Chapter 11
Poverty, Inequality and Relative Deprivation Among Northeastern States of India: Evidence from NSS

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Abstract One of the foremost objectives of post-independence Indian planning has been to eradicate poverty, reduce inequality, thus improving the lives of those battered by deprivation and suffering. With some of the initiatives by government, presently Indian economy is experiencing higher growth since last two decades of new economic policy regime. So it is an appropriate time to review and examine the precise impact of reform process on poverty, inequality and deprivation. The objective of this present study is to examine poverty, inequality and relative deprivation among northeastern states of India during 2004–05 (61st Round) and 2011–12 (68th Round) of NSSO's Consumer Expenditure Survey Rounds data. This chapter used headcount ratio to measure poverty, relative deprivation index to understand the level of deprivation among the northeastern states of India. In addition, we have used Gini Coefficient for inequality prevalence. Our analysis depicts that the headcount poverty ratio of Tripura has highest in rural northeastern states, which has worse than national averages in 2004–05. Results also divulge that states like Sikkim, Mizoram, Tripura and Meghalaya have less than 10% poverty level in 2011–12 in urban area. The highest reduction in poverty has shown in rural Tripura during 2004–05 to 2011–12. The urban poverty is lower for all the states than rural area. Further results of relative deprivation show that, only Tripura is relative deprived state in rural whereas Sikkim and Manipur in Urban during 2004–05. The number of relative disadvantages states has increased in 2011–12 for both rural and urban. The highest relative disadvantages are in Arunachal Pradesh for rural, and in Manipur for the urban area during 2011–12. The highest relatively advantages are Nagaland in 2004–05 and Sikkim 2011–12 for both place in rural and urban among all the northeastern states. Relative disadvantages have increased or relative advantages have decreased during 2011–12 from 2004–05 in all

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northeastern states except for Tripura and Sikkim in rural. Inequality is lower in rural area as compare to urban area both periods except Sikkim in 2004–05 and Arunachal Pradesh both periods. Within rural area, the inequality has increased in 2011–12 for Sikkim and Nagaland whereas urban area two more states joined in this category, i.e. Tripura and Meghalaya. Oaxaca Blinder results show that sector, state and education play key role in differences of mean expenditure of poor and non-poor for endowment as well as return to endowment impact.

11.1   Introduction

Indian economy has witnessed a vivid transformation in its economic erection with the structural transformation since 1990s. From a 'lumbering elephant' to a 'running tiger'[1] (Nayyar 2006), it has made hasty and noteworthy progress over the last two decades. Although still a relatively poor country, its rapid expansion in economic sphere in terms of growth potential since 1990s makes it an important player in the world economy. As the Indian economy has experienced almost two decades of new economic policy regime, it is an appropriate time to review and examine the precise impact of the reform process on various segments of our economy (Sahu 2012). We can find that the growth process is uneven in various parts in terms of its distribution. So it has come under stark criticism for the nature of growth itself. Albeit paradoxical, such criticisms are more often than not justified given the assessment of the strictures which typify inclusion. In this context if we look at the changing nature of inequality and poverty it gives a gloomy picture. In Indian economy, it has shown that while the money metric poverty declined but the disparity or inequality in the level of income has widened substantially. When we talk about equity, it relates to a degree of equality in the living conditions of people regarding income and wealth, that society consider desirable. The observed phenomenon in India defeats this purpose. As the recent approach of the government talks about inclusive growth which entails equality in opportunity, the observed phenomenon raises questions in that regard. So while talking about welfare orientation approach it is essential to measure the dividends of growth in terms of income distribution. The more crucial issues to discuss here is about an examination of poverty and inequality.

While there is a good deal of studies dealing with the national level poverty and inequality scenario, sub-national specific studies are not many to come by Abraham

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[1]For details kindly see Nayyar (2006).

(2009), Rangarajan et al. (2007). Even studies evaluating the state level poverty, inequality and employment scenario have limited their analysis to seventeen major states only, Assam being the only northeastern state featured in this list (Rangarajan and Kaul 2009; Bhaumik 2007; Chadha and Sahu 2004; Chauhan et al. 2015; Padhi et al. 2015). Thus, the north-eastern region has not received due consideration in poverty and inequality studies, partly due to the problem of inadequacy or non-availability of statistically authentic data. Notwithstanding, the thin sample coverage of the north-eastern region due to geographic limitations and consequently the statistical reliability of the data, few researchers have attempted for a detailed and incisive assessment of various facets of employment based on different rounds of NSS data (Srivastav and Dubey 2003; Sahu 2012). In this present study, we have attempted to examine the trends and patterns of poverty and inequality from consumer expenditure surveys of 2004–05 and 2011–12.

This chapter contributes to poverty and inequality at the regional level and sub sector level. It also addresses in many ways the poverty and inequality in the northeast states of India Firstly, this chapter uses the group of poverty and inequality indices for robustness of results. Secondly, the relative deprivation index for advantage/disadvantages of state. This study is organized into seven sections. Section 11.2 presents the need of the study. Section 11.3 describes the data setting. The data sets used for this analysis has explained in Sect. 11.4. Section 11.5 presents the method of poverty, inequality and Relative Deprivation Index, Sect. 11.6 presents the result of the poverty and inequality in rural–urban place of residence and the result of the relative deprivation index; section. Section 11.7 presents conclusion along with final takeaway from these results.

11.2 Need of the Study

There is a dearth of study which has extensively analyzed the poverty, inequality and deprivation in northeastern states of India. This study will add to the literature of poverty, inequality and deprivation in development literature. Although this crucial topic has been debated since independence but, few papers have extensively analyzed poverty, inequality and deprivation in northeast India any research paper. Relative deprivation is important to study, as World Bank (2000) define poverty as 'deprivation in well-being'. This particular topic has found a place in government reports like for the north eastern state (NIRD and NERC 2008; MDoNER and NEC 2008) but not in research papers in the recent time period. To the best of our knowledge, there are only few studies which deal with this area in northeastern states of India (Sahu 2012; Srivastav and Dubey 2003; Niti 2015).

11.3   Settings

The North East region of India comprises of eight states, conventionally referred as 'seven sister states' and one brother state, namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. Although mostly hilly, potentially arable land rich in natural resources is found in vast tracts on both sides of the Brahmaputra river valley. In spite of fertile land and relatively educated people (68.5% literacy rate, compared to 64.8% nation-wide) the North-East remains one of the most underdeveloped regions in India (Nair et al. 2013). But, all the development process in north east regions is not rosy, economy of the region marked with pervasiveness of unskilled labour force and two-third of the work force of this region engage in the agriculture sector. This region also lack of fecund investment, basic infrastructure facilities and pervasiveness of unskilled labour force, these states remain economically backward (Mahajan 2009). The eight states of North-East endowed with a large amount of forest and natural resources account for almost 4% of the total population and 8% of India's geographical area of the country (Niti 2015). Still these regions are not completely self-sufficient in agricultural production. In terms of Industrial development, the region is manifest by lack of proper or nearly absence of proper industries or manufacturing unit. Most of the industries are found only in Assam, Meghalaya and Arunachal Pradesh, which are medium scale and few large scale industries. As it is stated by study of Mahajan (2009) that 'The traditional industries in which production is carried out at substance level are handicrafts and weaving industries. The swelling tertiary sector is the result of an arbitrary arrangement in which a lion's shares of states. Outlays are used in paying salaries and maintaining the huge army of unproductive government employees (Mahajan 2009)'.

Given this context, *the primary objective of this present study is to examine the prevalence of poverty and inequality among North Eastern States of India. Second objective is to examine the relative deprivation in the north eastern region.*

11.4   Data Source

This chapter makes use of two rounds of National Sample Survey Organization (NSSO) 61st (July 2004–June 2005) and 68th (July 2011–June 2012) rounds of the India's nationally representative survey on 'Household Consumption Expenditure' of unit level data provided by the NSSO. The data were collected through the multi-stage stratified sampling design was used for the 61st and 68th round survey, with a total of 12,629 in rural household and 5069 urban households selected randomly from 516 number of villages survey and 514 Urban Survey Frame blocks, respectively, for 61st round, with a total of 9144 in rural household and 4979 urban households selected randomly from 1145 number of villages survey and 624 Urban Survey Frame blocks for 68th round, respectively. The data collected on the

household characteristics, food and non-food consumption expenditure, etc. (NSSO 2006, 2013). The 61st and 68th NSSO round has been used for the temporal comparison of poverty, inequality of household consumption expenditure in the rural and the urban area northeast India. This chapter uses the poverty line based on the Tendulkar poverty line given in expert committee to review methodology for measurement of poverty by headed by Rangarajan (Planning Commission 2014).

11.5 Methodology

In the present study we used FGT measure, Gini coefficient and Relative deprivation index methodology to understand the pattern of inequality and poverty in North-Eastern regions of India.

11.5.1 FGT Index

This study uses the popular FGT measures of poverty index for a better understanding of the extent of poverty. The Foster-Greer-Thorbecke (FGT) poverty measure for a given population can be defined as,[2]

$$P_a = \frac{1}{N} \sum_{i=1}^{q} \left(\frac{z - y_i}{z} \right)^a, \tag{11.1}$$

where

N Size of the sample
Z Poverty line
y_i Variable of interest[3]
a Parameter[4].

   In this FGT estimates of poverty, the three measures of poverty (head count measure of poverty, poverty gap and poverty square index) are calculated based on the three values of α.

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[2]Some of the analysis and equations of FGT poverty measure has taken from Jha and Sharma (2003). For details kindly check Jha and Sharma (2003).

[3](Monthly Per Capita Consumption Expenditure (MPCE) based on Mixed Reference Period (MRP) in this analysis).

[4]"when α is larger the index puts more weight on the position of the poorest", Chapter 4, Measures of Poverty accessed on http://siteresources.worldbank.org/PGLP/Resources/povertymanual_ch4.pdf.

11.5.1.1   Head Count Index of Poverty (PG0) $\alpha = 0$

$$PG0 = \frac{q}{N} \tag{11.2}$$

This Index gives us the head count estimates of poverty. In other words, it estimates the proportion of the population that is poor. But one of the problems of this estimate is that this Index does not indicate how the poor the poor are. In other words, it fails to estimate or capture the extent to which individual income falls below the poverty line (Jha and Sharma 2003). So, there is a second measure of poverty, i.e. Poverty Gap Index (PG1). This Index measures 'the extents to which individuals fall below the poverty line (the poverty gaps) as a proportion of the poverty line' (Haughton and Khandker 2009).

11.5.1.2   Poverty Gap (PG0) $\alpha = 1$

$$PG1 = \frac{1}{N} \sum_{i=1}^{q} \frac{(z - y_i)}{z}. \tag{11.3}$$

In the above equation, the PG1 captures the acuteness of poverty, as it measures the total shortfall of poor from the poverty line. The sum of these poverty gaps gives the minimum cost of eliminating poverty if transfers were perfectly targeted. But this measure does not reflect changes in inequality among the poor. In other words, this measure does not consider the importance of the number of poor who are below the poverty line. Here it is essential to use both measures of poverty jointly for evaluating the extent of poverty (Jha and Sharma 2003).

11.5.1.3   Square Poverty Index (PG2) $\alpha = 2$

$$PG2 = \frac{1}{N} \sum_{i=1}^{q} \left(\frac{z - y_i}{z} \right)^2. \tag{11.4}$$

The square poverty index measures the severity of poverty more accurately. The squared poverty gap ('poverty severity') index (PG2) averages the squares of the poverty gaps relative to the poverty line.

So, while discussing poverty all these measures are important to discuss basically, Head Count Ratio (PG0), Poverty Gap index (PG1) and Square Poverty Index (PG2).

11.5.2 Gini Coefficient

In this study, the Gini Index basically measures inequality in the distribution of Monthly per capita consumption expenditure. The Gini coefficient[5] (Dutta 2005) varies between 0 and 1 and it is defined as follows:

$$\text{Gini} = \frac{1}{2n^2\overline{w}} \sum_{i=1}^{n} \sum_{j=1}^{n} |w_i - w_j|, \tag{11.5}$$

where

n Number of individuals in the sample
w Arithmetic mean per capita consumer expenditure
w_i Income of individual i, and
w_j Income of individual j.

11.5.3 Measuring Relative Deprivation Index

There are various methods to measure deprivation which first used by the Jayaraj and Subramanian (2002) for the ailment deprivation (U_i) and later Joe (2010) for relative deprivation of the undernourishment in India. It is defined by Joe (2010) and Joe and Mishra (2009) as 'For a given population it is defined as the ratio of the number of ailing persons to the total population and is analogous to the poverty head count ratio'. The formula for the relative disadvantage index (RDI)[6] is following which gives the value of this index is:

$$\text{RDI}(\delta i^*) = \left(\frac{\varnothing_i}{1 - \varnothing_i}\right)\left(\frac{U_i}{U} - 1\right)\dots \forall \varnothing_i \geq U \tag{11.6}$$

$$\text{RDI}(\delta i^*) = \left(\frac{U_i - U}{1 - U}\right)\dots \forall \varnothing_i < U \tag{11.7}$$

where, i presents the number of states (ranges from $i = 1, 2, 3, \dots, k$); $\varnothing_i$ is the share of the state i in the total country's population; U is the aggregate level poverty head count ratio (here India's poverty); U_i is the poverty head count ratio of state i. Here poverty is negative outcome, i.e. more the value of head count worse is the situation in the state, lower the value better the situation in the state. In this case of

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[5]For detail understanding of the methodology kindly follow Dutta (2005), Chauhan et al. (2015) and Haughton and Khndker (2009).
[6]For a better understanding of this methodology kindly see, Joe (2010) and Jayaraj and Subramanian (2002).

poverty, state is relatively disadvantages whenever RDI (δi^*) value is positive and relatively advantages whenever RDI (δi^*) is negative (Joe 2010).

11.6 Results and Discussion

11.6.1 Pattern of Poverty in Rural–Urban Northeast India

This chapter uses the three methods of poverty measure, i.e. headcount ratio which very popular measure instead of having measurement limitation, second is refined version of headcount ratio is poverty gap and third is square poverty Index, the three measures of poverty popularly known as the Foster-Greer-Thorbecke (FGT) measure of Poverty Index. Table 11.1 presents the value of all these measures for all northeastern states and all India in the rural and urban area. Our analysis of headcount ratio found that Tripura has highest poverty level in rural North East worse than national averages, i.e. 41.9, second worse is Manipur with 39.24% poverty level and so on. The states like Nagaland, Meghalaya are far better than national average of poverty. The other better performing states are Mizoram which has far better than the national level average.

States like Sikkim and Arunachal Pradesh and have 10 and 8 and% point lower head count ratio than national average, respectively. Indicator poverty gap varies 1.014–9.5 in Nagaland and Tripura, respectively; ranking is similar to the headcount. The ranking of all measure for rural northeastern states are similar with any measures (Table 11.1). The other important sector is urban. There are plenty of literature which shown the significant of the urban area in reducing poverty. In India urban centers are the engine of growth, 70% of GDP contribution comes from the urban area. Migration happens in urban area with the hope of the better economic activity than the rural area. In this context, we are taking the queue from the aforesaid literature and analyzing poverty, poverty gap and FGT among urban northeastern states and all India. We found that Manipur (i.e. 34.3%) has highest poverty level among northeastern states of India, much above the national level (i.e. 25.8%). The states like Nagaland, Mizoram have less than 10% poverty level whereas all other northeastern states have highest than 20% of poverty level. In other words, in the urban area only two states have higher than the national average. Similar trend found for the two other measure poverty gap. The poverty gap varies from 5.1 in Manipur to 0.54 in Nagaland. But interesting pattern found for FGT measure. The highest value found in Arunachal Pradesh (1.3) and lowest found in Nagaland (0.099) (Table 11.1).

The highest poverty exists in Arunachal Pradesh and lowest in Sikkim where the ranges vary from 38.9 to 9.85, respectively. There are four states Sikkim, Meghalaya, Tripura and Nagaland lower than national poverty level in the rural area during 2011–12. The poverty level has been drastically declining among all the since 2004–05. But one state, Meghalaya's poverty has been increased more than

Table 11.1 FGT and RDI measures of northeast India

States	Rural					Urban				
	HCR	Ranking of HCR	PG	FGT	RDI	HCR	Ranking of HCR	PG	FGT	RDI
61st round-2004–05										
India	41.9	8	9.66	3.17	–	25.8	9	6.1	2.05	–
Sikkim	31.9	4	5.65	1.44	−0.17	25.9	7	3.4	0.89	0.002
Arunachal Pradesh	33.6	5	7.4	2.45	−0.14	23.5	5	4.6	1.25	−0.03
Nagaland	9.71	1	1.01	0.19	−0.55	4.26	1	0.5	0.1	−0.29
Manipur	39.2	7	5.7	1.25	−0.05	34.3	8	5.1	1.03	0.11
Mizoram	23	3	3.48	0.89	−0.32	7.95	2	1	0.22	−0.24
Tripura	44.4	9	9.54	2.88	0.04	22.5	4	3.8	0.96	−0.04
Meghalaya	14	2	1.39	0.23	−0.48	24.7	6	2.8	0.54	−0.01
Assam	36.4	6	7.03	2.01	−0.09	21.8	3	4.2	1.14	−0.05
68th round-2011–12										
India	25.7	5	5.05	1.5	–	13.7	5	2.7	0.8	–
Sikkim	9.85	1	0.96	0.15	−0.21	3.67	1	0.5	0.1	−0.12
Arunachal Pradesh	38.9	9	9.79	3.14	0.18	20.3	7	4.9	1.92	0.08
Nagaland	19.9	4	3.75	1.02	−0.08	16.5	6	1.8	0.3	0.03
Manipur	38.8	8	6.64	1.55	0.18	32.4	9	6.1	1.71	0.22
Mizoram	35.4	7	7.51	2.39	0.13	6.36	2	0.6	0.1	−0.08
Tripura	16.2	3	2.17	0.45	−0.13	7.42	3	1.7	0.52	−0.07
Meghalaya	12.5	2	1.58	0.32	−0.18	9.26	4	1.5	0.26	−0.05
Assam	33.9	6	5.79	1.44	0.11	20.6	8	3.8	1.0	0.08

Source Authors own estimation based on 61st and 68th consumption expenditure rounds. *Note* *HCR* Head Count Ration, *PG* Poverty Gap, *FGT* Foster-Greer-Thorbecke, *RDI* Relative Deprivation Index

10% point. Major reduction in poverty has happened in Tripura which was the highest poverty in 2004–05 but it reduces 21.9% points in 2011–12. In other words, reduction in poverty was higher than the national reduction of poverty in percentages points Tripura all other states is lower than the national reduction in poverty during these two NSSO rounds (Table 11.1).

When we tried to analyze their ranking in two periods, we found that Meghalaya and Manipur ranking remains same, whereas Arunachal Pradesh, Nagaland, Mizoram's ranking falls. The states like Tripura, Sikkim and Assam have in their raking of head count ratio. The biggest gainer of ranking is Tripura it gains 5 ranks, last raking in 2004–05 to third in 2011–12 (Table 11.1). The other like poverty gap and FGT also shows very interesting pattern to be discussed here in 2011–12. Lowest poverty gap is in Sikkim and higher in Arunachal Pradesh. But if we see FGT, we found similar pattern in 2011–12 (Table 11.1).

The chapter found that urban area poverty is lower for all the states than the rural area. The highest was found in Manipur and lowest in Sikkim during the period 2011–12. The states like Sikkim, Mizoram, Tripura and Meghalaya have less than 10% poverty level in 2011–12 in urban areas. States like Manipur, Assam, Arunachal Pradesh and Nagaland have higher than national level poverty, the other remaining state have lower than national averages of poverty level (Table 11.1). Further we also found that head count ratio ranking of the Mizoram and Manipur remained same or showed no change in their rankings. The biggest gainer in ranking is Sikkim with 6 point ranks. Meghalaya and Tripura are also the gainer with 2 and 1 rank, respectively. The biggest fall was in case of Nagaland, Assam and Arunachal Pradesh in their rankings (4, 4 and 1 raking falls) (Table 11.1).

11.6.2   *Relative Deprivation Among Northeastern States*

This study also tries to understand the relative deprivation index among the North Eastern State of India. This index provides the information on the relatively disadvantages/advantages of states level poverty among the North Eastern State of India. This index adjusts outcome with two counts, first with the prevalence of an outcome with respect national level outcome and second with the outcome with respect to its share of population. With help of temporal RDI, we assess the poverty reduction in term of inclusiveness as Shukla and Mishra (2014) have used RDI for same purpose. This chapter also examines the relative deprivation in the rural and urban sector during 2004–05 and 2011–12 separately. The negative value of RDI value means states have relative advantages for the incidence of poverty. The positive value of RDI is showing the relatively disadvantages of the states with the incidence of the poverty. The study of relatively deprivation index for the place is residence, i.e. rural and urban is very significant because both have a different structure of the economy as well as living condition as Ravallion has described the poverty as 'urbanization of poverty' (Ravallion 2002).

The highest negative value is reflected by Nagaland and highest positive value is by Tripura. In other words, Nagaland is having highest relatively advantages of poverty and Tripura is the most disadvantaged state of rural northeast India during 2004–05. In the rural area, Tripura is the only state which relatively disadvantages position of poverty with respect to National level poverty and its share of the population in rural north east population. Further, we analyzed the relative deprivation in rural areas during the period 2011–12. The magnitude of RDI is lower in 2011–12 than 2004–05 except for Sikkim and Tripura. The big changes of RDI value have been in Tripura being relatively disadvantages in 2004–05 to relatively advantages position in 2011–12 whereas conversely true for states like Arunachal Pradesh, Manipur, Mizoram and Assam (Table 11.1). The poverty reduction is more inclusive in Tripura between these two time periods than any other North East State of India.

The highest relatively advantages states are Nagaland and relatively disadvantages states are Manipur in Urban area during 2004–05. The relatively disadvantages states are higher number in urban than rural in 2004–05. The magnitude of relatively disadvantages is higher in urban as compared to their counterpart in 2004–05 and the contrary result found for relatively advantages position states. In 2011–12 urban, states like Sikkim, Mizoram, Tripura and Meghalaya have relatively advantages of poverty and other states have relatively disadvantages position. When, we compare urban 2004–05 to 2011–12. Then we find that RDI value magnitude is lower in 2011–12 than 2004–05 for both advantages and disadvantages sates except for Sikkim and marginal improvement for Tripura.

The overall pattern of poverty and inequality is different in rural and urban northeastern states. For a better understanding of the changing poverty and inequality among northeastern states of India both in the rural and urban setting, first we have taken both the periods poverty and inequality figures. After that we have subtracted the 2011–12 poverty and inequality figures with the 2004–05 figures to check the increase or decrease in it. While most of the states shows a decline in the level of poverty and inequality in rural India, Arunachal Pradesh showing an increase in the level of Inequality. The picture is same for the urban area as well for Arunachal Pradesh. In the urban area while most of the north eastern showing decline in the level of poverty with a simultaneous increase in the level of inequality level. In the urban area Nagaland is showing an increase in the level of poverty. Both in the rural and urban area Sikkim has shown highest decline in the level of poverty and inequality (Figs. 11.1 and 11.2).

11.6.3 Inequality in Northeastern States of India

Table 11.2 presents the value of a very popular measure of inequality is Gini coefficient in rural, urban and total in 2004–05 and 2011–12 in northeastern states of India. The very popular measure of inequality in literature is Gini coefficient. We founds that the value of Gini coefficient is highest in Sikkim and lowest in Manipur.
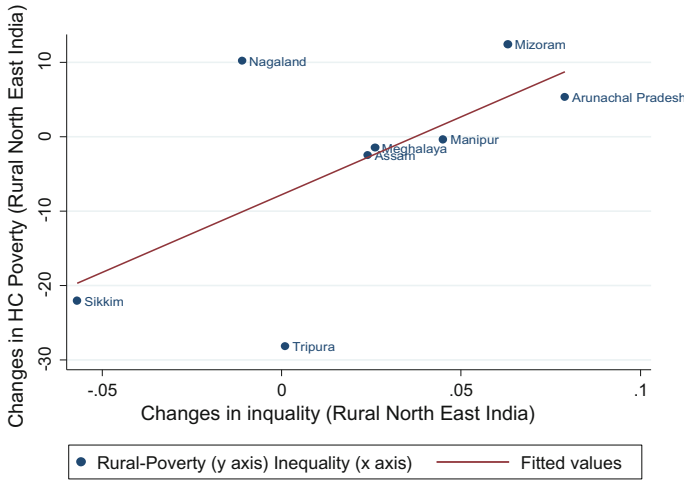
Fig. 11.1 Changing poverty and inequality in the rural northeast India (2004–05 to 2011–12). *Source* Authors own calculation based on 61st and 68th NSSO consumption round
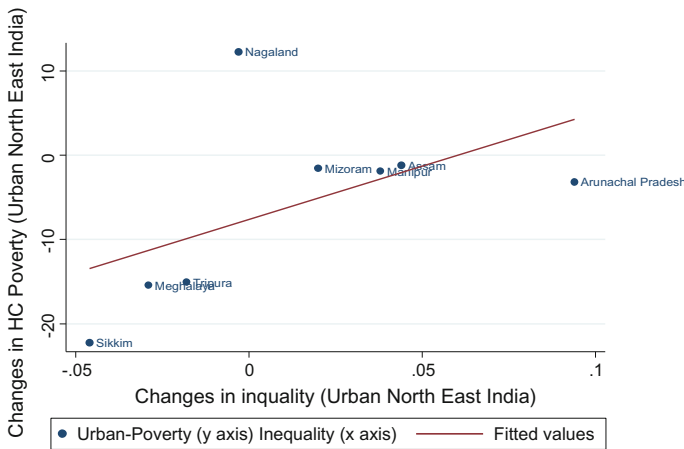

Fig. 11.2 Changing poverty and inequality in the urban northeast India (2004–05 to 2011–12). *Source* Authors own calculation based on 61st and 68th NSSO consumption round

These results alter when we look in the rural and urban area. The highest Gini value is in Arunachal Pradesh and Tripura in rural and urban area, respectively. The lowest Gini value is in Meghalaya for the rural and Manipur in Urban area.

Table 11.2 also presents Gini coefficient during 2011–12 for both the rural and urban place of residence in northeast India. The state Arunachal Pradesh has the highest value of Gini coefficient and Manipur has lowest level of Gini value. When we look the Gini value by rural–urban classification, we found that Arunachal

Table 11.2 Gini coefficient inequality in northeast India, 2004–05 and 2011–12

State	2004–05			2011–12		
	Person	Rural	Urban	Person	Rural	Urban
Sikkim	0.268	0.254	0.246	0.237	0.197	0.2
Arunachal Pradesh	0.262	0.262	0.235	0.353	0.341	0.329
Nagaland	0.243	0.206	0.234	0.222	0.195	0.231
Manipur	0.161	0.152	0.165	0.2	0.197	0.203
Mizoram	0.235	0.186	0.229	0.294	0.249	0.249
Tripura	0.265	0.211	0.314	0.252	0.212	0.296
Meghalaya	0.204	0.15	0.261	0.234	0.176	0.232
Assam	0.235	0.192	0.309	0.263	0.216	0.353

Source Authors own estimation based on 61st and 68th consumption expenditure rounds

Pradesh has the highest amount of Gini value and Meghalaya has lowest in the rural whereas Assam has highest Gini value and Sikkim is lowest in the urban area. We can see that State differ with highest lowest value of Gini coefficient rural–urban classification. This reflects different levels of inequality in the rural and urban areas of north east regions.

We have used 61st and 68th round of NSSO for the comparative analysis of the inequality between these two periods. Within rural area, the inequality has increased in 2011–12 for Sikkim and Nagaland whereas urban area two more states joined in this category, i.e. Tripura and Meghalaya.

What are changes happen in Gini coefficient among the North Eastern State. We found that there are three categories of state first state whose Gini value has decline to rural- urban and all. In this category states are Sikkim and Nagaland. Second, another extreme case is state whose Gini value has increased during 2004–05 to 2011–12. This category states are Arunachal Pradesh, Manipur, Mizoram and Assam. The other two states come in between, i.e. Tripura's overall and urban inequality has declined whereas Meghalaya's only in urban inequality declined (Table 11.2).

11.7   Conclusion

This chapter tries to understand the poverty, inequality, relative deprivation among the North Eastern region of India during 2004–05 and 2011–12 by using 61st and 68th round of NSSO data.

Our analysis depicts that the headcount poverty ratio of Tripura has highest in the rural northeastern states, which has worse than the national averages in 2004–05. Results also divulge that states like Sikkim, Mizoram, Tripura and Meghalaya have less than 10% poverty level in 2011–12 in the urban area. The highest reduction in poverty has shown in the rural Tripura during 2004–05 to 2011–12.

The urban poverty is lower for all the states than rural area. Further results of relative deprivation show that, only Tripura is relative deprived state in rural whereas Sikkim and Manipur in Urban during 2004–05. The number of relative disadvantages states have increased in 2011–12 for both rural and urban. The highest relative disadvantages are in Arunachal Pradesh for the rural area and Manipur for the urban area during 2011–12. The highest relatively advantages are Nagaland in 2004–05 and Sikkim 2011–12 for both place in rural and urban among all the northeastern states. Relative disadvantages have increased or relative advantages have decrease during 2011–12 form 2004–05 in all northeastern states except for Tripura and Sikkim in rural. It means that there more inclusive nature poverty decline in both these two states during this study period. Inequality is lower in the rural area as compare to urban area both periods except Sikkim in 2004–05 and Arunachal Pradesh both periods. Within rural the inequality has increase in 2011–12 for Sikkim and Nagaland whereas urban area two more states joined in this category, i.e. Tripura and Meghalaya. These results clearly reflect the need for a proper policy for the north eastern states of India.

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