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The Role of Local Institutions in Multidimensional Poverty Reduction in Gurage Zone: The Case of Meskan Woreda

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Abstract

The main objective of the study is to investigate the role of local institutions in multidimensional poverty reductionin Meskan woreda of Gurage zone. Relevant data were collected from both primary and secondary sources. Using simple random sampling, 241 sample households were selected. Both descriptive statistics and logistic regression were used to analyze the data. The result showed 68.5% of households were multidimensionally poor. However, 65.1% of households are members in WaltaCooperative Union (WCU) and from these 92.1% were non-poor.Furthermore, from members of iqqub 89.5%, iddir 89.5% and debo 73.7% of households were non-poor. The logistic regression result indicated household size, education level, distance to main market center, access to credit; participations in local institutions, ownership of livestock, and total monthly income have significant effect on the poverty status of households. Therefore, to increase the roles of local institutions in poverty reduction, government and non-government organization shall enhance local institutions that successfully contributed to poverty reduction.

Key words: 1. Community Based Organizations 2. Cooperative Unions 3. Meskan Woreda 4. Multidimensional Poverty Index 5. Poverty Reduction

1. Introduction

The role of local institutions in poverty reduction iswidely accepted in economic literatures. For sustainable development, institutions, especially local levels, are important for mobilizing resources and regulating their use with a view in maintaining a long term base for productive activity (Harms,2010). Institutions are the rules of the game in a society that regulate social interactions, they can enhance or constrain peoples' livelihood

activities and survival strategies (North, 1990). It can be either formally or informally determined. Formal institutions are devised in formal setup such as constitutions, political institutions and property rights. Whereas informal institutions are behavioral regularities based on socially shared rules, usually unwritten. Informal institutions are largely self-enforcing through mechanisms of obligation, such as in patron client relationships or clan networks (Jutting, 2007). Poverty is defined from an array of human deprivations in terms of health, education, standard of living and income (UNDP, 2018). Poverty is pronounced deprivation in well-beingand comprises many dimensions; it includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity (WB, 2018). Poverty is also deprivation in person's ability and also deprivation in commodities, income, and resources (Sen, 1993). Poverty also encompasses low levels of health and education, poor access to clean water and sanitation, inadequate physical security, lack of voice, and insufficient capacity and opportunity to better one's life (Siyum et al., 2015).

Poverty is conceivably the most serious challenge facing people, governments and development practitioners in developing countries, especially in Sub-Saharan Africa (SSA). Out the total poor living in the world, 49% are in SSA, 32% in South Asian, 15% in East Asian and pacific, 11% in Latin America and Caribbean, 5% in Eastern Europe and Central Asian and 2% in Middle East Africa (WB, 2018). This indicates that SSA countries are the home of poverty. Furthermore, the bank on the same year indicated that three fourths of the poor in developing world live in rural areas, and rural poverty remains high and persistent in SSA. Similarly, about 1.3 billion of world people are multidimensionally poor and 84.3 percent ofthemlive in SSA (Niger, Burkina Faso, South Sudan, Chad and Ethiopia) (558 million) and South Asia (530 million). In this region from 84.3 % of multidimensionally poor people 71.9 % (466 million people) live in rural areas, where they are more vulnerable to environmental shocks and compared with 25.2 percent (92 million people) in urban areas (Alkire et al., 2020).

Poverty in Ethiopia is the most prevalent among the uneducated and agriculturalists. According to the recent report of the World Bank, chronic urban poverty in Ethiopia is estimated to be 25.4% while in rural it was 30.4%. Government policy implementations in supporting local institutions affect people's ability to use their assets to protect them from falling into poverty (WB, 2018). Now a day, in Ethiopia, institutions of cooperative Unions (CUs) as formal and Community Based Organizations (CBOs) as informal cooperation plays a pivotal role in poverty reduction (IFAD, 2013). Povertyis a problem for a long period of time and recently it becomes complicated for many rural households which cause social unrest and multidimensional problems in the woreda. Due to these and other many reasons the woreda is one of the targets of multi-donor flagship programssuch as Productive Safety Net Program (PSNP) and Household Asset Building Program (HABP) and many other NGOs engaged in poverty reduction activities (MoA, 2010). However, the life of

the poor is still tainted by oppression and powerlessness. Therefore, the main aim of this study isto examine the role of local institutions in poverty reductions and assessed the extent of poverty using multidimensional method in Meskan Woreda based on the Alkire and Foster (2011) equal weighting approach.

The role of local institution in poverty reduction is not well understood by various levels of government officers and communities. Evidence from other countries suggests that implementation of rural development activities at local level, mobilizing local participation, and handling emergencies at the local level with conscious links to reconstruction, prevention and preparedness requires the pivotal role of local institutions.This study therefore contributes to understand the role of local institutions in design and implementation of strategies to local authorities and NGOs in poverty reduction. There is also a poverty assessment problem to know the extent of poverty in the country. However, the multidimensional poverty measurement assess the share of population who are considered as multidimensional poor, which means they are deprived in at least one third of the weighted MPI indicators. Therefore, uni-dimensional measure of poverty may not be reliable and could not measure the overall poverty level of a household since poverty is a multidimensional phenomenon (Alkire et al., 2020).The rest of the study is organized as follow; section two presents literature reviews, section three present materials and method, section four presents discussion and result, and the last section presents the conclusions and recommendations.

1. Literature Review

Cooperative is autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through jointly owned and democratically controlled enterprise (Levine etal., 2011). Similarly, the Ethiopian Federal NegaritGazeta (cooperative societies Proclamation No. 147/1998) defined cooperative society as “a society established by individuals on voluntary basis to collectively solve their economic and social problems and to democratically manage the same”. Based on those goals and strategy cooperative had preforming multi-dimensional activities to improve living standard of rural poor household and to reduce poverty. Traditional forms of associations such as iqqub (a rotating saving and credit association), iddir, work in groups such as wonfel and debo, have a long history in Ethiopia (Annulo and Getnet, 2012).Various disciplines and scholars define poverty in multiple ways for instance, UNDP (2020), defined poverty as constituent of income, materials lack, capability deprivation, multidimensional view of deprivation and wellbeing and equity. Amartya Sen (2020) gives a broader view of poverty by including health, education, and living standards. Multidimensional poverty measure reflects relevant non-monetary aspects of poverty which reflect national development plans, participatory exercises, the SDGs and policy priorities.

Yuan et al. (2018)studied the roles of cooperatives on farm revenue in China, and found that cooperative development in China was not uniform across provinces due to differences in farmer educational levels and varying economic and social situations. These farmer cooperatives have shown remarkable results in the acceleration of the agricultural development and an increase in farmers' revenue.Similarly, Fan (2017) studied the roles of farmers' cooperative in poverty reduction in China and indicated that cooperation is an important way to organize scattered farmers, improve agricultural production, and help farmers get access to markets. Bhuyan (2017),studied about rural cooperativeroles in farm credit in Nigeria and showed that cooperatives played an important role in mobilizing and distributing credit to the farmers. Moreover, he analyzed that cooperatives provide members with a wide range of services such as credit, health, recreational and housing facilities. Hermida (2018), investigated that cooperatives are useful in the dissemination of information about modern practice in agriculture, provide functional education to members in the areas of production, processing and marketing of agricultural produce. Jimoh (2018), analyzed that rural farmers in Nigeria are characterized by low income, low resource utilization, small farm holdings and scattered nature of farmland, finds it difficult to pool their resources together to raise their farm income and substantially improve their living conditions.

For developing and agricultural based economic countries like Ethiopia cooperative business is recommended as a solution to promote income distribution, reduce poverty and vulnerability, and improve quality of life and social welfare (Nuredin et al., 2015).Empirical evidence on the impact of cooperatives in relation tothe livelihood development and poverty reduction is scarce in Ethiopia yet to be established, however, the results indicate positive impact on livelihood development but emphasizes limited outcome (Annulo and Getnet, 2012). Woldu et al. (2016), revealed the positive roles of cooperative on rural household. Conversely, his study had some limitations that on evaluation tool and investigator use only participant data to evaluate role of cooperative. These showed that there was limited emphasizes on the use of econometric analysis and having some research gap on cooperative membership importance to poverty reduction (Woldu et al., 2016).The effect of CBOs on social development has a positive effect and segmenting institutions into ethnic stratification would, in turn, bring about economic growths which reduce poverty (Mahoney, 2015). Similarly, Steer &Sen (2017) in their study of Vietnam found out that informal institution were integrated as a formal institution while formal institutions were still being developed; hence their old institutions were not destroyed to pave way for new ones but integrated as they have an impact on poverty reduction.

As many literatures indicated that cooperative life is very common practice among the Ethiopian communities. According to these literatures, the country has experienced various traditional or informal institutions both in rural and urban areas for a long period of time.

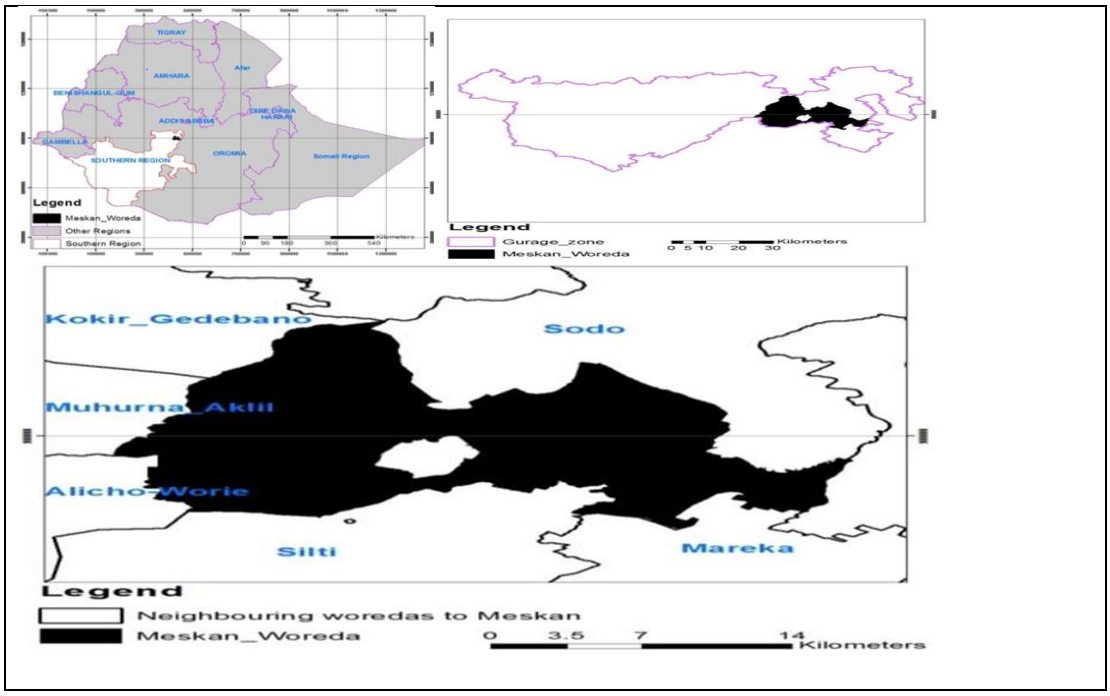
Some of informal cooperation includes debo, iddir, iqqub, mahiber. These traditional forms of institutions are autonomous, and highly respected organizations, that perform diverse socio-economic and political activities. The various socio-economic activities that are undertaken through such organizations includes plough land, weeding, moving, harvesting, house construction, and conducting wedding and funeral ceremonies and so on. However, the development potentials of such institutions has not been fully utilized yet mainly because of absence supportive legal and policy framework (Tegegne, 2017). In the district participation and membership in the traditional associations (iddirs, iqqubs, debo and mahibers)[1] were very common. Generally, this study was different from prior studies at first the methodologyadopted; secondly, this study addressed the joint roles of local institutions in poverty reduction.The substantial contribution of this study was that it addressed the level of poverty using the MPI method. Methodologically, the study applied equal weighting approach of the Alkire and Foster (2011) method. This was the second methodological aspect, which makes this study different. The third methodological contribution was comparison of non-monetary multidimensional poverty measures within the sampled households to each indicator and dimension share to the MPI. In addition to the methodological consideration, this study was explored the joint roles of CU and CBOs in poverty reduction.

2. Methodology of the Study

The study was conducted in Southern Nation Nationalities and peoples Regional State, Guraghe Zone, Meskan Woreda. Meskan Woreda is one of the 16Woredas in Guraghe Zone, SNNPRS. Meskan District is 133 km from capital city of Addis Ababa, 155km from regional capital city of Hawasa and 84 km from Zonal capital city Wolkite. The administrative center of Meskan district is Butajira city. The district had 42 kebeles out of these 40 rural kebele and 2 urban kebele (MWFEDD, 2019).

Figure 1: Geographical location of Meskan Woreda (CSA, 2019)

[1]Iddir is informal insurance institution that covers different risks such as funeral ceremonies, death of livestock, medical expenses and food shortages (Negussie, 2015). Iqqub is the most and effective traditional financial institution and it is a form of saving association in which weekly or monthly payments of a fixed sum are exchanged for the privilege of receiving a large sum at some point in the life of the group. It has thus more advantage to participants as they borrow money at zero or no interest rates unlike the formal credit system (Alemayhu et al., 2016).Debo is a labor sharing association which is based on neighborhood and voluntary participation. It is also a voluntary humanitarian institution which provides support for a person or a family faced with severe problems (e.g., sudden death of family member) (Negussie, 2015). Farmers' in the district have small plot of lands for their living, farming and raising animals. It is obvious that such smallholder farmers are characterized by producing small amount of produce. They might bring small portion of their product to the market, and the earnings might goes to cover their routine expenditure and might save the remaining for next farming season (Nuredin et al., 2015).



Source: (MWFEDD, 2019).

The Woreda lies between 7.9935150 - 8.2781010 latitude and 38.2631310 - 38.57860 longitude. It shares boarder with Sodo Woreda in the North, MuhurnaAklil in the West, Mareko in the East and Silte in the South. Moreover, it is located at an altitude range of 1501-3500 meter above sea level. The majority community engaged in subsistence agriculture taking place on small and fragmented plots through the employment of oxen and traditional farm implements. The remaining people were engaged in trade, service sectors and employments in the public or private sectors while the rest depend on temporary income or remained jobless (Kessler and Zenebe, 2017). The Woreda is categorized as Chronically Food Insecure (CFI) and one of the targets of Productive Safety Net Program (PSNP) and Household Asset Building Program (HABP) (MoA, 2010).

The study used both qualitative and quantitative data from primary and secondary sources.The primary data was gathered from selected households through questionnaire, key informant and interview. Moreover, the study used secondary data from reports and governmental documents, books, journals, published or unpublished papers and internet websites.The quantitative data involve the use of structured and semi-structured questionnaire while qualitative would include personal interviews and focus group discussions with the sampled subjects selected for this study.Multi-stage sampling technique was employed. In first stage Meskan Woreda was selected purposively from Guraghe zone, as it was one of the woreda that is vulnerable to poverty. At the second stage, discussing with woreda officials, all 42 kebeles were categorized by constructing strata into three i.e. far, medium and near; according to their distance to the woreda

administrative center and six kebele were selected. At the third stage, the ultimate sampling unit/households were selected in each kebele by using simple random sampling technique.

Assuming the maximum variability, which is equal to 50% (p = 0.5) and taking 95% confidence level with ±5% precision rate, the required sample size is computed as follows; p = 0.5 and hence q = 1-0.5 = 0.5; e = 0.05; z = 1.96. By increasing the precision of the measurement process should be sought (Browner et al., 2001).

$$n = \frac{\frac{Z^2P(1-P)}{e^2}}{1+\frac{1}{N}\left(\frac{Z^2P(1-P)}{e^2}-1\right)}$$

Where n is the required sample size from a specific categories; p is the probability of becoming poor (selection criteria); Z is the upper α/2 points of standard normal distribution with α =0.05 significance level, which is Z = 1.96, e is the degree of precision and N is the population size (2472).Then a total of 241 households from the six kebeles were selected proportionate to the total household numbers in each kebele. Both descriptive statistics and inferential statistics were used to analyze the data. On the other hand, data obtained from Key informant interviews were narratively described to enrich and illustrate a qualitative conclusion. Thus, a binary logistic regression model was used to identify the role of local institutions in poverty reduction.

Description of MPI Indicators and Dimensions

To assess themultidimensional poverty status of households in Meskan Woreda, the Alkire and Foster (2011) method is used. Firstall the information for household must come from the same survey. The next step is choice of the unit of analysis which was the household. After choosing the unit of analysis, dimensions and indicators of MPI was selected based on the international agreements such as the SDG standards (UNDP, 2018).Choosing the indicators' deprivation cut-offs; multidimensional poverty measure requires a deprivation cut-off for each indicator usingthe internationally agreed upon of the SDG standards.

Binary logistic regression model is used to predict a categorical (dichotomous) variable from a set of predictor variables. This study was based on the theory of poverty outlined in Asen (2002) at household or individual level. The poverty status of households to be non-poor is influenced bysocioeconomic,institutional and participation in local institutions.In MPI, a household i is considered as multi-dimensionally poor (MP)if the number of indicators that household *i* is deprived, is higher than or equal to 1/3 and a household *i* is vulnerable to MP, if that household has a deprivation score of between 1/5 and 1/3 and a household *i* is in sever MP if that household has a deprivation score of above 1/2. Poverty status of household (PSH_i) was captured as binary such that PSH_i= 1 indicates not poor

while $PSH_i = 0$ indicates otherwise. The study assumed that the probability of households i being either poor or non-poor (PSH_i) is subject to his/her socioeconomic and institutional characteristics (X_i) as indicated in equation 1b.

Prob (Not Poor = 1) $=X_i\beta_i + U_i$…….. (1)

An underlying latent variable (PSH_i^*) denote the level of poverty and the unobservable variable is related to the characteristics $X_i$of the household. That is assuming there are no ties, then;

$PSH_i^* = X_i\beta_i + U_i$…….. (2)

Where $\beta_i$is parameters estimated while U_i is the error term that captured unobserved variations in household poverty status. Functionally, the above equation is given as:

$$E(PSH_i/X_i) = F(\beta'X_i) = \frac{e^{\beta' X_i}}{1+ e^{\beta' X_i}} \text{ ……..} (3)$$

If the residuals are independent and identically distributed with a cumulative distribution function given as $F(U_i < E) = \exp(- e - E)$ and whose probability densities function is $F(U_j) = \exp(- \exp(-U_{i,j}))$, an analytical solution exists, and the probability of a given choice alternative for the i^{th} household is given as:

$$\text{Prob (Not poor = 1)} = \frac{\exp(X'ij\beta_i)}{1+ \sum_k \exp(X'ik\,\beta_i)}, k = i, j \text{……..} (4)$$

Where Prob (Not poor = 1) denotes the probability of household i being poor, X_i is a vector of the household characteristics while β_j are the parameters of the exogenous variables estimated. Binary logistic regression can yield either the odds ratio or marginal coefficients. Based onLaduber et al. (2016), given that Prob(Not poor = 1) is the probability of not being poor then, (1 – Prob (Not poor = 1)) represents the probability of being poor. Mathematically this is given as:

$$1 - \text{Prob (Not poor = 1)} = 1 - \frac{e^{Z_i}}{1+ e^{Z_i}} = \frac{e^{-Z_i}}{1+ e^{-Z_i}} = \frac{1}{1+ e^{Z_i}} \text{ ……..} (5)$$

Where $Z_i = \beta_0 + \beta_i X_i$

Given the equations above, the odds ratio equation is given as:

$$\frac{\text{Prob (Not poor = 1)}}{1 - \text{Prob (Not poor = 1)} = 1} = \frac{1+ e^{Z_i}}{1+ e^{-Z_i}} = e^{Z_i} \text{ ……} (6)$$

Let's denote by L the natural log of the above expression. Empirically, the model was determined as given in equation 7:

$$L_i = \ln\left[\frac{P_i}{1-P_i}\right] = Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ \ldots \ + \beta_n X_n + U_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7)$$

Where log of the odds ratio. It shows how log odd in favor of change in poverty status of households as respective independent variables (X_i) change by a unit. Where: P_i = probability of non-poor (1) and 1 - P_i = probability of poor (0);X_i = explanatory variables (local institutions and some socio-economic variables);β_0 = is the constant term;β_i = Slopes of the equation in the model;Z_i = is a function of n explanatory variables (x); andU_i = is the error term.

Table 1: Description of independent variables and expected sign

Variables		**Description**	**Expected Sign**
1	Sex	Indicates the sex of the household head and measured as a dummy variable 1 for male and 0 for female	+
2	Age	Refers to the age of the household head (in years)	+
3	MRST	Marital status of the household head and measured as a dummy variable 1 for married and 0 for divorced/widow	+
4	HEDU	Education level of the household head and measured as a dummy variable 1 for literate and 0 for illiterate	+
5	HSZ	Refers to the total number of household size	-
6	ACTCR	The dummy variable takes value of 1 if the household has access to credit and 0 otherwise	+
7	ACTAI	The dummy variable takes value of 1 if the household has access to agricultural inputs and 0 otherwise	+
8	MCU	The dummy variable takes value of 1 if the household is member in CU and 0 otherwise	+
9	PCBO	The dummy variable takes value of 1 if the household is member in more than two CBOs and 0 otherwise	+
10	DTMKT	Distance to the nearest main market place (km)	_
11	HFRMS	Refers to farm size of the sampled household (hectare)	+
12	HTP	Refers to the household annual total production (quintal)	+
13	HTLV	Number of tropical livestock owned by the household	+
14	HMTICM	Refers to the household monthly total income (Birr)	+

Source: Authors construct (2020)

3. Results and Discussion

4.1 Descriptive Analysis

As can be observed in table 2, 83% the household heads were male and 17 % female. The study also showed that the majorities (40.7%) of household heads were between the age group of 25-39 years which is followed by 40-54 and below 25 years which were 39% and 11.6% respectively.As shown in table 2, 51% of the households were literate on the other hand 49% illiterate of the household were illiterate.

Table 2: Age, sex, educational level and marital status of the household heads

Variable list		Frequency	Percent (%)	Std. Error
Sex	Female	41	17.0	2.4
	Male	200	83.0	2.4
	Total	241	100	.0
Age	Below 25	28	11.6	2.1
	25 – 39	98	40.7	3.1
	40 – 54	94	39.0	3.1
	Above 55	21	8.7	1.8
	Total	241	100	.0
HEDU	Illiterate	118	49.0	3.2
	Literate	123	51.0	3.2
	Total	241	100	.0

Source: Survey Result (2020)

As indicated in table 2 the mean value of householdsize was 4.14 which showed that high number of family members revealed a challenge in ensuring food security within the household and also pose to a threat of poverty.

Table 3: Descriptive Statistics of dependent and independent variables

Variables	Mean	Std. Deviation
PSH	.32	.466
HEDU	.51	.501
HSZ	4.14	1.872
ACTCR	.56	.497
PCBO	.76	.428
MCU	.65	.478
DTMKT	17.10	6.060
HTLV	1.859	.5641
HMTICM	2264.1369	678.85982

HTP	4.959	1.9254
HFRMS	1.7801	.68804
Valid N	241	241

Source: Authors computation, (2020)

Table 3 showed that the mean value of household participated in community based organization were 0.76.In contrast, the status of household membership in WCUwas 0.65. The mean value of distance to the main market center was 17.10 kilometer. The tropical livestock unit had a mean value of 1.859. The mean monthly total income of household was 2264.137 Birr. Households with high monthly income can secure food within their families and to non-poor than those with lower monthly income. The mean farm size of households was 1.7801 in hectare. Similarly, the result revealed that the mean value of total production of the household was 4.959 in quintal.

- **The Roles of Local institutions in Poverty Reduction**

As shown in table 4, 75.9% of households weremember in CBOswhereas 65.1% were member in Walta Cooperative Union (WCU). Majority (81.3%) of households were involved in Iddir followed byiqqub 74.7% and debo 54.7% respectively. The focus group discussionconducted with members of WCU indicated that the objectives to join this institution weretoget periodic dividend,access to inputs markets, output market,credit, employment,and training and get access to consumer goods.In the discussions, members of WCU participated in different community development affairs (FGDs and KIIs with cooperative desk and from other woreda officials).Table 4 also showed that 65.1% of households were members in WCU and from these 92.1% of households were non-poor and 52.7% were poor. Similarly, the remaining 34.9% of households were not member in WCU and from these 7.9% of households were non-poor and 47.3% were poor. Theindependent variable or WCU influencedthe PSHs significantly at 1% probability level. This result revealed thathouseholds who were members in WCU had lower probability of being poor. The chi-square test revealed there was significant difference between poor and non-poor households with respect to membership status in WCU.

Some of the most commonly practiced indigenous/local institutions in the study area include iddir, iqqub, debo, dado, wujo, etc. Reasons to participate in iqqub include the household had the ability to contribute money or in-kind (such as crop, animal). The study also revealed that, members of iqqub benefited a number of services; used for saving, reducing seasonal food shortage, invested to child education, promoting small scale investments, and insurance during time of their sickness(FGDs). 74.7% of households were participated in iqqub and from these majorities (89.5%) of households were non-poor.

The FGDs and KIIs revealed that in Meskan Woreda, there are four types of iddir, clan iddirs, religious iddirs, women and youth iddirs. FGDs participants reported that, community member that participate in iddir must be contributed money, food or labor based. This was done to protect the household from economic instability.However, the major roles of iddir were to support households during death, sickness of its members, purchase agricultural inputs (fertilizer and seeds), labor support specially during harvesting, and land preparations (FGDs and KIIs). The descriptive analysis result of the study also revealed that the majority (81.3%) of households was participated in iddir.

The nature of debo may be food based, money based or a combination of both. The first types of debo in the district was enset debo which was a social grouping formed by men and women to process the painstaking job of enset. The roles of men in enset debo was digging and harvest enset (false banana) while women had their own parties called Wusacha when they were processing enset. Wusacha was a traditional labour sharing local institution mainly implemented in Meskan Woreda. Coffee gathering was the second, which was a social grouping of usually up to ten households that meet together and drink coffee. Wujo debo which was a social grouping formed by women only and the number of members does not exceed ten. Herding debo whose aim was to manage herding of their cattle. A member takes this responsibility every round and was responsible to take care the cattle (provide water, food, etc.).Participation in debo also increase productivity, developed a sense of team work, saving time and labour, and strengthening social bonds and relationships during the time of working together. Therefore, participants of FGDs conducted in all kebeles reported households who were participated in debo their way of life was changed to good and they become non-poor. Similarly the descriptive result revealed that 54.7% of households were members of debo while 45.3% were not. Regarding poverty status of households, from the total members of debo 73.7% were non-poor and 46.1% were poor households. Therefore, the result showedhousehold participation in debo was significantly affecting the status of poor and non-poor households at 1% level.

Table 5: Participation of households in WCU and CBOs and their status poverty

Local Institutions		Poverty Status of Households		Total (%)	Pearson chi-square
		Poor (%)	Non-Poor (%)		
MCU	Not Member	47.3	7.9	34.9	35.534
	Member	52.7	92.1	65.1	
Iqqub	Not Member	32.1	10.5	25.3	14.246
	Member	67.9	89.5	74.7	
Iddir	Not Member	21.8	11.8	18.7	5.064
	Member	78.2	88.2	81.3	
Debo	Not Member	53.9	26.3	45.3	21.063
	Member	46.1	73.7	54.7	

Source: Survey result (2020)

- **Multidimensional Welfare Status of Households**

The first dimension was health andthe result revealed 37.8% of households were deprived of nutrition while 15.4% were deprived the status of child mortality within 5 year period. The second dimension is education, and the result shown36.5% of households were deprived in six years of schooling completed at the age of 13 years or older. Similarly, the second indicator was the deprivation status of households in school-aged child which was not attend school and completed class 8 was 49%. The third dimension was standard of living and it has six indicators. The first indicator was status of households using cooking materials for their meals, and 94.6% of households cook with dung, wood, charcoal or coal. In contrast, 92.5% of households were deprived or their sanitation facility was not improved/improved but shared with other households. Regarding the status of households with access to improved or safe drinking water was 56.4%, deprived welfare status. Concerning access to electricity facilities for lighting in the study area, 85.9% of households were deprived. About 83.8% of households were deprived in house finishing materials (used dirt, sand or dung for roof, walls and floor). Finally, households' status in asset ownership showed that only 17.8% of the households were deprived.

At the poverty cut-off (k)which is 33.33%, the MPI of the household is 0.391 or 68.5% of the households are multi-dimensionally poor and on average the poor experience 57.1% of deprivation (intensity of poverty) of the indicators. OPHI (2016) reported that the national MPI of Ethiopia was 0.489, while the MPI of households in the Meskan was 0.391. This suggests that in Meskan, households had lower incidence and intensity of poverty than the national average. The OPHI study also showed that nearly 9% of Ethiopians were

vulnerable to poverty and 61.5% were in severe poverty, while the corresponding data for households in Meskan was 29% and 46.5%, respectively(Table6).

Table 6: Multidimensional welfare features of the households

No	Measure of the MPI	Percentage (%)
1.	The poverty cut off value (k)	K =33.33
2.	Percentage of poor people (H)	68.5
3.	Intensity across the poor (A)	57.1
4.	Multidimensional Poverty Index (MPI = H x A)	39.1
5.	Multi-dimensionally Non-Poor k<20%	2.5
6.	Multi-dimensionally poor household k=(33.3-50)%	22
7.	Vulnerable to poverty k =(20-33.3)%	29
8.	In severe poverty k≥50%	46.5

Source: Author's calculations (2020)

Contribution of each dimension for MPI: using equal weighting approaches, health, education and living standards contributed 22.5%, 35.3% and 42.2% to MPI, respectively. In Ethiopia the contributions of each dimension to MPI were 19.7% from health, 29.4% from education and 50.8% from living standards (OPHI, 2018). Comparatively, the contribution all dimensions to the MPI in the study area were seen to be relatively low comparing to Ethiopia.

4.2 Empirical Analysis

The regression result showed that eight variables were statistically significant while six variables were insignificant. As shown on table 7, HEDU, ACTCR, PCBO, MCU, TLV and HMTICM have positive relationship with the dependent variable (PSH). However, HSZ and DTMKT have negative relationship with the dependent variable.

Table 7: Logistic Regression Model Result

Variables	Coef.	S. Err.	Z	Odds Ratio	Marginal Effects (dy/dx)
Sex	1.593	1.173	1.36	4.919	.0623473
Age	.016	.037	0.44	1.016	.0009307
MRST	1.316	1.171	1.12	3.728	.0524656
HEDU	1.882*	.760	2.48	6.569	.1176257
HSZ	-.762*	.260	-2.93	.467	-.0442221
ACTCR	1.899*	.786	2.42	6.681	.1097777

ACTAI	.824	.872	0.95	2.281	.039657
PCBO	1.933*	.881	2.19	6.913	.080112
MCU	1.587*	.773	2.05	4.890	.0799939
DTMKT	-.211*	.063	-3.36	.810	-.0122514
HFRMS	1.328	9.055	0.15	3.774	.0771192
HTP	.028	.322	0.09	1.028	.0016037
TLV	.136*	.068	1.99	1.145	.0078808
HMTICM	.002*	.001	2.44	1.002	.0001209
Constant	-14.829	3.647	-4.07	.000	.0000
Dependent variable = Poverty status of households (PSH), Number of observations = 241 LR chi^2 (14) = 225.96, Prob >chi^2 = 0.0000, Log likelihood = -37.240829, Pseudo R^2 = 0.7521					

Source: STATA Output (2020)

The educational level of the household heads showed the expected positive sign and statistically significant result at 5% level of significance.The marginal effect result also showed that,citrus paribus, as the head of the household is literate;it increases the probability of becoming non-poor by 0.1176, on average. This implies that households with higher years of schooling of the household heads have lower probability of being poor. The same result had been found by Gebrehiwot and Fekadu (2015) in a survey conducted in Gulomekeda district, eastern zone of Tigray, that better education improves the living standard of the households.

This variable/household size registered the expected negative sign and statistically significant at 5% significance levels. Keeping other things constant, the marginal effects result showed thatas the household family size increases, the probability of being non-poor decreased by 0.044, on average. This result showed that as the household family size increases the families expenditure increases, as a result, the status of poverty within the household member increased. This finding may be explained in the way that all resources that are available to the household are shared among the member of the households. Thus, as the number of the household member increases the per-capita recourses including food declines. This situation put these households to be poor(Abadi and Alem, 2019).

Households' access to credit facilities had the expected sign of positive and significant result at 5% level of significance. The marginal effects showed that, if the household had an access of credit, it would be increased the probability of the household being non-poor in the study area by 0.1097, on average, citrus paribus.The same result had been found by Getu and Tesfaye (2016) in a survey conducted in Meskan Woreda, Gurage Zone. The result

clearly proved that the opportunity households to credit to facilities have lower probability of being poor.

Participation of households in CBOs had the expected sign of positive and significant result at 5% level of significance. The marginal effect result also showed that,on average, as households' members who were participated in CBOs (such as iddir, iqqub and debo), the probability of being non-poor increased by 0.080, citrus paribus.Iqqub serves as credit and saving institution to solve households' cash problem to buy fertilizer and improved seeds, to ensure food security of poor households (Wossen et al., 2015). Another study similarly indicated joining iddir and debo improves households' access to land, labour and credit transactions and markets (Abay et al., 2018). Households' membership in WCU had the expected positive sign and statistically significant result at 5% level of significance. The marginal effects showed that being the household become a member in WCU, the probability of to be non-poor increases by 0.0799, on average, citrus paribus.

The logistic regression result of the variable, distance to the nearest main market place had a negative sign as expectedto be non-poor and it was significant at 5% levels of significance. The marginal effects result showed that as households get far from the nearest market center their probability of being non-poor decreased by 0.0122, on average, keeping other things constants. This is in line with that the well-functioning markets are important in the process of reducing poverty. This is due to the fact that households distance to the nearest market has opportunities to easily and frequently take their products and purchase essential resources to contribute their well-being relative to those households located far from the market (Pinilla, 2020).

The sign of tropical livestock unit was positive as expected and had significant result at 5% levels of significance. The marginal effects revealed that, on average, as thehousehold haslarge number of livestock unit, the probability of being non-poor increased by 0.0079, citrus paribus.This implies that households with higher livestock unit have lower probability of being poor. By selling these livestock products households purchase others that they are lacking that boasts the living standard of the households (Abadi and Alem, 2019).This variable, household monthly total income had also the expected positive sign and statistically significant result at 5% levels of significance. The marginal effects showed, on average, as monthly income of households increases, the probability of being non-poor increased by 0.0001, citrus paribus. This finding agrees with Getu and Tesfaye (2016), in that farmers who have higher monthly total income have an opportunities to solve their financial problems easily and lower probability of being poor than farmers who have lower monthly income.

On the basis of the information collected from sampled households, the study had the following plausible conclusions: The descriptive result showed that household size had a

negative relationship between the statuses of poverty in the community. The study further revealed that education of the household head had a positive relationship between being to be non-poor. The number of tropical livestock unit which was owned by the sampled household had also a positive relationship between the statuses of poverty to be non-poor. The status of households' participation in both formal and informal local institutions had positive relationship between poverty statuses of households to be non-poor.68.5% of the households were categorized as multi-dimensionally poor. It was also showed that from the total 241 sampled households, about65.1% were members in WCU; and from these the majorities (92.1%) were non-poor.Furthermore, from the members of iqqub, the majorities (89.5%) of households were non-poor.

The logistic regression result of the variables like; size of household and distance to the main market center of households showed a negative sign but they were statistically significant at5% levels of significance. On the other hand, the independent variables (household education and access to credit) were tested the expected positive sign with the probability of non-poor and they were statistically significant at5% level of significance. Similarly, households' participation in CBOs and MCU registered the expected signs of positive and statistically significant results at 5% level of significance.Household monthly total income and ownership of tropical livestock unit had the expected positive signs and statistically significant at 5% levels of significance. Thus, membership and participations in local institutions is an important mechanism to reduce the levels of poverty within the members of the households.

4. Conclusion and Recommendation

The study focused on the roles of local institutions in poverty reductions in Meskan Woreda. The result showed as the size and distance to the main market center increase, the probability of household being non-poor would decrease. On the other hand, household education and access to credit have the expected positive sign with the probability of non-poor. Similarly, as households' participate in CBOs and MCU,the probability of the household to be non-poor would increases. Thus, membership and participations in local institutions is an important mechanism to reduce the levels of poverty within the members of the households. Moreover, as the households' monthly income and tropical livestock holding increased, the probability of households being non-poor increased. Based on the findings, the study recommended the following policy options. First, encouraging social networks; if people are bold enough to reserve their social values and networks, farm production and productivity might increase so that the struggle to reduce poverty can be accelerated. Moreover, expanding education servicesmay reduce the challenges of poverty, and strengthen awareness creation for those who have higher family size through strong

family planning service.Finally, market expansion to local areas, and market infrastructure was one of basic institutional factor that promote to access different agricultural input.

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