Rural Household Poverty and Its Determinants: the case of Basoliben Woreda; A Comparative Measurement Approach: Consumption Poverty and Multidimensional Poverty

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Abstract

The research was conducted to measure rural household poverty and to examine its determinants in Basoliben Woreda by employing Foster-Greer-Torebecke and multidimensional poverty index approaches comparatively. Accordingly, the study found that the prevalence, gap and severity of rural household consumption poverty in the study area are 26.3%, 4% and 0.01 respectively, and the prevalence, average deprivation and adjusted multidimensional poverty are found to be 64%, 44.75% and 0.286 respectively on the cross sectional survey time. This assures that multidimensional poverty is profound than consumption poverty in Basoliben Woreda. In local agro-ecological comparison, rural household consumption poverty and multidimensional poverty are more rampant in the Qolla agro-ecology of the Woreda compared

with its counterpart, the Woyinadega agro-ecology. Apart from poverty measures, the study also proved that an increasing number of adult equivalent household size and longer market distance increases the consumption poverty prevalence and the poverty gap whereas higher livestock ownership in TLU and access to irrigation decrease household's probability of being consumption poor and the poverty gap. Besides, age of household heads is found to have a positive correlation with poverty gap while the intensity of agricultural extension service and crop diversification are found to have an inverse relationship with poverty prevalence. On the other hand, poor access to electricity and solar energy, lack of improved fuel sources, poor sanitation privilege, lack of access to safe drinking water and lack of access to road are found to increase multidimensional poverty prevalence in the study area.

Keywords:-Foster-Greer-Torebecke, consumption poverty, multidimensional poverty, Qolla, Woyinadega

Introduction

Poverty has remained to be a tough global problem even in the new millennium. Although different integrated efforts both at global and local levels were made to alleviate the problem, still more than 1.4 billion eople on earth are recognized

as poor (earning bellow $1.25 per day), of these 1 billion are suffering from hunger and Sub-Saharan Africa and Asian countries hosted the lion's share (IFAD, 2012). Especially, sub-Saharan Africa countries of which Ethiopia is one, host most of the people who are living under abject poverty.

Despite its ample natural resources, Ethiopia is one of the poorest countries ranked 174th out of 187 (UNDP, 2013). Trickled from its macro level underdeveloped status, 39% of the population live under poverty with a daily income of below $1.25 per day and worse by assuring that 90% of the populations are multidimensional poor (Alkier and Santos, 2010).

Apparently, the rural and the urban people in Ethiopia experience poverty differently. The extent of poverty is worse in rural areas as compared to urban settings. The rural people are more vulnerable to poverty with a prevalence rate of 45% compared with the urban with a prevalence rate of 37% (Asmamaw, 2004). Similarly; MoFED (2012) had also reported that rural household consumption poverty prevalence is 30.4% on 2010/11. In addition, Addisu and Sundara (2015) in their study of determinants of poverty in rural Ethiopia assure that poverty is rampant with a prevalence of 39.3%. Moreover, the multidimensional poverty prevalence of rural

Ethiopia was reported 53.7% in 2011 (UNDP 2016). This higher extent of poverty in rural areas is attributed to the fragile nature of the rural economy (rain- feed agriculture), poor infrastructure and the diminution of arable land size per household.

Basoliben Woreda, where the study is conducted, is a typical rural context in Ethiopia with 57499.5 k/m2 arable land and favorable climatic condition for agriculture. But, poverty is still acute in the area and being poor in this typical rural context mean having no enough food to eat and no adequate clothing to wear. Besides deprivation in the basic need aspects, there is also fragile social and infrastructural development in the area where there are only 53 schools, 5 health centers, 1 deep - water wall (with only 64.3% provision rate) and only 87.5 kilometer dry weather road for a total of 164,588 population (BWFEDO, 2016).The health center - population ratio of the Woreda is 1:132,917 which is below the country's rural standard, 1: 1:25,000. Likewise, according to the rural dry weather road provision standard, which is supposed to be 255 K/m on 2016, the area has limited road infrastructure.

Other than the above noticed crude facts, an attempt was never made by previous researchers to measure poverty and examine

its determinants in this particular rural area, Basoliben, of Ethiopia. Even in researches conducted in other rural areas of the country with similar context, there are limitations in using primary in employing a couple of approaches, FGT and MPI, jointly and comparatively to get more meaningful findings. Bouncing on these gaps, this paper attempts to measure rural household poverty in the study area. The tools to collect data were FGT and MPI approaches jointly, to compare and contrast measurement results from the two approaches and to examine determinants of rural household poverty. In the meantime, the methodological procedure followed in doing the research is expected to give lessons and clue on perspective shift from one-dimensional measurement to multidimensional measurement in poverty analysis for the research community.

Materials and methods

Research design

Mixed (quantitative and qualitative) research design was employed to undertake the study. In addition, cross sectional survey method was employed.

Data sources and data collection methods

Because of the absence of up to date comprehensive data on the socio-demographic and economic characteristics of the households in the study area from the Ethiopian rural household survey (ERHS), primary data was used to undertake the study. From the study area, 186 randomly selected sample households were surveyed to collect data on their socio-demographic and economic characteristics and to figure out the poverty profile. To determine the sample size, Yeman's simplified formula cited in Israel (2013) was used and to assure the representativeness of the sample, proportional stratified sampling procedure has been employed.

The study area constitutes two local agro-ecologies and 22 rural kebeles. Besides, CSA had estimated that 23,374 rural households, of which 2,902 are women headed, found in the Woreda on 2015. The report by BWFDO (2016) also shows that these households are evenly distributed across the local agro- ecologies and more or less across kebeles. Depending on these statistics, from the 22 rural kebeles two randomly selected were added to the sampling basket. These kebeles have a total of 2013 households which distributes evenly in the two dominant agro-ecologies, the Qolla and the Woyinadega. So, proportionally 91 households from the Qolla agro-ecology

and 95 households from the Woyinadega agro-ecology were selected and surveyed using multi topic semi structured questionnaire as a data collection tool.

Measuring poverty

As indicated in the introduction part, the current study employed two measurement approaches, consumption (conventional) and multidimensional poverty index. These approaches are comparatively used to give clear insight on the effect of looking perspective variation on poverty measures.

Obviously, consumption poverty measurement approach is the most common type of measurement approach. At the household level analysis and using adult equivalent consumption expenditure as a fundamental welfare indicator, the study first attempts to measure poverty index, gap and intensity.[q]To measure these poverty indices, the first step was to set an objective poverty line of the study area. Having the data from the survey, the poverty line of the area is fixed based on the procedures of the cost of basic needs approach and by taking FAO's 2,300 calories per day as an adult equivalent metabolic requirement of the study area. Then, aggregation of poverty measures is made using the FGT family of poverty measurement which can be mathematically expressed as:

$$Pa=\frac{1}{n}\sum_{i=1}^{q}\left(\frac{gi}{Z}\right)^{a} \qquad (1)$$

Where Pa is poverty indices, Z is poverty line, q is the number of households which has adult equivalent consumption below the Z, gi is an adult equivalent consumption shortfall, a is poverty aversion parameter (which will take the value of 0, 1 and 2 which gives poverty headcount ratio, poverty gap and poverty intensity ratio respectively) and n represents sample population.

What comes second is Multidimensional poverty measurement. By adopting Alkire and Santos's (2010) approach, referring to the millennium development goals and customizing to the context of the study area, the study measured multidimensional deprivation from the angle of three dimensions. These were health, education and living standard and in consideration of eleven indicators which includes years of schooling, child enrolment, child mortality, nutrition, cooking fuel, drinking water, sanitation, house flooring, source of light, day to day used assets and distance of the by- near weather road.

The dual cut- off method is used to identify households with acute multidimensional poverty. In the health and education dimension each indicator has a score of 16.67% and households

having a deprivation score of 16.67 % and above in a single indicator is counted as multidimensional poor in that particular indicator. Similarly, in the living standard dimension each indicator has a value of 4.76% and households with a deprivation score of 4.76 and above are considered as deprived in that particular indicator. At dimension level, in the health and education dimension households which has a deprivation rate of 16.67% and above are considered as deprived while households which has a deprivation rate of 19.04% and above are counted as multidimensional poor in the living standard dimension.

Knowing the deprivation status of each household in each indicator, the next issue is the estimation of the sum total deprivation score (S_i). This value is taken by adding scores in each indicator and symbolically it can be expressed: $S_i=w_1I_1+w_2I_2+w_3I_3+$---$w_nI_n$ where *w* represents weights given to each indicator, n=(1,2,3…10) number of represents indicators and *I =1* if the household is deprived in indicator i but *I=0* otherwise. Then the total score Si of each household is evaluated against the given overall poverty cut-off K, which is equal to 0.33 or 33.33%. Based on this, households with Si ≥ 0.33 or 33.33% falls into the poor category but non-poor otherwise. But, the deprivation score Si for non-poor must be censored to consider deprivation score of only the poor and to

get more accurate results. So, given poverty cut-off K = 0.33, a shared deprivation score Si, the value Si (k) = Si when Si ≥ K and Si (k) = 0 when Si < K.

Finally, aggregation is made to generate the multidimensional poverty profile of the study area. This aggregation needs basically two information which are the incidence (H) or prevalence and average deprivation (A).

Depending on the above information, the incidence of multidimensional poverty in the study area is estimated as:

$$H = \frac{q}{n} \qquad (2)$$

Where q is the number of poor households and n represents the total number of sample rural households and the depth of deprivation or shared deprivation can be estimated as:

$$A = \frac{\sum_{i}^{n} = 1 \, Si\,(k)}{q} \qquad (3)$$

Where *Si(k)* is the censored deprivation score of household *i* and *q* are the number of households which face multidimensional deprivation.

After all, the combination of the headcount index (H) and poverty intensity (A) gives multidimensional or adjusted poverty (Mo) estimate:

$$MPI \text{ or } Mo = H \times A \qquad (4)$$

Finally, after estimation of poverty using the two approaches, consumption approach and MPI approach, comparison of results is made.

Econometric models

In accordance with the requirement of the research theme under interest, two econometric models are employed in the study. The first one is the binary logit model which is used to analyze the determinants of consumption poverty prevalence. The poverty status of households is a kind of binary response and dummy which will be poor or non -poor and which will be determined by their adult equivalent consumption expenditure. In turn, the adult equivalent expenditure of households is expected to be affected by different explanatory variables and symbolically the model can be specified:

$$Li = \ln \frac{Pi}{1-Pi} = Ci = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \varepsilon i \qquad (5)$$

Where βo is a constant term, X1, X2,…Xn are lists of explanatory variables which affect the consumption poverty

poverty status of households, β_1, β_2... β_n are coefficient of variation for explanatory variables and εi is the disturbance term.

The second one is the Tobit model which is employed to analysis determinants of the depth or gap of poverty. To see the effect of explanatory variables on the depth or gap of poverty among the poor, consumption per adult equivalent Ci need to be censored from above which means it is continuous but must be fixed at the poverty line for observations which have an adult equivalent consumption of equal or greater than the poverty line which means Ci* = Ci if Pi > 0; Ci* = Z otherwise where Z is the poverty line.

Then censored regression model to identify poverty depth or gap determinants and their level of significance is specified as:

$$Ci = \beta o + \beta i Xi + \varepsilon i \quad if \ Pi > 0 \qquad (6)$$

Where Xi denotes vector of explanatory variables, βi denotes the coefficient of explanatory variables and εi denotes the error term.

Results

Socio-demographic and characteristics of the respondents

The socio-demographic characteristics of surveyed households was analyzed from the perspective of different parameters which includes the sex of household heads, age of household heads, educational level of household heads, family size and dependency ratio. The descriptive analysis result shows that 86% of households included in the survey are male headed. The average age of heads of surveyed households is also found to be 43 1/2years.

The highest level of education the household head attained is obviously supposed to have correlation with the households economic status and the descriptive statistics result shows that 65.6% of surveyed household heads have not attended any kind of formal education while 14.5% attended from grade 1-4, 10.8% attended from grade 5-8, 5.4% attended religious education and the rest 3.8% attended adult education. In sex disaggregation, 85% of female household heads, which are included in the study haven't attended any kind of formal education. Family size and age dependency ratio are the other two variables which are seriously analyzed and the result shows that average family size and average dependency ratio are 5.3, slightly higher in the *Qolla* agro-ecology, and 0.45 respectively.

The status of surveyed households in terms of land ownership, livestock ownership and asset holding was also examined and the following results are found out. The average land holding status of households is found 1.4 hectares, which is higher in the *Woyinadega* agro-ecology where households have 1.5 hectare average land holding. Besides, land renting and crop sharing are found very common practice among surveyed households which makes the size of annually cultivated land of households slightly higher which is 1.67 in the 2016/17 harvest season. The average livestock ownership in TLU and the asset holding status of households in monetary value (excluding the house), are also estimated to be 6.5 TLU and 5482.3 Birr respectively. Apparently, asset ownership is slightly higher in the *Qolla* agro-ecology which is 5549.8 Birr. In addition, access to irrigation and livelihood diversification are also key variables which can be used to see economic status and the descriptive analysis result indicates that from the total surveyed households only 20% have access to irrigation and 24.7% have income sources other than farming. Finally, average daily adult equivalent consumption expenditure of households in the study area is found 18.62 birr where it is higher in the *Woyinadega* agro-ecology which has 19.4 birr consumption expenditure per adult equivalent.

Poverty Measures

Consumption poverty: By capturing the average value of most commonly consumed commodity bundles and by employing the cost of basic needs approach and taking FAO's 2,300 calories daily metabolic requirement as a base of scaling, the food expenditure poverty line of the study area is estimated 10.31 Birr. In addition, by taking the average value of adult equivalent non-food expenditure of surveyed households, the non–food consumption poverty line is estimated 4.73 Birr per day. Summing up these two estimates, the overall poverty line of the study area is fixed at 15.04 Birr per day per adult equivalent. Having the above poverty cut of point, 26.3% of surveyed rural households are consumption poor. In local agro-ecology disaggregation surveyed households from the *Qollaagro*-ecology have greater share of consumption poverty prevalence. Similarly, the gap and intensity of consumption poverty are found 0.4 and 0.001 respectively among surveyed households on the cross sectional survey time.

Multidimensional poverty: Multidimensional poverty prevalence, average deprivation and adjusted deprivation rates of households included in the survey are found 64%, 44.8 and 28.6% respectively in the cross sectional survey year, 2016. In

In local agro-ecology disaggregation, multidimensional poverty prevalence and adjusted deprivation are higher in the *Qolla* agro-ecology which are 67% and 29.7% compared with the *Woyinadega* agro-ecology with a prevalence and adjusted deprivation score of 61% and 27.6%, respectively, while shared deprivation is slightly higher in the *Woyinadega* agro-ecology which is 45.3% relative to the *Qolla* with a shared deprivation score of 44.3%. At the same time dimension and indicator specific level variations have been observed in the prevalence, shared deprivation and adjusted deprivation scores.

The finding prevails that surveyed multidimensional poor rural households are deprived more of in the living standard dimension with the prevalence rate of 79.6%compared with the other two dimensions, health and education as indicated in table 1.Similarly, the study assures that indicator level deprivation rate is higher in improved fuel source provision and safe drinking water provision with a deprivation score of 99.5 and 82.79 respectively (table 1).

Table 1: Indicator Specific Deprivation Measures

		Measures		
Dimensions	List of indicators	Prevalence H (%)	Average derivation A (%)	Adjusted MPI
Education	Adult education	58.06	16.67	0.097
	Child education	26.34	16.67	0.044
	Overall education deprivation	9.7	145.40	0.141
Health	Child mortality	5.91	16.67	0.001
	Nutrition	4.30	16.67	0.007
	Overall health deprivation	0.5	316.73	0.016
Living standards	Access to Light	74.19	4.76	0.123
	Access to improved Fuel	99.46	4.76	0.165
	Safe drinking Water	82.79	4.76	0.138
	Sanitation	33.33	4.76	0.055
	Housing Roof	8.60	4.76	0.014
	Key Assets availability	73.66	4.76	0.123
	Access to Road	82.26	4.76	0.137
	Overall living standard	79.6	27.18	0.755
Overall deprivation		63.98	44.75	0.286

Source: Computed from own survey, 2017.

The analysis result shows that multidimensional poverty is highly sensitive to cut-off points. While we get the above results at cut-off point K=1(poor if a household is deprived at least in a single dimension), multidirectional poverty prevalence, shared deprivation and adjusted deprivation are found 1%, 76% and 0.08% respectively when cut off K is increased to two dimensions(at k=2).

Comparatively, the analysis result shows that multidimensional poverty prevalence, which is 64%, is significantly higher than consumption poverty prevalence, which is 26.3% as it is shown in table 2. Similarly, multidimensional poverty is found to be deeper and intense, with an average and adjusted deprivation of 44.8% and 28.6%, respectively, than consumption poverty, with a depth and intensity of 4% and 1% respectively.

Table 2: Cross -tabulation of Consumption Poverty and Multidimensional Poverty Prevalence, Depth and Severity in Basoliben Woreda

Poverty measures	Types of poverty	
	Consumption poverty at poverty line Z =15.04 birr	Multidimensional poverty at deprivation cut-off k = 33.33%
Incidence	0.263	0.640
Depth/shared deprivation	0.040	0.448
Severity/adjusted deprivation	0.010	0.286

Source: Computed from own survey, 2017.

Regression analysis results

As the regression result from binary logit showed household size, market distance, access to irrigation, livestock ownership in TLU, intensity of agricultural extension service and crop diversification trend have statistically significant effect at 99% and 95% confidence interval on the consumption poverty status of surveyed households. More specifically, the regression analysis result, as presented in table 3, shows that larger household size, longer market distance and having no

access to irrigation found to increase the surveyed household's probability to be consumption poor. While, more livestock ownership in TLU, more frequent agriculture extension service and additional crop types cultivated annually decreases households probability to be poor.

Besides, age of household heads and livestock ownership in TLU is found to have a negative correlation with consumption poverty depth. Similarly, increased livestock ownership also tends to decrease the consumption poverty depth. But, larger household size, having access to irrigation and longer market distance is found to increase consumption poverty depth or gap (table 3).

Table 3: Results from Binary Logit and Tobit Regression

Variables		Binary logit regression results (determinants of poverty prevalence)		Tobit regression results (determinants of poverty depth or gap)	
		Coef.	P>|z|	Coef.	P>|t|
Sex of household heads		.907	0.280	0.88	0.139
Age of household heads		-.0345	0.302	-0.005	0.033**
Educational status of household heads	From grade 1-4 attended	-1.924	0.026**	-0.124	0.061
	From grade 5-8 attended	.525	0.547	-0.002	0.971
	Religious education	-.605	0.610	0.026	0.825
	Adult education	1.049	0.314	0.128	0.034**
Adult equivalent household size		2.443	0.000*	0.176	0.000*
Dependency ratio		1.986	0.169	.123	0.094
Total annually cultivated land		.057	0.756	-.009	0.390

Livestock ownership in TLU	-.306	0.012**	-.021	0.009*
Frequency of agriculture extension workers visit	-.342	0.019**	-.017	0.093
Have no access to irrigation	1.583	0.044**	.128	0.004*
Livelihood diversification	-.677	0.304	-.015	0.726
Frequency of health extension workers visit	-.610	0.114	-.015	0.603
Distance of by near market in minutes walked	.018	0.012**	.001	0.008*
Asset ownership in birr	-.00001	0.874	3.54e-06	0.556
Crop diversification	-.352	0.040**	-.023	0.091
_constant term	-5.926	0.004	-.589	0.002
/Sigma			.1447892	-

Source: Computed from own survey, 2017. Coef. = Coefficient; * is significant at 99% confidence interval;** is significant at 95% confidence interval.

Apart from the determinants of consumption poverty, indicators of multidimensional poverty are free standing determinants which need only interpretation. As shown in

table 1, findings implied that households have improved access to health service and education but they are under acute deprivation in indicators listed in the living standard dimension.

Discussions

Looking at the socio-demographic characteristics of the rural households in the study area, the survey found that 65.6% of household heads, even 85% of women headed households, have not attended any kind formal education and the average age of rural household heads is found 431/2years. This indicates that there is higher rural adult illiteracy rate in the study area and the result is consistent with the report of CSA (2013) regardless of the time dynamism.

The average rural family size and average rural age dependency ratio are also estimated 5.3 and 0.45 respectively in the study area. Compared with the reports of CSA (2013), which estimate the average rural family size of Amhara region and the country 4.6 and 5.1 respectively, the area has higher average rural household size which can infer poor family planning practice. Rather, the average age dependency ratio is below the country's average (which is 0.92) which means most family members in each rural households of the Woreda are at their working age.

Farm Land, livestock, irrigation and livelihood diversification trend are important economic pillars in rural life. Taking this in mind, the survey attempts to examine the status of households in the study area regarding these parameters. The survey found that the average rural land holding in the study area is 1.4 hectares per household, which is slightly higher in the *Qolla* agroecology of the study area with an average land holding of 1.5 per household. It is higher in the *Qolla* agroecology because forest areas in the *Qolla* agroecology of the study area are not protected and dwellers unresponsively deforested it and changed it in to farm land. Generally, average landholding status of rural households in the study area is consistent with the country's average which is 1.4 hectares but below Amhara region's average which is 1.8 hectares as reported by CSA (2013). Regarding livestock ownership, the study depicted rural households in the study area owns 6.5 TLU on average.

The study also found that rural households in the study area have very limited access to irrigation and have poor livelihood diversification trend. From the total rural households the study depicts that only 20% have access to irrigation and only 24.7% of households have income source other than farming. This result indicates that the study area has no access to irrigation infrastructure. Similarly, the finding also implies as rural households in the study area are not well taught on the importance of livelihood diversification.

Rural household poverty profile of the study area

Fixing the objective poverty line of the study area at 15.4 birr per day per adult equivalent through the cost of basic needs approach. The survey proved that 26.3%of rural households in the area are living under rampant consumption poverty with 0.4 poverty depth and 0.001 poverty intensity was recorded. The poverty is even worst in the *Qolla* agroecology which shares 16.7% out of the total of 26.3%. In 2015, rural poverty prevalence of Ethiopia was estimated 35 % (Addisu and Sundara, 2015). Similarly, in 2012 the rural poverty prevalence of Ethiopia was estimated 30.4 % (MoFED, 2010). Compared with these two previous research findings the rural consumption poverty prevalence of the area found below the countries overall in the cross sectional survey time regardless of the time dynamism between the three surveys. Even if the prevalence estimate is below the countries average, still poverty in the study area is in its higher rate.

Apart from the consumption poverty, multidimensional poverty is getting currency these days since the research community well recognized the importance of measuring poverty using end parameters like health, education and living standard. Accordingly, this study measured multidimensional poverty and the result depicts that the prevalence, average

deprivation rate and adjusted multidimensional deprivation rate of rural households in the study area are 64%, 44.8% and 28.6% respectively.

In comparison of the national multidimensional poverty prevalence rate and adjusted deprivation rate which is estimated 46% and 22% respectively by Bruk and Sindu (2013) regardless of time variation, the study area is under abject multidimensional poverty.

Deep diving in to dimension specific multidimensional poverty condition, multidimensional poverty is worst in the living standard dimension with the prevalence rate of 79.6% and lower in the health dimension with a prevalence rate of 0.5%. This is because in the last two decades there were intensive interventions to improve the health and the education sector while less is done in the living standard aspect. Even out of the living standard indicators (which includes potable water, sanitation, housing roof, key assets ownership, road, access light and improved fuel) 99.5% of rural households in the study area has no access to improved fuel source in the cross sectional survey time. This indicates that relative to the education and the health sector, almost nothing is done yet to improve access to improved fuel, light, potable water, sanitation, access to road and other components of the living

standard dimension. This result could be also generalized to all rural households of Ethiopia with a very similar context.

Across literatures rural poverty is attributed to different factors. These factors vary from situation to situation and from context to context. In the context of rural Basoliben Woreda, as the regression result from binary logit depicted, consumption poverty status of rural households is attributed to household size, market distance, access to irrigation, livestock ownership in TLU, intensity of agricultural extension service and crop diversification trend. To be more specific and clear, the survey assures that larger household size, longer market distance and having no access to irrigation increases household's probability to be consumption poor. While, more livestock ownership in TLU, more frequent agriculture extension service and additional crop types cultivated annually decreases households probability to be poor in the study area. This result more or less matches with Addisu and Sundara's (2015) and Melaku's (2016) finding from their analysis of determinants of rural poverty in a similar rural contexts. Besides, the study also found that age of household heads, household size, livestock ownership, access to irrigation and market distance affects poverty depth or level of consumption shortfall of poor households in the study area.

An increase of years of age of rural household heads decreases the level of household consumption shortfall or the poverty gap among poor households. In this case when age increases asset holding status of households increase in this typical rural context which in turn tends to decrease the consumption shortfall level and this is consistent with the findings of Ahmed (2013). Similarly, increased livestock ownership also tends to decrease the consumption poverty depth. But, larger household size, having access to irrigation and longer market distance is found to increase consumption poverty depth or gap

Apart from determinants of rural household consumption poverty discussed above, indicators in the multidimensional poverty are self-standing and self-explanatory. So that, from the survey result it can be stipulated that higher adult literacy rate, lack of electricity, limited access to improved cooking energy source, poor access to safe drinking water, limited access to road, lack of key assets ownership, fragile house roofing and poor access to toilet are contributing factors for the acute multidimensional poverty prevalence of the study area.

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