# CHAPTER - VI

## INCOME DISTRIBUTION

### INTRODUCTION

Theories of distribution have been concerned with the distribution of income between the social classes or the owners of the factors of production. The distribution of income among individuals or households is surely related to the factor income distribution. For this reason, in the final analysis, one must be interested mainly in the distribution of income between households, or between groups of individuals who share their incomes and expenditures. This is the subject matter to be dealt with in this chapter in the context of Bangladesh specially in its rural areas.

The chapter discusses the trend in per capita income of the country. An attempt also has been made to analyse rural-urban differential in per capita income. Next an attempt is made to measure inequalities in income distribution. Finally, sources of inequality of income distribution are examined.

**1.** <u>**PER CAPITA INCOME**</u>

Generally trend of country's GDP and Per Capita real income is used to show the growth of an economy. This gives a very general picture of the performance of the economy. It does not tell us anything about the distributional aspects of the income of the country. The following table shows the changes in per capita GDP in Bangladesh during the period from 1973-74 to 1986-87

<u>Table - 1</u>

<u>Per Capita GDP of Bangladesh at Constant</u>
<u>Prices of 1972-73 at Factor Cost</u>

| Years | Amount(Tk) | Index Base Year 1973-74 = 100 |
|---|---|---|
| 1 | 2 | 3 |
| 1973-74 | 642 | 100 |
| 1974-75 | 661 | 103 |
| 1975-76 | 693 | 107.9 |
| 1976-77 | 688 | 107.2 |
| 1977-78 | 724 | 112.8 |
| 1978-79 (Revised) | 736 | 114.6 |
| 1979-80 | 725 | 112.9 |
| 1980-81 | 754 | 117.4 |
| 1981-82 | 743 | 115.4 |
| 1982-83 | 750 | 116.8 |
| 1983-84 | 762 | 118.7 |
| 1984-85 | 773 | 120.4 |
| 1985-86 | 785 | 122.3 |
| 1986-87 (Provisional) | 800 | 124.6 |

<u>Source</u> : 1980 <u>Statistical Year Book of Bangladesh</u>, Bangladesh Bureau of Statistics, P.391; 1984-85 <u>Statistical Year Book of Bangladesh</u>, BBS, P.684, 1986<u>Statistical Year Book of Bangladesh</u>, BBS, P.748; <u>1987 Statistical Year Book of Bangladesh</u>, BBS, 1988, P.494.

From the above table it can be observed that per capita
GDP at constant prices of 1972-73 increased by 24.6% during
the period from 1973-74 to 1986-87. Average annual growth of
per capita GDP is about 1.8%.

According to the latest population census of Bangladesh
in 1981 more than 84 per cent of the population live in the
rural areas. But unfortunately, the rural sector does not
get its proportionate share in allocation of development
resources. This disproportionate share of development
resources affects in an adverse manner the rural areas of the
country. Farming sector which is the main occupation of the
rural people is still at a low technology base with inadequate
linkages with urban areas. Non-farm facilities like credit
extension, marketing, transportation, storage remain under -
developed. As a result of inadequate access to proper
technology, knowledge and training in skills, the rural people
are the victims of exploitation of numerous middlemen. Due to
inadequate linkage between rural and urban areas benefits of
urban industrial growth do not trickle down adequately to the
rural sector. Thus while rural sector is lagging behind, the
urban sector is growing at a faster rate. That is how rural-
urban differential is increasing. This differential brings
about a continuous exodus of rural people to the urban areas
in order to find employment opportunities. But job opportu-
nities in the urban areas are also limited in comparision with

the demand for jobs. Thus majority of the rural migrants become a part of the urban destitutes.

From the above analysis it becomes clear that rural-urban differential is a vital aspect of development problem of Bangladesh. Income disparity between the two is also one among various kinds of differentials. Bangladesh Bureau of Statistics (BBS) formulated data regarding change of per capita income for rural and urban areas for the various years of decade of Seventies. BBS has done this by decomposing gross domestic product. The data are presented in the table below.

## Table - 2

### Per Capital Income in Rural and Urban Sector, 1973-74 to 1979-80 (Tk at 1972-73 prices)

| Year | Rural | Urban | Rural as % of Urban |
|------|-------|-------|---------------------|
| 1 | 2 | 3 | 4 |
| 1973-74 | 568 | 1585 | 35.8 |
| 1974-75 | 563 | 1725 | 32.6 |
| 1975-76 | 611 | 1946 | 31.4 |
| 1976-77 | 594 | 2047 | 29.0 |
| 1977-78 | 628 | 2106 | 29.8 |
| 1978-79 | 627 | 2282 | 27.5 |
| 1979-80 | 632 | 2431 | 26.0 |

Source : BBS, Socio-Economic Indicators of Bangladesh, Ministry of Planning, Dhaka, 1981. Quoted in Q.K. Ahmad & Mahabub Hussain, Rural Poverty Alleviation in Bangladesh—Experiences and Policies, FAO, 1984, Table 6, P.11.

The rural income per capita as percentage of per capita urban income was 35.8% in 1973-74. But from this period the ratio decreases every year and ultimately came down to 26.0% in the period 1979-80. The associated factor of fall of the ratio is the low growth in the rural income in comparision with urban areas. Since 1975-76, by which time the economy fully recovered from the ravages caused by the war of liberation upto 1979-80, rural incomes increased by only 0.8 per cent per annum, compared to growth in urban income of about 5.7 per cent i.e. more than seven times. Even during the whole period covered in the table i.e. from 1973-74 to 1979-80 the growth rate of income in the rural areas per annum was only 1.8% while the urban income growth rate was 7.4% i.e. more than four times.

Another set of data regarding rural urban differential of income is available from the Household Expenditure Survey of 1981-82.

## Table - 3

### Average Monthly Income per Household at Current Prices

| Year | Rural | Urban | Rural Income as % of Urban Income |
|------|-------|-------|-----------------------------------|
| 1 | 2 | 3 | 4 |
| 1973-74 | 464 | 630 | 73.7 |
| 1976-77 | 653 | 965 | 67.7 |
| 1978-79 | 865 | 1161 | 74.5 |
| 1981-82 | 1081 | 1994 | 54.2 |

Source : Report of the Bangladesh Household Expenditure Survey 1981-82, BBS, Dhaka, 1986, Table 1, P.18.

From the table it is seen that average income in the rural areas as a proportion of urban income has decreased from about 74% in 1973-74 to about 68% in 1976-77. Then there is some improvement i.e. about 75% in 1978-79 and ultimately fell to about 54% in 1981-82.

From the table (2), and table (3), it is seen that there is a big difference between the rural urban differential in tables (2) and (3) for the same period. The reasons are:
(1) The rural-urban differential in table-2 has been estimated on the basis of per capita income in the rural and urban areas. But in the table-3 the figures have been estimated on the basis of average monthly income per household;
(2) There is also differences in methodology. Income data of table-3 are based on household expenditure survey. Data of table-2 formulated by decomposition of gross domestic product. Ahmad & Hussain mentioned some of the defects of BBS data (table-2) as a result of which rural and urban incomes may be under estimated.[1]

2.                    **INEQUALITY IN INCOME DISTRIBUTION**

The trend in per capita income does not express whether or to what extent fruits of economic development had, 'trickle down' to the poor section of the society. Studies in inter-temporal changes in inequality of income could show the

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1.    For more details, Please see, Q.K. Ahmad and Mahabub
      Hussain, Op.cit., P.10,11.

absolute and relative changes of the income position of the poor of the society.

There are several measures of inequality. Among them the prominent measures are: (1) Gini Coefficient, (ii) Theil's Index and (iii) Atkin's Index. Gini Coefficient is a simple measure of inequality, but it assumes equal weights to the incomes received by different groups of people. Atkin's index permits weights to be given to the incomes received by different groups of people depending upon the judgement of the policy maker or the researcher as the case may be. Atkin's index is useful for social value Judgement. But this method is criticized for the bias of arbitariness. Theil's index is used for comparing inter as well as intra group inequalities as the decomposition of the measure is made possible. More detailed data compared to other measures are necessary for estimation of inequality with the help of Theil's index.[2] Gini coefficient however is the most widely used measure of the degree of inequality in income distribution.

Now coming to Bangladesh, Gini Coefficient is a widely used measure of the extent of concentration of income. The table - 4 gives an account of income inequality in terms of Gini Coefficient for various years.

Table — 4

Inter-temporal Movements in Income Inequality
in Bangladesh

(Gini-Coefficients)

| Years | National | Rural | Urban |
|-------|----------|-------|-------|
| 1 | 2 | 3 | 4 |
| 1963-64 | .359 | .350 | .459 |
| 1966-67 | .335 | .332 | .420 |
| 1973-74 | .369 | .364 | .390 |
| 1976-77 | .456 | .445 | .523 |
| 1977-78 | .360 | .348 | .377 |
| 1978-79 | .359 | .354 | .382 |
| 1981-82 | .390 | .360 | .410 |

Source :   Figures for 1963-64, 1966-67 are based on Quarterly
Survey of Current Economic Condition (QSCEC), C.S.O.
Pakistan; Figures for 1973-74, 1976-77 and 1978-79
are based on HES, Bangladesh Statistical Year Book,
1979 & 1983/84; S.R. Osmani & A.Rahman, A Study of
Income-Distribution in Bangladesh, BIDS, 1981.
Quoted in Bangladesh: Selected Issues in Employment
& Development, ILO-ARTEP, Bangladesh, 1985, P.50.
Table 3.3; Figures for 1981-82 from Report of the
Bangladesh Household Expenditure Survey 1981-82,
Op.cit., P.20, Table 3.,S.R. Osmani and A.Rahman,
Income Distribution in Bangladesh, Report No.53,
BIDS, 1986, P.8-11.

The Table-4 presents estimates of changes in the pattern
of income distribution in terms of Gini-Coefficient for the
decades of sixties, seventies and that of a year of eighties.
It is seen from the table that urban inequality is more than
inequality in the national context and in the rural areas.

This is true for all the years from 1963-64 to
1981-82. It can be seen from the table also that for all
the years inequality in the rural areas is lower than at
the national context. Inequality appears to have declined
in the 1960s, and sharply increased between 1973-74 and
1976-77. This is true for the national level as well as
for the rural context. Urban inequality seems to have
steadily fallen from 1963-64 upto 1973-74 and then risen
quite sharply in 1976-77. The rise in inequality during
the period from 1973-74 to 1976-77, whether at the aggregate
or sectoral levels, was particularly steep. The inequality
during the period 1976-77 and 1978-79 decreased and then
again increased during the period from 1978-89 to 1981-82.
These changes are true for national, rural and urban
context. Now the dramatic rise of inequality from
1973-74 to 1976-77 or dramatic fall of inequality from
1976-77 to 1977-78 or following years raises the question of
causes. One would find it hard to believe that in the
absence of any valid cause such dramatic change can occur
over short periods. But any such cause for dramatic change
is not known also. Since the recent HES survey results do
not given any technical notes on definition, survey methods,
sampling, technique, size of sample, adoption of size clauses,
(which varies almost every survey) etc., it is difficult to
ascertain their comparability and hence the validity of the
estimations.[3]

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3.    Bangladesh Selected Issue in Employment and
      Development, Op.cit., P.50.

However, from the above analysis, inspite of some
changes, it can be said that inequality in income distribution
in Bangladesh as well as in the rural and urban areas are quite
pronounced. Moreover, during the data collection period the
rich class always has the tendency to report a lower income.
Therefore, there are reasons to believe that the inequality
estimates which are published in the Government documents
are lower than the real inequality.

Another way of measuring inequality is to categorize
the households in decile groups according to their share of
income and then arrange them according to their per capita
income. The following table-5 shows per capita income of
deciles of households for the period 1973-74 and 1981-82.

The table-5 shows that lowest 5% of households in terms of
income had per capita income of Tk. 358 in 1973-74 at constant
price of 1973-74. Whereas during the same period top 5% of
households had per capita income of Tk. 1793. In 1981-82 these
amounts were Tk. 610 and TK. 2212 respectively at constant
price of 1973-74. Similarly for the lowest 10% of thouseholds in
1973-74 per capita income at constant price of 1973-74 was Tk.453
whereas for the top 10% of households per capita income was
Tk. 1598. These amounts were Tk.631 and Tk.1901 respectively in
1981-82 at constant price of 1973-74. However, as it is seen
from the table that per capita income of each decile of house-
holds increased in 1981-82 compared to that of in 1973-74. Lowest
5% of households had highest increase i.e.70% of per capita
income in 1981-82 compared to 1973-74. Decile-2 households had
lowest increase i.e.only 5% in 1981-82 compared to 1973-74.

## Table - 5

### Per Capita Income for Deciles of Households in Rural Bangladesh

| Deciles of Households | 1973-74 | | | | 1981-82 | | | | Ratio of Per Capita Income of 1981-82 and 1973-74 |
| | Percentage Share of Income | Income per Household per Annum at Constant Price of 1973-74 (Tk) | Average Size of Household | Per Capita Income at Constant Price of 1973-74 (Tk) | Percentage Share of Income | Income per Household per Annum at Constant Price of 1973-74 (Tk) | Average Size of Household | Per Capita Income at Constant Price of 1973-74 (Tk) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Lowest 5% | 0.8 | 891 | 2.49 | 358 | 1.16 | 1520 | 2.49 | 610 | 1.70 |
| Decile- 1 | 2.4 | 1336 | 2.95 | 453 | 2.84 | 1861 | 2.95 | 631 | 1.39 |
| Decile- 2 | 4.8 | 2673 | 3.96 | 675 | 4.27 | 2798 | 3.96 | 707 | 1.05 |
| Decile- 3 | 5.6 | 3118 | 4.70 | 663 | 5.34 | 3499 | 4.70 | 744 | 1.12 |
| Decile- 4 | 6.3 | 3508 | 4.70 | 746 | 6.37 | 4174 | 4.70 | 888 | 1.19 |
| Decile- 5 | 7.1 | 3953 | 5.45 | 725 | 7.47 | 4894 | 5.45 | 898 | 1.24 |
| Decile- 6 | 8.0 | 4454 | 5.69 | 783 | 8.71 | 5707 | 5.69 | 1003 | 1.28 |
| Decile- 7 | 9.8 | 5457 | 6.27 | 870 | 10.26 | 6722 | 6.27 | 1072 | 1.23 |
| Decile- 8 | 13.5 | 7518 | 6.94 | 1083 | 12.33 | 8079 | 6.74 | 1164 | 1.07 |
| Decile- 9 | 16.1 | 8964 | 7.60 | 1179 | 15.73 | 10306 | 7.60 | 1356 | 1.15 |
| Decile-10 | 26.4 | 14700 | 9.20 | 1598 | 26.69 | 17487 | 9.20 | 1901 | 1.19 |
| Top 5% | 16.0 | 17818 | 9.94 | 1793 | 16.78 | 21989 | 9.94 | 2212 | 1.23 |

Note /: Average Annual Income per household in 1973-74 at Constant Price of 1973-74 is 5568.
Average Annual Income per houseold in 1981-82 at Constant price of 1973-74 is 6552.
Average size of household for each deciles of households for 1981-82 have been calculated from HES report of 1981-82. It has been assumed that average size of household in 1973-74 was as in 1981-82. Income per household per annum for each deciles has been calculated from average annual income per household and percentage share of income for each deciles.

Source : Household Expenditure Survey 1981-82, Op.cit., P.18, 20, 55.

## 3.    SOURCES OF INEQUALITY IN INCOME DISTRIBUTION

There are various factors which contribute to the inequality of income distribution. Changes in inequalities are largely influenced by the changes in these factors. One of the major economic factors which determine inequality of income is the distribution of wealth in the form of tangible income earning assets. Land is the major source of income for the rural people of Bangladesh. Agriculture being the mainstay of the rural economy, the size of land owned is the most crucial factor in determining employment of family workers and hence the family incomes. In Bangladesh rural society landownership also determines social position of a person which also heavily determines access to government supplied resources. This is another mechanism through which landownership affects the distribution of income. Thus distribution pattern of land provides one clue to the inequality of income distribution in the rural areas of the country. Before going to distributional aspect of land, some data can be given here to show the relationship between landownership and levels of income. The table-6 presents this relationship:

From Table 6 it is seen that there is a positive relationship between the landownership and levels of income. In the income group of less than 300 Taka per month, 20.48% were landless and 73.80% were with landownership of 0.50 - 0.99 acres. The average size of land per household in this group

was only 0.28 acres. From this onwards, higher the income
group greater was the proportion of households with higher
amount of land size. In the highest income group i.e.with
monthly income of Taka 6,000 and above, there were no house-
holds upto 4.99 acres of land. In this group 23.81% were
with landownership of 5.00 - 7.49 acres and 76.19% were with-
landownership of 7.5 and above. The average size of land
holding for this group was as high as 23.24 acres. Average
land per household increases with the increase in size of
income of the group. It is seen from the table that in the
lower income groups proportion of marginal farmers (i.e.0.50 -
0.99 land size group) is larger than that of the landless.
Many marginal farmers combine farming with agricultural wage
paid work.

Now coming to land distribution pattern, reliable
information for earlier years are provided by the census of
agriculture 1960, and the master survey of Agriculture
of 1969. Then the land distribution situation in the
seventies is provided by land occupancy survey (LOS) of 1977
and 1978. But the informations provided by the Survey of the
sixties and the seventies are not on a comparable basis.
Agriculture Census of 1960 and Master Survey of Agriculture
of 1968 give the size distribution of land in terms of
operational holding which include rented land. On the other
hand, 1977 and 1978 LOS give the size distribution of land
in terms of ownership holding. Yet from the Gini Ratios an

## Table - 6

### Percentage Distribution of Rural Households by Owned Landsize Groups and Monthly Income Groups (1978/79)

| Income Group in Taka | Land size Group (in acres) | | | | | | All Groups | Average land per household |
| | Landless | 0.50 - 0.99 | 1.00 - 2.49 | 2.50 - 4.99 | 5.00 - 7.49 | 7.50 and Above | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| All Groups | 7.05 | 46.33 | 20.89 | 13.75 | 5.66 | 5.73 | 100 | 2.10 |
| Below 300 | 20.48 | 73.80 | 4.67 | 0.43 | 0.26 | 0.26 | 100 | 0.28 |
| 300 - 399 | 14.59 | 73.36 | 10.30 | 1.29 | 0.29 | 0.14 | 100 | 0.41 |
| 400 - 499 | 9.84 | 70.39 | 15.59 | 3.08 | 0.74 | 0.27 | 100 | 0.60 |
| 500 - 749 | 6.42 | 56.20 | 26.27 | 8.88 | 1.47 | 0.71 | 100 | 1.10 |
| 750 - 999 | 3.44 | 36.95 | 32.52 | 20.42 | 4.65 | 1.92 | 100 | 1.91 |
| 1000 - 1249 | 2.41 | 24.15 | 27.72 | 29.70 | 11.02 | 4.96 | 100 | 3.01 |
| 1250 - 1499 | 1.72 | 15.84 | 24.68 | 31.68 | 14.61 | 11.42 | 100 | 3.76 |
| 1500 - 1999 | 1.74 | 10.31 | 17.01 | 25.95 | 22.60 | 22.35 | 100 | 5.45 |
| 2000 - 2499 | 0.30 | 5.15 | 9.39 | 26.05 | 20.60 | 38.48 | 100 | 7.20 |
| 2500 - 2999 | - | 5.29 | 4.71 | 21.17 | 16.47 | 52.35 | 100 | 9.48 |
| 3000 - 3999 | 1.57 | 4.72 | 4.72 | 9.45 | 19.68 | 59.84 | 100 | 10.57 |
| 4000 - 4999 | - | 4.55 | 6.82 | 11.36 | 11.36 | 65.91 | 100 | 14.84 |
| 5000 - 5999 | - | 16.67 | 5.55 | 16.67 | 5.55 | 55.56 | 100 | 9.46 |
| 6000 & above | - | - | - | - | 23.81 | 76.19 | 100 | 23.24 |

Source : Household Expenditure Survey, 1978/79, Bangladesh Bureau of Statistics, Reported in Statistical Year Book of Bangladesh, 1983/84, Quoted in Bangladesh Selected Issues in Employment and Development, Op.cit., P.72.

idea can be acquired regarding the concentration of land in these years. Gini ratios of land holdings are given in the following table.

### Table - 7

### Distribution of Land in Bangladesh

| Type of Holding | Gini Ratios$^{of}$ Landholding | | | | |
| --- | --- | --- | --- | --- | --- |
| | 1960 | 1968 | 1974 | 1977 | 1978 |
| 1 | 2 | 3 | 4 | 5 | 6 |
| a) Operational | 0.49 | 0.48 | 0.58 | - | - |
| b) Ownership | - | - | 0.59 | 0.63 | 0.66 |

Source : 1960 : Census of Agriculture
        1968 : Master Survey of Agriculture (7th round)
        1974 : BIDS Survey (Alamgir 1977a)
   1977 & 1978 : Land Occupancy Surveys
Above sources quoted in S.R. Osmani and A.Rahman (1986),Op.cit.,
table 9, P.21.

From the table, it is seen that in terms of operational holding, concentration of land remained unchanged during the years of the sixties but increased sharply in the mid seventies. In terms of ownership holding, concentration ratio increased from 0.59 in 1974 to 0.66 in 1978. The Gini ratio of early sixties cannot be compared with the Gini ratio of Late Seventies due to the definitional problem. But from the figures of Gini ratio presented in the table, perhaps, it can be safely told that landownership structure is highly unequal both in operational and ownership terms. Inequality in the ownership terms must be more than in operational sense, as it is almost universally stated that ownership distribution is more unequal

than that based on operational holding. This is primarily
because, relative to their ownership holdings the smaller
farms are found to rent in some land while the larger farms
rent out.

Another set of data can be put here which tells
regarding increasing trend of concentration of land in
Bangladesh.

Table - 8

Concentration of Landownership

| Land Ownership Groups | % of Total Land Owned | | |
| | 1974 | 1977 | 1979 |
| 1 | 2 | 3 | 4 |
| Bottom 50% | 8.9 | 6.9 | 4.8 |
| Top 10% | 41.5 | 49.9 | 53.9 |
| Top 2% | 16.1 | 20.0 | 25.1 |

1974 Figures: Alamgir M.Famine 1974: Political Economy
of Mass Starvation in Bangladesh: A Statistical Annex,
BIDS, 1977; 1977 Figures: F.T. Jannuzi, Report on the
Hierarchy of Interests in Land in Bangladesh, USAID,
Washington, 1977; 1979 Figures: Atiur Rahman, Rural
Power Structure: A Study of Union Parished, Leaders in
Bangladesh, The Journal of Social Studies, N.4, 1979.

All above Quoted in Mahabub Hossain, "Agrarian
Structure: Some considerations of Equity, Productivity
and Growth", Wahiduddin Mohmud (ed), Development Issues
in Agrarian Economy of Bangladesh, Center for
Administrative Studies, Dhaka, 1981, P.19.

From the table, it is seen that share of the bottom 50% of landownership group is decreasing overtime while the share of the 10% and top 2% is increasing during the same periods. It is also seen from the table that share of the bottom 50% of the landownership groups was only 8.9% of the total owned land in 1974 and in 1979 it decreased to only 4.8% of the total owned land. On the other hand, the share of the top 10% landownership group increased from 41.5% in 1974 to 49.9% in 1977 and further to 53.9% of the total land in 1979. Share of the top 2% increased from 16.1% in 1974 to 20% in 1977 and to 25.1% of the total owned land in 1979. This situation surely tells about increasing trend of inequality of landownership in Bangladesh.

Therefore, from the analysis of income distribution, in table-5, we see that inequality in income distribution has slightly decreased while from table-8 it is seen that inequality in distribution in land has become more acute overtime. This has happened either due to some definitional problem, or the income of the poor has increased due to adoption of some anti-poverty measures.