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Trend in the rural income inequality in Bangladesh since independence – A quantitative approach
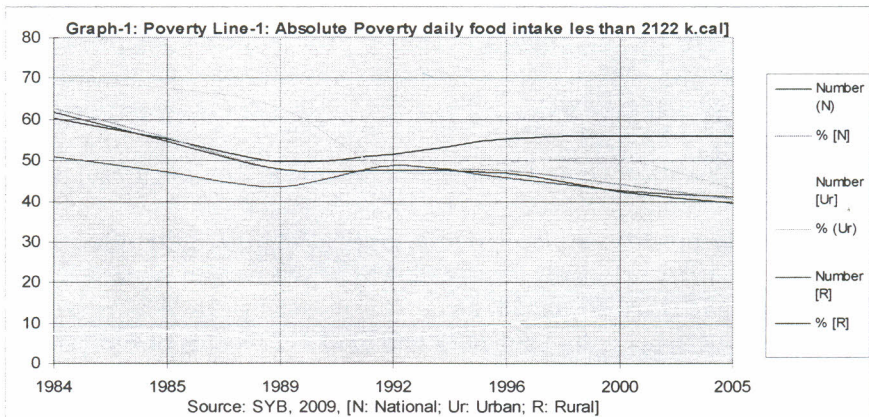
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Abstract: *In this article GINI Coefficients have been used to investigate the nature of changes in the rural income inequality and the growth of the economy in Bangladesh. It has been examined how rural income inequality behaved with the growth of the economy and the change of the national income inequality. The study found that with the growth of the GDP the rural income inequality in Bangladesh sinks; but with increase of the national income inequality the rural income inequality increases. This implies that to eradicate rural income inequality and poverty, first and foremost all strategic steps must be undertaken to foster economic growth and sink national income inequality. However, for this along with the growth of the economy also other decisive complementary measures discussed and suggested in the conclusion of this article must be initiated.*

Key words: *Absolute poor, calorie intake, Gini Coefficients, income inequality, Lorenz Curve, Millennium Development Goals, poverty line 1, poverty line 2, poverty reduction strategy, rural Gini Coefficients.*

1. Introduction

In the developing countries all over the world poverty is one of the most crucial economic, social and human right issues (UNECA, 2005: p. 9). So,

Graph-1: Poverty Line-1: Absolute Poverty daily food intake les than 2122 k.cal]
Source: SYB, 2009, [N: National; Ur: Urban; R: Rural]

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poverty reduction strategies play an important role in the development policy of these countries. To support these initiatives of the developing countries the World Bank has set in 2001 'Millennium Development Goals' (MDGs) as for instance, which have been endorsed by 189 countries and to be achieved by 2015 (World Bank, 1990: p. 11 and 2001: p. 13).

In recent years a number of empirical studies have been conducted to identify the income inequality in developing world (Adams and Harold, 1992: p. 591). Such studies support the policy makers to understand the nature and characteristics of income inequality within a society and work out policies to improve the income distribution in favour of the poor. A key rational for such studies is to learn how changes in particular income source affect overall inequality.

A considerable part of the population of Bangladesh suffers from poverty. Bangladesh recognizes it as a major economic, social, and human right problem. So, respective policies, programs and projects have been designed and implemented with the aims of poverty alleviation since its independence in 1971. It explains, " The principal goal .... is to reduce poverty so as to gradually lift the vast majority of the people above the poverty line ...." (Unlocking the Potential, 2005: p. 1).

Based on daily calorie intake, poverty has been divided in Bangladesh in two categories: Poverty Line-1 and Poverty-Line-2. People taking less than 2122 but more than 1805 k.cals (Kilo calorie) of food daily are included in the category of 'Poverty Line-1'; and these people are indicated as absolute poor (Bangladesh Economic Review, 1996: p. 81). The people taking daily less than 1805 k.cals of food are included in the category of 'Poverty Line-2'; and these are called hard core poor (Bangladesh Economic Review, 1996: p. 81).

Data regarding poverty in Bangladesh from 1984 to 2005 give a mix impression. In 1984 nationally nearly 62.6% of the people remained under poverty line-1 (SYB, 2009: p. 558, 561). This means that in 1984 nearly 60.3 million people of the country take daily less than 2122 k.cals of food and was absolute poor. From 1984 to 2005 the absolute poverty was reduced from 62.6% to 40.4%. In rural Bangladesh, from 1984to 2005 absolute poverty has sunk from 51.1 million to 41.2 million (SYB, 2009: p. 558, 561). The trend of the development of the absolute poverty, in general shows an improvement of the situation (Graph-1). However, this positive development

must be corrected, because it to be assumed that a part of the poor people migrated from rural Bangladesh in the big cities, so, the number rural poor sank.

The people who are not capable to take more than 1805 k.cals of food daily remain 'poverty line 2' and are called hard core poor. In 1984 the number of hard core poor people was in total nearly 34.3 million, which amounts to 36.8% of the total population (SYB, 2009: p. 559, 561). From 1983 to 2005, the poverty condition improved (Graph-2). However, even in 2005 nearly

Graph-2: Poverty Line-2: Absolute Poverty [Taking daily les than 1805 Kcal]

Source: SYB, 2009, [N: National; Ur.: Urban; R: Rural]
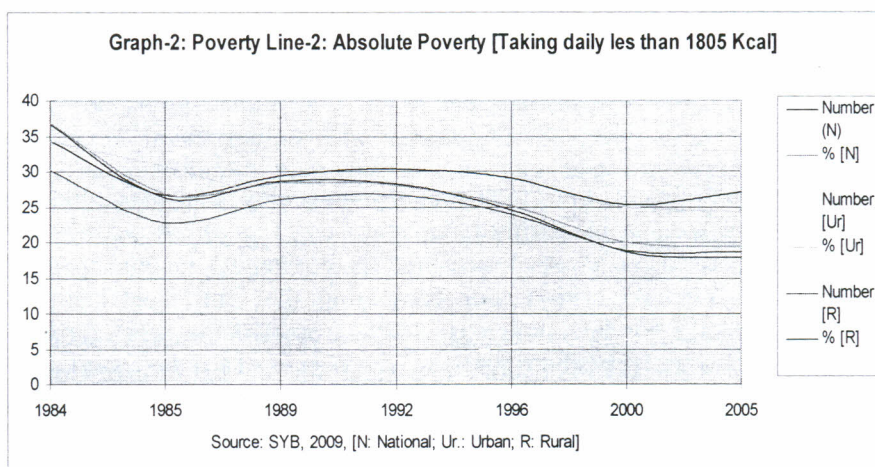
19.5% of the total population of the country remain hard core poor. The number of hard core poor in rural Bangladesh has sunk from 30.2 to 18.7 million from 1984 to 2005. The trend of the reduction of the hard core poor in Bangladesh from 1984 to 2005 shows a positive sign (Graph-2). However, the analysis above shows that it is not enough and more has to be done to reduce poverty.

2. Objectives and Methodology of the Study

Objectives of the study

The main objective of this study is to review the trend of the income inequality in rural region of Bangladesh. In specific, the objectives are:

☐ Appraising theoretically the significance of income inequality and poverty for overall economic development;

☐ Studying different models used for the estimation of income inequality;

☐ Evaluating the trend of income inequality in rural region of Bangladesh;
☐ Analysing the development of the international income inequality; and
☐ Drawing policy lessons and suggestions.

Methodology of the study

For this study qualitative as well as quantitative research methodologies[1] have been used. For the preparation of the theoretical part of this research article, i.e. for the theory about income inequality, secondary sources of information and data have been studied. These were national and international publications, journals, government's policy report, bulletins, statistical surveys, and websites of different writers. For the analysis of the secondary information and data qualitative research methodologies have been used.

For the calculation of the rural income inequality and its trend Gini Coefficients of income inequality has been used. This is the most relevant and frequently used quantitative measures for computing income inequality (Lerman and Yitzhaki, 1984). For computing the Gini Coefficients the Statistical Package for Social Science (SPSS), one of the most frequently used quantitative tools, has been applied. The data used for the calculation of the Gini Coefficients were collected from secondary sources. To incorporate the view of the policy maker about the development of the income inequality a questionnaire was prepared and opinion of the respective government officials of the ministry of planning, ministry of social welfare and administration of the PKSF (Palli-Kormo Sahaok Foundation) and micro credit program of the Grameen Bank was surveyed.

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[1] *Qualitative research methodology includes different interpretive techniques which seek to describe, decode, interpret, and analyse certain less naturally occurring phenomenon in social world. It explains how and why things happen as they happen. At data collection stages, qualitative research methodology includes focus group, interviews, case studies, ethnography, grounded theory, action research, and observation (Cooper and Schindler, 2006: p. 143, 144). At analysis stages, it includes investigation of written or recorded materials, behavioural and trace evidences from the physical environment. Quantitative research methodology attempts precise measurement of something. It answers questions related to how much, how often, when and who. While survey is a dominant factor in quantitative research methodology, frequently secondary data are also used in this methodology.*

3. Literature Review

The behaviour of income inequality in economic development process has been an issue of research since long. Relationship between income inequality and economic growth has been first investigated by Kuznets (Kuznets, 1955: p. 1, 28). He examined the determinants of income levels, the trends in income inequality and the link between economic growth and income inequality. The finding of his work is known as the inverted U-shaped pattern of income inequality. It means that income inequality rises during the initial stage of development and then declines. According to Kuznets regarding income inequality the economies can be divided into two parts (i) a low average income and with low income inequality especially in rural agricultural region and (ii) a high average income with high income inequality in urban region. The developing countries with low average national income should have low income inequality. In the fast growing economies, the rich receive proportionally higher gains from growth than the poor. With economic development, the per capita average national income as well the income inequality grows.

In the 1970s extensive studies were conducted regarding correlation between economic growth and income inequality, which showed that the pattern of income inequality in industrialized countries followed really Kuznets' hypothesis (Adelman and Morris, 1971: p. 112; Ahluwalia, 1976: p. 307). These studies showed further that economic growth does not consistently affect income inequality (Deninger and Squire, 1998: p. 565, 569; Ravallion and Chen, 1997: p. 11). In the beginning of 1980s, Kuznets' hypothesis came again under scrutiny. Anand and Kanbur (1984: p. 25, 40) concluded in their studies that Kuznets tested his hypothesis on low quality data and the methodology used for investigation was weak. In the 1990s Deninger and Squire (1998: p. 565, 591) tested again Kuznets hypothesis using high quality data for 108 countries. Surprisingly, neither cross-country nor individual country data supported Kuznets hypothesis. Fields (1989: p. 23), and Deninger and Squire (1998: p. 567, 591) found empirical evidence in their studies that in the fast growing economies, the rich receives proportionally higher gains from growth than the poor. On the other hand, Ravallion and Chen found evidence to conclude that with economic growth the income inequality declines. But the correlation between growth and income inequality was insignificant. The correlation between income inequality and economic growth is not inevitable as predicted by Kuznets. A number of East

Asian countries like Korea, Taiwan, Hong Kong have enjoyed during last decades high growth rates with low income inequality.

The effect of income inequality on growth is explained in three different approaches: (i) classical (ii) modern; and (iii) unified approach. In the classical view, inequality can have positive impact on growth (Kaldor, 1957: p. 591, 624). It explains, as with the increasing income the propensity to save increases, so if income is redistributed in favour of the rich more is saved which promotes capital formation and fosters economic growth. This approach is supported by Kaldor macroeconomic development model.

The economists having the modern view about the affect of income inequality on growth are divided in different groups but all of them have the same belief that income inequality is detrimental to growth. Alesina and Perotti (1996: p. 40) and Benhabib and Rustichini (1996: Vol. No. 1, p. 3), as for instance, explain that income inequality is politically destabilizing. It promotes socio-political unrest, instability, and creates volatility political situation, as in the society there is generally a propensity for populist redistributive policies. High income inequality tends to generate higher rate of crimes, and corruptions, which disrupt the normal functioning of markets and discourage investment. As a consequence, economy crumbles and growth declines.

Perotti (1996: p. 149, 187) explains on the other hand, if poverty crosses a certain level, more children are preferred, because under poverty more children are considered not only as the sources of vitally needed more family income but also as the insurance for the security of the old ages. High birth rate and increased population demands more and more resources to be used for meeting urgent social and human needs for increased population. This eats up resources those could be used for investment, and employment and income generation. As a consequence of income inequality ultimately investment and economic growth sinks, Perotti (1996: p. 150, 185), Galor, (1993: p. 60), Aghion (1999: p. 37) and another group of economists, have the view that high income inequality is detrimental to growth because the poor are unable to save which leads to insufficient capital formation. And consequently, investment not only in growth-promoting physical and human capital but also in general lags, even if it offers high rate of return. These economists further emphasis that the greater the income inequality, the lower is the stock of human capital in the economy. They presume that economic

growth is primarily enhanced through human capital as suggested by new growth theory.

The third group of economists those who correlate economic growth with income inequality, link their view with endogenous growth theory (Alesina and Perotti, 1994: p. 40). They assert that in the case of higher income inequality, the majority of the voters tend to favour government policy of increased public expenditure programmes. This leads to redistributive fiscal policy, higher government expenditure and distorting taxation policy, which cause growth to decline. Unified approach attempts to reconcile the conflicting views of the classical and the modern approaches (Galor, 2000: p. 706, 712). It argues that the classical approach is applicable only for the early stage of economic development which is characterized by low incomes and scarce physical capital. In this stage of industrial development, income inequality promotes higher savings, increased investments and faster economic growth. However, later human capital becomes the main thrust of growth. Wages and hence the savings increase, so the effect of the income inequality on the economic growth becomes insignificant.

From the discussion above no concrete useful theoretical inference could be drawn. According to the earlier view income inequality on growth could be positive whereas according to the modern view income inequality has a negative effect of on the growth of the economy. However, latest studies do not support the assumption of earlier view that income inequality has positive impact on growth of the economy. On the contrary, investigation of Aghion (1999: p. 37) confirms negative impact of income inequality on growth. Also Barro (2000: p. 5, 32), in his study, discovers negative impact of the income inequality on the growth of the economies in those countries the average per capital income is less than US$ 2100.

4. Methods for Computing Gini Coefficient

The Gini Coefficient is a measure of statistical dispersion developed initially by the Italian statistician Corrado Gini and published in his 1912 paper 'Variability and Mutability' (Sutcliffe,2007: p. 12, 13). Dr. Max O. Lorenz studied the distribution of income to measure economic inequality and presented his findings in a curve, which was a graphical method of studying variation and initially known as Lorenz Curve (Pillai, 1999: p. 285, 286 and Gupta and Gupta: 2007: p. 146). The Gini Coefficient named after Corrado Gini a numerical measure of inequalities could be derived directly from the

Lorenz Curve (Sutcliffe, 2007: p. 12, 13). Besides for income inequality, it could be used for the study of the distribution of profits, wages, and salaries. The Gini Coefficient (G) could be expressed as:

$$G = \frac{A}{A+B}$$

Graph-3: Lorenz Curve
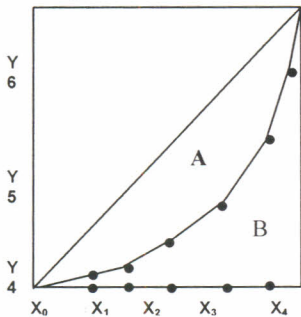
The value of the Gini Coefficient, G, lies between 0 and 1. It means that the minimum and maximum value of G can be 0 and 1 respectively. If there is complete income equality among the different households Lorenz Curve coincides with the line having an angle of 45°. It means, it becomes a diagonal of the square started from the origin of the coordinate (Table-1). In that case the area of B grows hitherto that A disappears. It means, in other word, the curve becomes a straight line and fits with the diagonal having an angle of 45° with X-axis (Graph-3). So, the area A disappears and equals 0. In this case the value of the Gini Coefficient (G) becomes 0, because:

$$G = \frac{0}{0+B} = 0 \ [\text{As A} = 0]$$

If there is an absolute income inequality among the different households, i.e. there is no income distribution and one household owns the whole income, the area B disappears; in other words, B equals 0. In this case:

$$G = \frac{A}{A+0} = 1 \quad [\text{As B} = 0]$$

We know that:

$$G = \frac{A}{A+B}, \ G = \frac{A+B-B}{A+B}, \ G = \frac{A+B}{A+B} - \frac{B}{A+B}, \ G = 1 - \frac{B}{A+B},$$

$$G = 1 - \frac{B}{\frac{1}{2}}, \ G = 1 - 2B$$

That means, in terms of B the Gini Coefficient is:

$$G = 1 - 2B \tag{1}$$

[A+ B makes the half of the total square which has an area of 1, so A+B = ½.]

Let's following cumulative relative frequencies of income and households are given (Table -1).

Table -1: Cumulative Relative Frequencies of Income and Households[1]

Cumulative relative frequency of income (Y)	Cumulative relative frequency of households (X)
y_1	x_1
y_2	x_2
y_3	x_3
y_4	x_4
y_5	x_5
y_6	x_6
y_7	x_7
y_8	x_8

$$G = \left| 1 - \Sigma (X_k - X_{k-1}) \times (Y_k - Y_{k+1}) \right|$$

To express the Gini Coefficient in terms of the cumulative relative frequency of income (Y) and cumulative relative frequency of households (X) in place of A and B (Table -1), we have the task to measure the area B. The area of B can be estimated using the formula below:

$$\Rightarrow B = \frac{1}{2} \Sigma \ (X_k - X_{k-1})(Y_k + Y_{k-1}) \tag{2}$$

Putting the value of B, (2), in equation (1) we have:

$$\Rightarrow G = 1 - 2B = 1 - 2 \times \frac{1}{2} \Sigma \ (X_k - X_{k-1})(Y_k + Y_{k-1})$$

$$= 1 - \Sigma \ (X_k - X_{k-1})(Y_k + Y_{k-1})$$

$$\Rightarrow G = 1 - \Sigma \ (X_k - X_{k-1})(Y_k + Y_{k-1})^2 \tag{3}$$

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[1] _Presenting the cumulative percentages of income on the vertical axis and cumulative percentages of the households on the horizontal axis, the Lorenz curve (Lerman and Yitzhaki, 1984: p. 363, 368) could be drawn (Graph-3)._
[2] _For some distributions Gini Coefficient is computed by formula:_
$$G = \left| 1 - \Sigma (X_k - X_{k-1}) \times (Y_k - Y_{k+1}) \right|$$

Gini Coefficient is most popularly used in economics; it could be applied in any field of science that studies a distribution. In ecology, as for example, the Gini Coefficient is used as a measure of biodiversity, where the cumulative proportion of species is plotted against cumulative proportion of individuals (Wittebolle, et al, 2009: p. 623, 626). In medical science, it is used to measure the inequality in the medical service related quality of life. In chemistry (Asada, 2005: p. 7) it is used to express the selectivity of protein kinase inhibitors against a panel of kinases.

5. Change in the Gini Coefficient and Income Inequality in Rural Bangladesh

During the period from 1974 to 2006 in general the Gini Coefficient' in Bangladesh remained very high, though from 1996 it began to sink (Table-2). This indicates wide income inequality in Bangladesh during this time. In 1974 the national Gini Coefficient was 0.64. In the following years from 1974 to 1977 it sank but very little. In 1977 and 1978 the Gini Coefficients were 0.56 and 0.64 respectively. From 1982 to 1992 the Gini Coefficients went up steadily. In 1982 it was 0.63 but 1992 it was 0.82. From 1992 to 2006 it went down. It means that from 1974 to 1977 the income inequality in Bangladesh sank. From 1978, however, it began to increase gradually and continued till 1992. From 1992 to 2006 the income inequality persistently decreased each year. But during the whole period the Gini Coefficients and the income inequality in Bangladesh were very high.

Table-2: Development of Gini Coefficient in Bangladesh from 1974 to 2006

| Year	1974	1977	1978	1982	1986	1989	1992	1996	2001	2006
National GINI	0.64	0.56	0.63	0.63	0.64	0.75	0.82	0.75	0.68	0.58
Rural GINI	0.65	0.57	0.66	0.71	0.67	0.78	0.84	0.80	0.73	0.63

Source: Statistical Yearbook, Ministry of Finance, Government of Bangladesh, People's Republic of Bangladesh. 1975, 1980, 1982, 1984, 1985, 1989, 1993, 1995, 1998, 2000, 2009. Dhaka. Bangladesh.

For the analysis of the trend in the national GINI Coefficients the time from 1974 to 2006 has to be divided in two periods: From 1974 to 1986 and 1986

to 2006. The graphical presentation of the national Gini Coefficient shows that from 1974 to 1986 it remained nearly unchanged (Graph-4). So, the graphical presentation of the national Gini Coefficient during this specific period is nearly a straight line parallel to X axis. The graphical presentation of the Gini Coefficient from 1986 to 2006, however, shows an indistinct

Graph-4: National Gini 1973-2006

	1974	1978	1986	1992	2001

Source: Table-2.
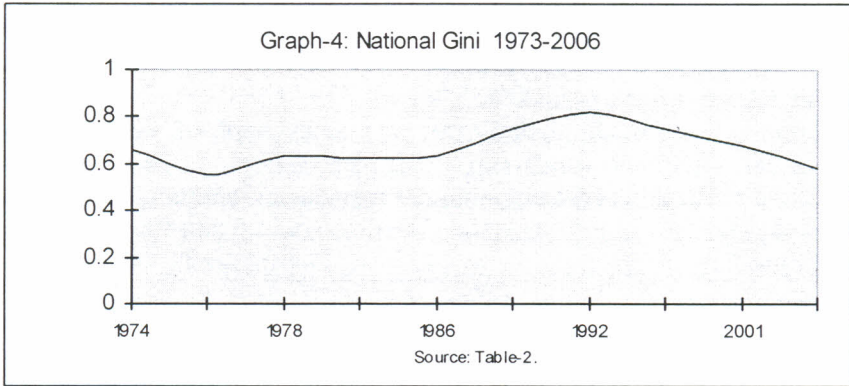
Kuznets inverted U-shaped curve.

It is remarkable to note that from 1986 to 2006 the economy also grew though the growth was not very high (Graph-5[1]).

Graph-5: Growth of the GDP
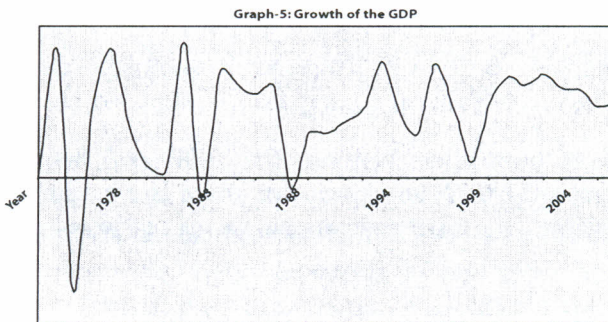
In the beginning of the 1980s the Gini Coefficient remained unchanged; but from 1986 to 1992 it grew continuously. After 1992 it began to sink again, which continued till 2006 (Graph-4). The growth of the GDP showed that the development of the Gini Coefficient and the GDP followed nearly the same

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[1] _Annual Report, 1987-1988, 2006-2007, Bangladesh Bank, Dhaka. Economic Trends, Statistics Department, Bangladesh Bank, Dhaka 1987-1988, 2006-2007. Statistical Yearbook of Bangladesh, 1987-1988, Finance ministry, Bangladesh Bureau of Statistics, 26th Edition, Bangladesh Bureau of Statistics, Dhaka._

path. However, in the beginning of the new millennium the GDP in Bangladesh grew from 3% to 4%. Because of the growth of the GDP during this time, the Gini Coefficients, i.e. the income inequality sank.

As we have seen, from 1974 to 2006 in general the national Gini Coefficients in Bangladesh were very high; however, the Gini Coefficient, i.e. income inequality, in the rural area of Bangladesh was worse. In 1974 the national Gini Coefficients was 0.64 but the rural Gini Coefficients remained wide above the national Gini Coefficient. The rural Gini Coefficient in 1974 was 0.65, while the national Gini Coefficient was 0.64 (Graph-6). Following the growth of the GDP, the rural Gini Coefficient (Graph-5, 6) sank in the middle of the 1970s and in the beginning of the new millennium, even tough it remained very high. In 1992 the Gini Coefficient was 0.84 (Table-2).

Graph-6: Rural Gini Coefficients (1973-2006)
Source: Table-2.
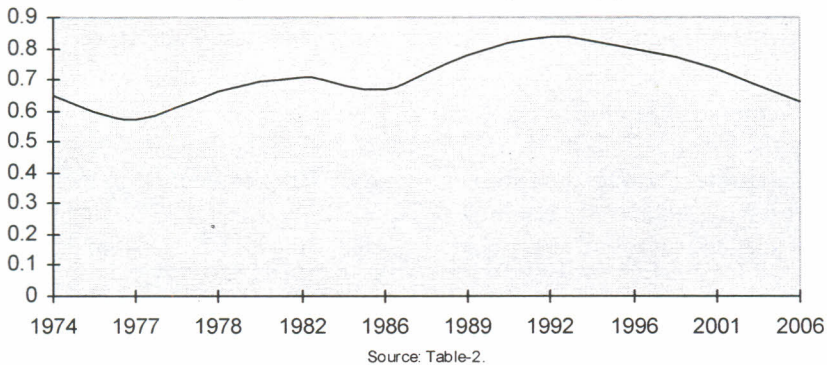
The coefficient of correlation between the GDP and the national Gini Coefficients from 1974 to 2006 shows that there is a negative correlation between two variables, the GDP and national Gini Coefficients (Table-3).

Table-3: Coefficient of Correlations			
	GDP	National Gini	Rural Gini
GDP	1	-.106	-.273
National GINI	-.106	1	.958
Rural GINI	-.273	.958	1
Source: Table 2, Note: Significant at the 0.01 level (2-tailed).			

The Negative coefficient of correlation between the GDP and national Gini Coefficients (- 0.106) indicates that with the growth of GDP the income differences between the different income groups of the population decreases. That means the income of the poor people increases and the income inequality decreases. The value, 0.106, of the coefficient of correlation between GDP and National Gini Coefficient indicates that slower growth of the GDP in Bangladesh could reduce the income inequality only little. The small value of R square, 0.011 (1%), indicates that for the computation of the coefficient of correlation between GDP and national Gini Coefficient, i.e. only 1% of the data considered (Table-3). In other word, it implies that only 1% change in the national income inequality could be explained by the change in the GDP. It means that the calculated coefficient of correlation is highly insignificant. The high value of standard error of estimate, 2.529, compare to the value of the coefficient of correlation, 0.106, further affirms that coefficient of correlation between the GDP and the national Gini Coefficients is not very significant. .

The coefficient of correlation between the GDP and the rural Gini Coefficients from 1974 to 2006 is − 0.273. The negative sign before the coefficient of correlation shows that there is an opposite correlation between the growth of GDP and rural Gini Coefficient. It means that with the increase of the growth of the GDP, the rural Gini Coefficient decreases. In other word, the growth of the GDP reduces income differences between the rural and national level. The absolute value, 0.273, of the coefficient of correlation between GDP and rural Gini Coefficient indicates that slower growth of the GDP in Bangladesh reduced the rural income inequality slowly. The value of R square, 0.074 (7.4%), indicates that for the computation of the coefficient of correlation between GDP and national Gini Coefficient, i.e. income inequality, only 7.4% of the data considered (Table-4). In other word, only 7.4% change in the rural income inequality in caused by the change in the GDP. It signifies that the coefficient of correlation is highly insignificant. The high value of standard error of estimate, 2.529, in compare to the value of the coefficient of correlation, 0.273 further shows that the coefficient of correlation is not very significant.

The coefficient of correlation between the national and the rural Gini Coefficients from 1974 to 2006 is 0.958. The positive value of the coefficient of correlation shows that there is a direct correlation between the national and rural Gini Coefficient; i.e. with the increase of the national Gini

Coefficient the rural Gini Coefficient increases too and vice versa. The high value of R square, 0.918 (91.8%), indicates that for the computation of the coefficient of correlation between national and rural Gini Coefficient, i.e. income inequality, 91.8% of the data has been considered (Table-4). The value of standard error of estimate, 0.025, is small compare to the value of the coefficient of correlation, 0.958. It implies that the coefficient of correlation is significant. It means that with the fostering of the growth of the economy, the national and rural Gini Coefficients, i.e. national and rural income inequality, could be reduced.

Table-4: Significance of the Correlation		
R	R^2	Standard Error of Estimate
- 0.106	0.011	2.529
- 0.273	0.074	2.447
0.958	0.918	0.025
Source: Table-2		

The analysis of the national and rural Gini Coefficient and growth of the GDP shows that the national and rural income inequality depends on the growth of economy. Increase the growth of the economy, the national and rural income inequality sinks and vice versa. In 1970s, Bangladesh was economically underdeveloped and there was smaller economic inequality among the people. It means, during this time the country was underdeveloped but economically more balanced. With the industrial development more and more resources were accumulated by wealthy people. So, the part of the wealthy people and their wealth grew. In the rural Bangladesh, till middle of the 1990s took place an opposite development. With the introduction of the modern input factors in the agriculture sector, the yields remarkably increased but farming became costly as the input factors were costly. So, more resources had to be invested in the farming. In this modernizing process, the small, especially the subsistence farming became infeasible. A bigger part of these farmers had to give up their own farming and became in the course of this process landless day labourer. A part of them migrated in the big cities particularly in Dhaka in search of income and better life. But a considerable part remained behind in the villages as landless poor day wage earners. The wages of these people were very low and they got employment

mostly during harvesting period. On the other hand, as with modernization the agricultural yields increased and the prices of the agriculture products went up, firming became more profitable. The income of the big farmers increased and they became increasingly bigger and wealthier. So, the income differences and inequality between few number of big farmers in the one hand and very large number of small farmers and landless day wage earners on the other hand grew in the period of the study.

The trend of poverty from 1984s to 2005 supports the development of the Gini Coefficients. As discussed in the beginning, in 1984 nationally nearly 62.6% of the people were under poverty line-1. These peoples take less than 2122 but more than 1805 k.cals (Kilo calorie) of food daily. The peoples who are not capable to take more than 1805 k.cals of food daily belong to the category Poverty Line 2. They are called hard core poor people. In 1984 nearly 36.8% of the total population was hard core poor. It means that among 62.6% absolute poor people 36.8% was hard core poor who took less than 1805 k.cals food daily. From 1984 to 2005 the absolute poverty could be reduced 62.6% to 40.4% and the hard core poor from 36.8% to 19.5%. In 1984 nearly 61.9% and in 2005 nearly 39.5% of the rural population was absolute poor (SYB, 2009: p. 558, 561). It is obvious that till 2005 a significant part of rural as well urban population remained very poor.

The poverty reduction is a function of increased national income and its distribution, which depends primarily on the growth of the economy (Lopez, 2004: p. 36, 38). However, the crucial question remains persistently controversial what should be the effectual intervention for the income distribution so that growth of the capital and growth of the economy could be ascertained which enable to reduce income inequality and poverty in a satisfactory rate. The suggestions above were supported by the survey of opinion of the official authority of the government. They remarked that for the reduction of the income inequality along with the growth of the economy others measures must be undertaken and adjusted periodically. The experiences in Bangladesh show that world wide accepted and praised micro credit system was not very satisfactory. We have to find out more effective tools for reduction of the poverty. The administration of the micro credit program of the Grameen Bank said that to reduce poverty to an acceptable level parallel to micro credit program government social welfare program must be introduced and expanded. Like the administration of Grameen Bank also the officials of the PKSF said that micro credit program must be

considered as an additional and short run activity for the alleviation of the poverty. In the long run, only economic growth can effectively contribute to the eradication of the poverty from a society. In this regard experiences of the developed and newly developed countries can be very helpful.

6. Conclusion

Rural as well national Gini Coefficients in Bangladesh from 1974 to 2008 were partly very high. So was also the rural poverty. Though they sank ultimately with the growth of economy, but the performance of the economy and its positive impact on the income inequality and poverty remained dissatisfactory. Compare with international level even now the rural income inequality in Bangladesh is very high.

As income inequality especially in rural region is potentially one of the gravest issues of the social conflict, the study was interested in the changes of income inequality with the growth of the economy. The study found that with the growth of the economy in Bangladesh the national and rural income inequality sank. So, it is to conclude that for the elimination of the rural income inequality and poverty first and foremost steps for speedy growth of the economy must be undertaken.

However, there are also other decisive measures that help to accelerate the reduction of the economic inequality and poverty within society. These poverty reduction strategic measures could be divided into two groups: government sponsored, and political system driven actions. Following government sponsored strategic steps may be suggested to reduce rural as well urban economic inequality:

- Education – All kinds of education especially for the poor and disadvantaged people must be ensured to increase their income and reduce income inequality due to education differentials;
- Skill promoting trainings – All types of skill promoting trainings especially to the poor and disadvantaged people of the society must be ascertained to increase their income and reduce income inequality due to skill differentials. Such steps can cut the least skilled out of job market entirely;
- Credit providing – Policies and strategies must be ascertained to ensure the availability of credit for the poor people of the society. International

experiences show that credit supply could effectively contribute to reduce income inequality and poverty;
- Progressive taxation – The rich may be taxed more than the poor and the national wealth redistributed to reduce income inequality in society.
- Minimum wage– Minimum wage may be enacted to raise the income of the poorest working group and adjusted periodically with the inflationary situation of the country.
- Subsidization – 'Essential goods and services' such as food, healthcare, education, and housing may be subsidized to reduce inequality in the society. Government can indirectly increase the disposable income of the poorer section of society by providing cheap essential goods and services especially to them.

There are also political measures which could be effectively used to eradicate economic inequality from the human society. Following steps may be considered in this regard:
- Democratizing the society – Each and every step must be undertaken to democratize the society. In a really democratic society income inequality and poverty can not endure any longer.
- Strengthen the democratic institutions – Democratic institutions must be established and strengthened, because they save guard the rights and privileges of the weaker section of the society.

Too much and enduring economic disparity generates ultimately political pressure that removes the inequality violently. In a real democratic free society income inequality and poverty should have no place because democracy leads the society finally to humanity and equality.

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