

# Monetary and Multidimensional Poverty of the Tea Garden Labour Community of Dibrugarh District of Assam, India



Nilakshi Gogoi

**Abstract:** This paper aims at measuring the level of both monetary poverty and multidimensional poverty of the tea garden labour community of the Dibrugarh district of Assam. The paper also aims at comparing the monetary poverty and multidimensional poverty of the tea garden labour community of the Dibrugarh district of Assam. The present study is mainly a primary survey based study. Monetary poverty is measured on the basis of the official state specific rural poverty line and using Foster-Greer-Thorbecke class of poverty indices. Multidimensional poverty is measured using Alkair-Foster methodology. Then for comparing monetary and multidimensional poverty the study used the simple cross tables. The findings of the study show that monetary poverty headcount ratio of the sample tea garden labour community is 48.89 percent. The value of the multidimensional poverty index declines with higher multidimensional poverty cutoffs. The comparison of the monetary and multidimensional poverty shows that for all the three multidimensional poverty cutoffs the similarity between the two poverty measures is higher than the mismatch between them.

**Keywords:** Poverty, Monetary Poverty, Multidimensional Poverty, Dibrugarh, Assam.

## I. INTRODUCTION

**1.1 Background:** Poverty has stayed for a long time as one of the most widespread and persistent problem for a large number of nations around the world and thus the analysis of poverty attracts attention and gains popularity among the researchers, policymakers and international organisations. But there is a huge debate among the researchers and policymakers with respect to the definition, conceptualization and estimation of poverty. Traditionally, the poverty was measured on the basis of a single dimension i.e., either on the basis of income or consumption (Wagle [16]). However, poverty which is defined as a condition of insufficient wellbeing depends on monetary as well as on non-monetary variables (Bourguignon and Chakravarty [7]). Therefore money alone cannot be considered as the only measure of poverty as there are various other factors which can add to an individual's state of deprivation. These factors incorporate lack of education, poor health, low standard of living, lack of income (as one of different factors considered), absence of decent work, lack of empowerment, threat from violence etc. (Letsoalo [11]).

Manuscript published on November 30, 2019.

\* Correspondence Author

Nilakshi Gogoi\*, Associate Professor, Department of Economics, Dibrugarh University, India.

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an open access article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

The multidimensional perspective on poverty gain its popularity when Noble Laureate Amartya Sen introduced the capability approach which defines poverty from its multidimensional aspect and not just as the result of deprivation of a single resource (Sen [13]).

**1.2 Tea Garden Labourers of Assam:** The tea garden workers of Assam presently constituted as community are basically the descendents of those who were brought to Assam as slaves by the British East India Company from the states like Madhya Pradesh, Bihar, Orissa, and Andhra Pradesh during the time of 1830s and 1920s to work in the growing tea industry of Assam driven by the British govt. The total population of the community is around 6 million (60 lakhs) and they constituted about 17 percent of the total population of Assam. Their density is high mainly in the districts of Dibrugarh, Tinsukia, Jorhat, Sivasagar, Golaghat, Sonitpur, Nagaon, Cachar, Hailakandi and Karimganj. Moreover the tea tribe people are also found in some parts of Kokrajhar and Bongaigaon district. They are one of the most backward communities of Assam because of the nonstop exploitation by the tea garden management and due to the neglect of the government. The tea garden management exploit them by paying low wages which is even much lower than the officially fixed minimum wage for the agricultural labour. They are living in extreme poverty. As per Human Development Report (HDR) of Assam, 2014, the poverty headcount ratio of the tea garden blocks of is 37.6 percent. Moreover the tea garden labourers are also exploited by the garden authorities in the provisions of health facilities, education facilities, housing facilities, water and sanitation facilities etc. Hence, lack of education, poor health, low standard of living are some of the major problems of the tea garden workers of Assam. Therefore a careful comparison of their monetary and multidimensional poverty is of paramount importance from the view of policy measures.

**1.3 Objectives:** The present study is mainly based on two objectives. Firstly, to measure the level of both monetary poverty and multidimensional poverty of the tea garden labour community of the Dibrugarh district of Assam. Secondly, to compare the outcomes of both monetary and multidimensional poverty measures for the tea garden labour community of the Dibrugarh district.

**1.4 Previous Literature:** In the literature there are a number of studies that compares the monetary and multidimensional measures of poverty. Klasen [9] tried to make a comparison between the traditional expenditure based poverty measure and a broader composite measure of deprivation.

# Monetary and Multidimensional Poverty of the Tea Garden Labour Community of Dibrugarh District of Assam, India

The results found that there is a considerable divergence exists between these two measures in identifying the poorest and most deprived section of the society as the expenditure based measures failed to identify 30 percent of the most deprived people (as identified by the deprivation measure). Alkaire and Kumar [5] tried to compare the multidimensional poverty with that of income (consumption) based poverty and asset based poverty with the help of a cross table. Their results also found that there is a mismatch between multidimensional poverty and income poverty as 52.2 percent of non-income poor people are identified as multidimensionally poor and 22.6 percent of the multidimensionally non-poor people are identified as income poor. Levine et al. [12] compared the monetary and multidimensional approach of measuring poverty for Uganda and their results found that the multidimensional poverty headcount for Uganda was 0.727 that is around 73 percent of the population are multidimensionally poor in Uganda whereas only 31 percent of the population were monetary poor in Uganda in 2005/2006. Therefore monetary approach to poverty failed to identify around 42 percent of the multidimensionally poor people. Suppa [14] made a comparison between the income poverty and multidimensional measures of poverty in Germany. The results found a considerable difference between the two measures. For an income cut-off of 60 percent and a cutoff of 33 percent, only 39.78 percent of the income poor are also multidimensionally poor (that is 60.22 percent of the income poor are not multidimensionally poor) and only 38.97 percent of the multidimensional poor are also income poor (that is 61.03 percent of the multidimensional poor are not income poor). Wang et al. [18] tried to empirically examine the similarities and dissimilarities between the income poverty and multidimensional poverty in China. Their results found that the association between income poverty and multidimensional poverty in China is only 31 percent and this indicates that 69 percent of the non-income poor households in China are identified as multidimensional poor.

## II. CONCEPTUAL FRAMEWORK

The first step in the conceptual framework is to consider the difference between monetary poverty and multidimensional poverty and this division of monetary poverty and multidimensional poverty is commonly made in the literature of poverty measurement. While the monetary measurement of poverty implies the measurement of poverty on the basis of income or consumption expenditure, the multidimensional measurement of poverty includes a large number of attributes that can reflect the individual's state of deprivation. Monetary poverty measurement was and remains the most commonly and most widely used method of poverty measurement worldwide (Laderchi et al.[10]) and this monetary measurement is based on the rationale that individuals are able to fulfil their basic needs if they have a certain amount of purchasing power (Thorbecke [15]). However a number of scholars reject the underlying notion that monetary measurement of poverty is able to adequately measure the various dimensions of human development (Wagle [17]). As against the monetary approach the multidimensional approach assumes that the wellbeing of an

individual depends not only on income or consumption rather it depends on a number of other dimensions or capabilities such as health, education, a decent standard of living etc.

## III. METHODOLOGY

**3.1 Data Source:** The present study is mainly a survey based study and it is based on primary data collected through field survey. Moreover some secondary data are also collected from Poverty Report of the Planning Commission of India (2014) and Human Development Report of Assam (2014).

**3.2 Study Design:** The Dibrugarh district of Assam was selected purposively as the study area to conduct the present study based on the rationality that the Dibrugarh district has the highest number of tea gardens among all the districts of Assam and it is well known as the 'Tea City' of India. According to the Census, 2011 the district has 144 tea gardens. A multistage random sampling method was applied to collect the samples. The Dibrugarh district has seven community development blocks and therefore 14 tea estates were selected randomly, two from each community development blocks on the basis of the computerised random numbers. From each tea estate 20 households were selected randomly and thus a total of 270 households were selected to collect the samples.

**3.3 Analytical Strategy:** In order to fulfil the objectives of the paper, the present study first identifies the monetary poor households on the basis of household's monthly per capita consumption expenditure. Then it identifies the households who are multidimensionally poor using Alkaire-Foster methodology. Then the paper compares the outcomes of the two measures of poverty using cross tables.

**3.3.1 Identification of the Monetary Poor:** In order to measure the monetary poverty of the sample households the monthly per capita consumption expenditure (MPCE) for each household is calculated and then it is compared with the poverty line threshold value of MPCE. The present study considers household as the unit of measurement and to measure the monetary poverty the official state specific rural poverty line of Assam (MPCE of Rs. 1006.66) as fixed by the Rangarajan Committee of Planning Commission of India (2014) has been used. This is because all the sample tea gardens chosen in the present study are mainly located in rural areas. Then Foster-Greer-Thorbecke (FGT) class of poverty measures are used to measure monetary poverty of the sample tea garden labour community. The individual indices within the family of FGT poverty measures is possible to derive by substituting different values of the parameter ' $\alpha$ ' into the equation given below.

$$FGT_{\alpha} = \frac{1}{N} \sum_{i=1}^H \left( \frac{z - Y_i}{z} \right)^{\alpha}$$

Where  $z$  is the poverty line threshold,  $N$  is the total number of sample households,  $H$  is the number of sample households below the poverty line,  $Y_i$  is the actual consumption of each sample household. The present study set the value of  $\alpha = 0$  in order to calculate the monetary poverty headcount ratio.

**3.3.2 Identification of the Multidimensional Poor:** In order to measure the multidimensional poverty of sample tea garden labour community and to identify the households that experience multidimensional deprivation the present study used the Alkaire-Foster (AF) method which is used by the UNDP’s Human Development Reports to measure the multidimensional poverty. The Alkaire-Foster methodology can be applied by using the following steps.

Step-1: Choosing the unit of analysis (Individual/Household/Country). In the present study household is considered as the unit of analysis for measuring multidimensional poverty.

Step-2: Choosing the dimensions of multidimensional poverty and in the present study four dimensions are used to measure multidimensional poverty.

Step-3: Choosing the indicators within each dimension. In the present study 12 indicators are used to reflect the four dimensions of multidimensional poverty.

Step-4: Setting the deprivation cut-off for each selected indicator. The deprivation cutoff refers to the level of achievement in each indicator which is considered as sufficient (normatively) to be identified as non-deprived in that particular indicator.

Step-5: Determining the relative weight or value of each component indicator in a way that the sum these weights are equal to 1. In the present study equal weighting procedure is applied to each dimension and their indicators as adopted by UNDP’s Human Development Report, 2010.

Step-6: Then each household is assigned a deprivation score on the basis of its deprivation in each indicator. The deprivation score of each household is defined as the weighted sum of the number of deprivations for each household.

Step-7: Determining the aggregate poverty cut-off. It is defined as the proportion of weighted deprivation a

household must experience for identifying it as multidimensionally poor and this is denoted by ‘k’. As per the Alkaire-Foster methodology a household is considered as poor if it has deprivation score higher than or equal to the 33 percent of all the weighted indicators.

Step-8: Computing the proportion of the households who are identified as the multidimensionally poor in the total population. This is called as the Headcount Ratio of multidimensional poverty, H.

Step-9: Calculating the average deprivation score of the poor households and it can be calculated by adding up the deprivation score of the poor households and then dividing it by the total number of the poor households. It is called as the intensity (or breadth) of multidimensional poverty, A.

Step-10: Computing the Multidimensional Poverty Index (MPI) and it can be obtained by multiplying two partial indices:  $MPI = H \times A$ . Thus MPI is obtained by multiplying the headcount ratio poverty with the average number of indicators in which the poor households are deprived (called as the intensity of deprivation of households).

**Selection of Dimensions, Indicators, Cutoffs and Weights for measuring Multidimensional Poverty:** In the present study four dimensions are used to measure the multidimensional poverty and these four dimensions are reflected by using 12 indicators (table-1). The dimensions and indicators selected for the present study are selected based on the empirical literature and moreover most of the indicators are related to Sustainable Development Goals (SDGs).

**Table-1: Dimensions, Indicators, Cutoffs and Weights**

Dimension	Indicator	Deprivation Cutoff	Related To	Weights
Education (1/4)	Years of Schooling (V1)	If no household members (10 years or above) has completed primary years of schooling.	SDG4	1/8
	Child School Attendance (V2)	If any school aged child is not attending school up to age at which he/she would complete class 8.	SDG4	1/8
Health (1/4)	Child Mortality (V3)	If any child under 18 years of age has died in the five year period preceding the survey.	SDG3	1/8
	BMI of Women (V4)	If the BMI of any women in the age group 15-49 years is less than 18.5 kg/m <sup>2</sup> .	SDG2	1/8
Work and Employment (1/4)	Occupation (V5)	If any adult household member (15 years or above) is either unemployed/ agricultural labour/ Tea plantation labour (temporary) /casual labour.	SDG8	1/8
	Child Labour (V6)	If any child in the household of 5 to 11 years old did at least one hour of economic work or at least 28 hours of domestic work in a week and if any child of 12 to 14 years of age did at least 14 hours of economic work or at least 42 hours of domestic work per week.	UNICEF	1/8

# Monetary and Multidimensional Poverty of the Tea Garden Labour Community of Dibrugarh District of Assam, India

Living Standard (1/4)	Electricity (V7)	If the household has no electricity.	SDG7	1/24
	Sanitation (V8)	If the household has no improved sanitation facility (such as open space, uncovered pit latrine and other unimproved sanitation facility) or if the sanitation facility is improved but shared with other households.	SDG11	1/24
	Drinking Water (V9)	If the household is accessing water from unimproved sources like (pond/ open well/river etc.)	SDG6	1/24
	Housing Type (V10)	If the household lives in a kutchra or semi-pucca house.	SDG11	1/24
	Cooking fuel (V11)	If the household uses wood/coal/charcoal/dung/agricultural crop waste for cooking purpose.	SDG7	1/24
	Assets (V12)	If the household does not own more than one assets (Radio, TV, telephone/mobile phone computer, bicycle, motorbike or refrigerator) and does not own a car or a truck.	SDG1	1/24

**Source: Author's Own Justification**

## IV. RESULTS

**4.1 Monetary Poverty:** The results of the monetary poverty measurement of the sample households are shown in the table-2.

**Table-2: Monetary Poverty of the Sample Households**

Monetary Poverty Status	Number of households	Proportion of total households
At and above the poverty line	138	51.11
Below the poverty line	132	48.89

**Source: Author's Calculation**

From table-2 it can be seen that by using the state specific (rural) official poverty line of Assam (MPCE Rs. 1006.66) as fixed by the Rangarajan committee of Planning Commission of India, the monetary poverty headcount of the sample tea garden labour community is 48.89 percent which means that 48.89 percent of the sample households belong to the tea garden labour community are living below the poverty line (MPCE Rs.1006.66). According to the poverty report of Rangarajan Committee of Planning Commission of India, 2014, the monetary poverty headcount ratio for Assam is 40.9 percent while the monetary poverty headcount ratio for the rural areas of Assam is 42.0 percent. Thus the monetary poverty headcount ratio of the tea garden labour community of the Dibrugarh district is higher than the state averages.

**4.2 Multidimensional Poverty:** Before analyzing the joint distribution of deprivation with the application of Alkair-Foster methodology, it is important to examine the deprivation in each indicator included in the construction of MPI. The table-3 provides a picture of the raw (or uncensored) headcount ratios and the censored head count ratios of the deprived households in each indicator of multidimensional poverty.

**Table-3: Raw or Uncensored and Censored Head Count Ratio**

Indicator	Raw Headcounts	Censored Headcounts (k=33%)
Years of Schooling	36.30	30.74
Child School Attendance	5.19	4.81
Child Mortality	1.11	1.11
BMI of Women	19.26	16.30
Occupation	68.89	41.11
Child Labour	2.96	2.96
Electricity	63.70	39.63
Sanitation	13.70	11.48
Drinking Water	1.11	1.11
Type of Housing	87.04	46.67
Cooking Fuel	72.96	43.70
Assets	51.11	37.78

**Source: Author's Calculation**

The uncensored or raw head count ratio indicates the total proportion of the sample households deprived in each indicator used in the construction of MPI of the sample tea garden labour community. It can be seen from table-3 that the uncensored headcount ratios of the sample tea garden labour community is highest in case of the indicators type of housing (87.04 percent) while the uncensored head count ratios are lowest in case of the indicators child mortality (1.11 percent) and drinking water (1.11 percent).

The censored headcount ratio on the other hand indicates that proportion of the sample households who are not only deprived in a particular indicator but also experience multidimensional deprivation.

The table-3 shows the censored headcount ratio of the sample tea garden labour community is highest in case of the indicator type of housing with 46.67 percent of the sample households deprived in that particular indicator and who are also experiencing multidimensional deprivation. On the other hand the censored headcount ratios are lowest in case of the indicators child mortality (1.11 percent) and drinking water (1.11 percent).

**Table-4: MPI of the Sample Households**

Multidimensional Poverty Cutoff (k)	MPI	H (In Percentage)	A (In Percentage)
k = 33%	0.189	50.74	37.22
k = 40%	0.080	17.40	45.70
k = 50%	0.018	3.70	48.41

Source: Author's Calculation

Table-4 shows that with multidimensional poverty cut-off k=33 percent the value of MPI of the sample tea garden labour community is 0.189 which is the product of the percentage of multidimensionally poor households (H) and their intensity of poverty (A). The MPI value of the sample tea garden labour community with poverty cut-off k=33 percent can be interpreted as 18.9 percent of the deprivations poor households' experience, as a share of possible deprivations that would be experienced if all the households were deprived in all dimensions. While calculating the MPI of the sample tea garden labour community two additional poverty cutoffs (k=40 percent and k =50 percent) are also considered. These two additional poverty cutoffs are used to analyse the impact on multidimensional poverty due to the increase in poverty cutoffs. From table-4 we can see that with the increase in the poverty cutoff from k=33 percent to k=40 percent and to k=50 percent there is a decrease in the multidimensional poverty headcount ratio and in the value of multidimensional poverty index.

**4.3 Comparison of Monetary Poverty and Multidimensional Poverty**

**Concordance and Mismatch between Monetary and Multidimensional Poverty Measures:** In order to compare the results of the two poverty measures the concordance and the mismatch between monetary and multidimensional poverty measures in the identification of the poor has to be examined. However such an exercise depends crucially on the chosen poverty cut-offs. The table-5 compares the results of monetary poverty and multidimensional poverty for three different multidimensional poverty cut-offs.

**Table-5: Comparison between Monetary Poverty and Multidimensional Poverty for Different Multidimensional Poverty Cutoffs (k)**

	k = 33%		k = 40%		k = 50%	
	MD Poor	MD Non-Poor	MD Poor	MD Non-Poor	MD Poor	MD Non-Poor
Monetary	32.22	16.67	13.70	35.19	3.33	45.56

Poor						
Monetary	18.52	32.59	3.70	47.41	0.370	50.74
Non-Poor						

Source: Author's Calculation

From table-5 we can see that with multidimensional poverty cut-off (k) =33 percent, both monetary and multidimensional poverty measure identifies 32.22 percent of the households as poor and 16.67 percent of the households as non-poor. On the other hand with multidimensional poverty cutoff k =33 percent, 16.67 percent of the sample households are identified as monetary poor but not as multidimensionally poor and 18.52 percent of the households are identified as multidimensionally poor but not as the monetary poor. Thus there is a mismatch between the two measures up to 35.19 (16.67+18.52) percent. However, the similarity between these two measures is up to 64.81 (32.22+32.59) percent. Now in order to examine the impact of increase in multidimensional poverty cutoff, two additional poverty cutoffs are taken into consideration. With the increase in the multidimensional poverty cutoff from 33 percent to 40 percent and to 50 percent respectively the absolute share of the households which are identified as poor by both the poverty measures declines from 32.22 percent to 13.70 percent and to 3.33 percent respectively. On the other hand the absolute share of the households which are identified as non-poor based on both the poverty measures increases from 32.59 percent to 47.41 percent and to 50.74 percent respectively. However, with the increase in the poverty cutoff from k=33 percent to k=40 percent and to k=50 percent the share of households which are identified as monetary poor but multidimensionally non-poor increases from 16.67 percent to 35.19 percent and to 45.56 percent respectively; while the share of households who are identified as multidimensionally poor but monetary non-poor declines from 18.52 percent to 3.70 percent and to 0.370 percent respectively. The comparative analysis of monetary and multidimensional poverty shows that for all the three multidimensional poverty cutoffs the similarity between the two poverty measures is higher than the mismatch between them. This means that the monetary resources are still playing some important role in determining their multidimensional poverty status. However, the mismatch between the two poverty measures cannot be totally neglected as the mismatch between them is also high to some extent. This implies that we cannot accurately predict the multidimensional poverty status of the households only on the basis of their monetary poverty status.

**V. CONCLUSION**

The present study aims at measuring the level of both monetary and multidimensional poverty of the sample tea garden labour community. It also aims at comparing the outcomes of monetary and multidimensional poverty measures for the sample tea garden labour community. The findings of the present study show that for all the three multidimensional poverty cutoffs the concordance between the two poverty measures is higher than the mismatch between them.



# Monetary and Multidimensional Poverty of the Tea Garden Labour Community of Dibrugarh District of Assam, India

This means that the monetary resources are still playing some important role in determining their multidimensional poverty status. However, the mismatch between the two poverty measures cannot be totally neglected as the mismatch between them is also high to some extent. This implies that we cannot accurately predict the multidimensional poverty status of the households only on the basis of their monetary poverty status. Thus a simultaneous use of the both monetary and multidimensional poverty measures can provide a clear picture of their poverty status. Thus the poverty alleviation programmes should give importance on both monetary and multidimensional poverty measures while measuring their level of poverty. This not only helps the policy makers to overcome the shortcomings of monetary poverty measures but also helps in measuring the poverty from a broader perspective. Therefore the poverty alleviation policies should attempt not only increase the level of their income of the rather it should also focus on improving their education, health and standard of living and only then the poverty alleviation programmes will become successful in eradicating poverty.

## REFERENCES

1. Alkire, S. (2007). The missing dimensions of poverty data: an introduction. OPHI Working Paper No.00. OPHI, University of Oxford.
2. Alkire, S., and Seth, S. (2008). Measuring multidimensional poverty in India: a new proposal. OPHI Working Paper No. 15. University of Oxford.
3. Alkire, S., and Santos, M.E. (2010). Acute multidimensional poverty: a new index for developing countries. OPHI Working Paper No. 38. OPHI, University of Oxford.
4. Alkire, S., and Santos, M. E. (2011). Training material for producing national human development reports. OPHI, University of Oxford..
5. Alkire, S., and Kumar, R. (2012). Comparing multidimensional poverty and consumption poverty based on primary survey in India. Paper presented in OPHI Workshop, 21-22 Nov.
6. Alkire, S., and Seth S. (2013). Multidimensional poverty reduction in India between 1999 and 2006: where and how?. OPHI Working paper No.60. OPHI, University of Oxford.
7. Bourguignon F., and Chakravarty, S.R. (2003). The measurement of multidimensional poverty?. *Journal of Economic Inequality*, 1, 25-49.
8. Deka, N. (2018). Multidimensional poverty index for the poor in Guwahati city (Assam, India). *Journal of Social and Economic Development*, Springer, Institute for Social and Economic Change, vol.20(1), pages 43-74, April.
9. Klasen, S. (2000). Measuring Poverty and Deprivation in South Africa. *Review of Income and Wealth*, Volume 46, Issue 1.
10. Laderchi, C.R., Saith, R., and Stewart, F. (2003). Does it Matter that we do not Agree on the Definition of Poverty? A Comparison of Four Approaches. *Oxford Development Studies* no. 31 (3): 243-274.[doi/abs/10.1080/1360081032000111698](https://doi.org/10.1080/1360081032000111698).
11. Letsoalo, P.M. (2015). An overview and assessment of different approaches to poverty measurement in South Africa (Master Thesis). retrieved from <http://hdl.handle.net/2263/53508>.
12. Levine, S., Muwonge, J. and Batana, Y.M. (2012). A Robust Multidimensional Poverty Profile for Uganda. OPHI Working Paper No. 55, University of Oxford.
13. Sen, A. (1999). *Development as freedom*. Oxford University Press.
14. Suppa, N. (2016). Comparing Monetary and Multidimensional Poverty in Germany. OPHI Working Paper No. 103, University of Oxford.
15. Thorbecke, E. (2008). Multidimensional poverty: conceptual and measurement issues. *The Many Dimensions of Poverty*, edited by N. Kakwani and J. Silber, 3-19. New York: Palgrave MacMillan.
16. Wagle, U. (2005). Multidimensional poverty measurement with economic well-being, capability and social inclusion: a case from Kathmandu, Nepal. *Journal of Human Development*, 6, 301-328.
17. Wagle, U. (2009). Capability deprivation and income poverty in the United States, 1994 and 2004: measurement outcomes and demographic profiles. *Social Indicators Research*. Vol.94, No.3 (Dec., 2009), pp 509-533.
18. Wang, X., Feng, H., Xia, Q., & Alkire, S. (2016). On the relationship between income poverty and multidimensional poverty in China. OPHI Working Paper 101. OPHI, University of Oxford.

## AUTHOR'S PROFILE



**Ms. Nilakshi Gogoi**, Daughter of Sri Keshob Chandra Gogoi, resident of Niz Tengakhat, Dibrugarh, Assam. She has completed her Master Degree in Economics from Dibrugarh University in 2017 and her M.Phil in the area of Development Economics under the supervision of Dr. Pranjal Protim Buragohain, Associate Professor, Department of Economics, Dibrugarh University in 2019. She has presented (Oral/ Poster) 6 papers in various national conferences/seminars. Furthermore, she has participated in the national workshop on "Frontiers of Development Economics (Under DRS-III, SAP of the UGC), organized by Department of Economics, Dibrugarh University, Dibrugarh, Assam, India.