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REGIONAL DISPARITY IN TERMS OF ECONOMIC WELL-BEING USING MULTIDIMENSIONAL POVERTY INDEX: A CASE STUDY IN TRIPURA

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Abstract

Intergroup deprivation and regional disparity in terms of economic wellbeing is a major social concern for the present day diverging world. The aspects of deprivation and disparity call for immediate attention for planning social and human development as well as regional development accordingly. The measurement of intergroup deprivation and regional disparity may help understanding the sources of poverty and backwardness region or group wise. The present study attempts to investigate the relative position of the TTAADC (Tripura Tribal Areas Autonomous District Council) and Non-TTAADC areas in the state of Tripura in terms of non-income multidimensional poverty approach. For the purpose, dimension wise performances of the two select areas have been evaluated and compared in terms of multidimensional poverty index following Alkire and Foster method. All total 300 households both Tribal and non-Tribal have been surveyed for the study using stratified random sampling. The empirical findings of the study exemplify that the deprivation in terms of non-monetary dimensions such as education, health and standard of living is a matter of concern for proper economic development.

Key words: *Regional Disparity, Multidimensional Poverty Index, Tripura Tribal Areas Autonomous District Council, Ultra-deprivation Cut-offs*

JEL Classification: *R12, I3, R11, O1*

1. The Concept of Poverty

Poverty can be viewed as a situation where an individual or a household cannot fulfill or is being deprived in one or several of their basic needs and facilities. Identification of the basic need components is both theoretically and empirically difficult. Traditionally, poverty has been related to income and income remains at the center of the concept of poverty for a long time. However, the concept of poverty is closer to economic well-being, where other welfare indicators are equally important in defining poverty of a household or a social group. In fact, conceptualization of poverty in the present day go beyond mere physical survival and a more encompassing view focuses on the set of minimum capabilities or functioning's that a person is able to achieve (Sen 1985). In particular, the basic human needs are sufficient food to avoid

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hunger and malnutrition, improved health and education facilities, communication, sanitation, safe drinking water to live a decent standard of living. Bourguignon and Chakravarty (2003) argued that "a multidimensional approach to poverty defines poverty as a shortfall from a threshold on each dimension of an individual's wellbeing".

Thus, the concept of poverty has gone beyond the concept of one dimension. The understanding of the importance and definition of poverty has been a major human preoccupation for many centuries. The study of poverty started with the work of Booth (1892) and Rowntree (1901), who were the first to introduce the economic concept of poverty, together with that of the poverty line and that of the Head Count Ratio (HCR) on the basis of the Basic Needs Approach (BNA). Since then, three alternative conceptions of poverty (such as ideas of subsistence, basic needs and relative deprivation) have evolved as a basis for international comparison.

The multi-dimensional approach could be that of explaining poverty with a set of indicators, leaving the task of defining how poverty is explained by which factor through statistical techniques. Multidimensional poverty measures relate to the capability approach (Sen 1985) insofar as they provide information by virtue of which it may be possible to be more accurate in reducing people's capability deprivations. In this context, the need is not the unrealistic search for the perfect measure, but rather for domains and corresponding measures – and indeed other categories of information – that are sufficient to guide multidimensional poverty-reduction efforts toward critical objectives.

1.1 Traditional vs. Multidimensional Poverty Approach

Before approaching to the issues of multidimensional poverty, let us first have a comparative analysis in between the two approaches. This will help us in understanding the importance of multidimensional poverty measurement. The traditional approach to poverty is characterized by the fact that poor people are identified according to a shortfall in a monetary indicator. The theory completely underlying this assumption is the utilitarianism, theoretically based on the criteria of utility and practically on the use of income or expenditure as a proxy of well-being (Fusco 2003). The major limitations of the Traditional approach are that it doesn't deal with the human diversity and it constitutes a clear reduction in well-being (Fusco. 2003). However, there are available numbers of measures of poverty based on incomes such as the head count ratio (HCR), poverty gap (PG), Sen Index and so on.

On the other side, present day's well recognized multidimensional analysis of poverty constitutes a clear breakthrough in the traditional analysis by incorporating many of the non-monetary indicators of poverty. The basic argument is that uni-dimensional approach to poverty measurement inevitably leads to a loss of information on dimension-specific shortfalls (Rippin 2009). Assigning a weight of one to income or expenditure and zero weight to each of the other potential dimensions of poverty has increasingly been considered as a severe limitation

in measuring the wellbeing of a household or region. The multidimensional nature of poverty has been advocated by Sen (1985, 1987, 1997) as human beings are considered as means and ends in all development vis-a-vis deprivation process.

Based on these and related arguments many of the multidimensional poverty measures such as the Basic Needs Approach (1970s; introduced by the International Labour Organization's World Employment Conference in 1976), Physical Quality of Life Index (Morris 1979), Human Development Index (UNDP 1990), Human Poverty Index (Sen and Anand: UNDP 1997) and Multidimensional Poverty Index (Alkire and Foster: UNDP 2010) have been sequentially developed.

1.2 Review of Literature

A good volume of literature is available on monetary or income poverty (see Kolm 1969; Kakwani 1980; Shorrocks 1983; Chakravarty 1990, 1997). But, following Atkinson (1970) and Sen (1973, 1976, 1997) an expedient departure has been noticed in the measurement of poverty and inequality from uni-dimensional to multidimensional approaches. The multidimensional approach may be marked as the intersection approach i.e. poor in two or more dimensions (Gordon et al. 2003) or relative approach (Wagle 2007) in fixing the poverty line. On the theoretical front, the dimension of education, health and income are often measured in defining multidimensional poverty. Studies also document varying degrees of correlation between dimensions of poverty or deprivation (Klasen S 2000). In case of poverty measurement, there is almost always a degree of arbitrariness about the poverty line. Multidimensional poverty measurement is an improvement over the uni-dimensional measurement to remove the arbitrariness (Ravallion 2011). The MPI can be used as an analytical tool to identify the most vulnerable people, shows aspects in which they are deprived and helps to reveal the interconnections among deprivations (Alkire and Santos 2010).

Alkire and Seth (2012) explain that the BPL-targeting methodology in India is a close approximation to the standard multidimensional poverty measure. Alkire and Seth (2013) analyze India's performance in multidimensional poverty between 1999 and 2006 using an adaptation of the Multidimensional Poverty Index (MPI). They find that nationally, multidimensional poverty has fallen in India between 1999 and 2006.

Like HDI or HPI, Multidimensional Poverty index also comprises of three dimensions of deprivation namely, health, education and standard of living with equal weight to each of the dimensions. But in case of MPI, both health and education dimensions contain two indicators each with equal weights and standard of living dimension includes all total six separate indicators (for detail, see Table –1). Accordingly, the poor households are identified by an aggregate measure that is constructed following the methodology proposed by Alkire and Foster (2007, 2009). A household is identified as multidimensionally poor if and only if it is deprived in some

combination of indicators whose weighted sum (the aggregate) exceeds 30% of all deprivations. The MPI is the product of the Head Count Ratio **H** or percentage of people who are poor, and the average intensity of deprivation, **A** which reflects the proportion of dimensions in which households are, on average, deprived.

1.3 Objectives and Significance of the study

Considering the aspect of proper development of a particular region[1], the objectives of the present study mainly focus on regional disparity in terms of poverty between TTAADC[2] (*Tripura Tribal Area Autonomous District council*) and Non-TTAADC areas through Multidimensional Poverty Approach. The present study attempts to identify the poor in Tripura by using the recent and effective method of multidimensional poverty index published by the UNDP (2010). The study plans to reveal the extent of poverty between the defined regions to identify the relatively vulnerable groups of population from poverty perspective. The outcomes of the present study may be in use of the policy makers and governments for framing target group oriented developmental plan.

2. Data and Methodology

The present study is based on primary field survey and the methodology of multidimensional poverty index developed by Alkire and Foster.

2.1 Data Sources, Sample and Study Design

The study is entirely based on primary survey. A stratified random sampling method has been followed to cover a sample size of 300 households both from TTAADC and non-TTAADC villages with equal representation. The survey area is Kathalia Rural Development Block under Sepahijala District in the state of Tripura. The Block is around 85 kilometers away from the capital town Agartala. The Kathalia R. D. Block has both the TTAADC and non-TTAADC villages as well as the adobe for all the social groups viz. STs, SCs, Religious Minorities and

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Notes :

1. In geography, **regions** are areas broadly divided by physical characteristics (physical geography), human-impact characteristics (human geography), and the interaction of humanity and the environment (environmental geography). Geographic regions and sub regions are mostly described by their imprecisely defined and sometimes transitory boundaries, except in human geography, where jurisdiction areas such as regional boundaries are clearly defined in law.

2. For greater autonomy of the Tribal peoples (all total 19 scheduled tribes comprising around 30 percent of the total population) of the state of Tripura, the Tripura Tribal Areas Autonomous District Council Bill, 1979 was unanimously passed by the Tripura Legislative Assembly on March 23, 1979. Successively, the Tripura Tribal Areas Autonomous District Council (TTAADC) was constituted through votes by secret ballot in January 15, 1982 and the elected members were sworn in on January 18, 1982. Afterward, the Constitution of India has been amended by a Bill and it was unanimously passed at the floor of the Indian Parliament on August 23, 1984 for introduction of the Sixth Schedule of the Constitution in India. A fresh election under the Sixth Schedule has been held on June 30, 1985 through vote by secret ballot and the elected members were sworn in on July 19, 1985 subsequently.

General Hindus. This is the basis for selecting this R. D. Block for the purpose of study. At the sub-unit level, two TTAADC villages namely, Manaipathar ADC village and Kalikhola ADC village; and two non-TTAADC villages namely, Uttar Paharpur Gram Panchayat and Nidaya Gram Panchayat have been covered. Keeping in consideration the representation of all social groups, the final study units i.e. the individual households have been randomly surveyed as per their proportional representation by following probability sampling method.

Based on a structured questionnaire, the required information have been collected from the respondents, mainly the head of the households or any of the adult members capable of furnishing the information. For the purpose of measuring nutritional status, we have collected information regarding height and weight of each of the individual members of the households using steel tape and floor weighting scale (machine) carried with ourselves. Information regarding mortality (children 0-5years), educational attainment etc. have been collected through information provided by the parents of the respective households. Other information such as sanitation, drinking water, housing or flooring, cooking fuel and electricity connection has been collected through personal observation.

To get a clear understanding of the situation of multidimensional poverty across the regions viz. TTAADC & Non-TTAADC villages and the condition of the poorest of the poor, we construct two different poverty measures. The first identifies the poorest people in terms of the intensity of their deprivations; these people are referred to as intensely poor. The second identifies the poorest people in terms of being more deeply deprived in each indicator; these are referred to as deeply poor.

2.2 Methodological Issues

The international MPI, which was developed by Alkire and Santos (2010, 2013) in collaboration with the UNDP and first appeared in the 2010 Human Development Report, is one particular adaptation of the adjusted headcount ratio (M_o) proposed in Alkire and Foster (2011). This section outlines the relevant methodological issues and properties of MPI following Alkire and Seth (2013).

2.2.1 The Adjusted Headcount Ratio

Let us suppose that at a particular point in time, there are n people in a particular region and their wellbeing is evaluated by d indicators. We denote the achievement of person i in indicator j by $x_{ij} \in \mathbb{R}$ for all $i = 1, 2, ..., n$ and $j = 1, 2, ...d$. The achievements of n persons in d indicators are summarized by a $n \times d$ dimensional matrix **X,** where rows denote persons and columns denote indicators. Each indicator is assigned a weight based on the value of a deprivation relative to other deprivations. The relative weight attached to each indicator j is the same across all persons and is denoted by w_j, such that $w_j > 0$ and $\sum_{j=1}^{d} w_j = 1$.

For single-dimensional analysis, people are identified as poor as long as they fail to meet a threshold called the 'poverty line' and non-poor otherwise. In multidimensional analysis based on a counting approach – as with the adjusted headcount ratio – a person is identified as poor or non-poor in two steps. In the first step, a person is identified as deprived or non-deprived in each indicator subject to a deprivation cutoff. The second step uses the weighted deprivation status scores of each person in all ***d*** indicators to identify the person as poor or non-poor. An overall deprivation score $c_i \in [0,1]$ is computed for each person by summing the deprivation status scores of all ***d*** indicators, each multiplied by their corresponding weights, such that $c_i = \sum_{j=1}^{d} w_{ij} g_{ij}$. A person is identified as poor if $c_i \geq k$, where $k \in (0,1]$; and non-poor, otherwise. The deprivation scores of all ***n*** persons are summarized by vector ***C.***

After identifying the set of poor and their deprivation scores, we obtain the adjusted headcount ratio (M_o). The well-known focus axiom requires that while measuring poverty the focus should remain only on those identified as poor. This entitles us to obtain the censored deprivation score vector ***C (k)*** from ***C*** such that $C_i(k) = c_i$ if $C_i \geq k$ and $C_i(k) = 0$, otherwise. Then, M_o is equal to the average of the censored deprivation scores:

$$M_o = {}^{1}/_{n} \sum_{j=1}^{d} C_i(k).$$

The four standard properties (Alkire and Seth 2013) of the Adjusted Headcount Ratio are:

(i) Adjust Headcount ratio is the product of two components viz. Multidimensional Headcount Ratio (***H***) and Intensity of Poverty (***A***). Symbolically,

$$M_0 = {}^{q}/_{n} \times {}^{1}/_{q} \sum_{j=1}^{d} C_j(k) = H \times A$$

where, q is the number of poor.

(ii) The Adjusted Headcount Ratio can be decomposed into sub-group MPIs i.e. the contribution of each sub-group to overall poverty can be derived from Adjusted Headcount Ratio.

(iii) The third feature of Adjusted Headcount Ratio ***(M_o)*** is that it can be expressed as an average of the censored headcount ratios of indicators weighted by their relative weight. The Censored Headcount Ratio of an indicator is the proportion of the population that is multidimensional poor and is simultaneously deprived in that indicator.

(iv) Finally, the contribution of each individual indicators can also be derived from Adjusted Headcount Ratio. For that we have to multiply the proportion of poor deprived in individual indicator by the respective weight of the individual indicator and diving the product therein by the intensity of poor (***A***).

2.2.2 Deprivation Cut-Offs for Measuring MPI

Following Alkire and Santos (UNDP 2010), we have set the deprivation cut-offs for all the ten indicators. In case of ***Ultra-deprivation cut-offs***, we have followed the Alkire and Seth (2013) method but gone through little modification of the cut-offs for electricity, sanitation and flooring based on local conditions. The detail is given in the following table (No. 1)

Table 1: Dimensions, Indicators, Deprivation Cut-offs and Weights of the MPI

Dimension (Weight)	Indicator (Weight)	Deprivation Cut-off	Ultra-Deprivation Cut-off
Education (1/3)	**Years of Schooling (1/6)**	Deprived if no household member has completed five years of schooling	Deprived if no household member has completed *one years* of schooling
	Child Enrolment (1/6)	Deprived if any school-aged child (6-14years) in the household is not attending school in the academic years	Deprived if any school-aged child (6-14years) in the household is not attending school in the academic year
Health (1/3)	**Child Mortality (1/6)**	Deprived if any child under the age of five year has died in the family	Deprived if *two or more child under the age of five year* has died in the family
	Nutrition (1/6)	Deprived if any adult or child for whom there is nutritional information is malnourished*	Deprived if any adult or child for whom there is nutritional information is malnourished**
Standard of Living (1/3)	**Electricity (1/18)**	Deprived if the household has no electricity	Deprived if the household has *no facility to access* electricity
	Drinking water (1/18)	Deprived if the household does not have access to clean drinking water or clean water is more than 30 minutes' walk from home	Deprived if the household does not have access to clean drinking water or clean water is available with more than 30 minutes' walk from home
	Sanitation (1/18)	Deprived if they do not have an improved toilet or if their toilet is shared	Deprived if they have an open pit only or use bush or open field for defecation
	Flooring (1/18)	Deprived if the household has dirt, sand or dung floor	Deprived if the household has muddy floor with bamboo fencing
	Cooking Fuel (1/18)	Deprived if they cook with wood, charcoal or dung	Deprived if they cook with wood, charcoal or dung
	Assets (1/18)	Deprived if the household owns any of the following assets: television with cable/Dish, an electric fan, a pressure cooker, a radio, or a mobile. At the same time, does not own any of the following assets: a refrigerator, a motorbike, a car, a computer, a thresher, or a tractor	Deprived if the household does not owns any of the following assets: television with Cable/Dish, an electric fan, a pressure cooker, a radio, or a mobile. At the same time, does not own any of the following assets: a refrigerator, a motorbike, a car, a computer, a thresher, or a tractor

Source: Author's derivation

Note: * Adults (above 20 years) are considered malnourished if their BMI is below 18.5 kg/m^2 and for child and adolescent's between3 and 20 years old considered below 5th percentile of corresponding to the same sex and age group children are considered malnourished if their z-score of weight-for-age is below minus two standard deviations from the mean of the reference population.

** Adults (above 20 years) are considered malnourished if their BMI is below 17 kg/m^2 and for child and adolescent's between 3 and 20 years old considered below 3th percentile of corresponding to the same sex and age group children are considered malnourished if their z-score of weight-for-age is below minus three standard deviations from the mean of the reference population.

To determine the poor who have a higher intensity of deprivations (intensely poor), we use a higher poverty cutoff where, $k = 1/2$, that identifies those who have deprivation score of **0.5** and above. On the other hand, for determining the deeply poor, requires a more rigorous deprivation cutoff for each of the indicators. These deprivation cutoffs term as ***ultra-deprivation cut-offs***. Thus, the poor are identified by the ultra-deprivation cutoffs (poverty cut-off $k = 1/3$) as deeply poor. Segmenting the poor into these two categories allows us to study the poorest of the poor more closely. We can also study the concepts of the moderately poor for those who are neither deeply nor intensely poor.

3. Results and Discussion

The study mainly emphasizes on multidimensional poverty related regional performances with reference to the ADC villages under the Tripura Tribal Areas Autonomous District Council (TTAADC) and Non-TTAADC Gram Panchayats in Tripura as a case study. Regarding economic wellbeing, this is important to investigate whether there is any deference between two regions on the basis of multidimensional poverty for future policy formulation.

3.1 Performance in Multidimensional Poverty Index

The results of the performances of the two geographical areas viz. TTAADC and Non-TTAADC villages in Tripura in terms of multidimensional poverty index are reported in Table 2 below:

Table 2 : Performance across the Region under the poverty cutoff $k = 1/3$

Category	Population Share	M_0	H	A
Non-TTAADC	709 (48.53)	0.259	0.544	0.477
TTAADC	752 (51.47)	0.358	0.745	0.481
Total	1461 (100.00)	0.310	0.648	0.479

Source: Computed from Field Survey, 2013-14
Note: The respective percentage has given in the parenthesis.

This is important to note that if the aggregate value of weighted indicators for a particular household is one-third or more, then the household would be considered as multidimensionally poor and if the value is less than one third, then otherwise. Again, if the aggregate value of weighted indicators is exactly one, then the particular household is deprived in all of the dimensions or indicators. If it is zero, then not deprived in any respect.

Table 2 reveals that in our study area i.e. Kathalia R. D. Block in Sepahijala District of Tripura, MPI equals to 0.310 with nearly 64.8 percent population are multidimensionally poor and the intensity of the poverty (average deprivation score) is 47.9 percent with respect to the whole study group.

Regarding the comparative performances of the TTAADC and non-TTAADC areas in terms of MPI, we find that the MPI equals to 0.358 for TTAADC villages which is 1.4 times higher the MPI for the non-TTAADC villages (MPI for non-TTAADC equals to 0.259). On the

other hand, incidence of poverty for TTAADC villages is 74.5 percent and that for non-TTAADC areas is 54.4 percent on multidimensional poverty. Thus, 20.1 percent more people are multidimensionally poor in the TTAADC areas in comparison to the non-TTAADC areas. Intensity of poor in TTAADC villages is 48.1 percent and in non-TTAADC villages is 47.7 percent. Figure 1 below provides a comparative summary account of deprivation to individual indicators for both the study areas taking into consideration both the poor and non-poor:

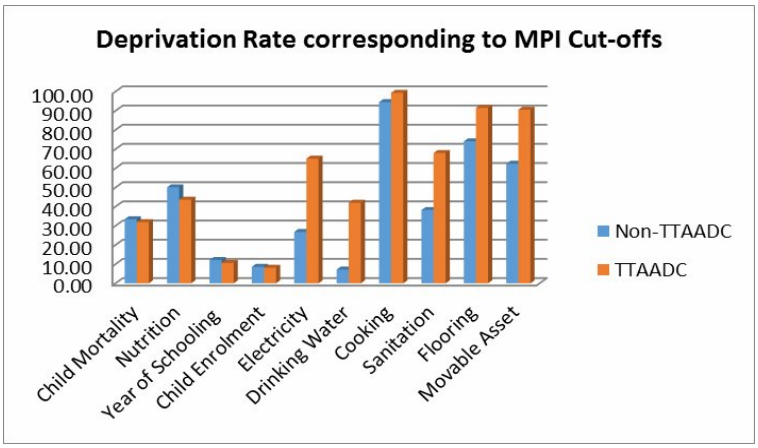

Figure 1

The figure above exemplifies that the TTAADC areas are relatively deprived in majority of the indicators excepting child mortality, nutrition, year of schooling and enrollment. This may be considered as an indication of the well spread primary health and education system in the state.

From multidimensional poverty, let us now proceed to the contribution of individual components in multidimensional poverty index. Table 3 below represents the Censored Headcount Ratio, percentage of multidimensionally poor deprived in individual Indicator and the contribution of individual indicators to overall poverty for the poor. *The censored headcount ratio represents the proportion of the population residing in households that are simultaneously multidimensionally poor and are deprived in that indicator.* By definition, the weighted average of the censored headcount ratios is equal to the adjusted headcount ratio.

The Censored Headcount Ratio in Table 3 reveals a larger differences in performances between TTAADC villages and the non-TTAADC Gram Panchayats in terms of the indicators namely, nutrition, electricity, sanitation, water, flooring, cooking fuel and movable asset position and a smaller differences in terms of the indicators such as school enrollment and schooling and mortality position. The implication is that the proportions of population multidimensionally poor as well as simultaneously deprived in majority of the indicators are higher in the TTAADC villages. In other words, standard of living of the peoples in the TTAADC areas are relatively poor in comparison to the living standard of the peoples in the non-TTAADC Gram Panchayats.

Table 3 : Contribution of Indicators to Overall Poverty

Indicators	Censored Head Count Ratio			% of MPI Poor Deprived in individual Indicator			Contribution of individual Indicators to MPI		
	Non-TTAADC	TTAADC	Overall	Non-TTAADC	TTAADC	Overall	Non-TTAADC	TTAADC	Overall
Child Mortality	30.32	31.25	30.8	55.74	41.95	47.53	19.51	14.55	16.56
Nutrition	34.98	42.82	39.01	64.3	57.48	60.21	22.51	19.93	20.98
Year of Schooling	12.13	10.64	11.36	22.3	14.28	17.53	7.81	4.95	6.11
Child Enrolment	7.62	8.11	7.87	14	10.89	12.15	4.9	3.78	4.23
Electricity	21.3	54.26	38.26	39.15	72.83	59.05	4.57	8.42	6.86
Drinking Water	7.19	37.23	22.66	13.22	49.98	34.96	1.54	5.78	4.06
Cooking fuel	54.44	74.47	64.75	100.00	99.96	99.92	11.68	11.56	11.6
Sanitation	28.91	56.65	43.19	53.15	76.04	66.65	6.2	8.79	7.74
Flooring	51.2	71.94	61.88	94.12	96.57	95.49	10.98	11.16	11.09
Movable Asset	48.8	71.54	60.51	89.71	96.03	93.37	10.47	11.1	10.84

Source: Computed from Field Survey, 2013-14
Note: All results are in percentage.

Table – 3 also represents that in case of individual indicators or dimensional deprivations, non-TTAADC areas are vulnerable in terms of health and in a relatively poor position in education dimension too than the TTAADC areas. For other dimensional deprivations, the TTAADC areas are in relatively worse position in comparison to the non-TTAADC areas except cooking fuel. For flooring, movable asset and cooking fuel both the areas are in vulnerable position.

The contributions of individual indicators to MPI (as reflected in Table – 3) are illustrated in the following pie diagrams:

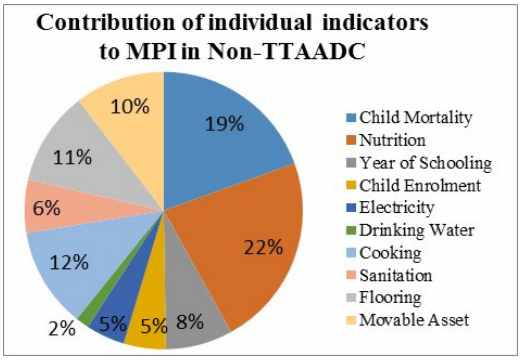

Figure – 2

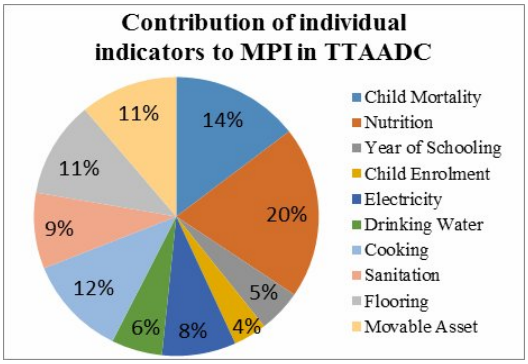

Figure – 3

Source: Computed from Field survey, 2013-14

3.2 Decomposition of the Multidimensional Headcount Ratio

Following Alkire and Seth (2013), the decomposition of the Multidimensional Headcount Ratio is as under:

Table 4 : Decomposition of Multidimensional Headcount Ratio (H)

Category	H	IP	DP	DIP	MP
Non-TTAADC	54.4	16.5	15.0	5.1	17.8
TTAADC	74.5	28.6	32.4	4.8	8.6
Overall	64.8	22.7	24.0	4.9	13.1

Source: Authors' Estimation using Field Survey data, 2013-14
Notes: H- Multidimensional Headcount Ratio, IP- Intensely Poor Only, DIP- Both Deeply and Intensely Poor, DP- Deeply Poor Only, MP- Moderately Poor.

The decomposition reveals that the TTAADC villages have a higher proportion of people who are (only) Intensely Poor and also a higher proportion of people who are (only) Deeply Poor. But interestingly, the proportion of people who are Intensely as well as Deeply Poor is slightly lower in the TTAADC areas in comparison to the non-TTAADC areas. This may be due to the change in the cut-offs. The proportion of Moderately Poor people in the TTAADC areas is nearly half of that in the non-TTAADC areas.

4. Conclusion

Our empirical findings demonstrates that both the study areas are not so deprived in educational dimension. But the situation is not so good in health dimension for both the areas. Affirmative health intervention is essential for both the TTAADC and non-TTAADC areas and more thrust should be given to the non-TTAADC areas in this regard. Regarding the deprivation relating to the standard of living, the TTAADC areas are in a susceptible situation. To be more specific, the TTAADC areas call for immediate intervention in the areas of electrification, drinking water and sanitation, and housing condition.

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Appendix

Table – A.1: Region wise Performance under respective Cut-offs

Performance between the Regions under MPI Cut-offs							
Category	Population Share	Poverty Cut-offs k = 1/2			Poverty Cut-offs k = 1/3		
		MPI	H	A	MPI	H	A
Non-TTAADC	709 (48.53)	0.135	0.216	0.627	0.259	0.544	0.477
TTAADC	752 (51.47)	0.199	0.334	0.596	0.358	0.745	0.481
Overall	1461 (100.00)	0.168	0.277	0.608	0.310	0.648	0.479
Performance between the Regions under Ultra-deprivation Cut-offs							
Non-TTAADC	709 (48.53)	0.026	0.051	0.515	0.083	0.200	0.413
TTAADC	752 (51.47)	0.028	0.048	0.590	0.153	0.372	0.412
Overall	1461 (100.00)	0.027	0.049	0.552	0.119	0.289	0.412

Source: Computed from Field Survey, 2013-14
Note: The respective percent has given in the parenthesis.

Table – A.2: Indicator wise Deprivation Rates

Deprivation Rates of each Indicators (including Non-Poor)						
Indicators	Deprivation Rate			Ultra-Deprivation Rate		
	Non-TTAADC	TTAADC	Overall	Non-TTAADC	TTAADC	Overall
Child Mortality	33.43	31.91	32.67	9.45	5.59	7.52
Nutrition	50.07	43.62	46.84	25.67	19.28	22.48
Year of Schooling	12.13	10.64	11.38	3.10	6.65	4.88
Child Enrolment	8.60	8.11	8.36	1.41	1.86	1.64
Electricity	26.80	65.03	45.91	0.71	32.58	16.64
Drinking Water	7.19	42.02	24.61	7.19	42.02	24.61
Cooking	94.50	99.34	96.92	94.50	99.34	96.92
Sanitation	38.22	67.95	53.09	38.22	67.95	53.09
Flooring	74.05	91.49	82.77	74.05	91.49	82.77
Movable Asset	62.34	90.56	76.45	62.34	90.56	76.45

Source: Computed from Field Survey, 2013-14
Note: All results are given in percentage.