding groups (e.g. (0.01-0.49), (0.50-0.99), (1.00-2.99) acres had decreased during the same period. During the two survey periods calorie and protein consumption had decreased for all landholding groups. One contrast can be observed from the table that even for the landless people and farmers with landholding of three acres and more whose food intake had increased in 1981/82 compared to 1975/76, consumption of Calorie and protein had decreased during the same period. It is explained with the possibility that their consumption basket in 1981/82 had more items that are of lower nutritional value.[37]

From a survey of three villages in Barisal District, wide variations in per household expenditure on health according to the landholding size, were observed. The

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36. Rural Poverty in Bangladesh, Op.cit., P.74-75.

37. Ibid., P.74.

following table gives a picture in this direction.

Table - 19

Per Household Expenditure on Health According to Landholding Size, 1980

Land Ownership Groups (Acres)	Per Household Expenditure (Tk Per Annum)
1	2
0.51 - 2.5	36
2.51 - 5.00	61
5.01 and above	89

Source : Survey of three villages in Barisal District, Centre for Social Studies, Dhaka University, 1980. Quoted in Q.K. Ahmad and Mahabub Hussain, Op.cit., P.24.

It can be observed from the table that expenditure on health increases with the increment in size of land ownership.

The following table, indicates relationship between death rates and landholding size in companiganj in 1975. It may be observed that except in case of (0.50 - 2.99) landholding size group of (1 - 4) years children where death rate is more than (.10 - 0.49) landholding size group of children, there is a inverse relationship between landholding

Table - 20

Relationship Between Landholding and Death Rate in Companigonj Area

Landholding Size (Acres)	Crude death Rate (Per 1000)	Age (1-4) years Children Death Rate (Per 1000)
1	2	3
0	35.8	86.5
.10 - 0.49	28.4	48.2
0.50 - 2.99	21.5	49.1
3.00 acres	12.2	15.2

Source : M.R. Khan, Status of Children in Bangladesh, UNICEF, Dhaka, June, 1979, P.8, Quoted in M.Nurul Huq, Integrated National Action for Rural Children - Bangladesh, CIRDAP (Centre on Integrated Rural Development for Asia and the Pacific) Study, No.32, CIRDAP, 1985, P.21.

size and death rate. That means, with the increase of landholding size death rate decreases. This is true both in case of crude death rate in general and death rate of (1-4) years children. The main reason for higher death rate among the people with lower landholding size including landless is the limited access to the health services and lack of education regarding health.

With data available from matlab, Taknaf and Companiganj health projects, a recent study shows that major causes of death in rural areas during 1975-83 were

diarrhoeal diseases, malnutrition, pneumonia.[38] Due to poverty and limited medical care availability, these diseases have been leading causes of death throughout history. The incidence of death from these diseases also varies with the landholding size of the people. The evidence was found from the above study. This situation can be observed from the following table.

Table - 21

Deaths from Major Diseases by Landholding Size of the Family (Rates Per 10,000 Population)

	Size of Landholding (Acres)			
	0	0.1-1.00	1.01-3.00	3.01+
1	2	3	4	5
Malnutrition	49.9	22.2	9.7	9.3
Acute Diarrhoea	15.7	5.9	4.9	1.3
Acute ~~Dysentery~~	9.8	11.7	7.8	2.7
Chronic Diarrhoea and Dysentery	20.6	14.3	12.7	2.7
Pneumonia	19.6	16.3	19.5	25.2
Pulmonary T.B.	9	8	3	0

Source : M. Rahman et.al., "Health Status of the Rural Poor in Bangladesh", Dhaka, International Centre for Diarrhoeal Disease and Research (ICDDRB), Bangladesh, 1984, Quoted in Rural Poverty in Bangladesh, Op.cit., P.79.

38. M. Rahman et al., Op.cit. Quoted in Rural Poverty in Bangladesh, Op.cit., P.78.

From the Table - 21 it is seen that except in acute dysentery and pneumonia, death rates from other diseases are highest among the landless people and the rate decreases with the increase in size of landholding of the households. In case of acute dysentery, households with (0.1 - 1.00) land-holding size face incidence of death in more cases than the landless households, but beyond the (0.1 - 1.00) land-holding size, the death rate decreases consistently with the increase of landholding size of the households. In case of pnuumonia such clear trend is not observed.

Now coming to the relationship between the incidence of literacy and landownership size, the following table shows the relationship. It should be mentioned here that the data of the following table are from a survey of 16 villages conducted by Bangladesh Institute of Development Studies (BIDS) in 1982.

Table - 22

Incidence of Literacy and Education by Landownership Groups

Land Ownership Groups (Acres)	Percentage of Literate Members with Secondary Edu. & Above.	School Going Members as % of Population Over Age 5 Years
1	2	3
1.Landless (upto 0.5 acres)	5.6	7.5
2.Small Owner (0.51 to 2.0 Acres)	11.9	10.1
3.Medium Owner(2.01 to 5.0 Acres)	16.2	16.1
4.Large Owner (5.01 & above)	23.9	25.5

Source : BIDS Survey of 16 Villages in 1982. Quoted in Q.K. Ahmed and M. Hussain, Op.cit., P.23 (the finding are provisional)

It may be seen from the table that there is a positive relationship between educational attainment and land ownership size. The percentages of population with secondary and higher level of education increases substantially with the increase in size of landholding of the people of the survey area. Thus it increases from 5.6 per cent in case of landless and near landless people to 23.9 per cent in cases of large landowners with more than five acres of land. The positive relationship is also found in case of school going members. This percentage varies from 7.5 per cent in case of landless and near landless people to 25.5 per cent in case large landowners with more than five acres of land.

Another set of data available from a different survey gives evidence regarding positive relationship between the expenditure on education and landownership size of the people of the survey area. According to this survey in 1980 the average per annum household expenditure on education varies from only TK 7 for the landless and near landless to TK 178 for the households with more than five acres of land.[39] This extreme differentiation in the field of rural education is indeed a major source of growing inequality and poverty as mobility from less to more productive and remunerative jobs and access to positions of influence and power depend very much on the level of one's education.

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39. Survey of three villages, Op.cit. Quoted in Q.K.Ahmed and Mahabub Hussain, Op.cit., P.24.