

Poverty and Inequality in Nagaland

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ABSTRACT

Poverty is a human condition characterized by the sustain or chronic deprivation of resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living. It is the progenitor of much being for hunger and disease on to civil war and conflict itself. It is now perceived to be a danger to any society. Thus, number of studies on poverty has been done extensively both by the government and academicians around the world and suggestive measures have been forwarded to counter the rising poverty. However, poverty still continues to be a major problem in the world, thereby, widening the gap between the rich and the poor. Thus this paper tries to analyze the existence of poverty and inequality in the state and suggest suitable measures which can ameliorate the poverty level.

Key Word: Poverty, MPI and Inequality.

I. INTRODUCTION:

Poverty can be defined as a social phenomenon in which a section of the society is unable to fulfill even its basic necessities of life. When a substantial segment of a society is deprived of the minimum level of living and continues at a bare subsistence level, that society is said to be plagued with mass poverty (Sen, 2002). The countries of third world exhibit invariably the existence of mass poverty although pockets of poverty exist even in developed countries of Europe and America. Attempts have been made in all societies to defined poverty, but all of them are conditioned by the vision of minimum or good life obtaining in society. For instance, the concept of poverty in the USA would be significantly different from that in India because the average person is able to afford a much higher level of living in the USA. Therefore, it is an effort in all definitions of poverty to approach the average level of living in a society and the extent to which different societies are prepared to tolerate them. For instance, in India, the generally accepted definition of poverty emphasizes minimum level of living rather than a reasonable level of living or good life may appear to be wishful thinking at the present stage, the deprivation of a significant section of the society of minimum basic needs in the face of a luxurious life for the elite classes, make poverty more glaring (Datt and Sundharam, 2013). Recent quantitative assessment on poverty has distinguishes between absolute and relative poverty. Absolute poverty is the level of poverty as defined in terms of the minimal requirement necessary to afford minimal standards of food, drinking water, clothing, health care and shelter. A measure of relative poverty defines poverty as being below some relative poverty threshold. Relative poverty reflects better the cost of social inclusion and equality of opportunity in a

specific time and space. In this sense, relative poverty essentially compares deprivation of the people at the lower end of the distribution to those at the higher end. The direct measure of inequality looks at the cumulative distribution of income or consumption expenditure and estimate the extent to which it deviates from the norms of perfect equality. The most preferred index for measuring inequality is Gini-coefficient. The latest definition of poverty is in term of multidimensional index which was developed in 2010 by oxford poverty and human development initiative of UNDP. The Multidimensional poverty index is an idea of acute multidimensional poverty. It shows the numbers of people who are multidimensional poor and the numbers of deprivation with which poor household typically contend. The indicators of multidimensional poverty index uses the same three dimensions as the human development index (HDI) such as health, education, and standard of living and the indicators include child mortality, nutrition, year of school, children enrolled, cooking fuel, toilet, water, electricity, floor and assets (Alkrie and Foster, 2007). Basing on these definitions of poverty, this paper tries to analyze the extent and depth of poverty using monthly per capita consumption expenditure (MPCE) and the multidimensional poverty index (MPI) for sample population of Kohima and Longleng districts of Nagaland. Lastly, the existence of inequality in the distribution of income or MPCE has been examined.

II. METHODOLOGY:

To measure poverty, Head Count Ratio (HCR), Poverty Gap Ratio (PGR), Sen Index (SI) and Foster, Greer, Thorbecke (FGT) methods were used. For measuring multi dimensional poverty index (MPI), $MPI = H \times A$ was used. H is the Head Count Ratio and A is the intensity of poverty. The inequality in the distribution of income or monthly per capita consumption expenditure was measured using Lorenz curve and Gini-coefficient.

III. RESULTS AND DISCUSSION:

1. Estimated of Monthly Per-capita Consumption Expenditure or Poverty line:

Table No. 1 shows that the sample survey estimates of monthly per capita consumption expenditure was Rs 1832.44 for rural area and Rs 3153.04 for urban area during 2015-16, the average per capita expenditure per person per day comes out to be Rs 61.08 for rural and for urban was Rs105.10 during the same period. The sample survey average MPCE for rural area of Nagaland is higher than the national rural average by 46.95 percent and the NSSO estimate of rural Nagaland by 32.85 per cent. Moreover, the average MPCE of sample survey for urban area of Nagaland is higher than the national rural average by 55.38 per cent and the NSSO estimate for urban Nagaland by 48.76 per cent.

Table 1: Estimation of Monthly Per-capita Consumption Expenditure:

Category	Rural MPCE	Urban MPCE	Average per Capita per day in Rural	Average per Capita per day in Urban
National MPCE (at 2011-12 prices)	972.00	1407.00	32.40	46.90
Nagaland MPCE (at 2011-12 prices)	1229.83	1615.78	40.99	53.85
Sample Survey MPCE (at 2015-16 prices)	1832.44	3153.04	61.08	105.10

Source: Planning Commission 2014 and Field Survey, 2015-16

2: Estimation of Poverty through MPCE:

The proportion of poor and the depth of poverty in the state have been estimated using the sample survey poverty line or average MPCE estimates. Table No. 2 presents the estimated of head count ratio (HCR), poverty gap ratio (PGR), Sen Index (P) and Foster, Greer and Thorbecke (FGT).

Table No 2: Estimated Poverty:

Sl. No	Nagaland	HCR	PGR	Sen Index	FGT
1	Rural	0.3682	0.0726	0.2126	0.037
2	Urban	0.2939	0.0665	0.1615	0.031

Source: Field survey, 2015-16

a: Head Count Ratio:

The head count ratio for rural area of Nagaland is 0.3682 i.e., 36.82 per cent of rural area of population of Nagaland were living below the poverty line. For urban area of Nagaland the head count ratio (HCR) is 0.2939 i.e., 29.39 per cent of urban population of Nagaland were living below the poverty line. The proportion of poor for the whole state comes out to be 33.83 per cent.

b: Poverty Gap Ratio:

The poverty gap ratio for rural areas of Nagaland shows that the level of income deprivation is Rs 133.03 i.e., 7.26 per cent. This means that the poor people in rural area on an average are unable to reach the poverty line by Rs 133.03. For urban area of Nagaland, the level of income deprivation is Rs 209.67, i.e., 6.65 per cent. In other words, every poor person is falling short of the poverty line by Rs 209.67.

c: Sen Index:

The estimation of Sen Index for rural area of Nagaland come out to be 0.21.26, i.e. 21.26 per cent of poorest among the poor were living below the poverty line. The Sen Index for urban area of Nagaland is 0.1615, i.e. 16.15 per cent of poorest among the poor were living below the poverty line.

d: Foster, Greer and Thorbecke:

The estimation of Foster, Greer and Thorbecke (FGT) based for rural area of Nagaland shows that the severity of income inadequacy is 0.037 for rural population. This means that 3.7 per cent of the poorest poor are far below the poverty line. The Foster, Greer and Thorbecke (FGT) for urban area of Nagaland shows that the severity of income inadequacy in urban is 0.031. This means 3.1 per cent of the poorest poor are far below the poverty line.

3. MULTIDIMENSIONAL POVERTY INDEX (MPI):

a) Composition of MPI:

For analyzing the Multi dimensional Poverty Index three dimensions such as education, health and living standard were taken and the value of each dimension are highlighted below in table no3.

Table No. 3: Percentage Deprivation value of MPI Indicators:

Dimensions	Nagaland		Rural		Urban	
	% of deprivation	% of Non deprivation	% of deprivation	% of Non deprivation	% of deprivation	% of Non deprivation
Education	34.55	65.45	39.2	60.8	28.00	72.00
Health	20.26	79.74	27.27	72.73	10.4	89.6
Living standards	92.69	7.3	96.59	3.4	12.80	87.2

Source: Field Survey 2015-16

i. Education:

The percentage of deprivation inequality i.e., those household who are atleast deprived in any – year of schooling and school attendance, comes out to be 34. 55 per cent and non deprivation is 65.45 per cent. In rural areas, the total percentage of education deprivation is 39.2 per cent and non deprivation is 60.8 per cent. The total percentage of education deprivation is 28 per cent and the non-deprivation 72 per cent in urban areas.

ii. Health:

The total percentage of health deprivation including both the indicators, i.e., child mortality and malnutrition, is 20. 26 per cent and non-deprivation is 79.74 per cent. The total percentage of health deprivation for rural area is 27.27 per cent and non-deprivation is 72.73 per cent. The total

percentage of health deprivation in urban areas is 10.4 per cent and non-deprivation is 89.6 per cent.

iii. Living Standards:

The overall deprivation of living standard in six indicators, viz, cooking fuel, sanitation, water supply, electricity, flooring and assets, comes out to be 92.69 per cent and non-deprivation in all the six indicators is 7.3 per cent for Nagaland. In rural area, the overall deprivation is 96.59 per cent and non-deprivation is 3.4 per cent. However, the overall deprivation of living standard in urban areas is 12.80 per cent and non-deprivation is 87.2 per cent.

b) Multidimensional Poverty Index for Nagaland:

The Head Count Ratio (H) index shows 46.4 per cent ($H=.464$) of people are MPI poor. This means that 46.4 per cent of the people are deprived in at least one indicators. The Intensity of Poverty (A) shows that the average poor persons are deprived in 50 per cent ($A=.500$) of the indicator. Thus, Nagaland is as a whole 23.2 per cent ($MPI=.232$) multidimensional poor.

The Head Count Ratio (HCR) index shows 60.8 per cent of people are MPI poor. This means that 60.8 per cent of the people are deprived in atleast one indicators. The Intensity of Poverty (A) shows that the average poor persons are deprived in 50.8 per cent of the indicators. Thus, 30.8 per cent of rural area of Nagaland is multidimensionally poor.

The Head Count Ratio (H) shows that 25 per cent of people in urban areas are MPI poor. The Intensity of Poverty (A) shows that the average poor persons are deprived in 47.7 per cent of the indicators. Thus, 19.9 per cent of urban area of Nagaland is multidimensionally poor.

4. ESTIMATION OF INCOME INEQUALITY:

a. Disparity in the Distribution of Income among the Population of Nagaland:

Table No. 3 reveals that the bottom 44.19 percent of the population is sharing about 26.22 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 13.77 per cent of the total income is share by the top 7.08 per cent of the population which is higher than the percentage of the sample population. This shows that majority of people are sharing lesser proportion of income, while smaller percentage of population are enjoying higher income.

The inequality in the distribution of income among the population of Nagaland as shown by Gini-coefficient stands at 25.35 percent. Both the value of Gini-coefficient and the shape of Lorenz curve in figure 1 shows high inequality of income distribution among the household of Nagaland.

Table No. 4: Distribution of income among the Population of Nagaland:

MPCE	Number of Person	Total MPCE (Q)	% of Person (F)	% of MPCE (Q)	C.F of % (F)	C.F of % (Q)
0 -1000	231	174498.7	13.39	4.28	13.39	4.28
1000-2000	544	894697.66	31.52	21.94	44.91	26.22
2000-3000	401	957345.66	23.24	23.47	68.15	49.69
3000-4000	428	1490515.31	24.79	36.54	92.94	86.23
4000-5000	105	467152.29	6.08	11.45	99.02	97.68
5000-6000	14	73354.89	0.81	1.79	99.83	99.47
6000-7000	0	0	0	0	99.83	99.47
7000-8000	3	21736.65	0.17	0.53	100	100

Source: Field Survey 2015-16

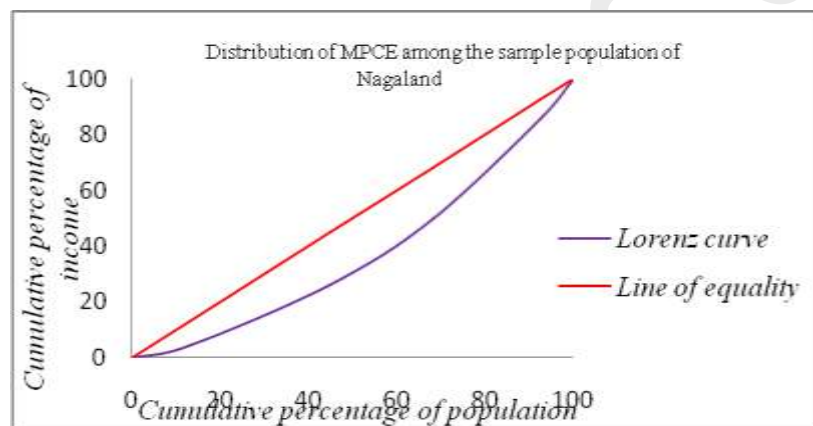


Figure 1: Distribution of Income among the sample population.

b: Disparity in the Distribution of Income among the Rural area of Nagaland:

Table No. 5 reveals that the bottom 62.22 percent of the population is sharing about 45.81 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 6.12 per cent of the total income is share by the top 2.51 per cent of the population which is higher than the percentage of the sample population. This means that in rural area majority of the population are sharing lesser income which handful of people are enjoying higher income.

The value of Gini-coefficient (G_p) for monthly per capita expenditure of rural area of Nagaland has been estimated as 0.223. The inequality in the distribution of monthly per capita expenditure or income among the population of Nagaland stands at 22.3 percent. Both the value of Gini-coefficient and the shape of Lorenz curve in figure no 2 shows higher inequality of income among the rural household of Nagaland.

Table No. 5: Distribution of income among the Population of Nagaland:

MPCE	Number of Person	Total MPCE (Q)	% of Person (F)	% of MPCE (Q)	C.F of % (F)	C.F of % (Q)
0 -1000	217	161852.1	21.03	8.56	21.03	8.56
1000-2000	425	704491.71	41.19	37.25	62.22	45.81
2000-3000	335	801890.89	32.46	42.4	94.68	88.21
3000-4000	29	107039.01	2.81	5.67	97.49	93.88
4000-5000	26	115811.13	2.51	6.12	100	100

Source Field Survey, 2015-16

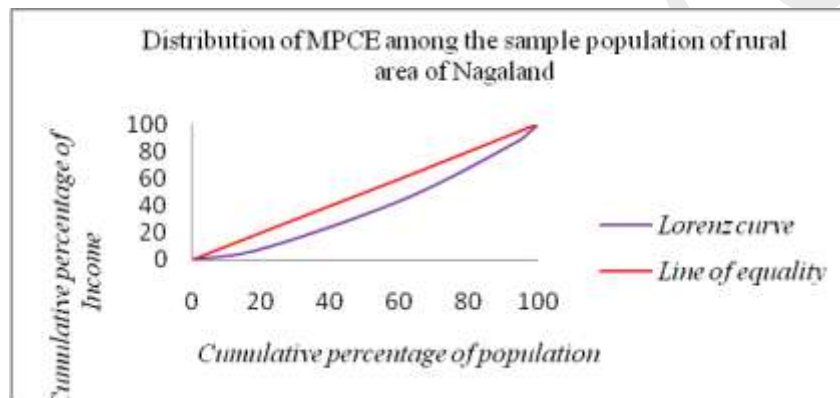


Figure 2: Distribution of Income among the rural population

c. Distribution of Income among the Urban area of Nagaland:

Table No. 6 reveals that the bottom 19.15 percent of the population is sharing about 9.27 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 4.35 per cent of the total income is share by the top 2.44 per cent of the population which is higher than the percentage of the sample population. This shows that majority of people are sharing lesser proportion of income, while smaller percentage of population are enjoying higher income.

The value of Gini-coefficient (G_p) for monthly per capita expenditure of urban area of Nagaland has been estimated as 0.1596. The inequality in the distribution of monthly per capita expenditure or income among the population of urban area of Nagaland stands at 15.96 percent, both the value of Gini-coefficient and the shape of Lorenz curve in figure no. 3 shows higher inequality of income among the urban area of Nagaland.

Table No. 6: Distribution of Income among the urban area of Nagaland:

MPCE	Number of Person	Total MPCE (Q)	% of Person (F)	% of MPCE (Q)	C.F of % (F)	C.F of % (Q)
0 -1000	14	12646.6	2.02	0.58	2.02	0.58
1000-2000	119	190205.95	17.13	8.69	19.15	9.27
2000-3000	66	155454.77	9.54	7.1	28.69	16.37
3000-4000	399	1383476.3	57.49	63.23	86.18	79.6
4000-5000	79	351341.16	11.38	16.05	97.56	95.65
5000-6000	14	73354.89	2.01	3.36	99.57	99.01
6000-7000	0	0	0	0	99.57	99.01
7000-8000	3	21736.65	0.43	0.99	100	100

Source Field Survey, 2015-16

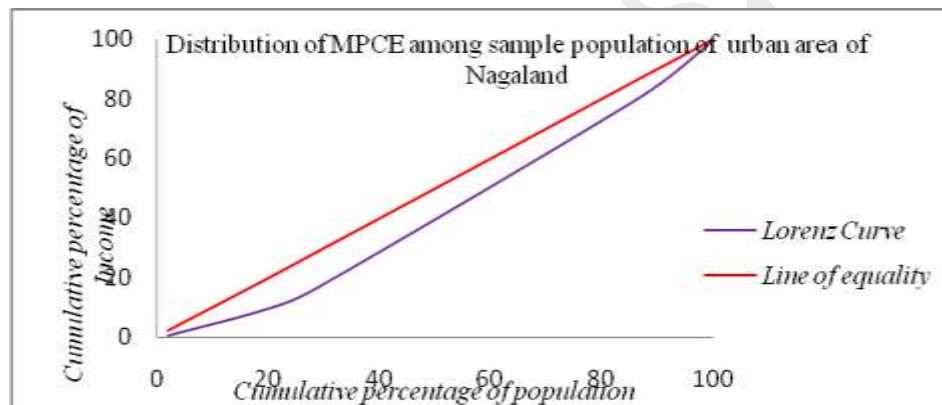


Figure 3: Distribution of Income among the rural population

IV: CONCLUSION:

From the above discussion it is seen that the poverty level in rural areas is higher than the Nagaland poverty level and urban poverty level. It was found that the depth of income deprivation or poverty gap ratio is higher in rural area than urban area. The Sen Index of rural area of Nagaland is also higher than urban area of Nagaland. This means that the number of the poorest poor who are living below the poverty line are in rural area. In comparison, the Foster, Greer and Thorbecke Index shows that severity of income inadequacy is higher for the rural population than the urban population. The MPI index also shows that rural population are multi dimensionally more poor than the urban and average Nagaland population. The measure of inequality also shows that there is more inequality in the distribution of income in the rural areas. Thus poverty and inequality is a rural phenomenon in Nagaland. It is therefore, suggested that proper physical infrastructure development be given a priority in the rural areas. This development of infrastructure will help in the marketing of agriculture products in the rural

areas. This in turn will increase the income of the rural people and will have a positive impact in eradicating the poverty in the rural area.

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