
**Factors affecting poverty magnitudes in Horro guduru Wollega zone of Jimma geneti
woreda , Ethiopia: An econometric analysis**

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ABSTRACT

Poverty is multi-faceted issue and deep rooted in Ethiopia. The country is among the world's poorest nations in terms of Human Development Index. Poverty in Ethiopia is predominantly a rural phenomenon. This research was under taken at Jimma Geneti district, Horro Guduru Wollega Zone, with the objectives of identifying the severity, levels and determinants of rural poverty in the area and analyzing the determinants in the study area. The data were collected from primary and secondary sources by multi stage sampling techniques applying sample size calculation formula. Statistical techniques like frequency, percentage, ratio analysis, and econometric techniques like binary Logit model by Stata software, the Foster-Greer and Thornback mathematical model, were used. The researcher found out that the total poverty line for the area were Birr 3781.00 (national poverty line, Ethiopia 2010/11) per adult per year. The incidence, depth and severity of rural poverty calculated for the area were 31.74%, 24.18% and 5.85% respectively for the total poverty line. Based on the dependent variable poverty in terms of consumption expenditure some independent variables that are significantly determines the rural household poverty at 1%, 5% and 10% with their significant effect, when one unit change in independent variables, the dependent variable poverty changes by the amount of the coefficient of independent variables, for each of them; the other variables held constant. Among the independent variables that significantly determining and challenging the rural households of the study area were Sex, dependency ratio, agricultural marketing system, climate change, land holding, flood, source of water, age, age square, marital status, education and government and non-government status of rural households were the most but not the last. From the study it can be concluded that to minimize the magnitude of rural poverty in Jimma Geneti district and determinants that affect rural households any development endeavors that aim at improving the living standards of the Jimma Geneti district should focus on the correlates of rural poverty of the area, due policy and development consideration.

Key words:- Poverty, Welfarist approach, Calorie intake, Logistic regression,LDCs.

1. INTRODUCTION

Poverty is not an easy concept to define. The number of people living in poverty has more than doubled over the past thirty years. This lack of progress towards poverty reduction is most noticeable in the African LDCs. In sub-Saharan Africa, three fourths of the poor, particularly the extremely and chronic poor, work and live in rural areas, and more than half are expected to do so in 2025. The remoteness, but also the lack of natural, physical, human and social resources, as well as social and political exclusion, are aspects of persistent rural poverty. People in irrigated zones within rural areas face a much lower poverty risk (Al Binger,2004).

The most common approach to the measurement of poverty is based on incomes or consumption levels. It is widely understood that an individual is considered poor if consumption or income level falls below some minimum level necessary to meet basic needs i.e. poverty line. Poverty is characterized by inadequacy or lack of productive means to fulfill basic needs such as food, water, shelter, education, health and nutrition (World Bank, 2001). Almost half of the Ethiopian population is believed to be below the poverty line (MoFED,2002).

Although poverty has continued to be at the forefront of Ethiopian concerns, recent history shows great improvements. The incidence of poverty has declined from 45.5% in 1995/6 to 38.7% in 2004/5 and finally to 29.6% in 2010/11 (Ministry of Finance and Economic Development, 2012).

Thus, as the Socio-Economic profile of the study area (Jimma Geneti district) shows still there is a problem in poverty reduction due to different determinants and challenges of poverty. Such as, the household population size, lack of co-operative working, lack of technological farming system, land resource holding, seasonal crop diseases, drought, rain, lack of livestock (i.e. farm oxen), lack of infrastructure (i.e. road, telephone, water and electricity) and social facilities (school, health centre , market) (Jimma Geneti socio-economic profile, 2013/14).

The study area has the potentiality of good agro climatic condition, existence of enough water resources, natural resources and human resources, huge cultivable land for commercial investors and produces all cereal crops, Niger seed, linseed, rapeseed and fenugreek, oilseed , hides and skins. But, the woreda stated some problems which has to be solved. These problems are: insufficient supply of agricultural inputs, soil erosion, low income of livestock, scarcity of portable water supply, low performance of local breeds, poor facilities such as road, school, health center, shortage of social infrastructure etc.

From anthropological perspective the manifestation of rural poverty were categorized as at individual, household and community levels. At individual level, poverty is manifested by lack of stable income, insufficient amount of land, insufficient food supply and lack of education. At household level, poverty is manifested by the inability to take family members to clinics, the inability to provide children with food, schooling, and clothes, the inability to participate in

local associations and Kebeles meetings. At community level, poverty is manifested by lack of infrastructure, lack of safe drinking water, climatic instability and insufficient education opportunity.

Given all these problems, no research efforts have been done to identify the level of poverty and its root causes and the implication that the poverty situation of the area may have on the environment of the Jimma Geneti. In addition, most of the research works on poverty analysis that have been done so far focused on households as a unit of analysis employing econometric techniques, but with a limited effort to support factors of poverty by the community's view from the below. Hence, this research thesis is an attempt to fill the gap in the field so as to assist poverty alleviation endeavors of the country in general and the district in particular.

1.1. The Objectives of the study

The objectives of the study are the following:

- To determine the magnitude of rural Household poverty in study area.
- to identify the determinants of rural Household poverty in study area.
- to describe the determinants and challenges of rural Household poverty reduction in the case of Jimma Geneti.
- to characterize the nature of poverty and assess its consequences in the life of the households of the area.

2. Empirical Literature Review

2.1. The Concepts of Measuring Poverty

After constructing the poverty line like Absolute poverty line, Relative poverty line and Subjective poverty lines. then the choice of poverty indices is decided. There are three classes of poverty indices.

(a) The Head Count Index

According to **Sen** (1976 cited in Abebe and Bereket, 1996), the Head Count Ratio is the most popular measure of poverty, which is simply the ratio of the number of the poor to the total population in a community.

Mathematically, the head count index can be written as:

$$HCR = \frac{H}{N}$$

Where, HCR- is the head Count Index, H- is the number of people earning income below the poverty line, N- is the total number of people in the population. For instance, a study by Khan (1977 cited in World Bank, 1993) for Bangladesh showed that the proportion of the population living below the poverty line had declined, yet the remaining poor were, on average, poorer i.e. the poverty gap had increased. Second, a poverty measure should decrease if the poorest receive a

transfer from the moderately poor. However, neither the head count ratio nor the poverty gap reflected such transfers (Sen, 1979 and 1981 cited in World Bank, 1993).

(b) The Poverty Gap Index

According to **Sen** (1976 cited in Dercon and Krishnan, 1996), poverty gap index measures the average gap of the minimum standard of living which the poor are lacking or it is the measure of the transfer needed to bring the poor to a minimum level of consumption. Alternatively, it can be described as the total income shortfall needed to eradicate poverty. Mathematically, the poverty gap index can be calculated as follows:

$$P_1 = \sum_{i=1}^P (z - y_i)$$

Where,

y_i , is the income of individual 'i' in the population, P_1 , is the poverty gap index, z , is the poverty line, P , is the number of poor people in the population

(c) The Foster- Greer Thorbecke Measure of intensity of poverty

According to **Dercon and Krishnan** (1996), this method measures the intensity of poverty by squaring the transfers needed so that very poor households are given a large weight. In general, as suggested by Foster et al (1984), the three poverty indices can be calculated using the following formula:

$$P_\alpha = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - x_i}{z} \right)^\alpha$$

Where, α equals to 0, 1 and 2 for P_0 , P_1 and P_2 respectively x_i , is equal to consumption per adult equivalent for individual i z , is the poverty line q , is the number of people whose consumption per adult equivalent below the poverty line n , is the total number of individuals in the community

2.2. Concepts Of Consumption Poverty

Income poverty measurement assumes that there is a well-defined level of standard of living, called the "poverty line," below which a person is deemed to be poor. A welfarist approach sets this in terms of a reference utility level that can be thought of as a poverty line in utility space. In **consumption space**, the poverty line is the point on the consumer's cost function corresponding to that reference utility that is the minimum expenditure needed to attain that utility.

Table 2:1 Total (absolute) and food poverty line in Birr (average price)

	1995/96	2010/11
Kilocalorie per adult per day (Kcal)	2,200	2,200
Food poverty line per adult person per year (Birr)	648	1,985
Total poverty line per adult person per year (Birr)	1,075	3,781

3. RESEARCH METHODOLOGY

This particular study employed a cross sectional study design. The researcher used both primary data and secondary data sources in order to collect the data in the study. Primary data collected through interviews structured questionnaires and observations. Secondary data sources collected from the written profile of the study area, different books, CSA of the country's data, magazine and Journals.

The researcher used multi stage sampling techniques, first for the selection of woreda, purposive sampling techniques were used. Second for the selection of Kebeles simple random sampling technique were used and finally, for the selection of households systematic sampling were used to identifies the target population as precisely as possible, and in a way that makes sense in terms of the purpose of study and to puts together a list of the target population from which the sample would be selected.

Using the Yamane formula, the researcher determined the minimal sample size that investigated for any given population size. Accordingly, the sample size of the rural households of Jimma Geneti were 397 households. The study used Logit regression model by Stata software to identify the determinants of poverty.

The choice between income or consumption as a measure of welfare is the main issue. In this study, consumption is used as the metric to measure poverty. Consumption is a better measure of longer-term household welfare because it is subject to less temporal variation than income. Also, in Ethiopia as elsewhere, consumption is likely to be measured more accurately than income. However, for consumption to be an indicator of the household's welfare, it has been adjusted for differences in the calorie requirement of different household members age and gender. This adjustment can be made by deflating household consumption by an adult equivalent scale that depends on the nutritional requirement of each family member. The adult equivalent scale must therefore be different for different age groups and the gender of adult members. The household consumption have been adjusted for differences in prices across regions and at different points in time to take care of the differences in the cost of basic needs between areas and over time.

4. Results of Econometric Analysis

4.1. Results of the Binary Logit Regression Analysis Model

As presented above, the magnitude of rural poverty in study area is above the national average. Thus, it is worth investigating the correlates of poverty that are specific to the area and suggest ways and means to alleviate or lessen the extent of problem. To identify the correlates of rural poverty in area, the Logit regression model is fit in which the poverty situation of the households binary (1 if the household is "poor" and 0 if the household is "non-poor") is regressed as dependent variable against the hypothesized independent variables.

Table 4.1. Logit Regression Result for Determinants of Rural Poverty in Jimma Geneti

Logistic regression

Number of obs = 397

LR chi2(28) = 129.03

Prob > chi2 = 0.0000

Log likelihood = -145.49729

Pseudo R2 = 0.3072

rhhpov	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
agehh	-.462557	.2234783	-2.07	0.038**	-.9005664	-.0245476
agehhsq	.0057993	.0025411	2.28	0.022**	.0008188	.0107798
sexhh	-2.124563	.6079009	-3.49	0.000*	-3.316027	-.9330994
martia	-.3987675	.2171141	-1.84	0.066***	-.8243034	.0267684
educhh	.5787367	.3206261	1.81	0.071***	-.0496789	1.207152
tfmlys	-.0467934	.3327032	-0.14	0.888	-.6988796	.6052928
hhadequ	.0866099	.4460848	0.19	0.846	-.7877003	.96092
dratio	-2.717446	.9450465	-2.88	0.004*	-4.569703	-.8651891
jobstat	-.023437	.2486202	-0.09	0.925	-.5107236	.4638496
resdhh	-.0379259	.3951416	-0.10	0.924	-.8123892	.7365374
hhfmlv	-.1075265	.6944547	-0.15	0.877	-1.468633	1.25358
agrmkt	-5.357912	1.506458	-3.56	0.000*	-8.310515	-2.405308
ruinfra	-.2624318	.4352825	-0.60	0.547	-1.11557	.5907062
tecrhh	.0903991	.3971245	0.23	0.820	-.6879505	.8687488
entdeg	.3412006	.8200886	0.42	0.677	-1.266143	1.948545
parhh	-1.529306	.7306678	-2.09	0.036**	-2.961388	-.097223
acmfi	.8794757	.7546701	1.17	0.244	-.5996505	2.358602
qualgov	-.6406368	.4170014	-1.54	0.124	-1.457944	.176671
health	.977005	.6904193	1.42	0.157	-.3761919	2.330202
savcul	-.2103553	.5093085	-0.41	0.680	-1.208582	.7878711
ownpro	.0167982	.7268888	0.02	0.982	-1.407878	1.441474
climt	-1.77273	.7274776	-2.44	0.015*	-3.19856	-.3469
moral	-.0241167	.4916555	-0.05	0.961	-.9877438	.9395105
ngogov	-.5266861	.3218451	-1.64	0.102***	-1.157491	.1041188
land	-.6757659	.1922611	-3.51	0.000*	-1.052591	-.298941

flood	2.355412	1.020968	2.31	0.021*	.3543504	4.356473
watso	.5272572	.2060082	2.56	0.010*	.1234886	.9310258
distan	-.5215241	.4545963	-1.15	0.251	-1.412516	.3694682
_cons	27.44929	7.94153	3.46	0.001	11.88418	43.01441

Source: Stata regression from survey data, 2015

Significance level, *significant at 1 percent, ** significant at 5 percent, *** significant at 10 percent.

Table 4:2. Results of the Binary Logit Odds Ratio Regression Analysis

Logistic regression

Number of obs = 397

LR chi2(28) = 129.03

Prob > chi2 = 0.0000

Log likelihood = -145.49729

Pseudo R2 = 0.3072

rhhpov	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
agehh	.6296715	.1407179	-2.07	0.038	.4063394 .9757513
agehhsq	1.005816	.0025559	2.28	0.022	1.000819 1.010838
sexhh	.1194851	.0726351	-3.49	0.000	.0362967 .3933327
martia	.6711467	.1457154	-1.84	0.066	.4385404 1.02713
educhh	1.783784	.5719276	1.81	0.071	.9515349 3.343949
tfmlys	.9542845	.3174935	-0.14	0.888	.497142 1.831788
hhadequ	1.090471	.4864426	0.19	0.846	.4548897 2.6141
dratio	.0660432	.0624139	-2.88	0.004	.010361 .4209719
jobstat	.9768355	.242861	-0.09	0.925	.6000612 1.590184
resdhh	.9627843	.3804361	-0.10	0.924	.4437965 2.088691
hhfmlv	.8980527	.6236569	-0.15	0.877	.2302401 3.50286
agrmkt	.0047107	.0070965	-3.56	0.000	.0002459 .0902377
ruinfra	.7691788	.3348101	-0.60	0.547	.3277285 1.805263
tecrhh	1.094611	.4346969	0.23	0.820	.5026051 2.383926
entdeg	1.406635	1.153566	0.42	0.677	.2819167 7.018466
parhh	.2166861	.1583255	-2.09	0.036	.051747 .9073536

acmfi	2.409636	1.81848	1.17	0.244	.5490035	10.57616
qualgov	.5269568	.2197417	-1.54	0.124	.2327141	1.193238
health	2.656488	1.834091	1.42	0.157	.6864706	10.28002
savcul	.8102963	.4126908	-0.41	0.680	.2986205	2.198711
ownpro	1.01694	.7392024	0.02	0.982	.244662	4.226922
climt	.1698686	.1235756	-2.44	0.015	.040821	.706876
moral	.9761718	.4799403	-0.05	0.961	.372416	2.558729
ngogov	.5905588	.1900685	-1.64	0.102	.3142737	1.109732
land	.5087666	.0978161	-3.51	0.000	.3490323	.7416032
flood	10.54247	10.76353	2.31	0.021	1.425255	77.98163
watso	1.694279	.3490353	2.56	0.010	1.131437	2.53711
distan	.5936151	.2698552	-1.15	0.251	.2435297	1.446965

Source: Stata regression from survey data,2015

Table 4:3. Results of the Binary Logit Marginal Effects Regression Analysis

mfx, dydx at(mean)

Marginal effects after logistic

$$y = \text{Pr}(\text{rhhpov}) \text{ (predict)}$$

$$= .99858962$$

variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
agehh	-.0006515	.00125	-0.52	0.603	-.003109	.001806	45
agehhsq	8.1706	.00002	0.51	0.608	-.000023	.000039	2673.17
sexhh	-.0029922	.00623	-0.48	0.631	-.015197	.009212	1
martia	-.0005616	.00125	-0.45	0.653	-.003007	.001884	1
educhh	-.0008151	.0017	-0.48	0.631	-.002511	.004141	1
tfmlys	-.0000659	.00048	-0.14	0.891	-.001011	.000879	6
hhadequ	.000122	.00064	0.19	0.850	-.001141	.001385	4
dratio	-.0038272	.00841	-0.45	0.649	-.020314	.012659	2
jobstat	-.000033	.00034	-0.10	0.923	-.000704	.000638	2
resdhh	-.0000534	.00054	-0.10	0.922	-.001118	.001011	2
hhfmlv	-.0001514	.00101	-0.15	0.881	-.00214	.001837	2
agrmkt	-.0075461	.01635	-0.46	0.644	-.039583	.024491	1

ruinfra	-.0003696	.00103	-0.36	0.721	-.002397	.001657	1
tecrhh	.0001273	.00065	0.20	0.844	-.001138	.001392	1
entdeg	.0004805	.0015	0.32	0.749	-.002461	.003422	1
parhh	-.0021539	.00464	-0.46	0.643	-.011252	.006944	1
acmfi	.0012386	.00287	0.43	0.666	-.004377	.006854	1
qualgov	-.0009023	.00202	-0.45	0.654	-.004852	.003048	1
health	.001376	.00348	0.39	0.693	-.005453	.008205	1
savcul	-.0002963	.00099	-0.30	0.764	-.002233	.00164	1
ownpro	.0000237	.00104	0.02	0.982	-.002013	.00206	1
climt	-.0024967	.00533	-0.47	0.639	-.012942	.007949	1
moral	-.000034	.00068	-0.05	0.960	-.001371	.001303	2
ngogov	-.0007418	.00162	-0.46	0.648	-.003923	.00244	1
land	-.0009517	.00212	-0.45	0.653	-.005101	.003198	1
flood	.0033174	.00742	0.45	0.655	-.011227	.017862	1
watso	.0007426	.00169	0.44	0.660	-.002561	.004046	1
distan	-.0007345	.00208	-0.35	0.724	-.004807	.003338	4

Source: Stata regression from survey data, 2015

➡ Interpretation and Policy Implication

As you see from the above table 4.1. some variables that are significant at 1%, 5% and 10% selected as the determinants of poverty and included in the model with their significant effect when one unit change in independent variables, the dependent variable poverty changes by the amount of the coefficient of the independent variables, for each of them; the other variables held constant.

Marginal effect shows the change in probability when the predictor or independent variable increases by one unit. For continuous variables this represents the instantaneous change given that the 'unit' may be very small. For binary variables, the change is from 0 to 1, so one 'unit' as it is usually thought.

Since, $\text{Prob} > \chi^2 = 0.0000$ is < 0.05 the model is ok. This is a test to see whether all the coefficients in the model are different than zero. Logit coefficients are in log-odds units and cannot be read as regular OLS coefficients. To interpret you need to estimate the predicted probabilities of $Y=1$.

Z test the hypothesis that each coefficient is different from 1. To reject this, the t-value has to be higher than 1.96 (for a 95% confidence). If this is the case then you can say that the variable has a significant influence on your dependent variable (y). The higher the Z the higher the relevance of the variable.

The change in probability for one instant change in *agehh* is -0.06 percentage points (pp), in *agehhsq* is 817 pp, in *sexhh* is -0.3 pp, in *marital* is -0.06 pp, in *educhh* is -0.08 pp, *intfmlys* is -0.006 pp, in *hhadequ* is 0.01 pp, in *dratio* is -0.4 pp, in *jobstat* is -0.003 pp, in *resdhh* is -0.005 pp, in *hhfmly* is -0.02 pp, in *agrmkt* is -0.7 pp, in *ruinfra* is -0.04 pp, in *tecrhh* is 0.01 pp, in *entdeg* is 0.05 pp, in *parhh* is -0.2 pp, in *acmfi* is 0.1 pp, in *qualgov* is -0.09 pp, in *health* is 0.1 pp, in *savcult* is 0.03 pp, in *ownpro* is 0.002 pp, in *climate* is -0.2 pp, in *moral* is -0.003 pp, in *ngogov* is -0.07 pp, in *land* is -0.09 pp. in *flood* is 0.33 pp, in *watso* is 0.07 pp and *distan* is -0.07. None of the effects here are significant (see column $P > |z|$, for significance at 95% values should be < 0.05).

Two-tail p-values test the hypothesis that each coefficient is different from 0. To reject this, the p-value has to be lower than 0.05 (95%, you could choose also an alpha of 0.10), if this is the case then you can say that the variable has a significant influence on your dependent variable (*y*).

Odds ratio represent the odds of $y=1$ when *X* increases by one unit. These are $\exp(\text{logit coefficient})$. If odds ratio is greater than one then the odds of $y=1$ increases. If the odds ratio is less than one then the odds of $y=1$ decreases.

The interpretation of the logit model given in above is as follows: β_2 , the slope coefficient, measures the change in *L* for a unit change in *X*, that is, it tells how the log-odds ratio in favor of to be poor change as adult equivalent consumption expenditure changes by a unit. The intercept β_1 is the value of the log odds in favor of to be poor if adult equivalent consumption expenditure is zero. Given a certain level of adult equivalent consumption expenditure, say, X^* , if we want to estimate not the odds in favor of to be poor but the probability of to be poor itself, this can be done directly from logistic distribution function once the estimates of β_1 and β_2 are available. whereas the LPM assumes that P_i is linearly related to X_i , the logit model assumes that the log of the odds ratio is linearly related to X_i .

The probability of a household being poor tends to diminish as age of the household head increases using per capita household calorie consumption. This can be explained by firstly, that asset ownership tends to increase with age; and secondly, the composition of the family changes in time, as those children grow up and either can contribute labour force to various farm activities or leave the household. But note that the sign of the coefficient corresponding to age of household changes when per capita household expenditure is considered to define the poverty line and used as a response variable in the logit model implying that aged household heads have less to spend on household consumption. The coefficient associated with gender of the household head, apparent in table 4:13/4.1., could be worth mentioning, given the standard presumptions. While the probability of being poor for male-headed households is higher than the female-headed households employing the per capita food energy consumption, female-headed households have higher incidence of poverty if household consumption expenditure is considered as a criterion, although the coefficient is statistically significant ($P < 0.05$) in the case. That means, male-headed households have better capacity to comply with the minimum consumption expenditure required

to meet the requirements.

The coefficient on education reflects the prime role that human capital plays in determining poverty. In fact, education is an important dimension of poverty itself, when poverty is broadly defined to include shortage of capabilities and knowledge deprivation. It has important effects on the poor children's chance to escape from poverty in their adult age and plays a catalytic role for those who are most likely to be poor, particularly those households living in rural communities. Education is expected to lead to increased earning potential and to improve occupational and geographic mobility of labour. Therefore, it deserves an important place in formulating poverty reduction strategies.

A more appealing interpretation of parameter estimates in a logit model is explaining the marginal effect of each exogenous variable. A possible interpretation of the results presented in table 4.3. is that, for instance, it is expected that an additional year for the head of household (as a proxy for experience in farming), all other variables held at their mean values, decreases the probability of a household to be poor by about 0.06%. Similarly, promoting the household head by one level of education will reduce the risk of poverty by nearly 0.08%.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

In order to address the resource constraints which limit the ability of LDCs to foster economic growth and poverty reduction, Governments need to develop innovative approaches for mobilizing domestic financial resources. Domestic resource mobilization can be managed more innovatively for greater effectiveness.

There is much empirical evidence for poverty reduction through increases in agricultural productivity. There is strong evidence for indirect poverty reduction through employment generation, rural non-farm multiplier effects, and food prices effects, however contextual factors determine whether market forces resolve most favorably for the poor. Furthermore, the resulting equilibrium in agricultural and labor markets may affect poor net food buying households differently than poor net food producers. The available evidence supports the theories that when farm incomes and the real wage rate increase and the rural non-farm economy grow, real household incomes increase and the percentage of the population living below international poverty lines decreases. Nutritional status or other aspects of well being, such as health measures and education, may also improve. However, initial asset endowments, and land assets in particular, are significant determinants of households' ability to access and effectively use productivity enhancing knowledge and technologies. Poor households face barriers to technology adoption and market access. In sum, the importance of productivity to agricultural sector growth and to poverty reduction is complex and depends on a variety of contextual factors including the initial

distribution of poverty, asset endowments, strength of market linkages and the extent and nature of the poor's participation in the agricultural sector.

The empirical results of this study reflect the severe poverty level that continues to prevail in rural Ethiopia. Even though the head count ratio, depth and severity of poverty have shown variation based on the criteria employed, all confirm that poverty is a problem of major concern. In this study, the marginal effect analysis of the exogenous variables revealed that, among others, cultivated land per adult equivalent, geographical location, education and oxen ownership are important determinants for rural poverty in Ethiopia. These findings indicate that poverty is best understood as a lack of household resource endowments, which means that households are deprived from basic livelihood assets.

In addition, the study shows that it is important to differentiate among poor and that attention needs to be paid to the poorest of the poor. The results provide meaningful insight about various poverty-generating factors and the relevance of various policies. The researcher argue that in this paper that targeting is an essential instrument to achieve a better impact of poverty alleviation measures. The research results imply that poverty is to some extent explained by disparities among regions in terms of lack of adequate infrastructure and resource degradation. Reducing poverty could therefore be more effective with geographic targeting. This can help improve the design of poverty alleviation programs and determine the ways in which a budget can be distributed so as to maximize poverty reduction.

5.2. Recommendations

On the basis of the above findings the following recommendations can be forwarded.

Although the job status of households in the study area was not found to be significantly determining poverty situation of the area, from the community discussion, the variable is indicated to be important determinant factor. In addition, from the researcher's observation, the job status of rural households is nature in which many literate or illiterate people that have or haven't source of income or livelihood. Hence, encouraging the household's creativity and increasing their self-independence could be one possible way of improving the living standards of people of the area.

Large family size and dependency ratio of households are the other important variables that force households to fall into poverty. Average family size and dependency ratio for the rural households of Jimma Genetic are found to be 6.5 and 60.12% respectively. Introduction of family planning techniques and population education could serve the purpose of reducing dependency burden and controlling family size of households. The household family size aged below 15 years old was very large, this in turn increases the dependency ratio of rural households. Thus, it is better to teach the households on its merit and demerit and to use family planning.

Although the Jimma Geneti rural households residence is far from the woreda and zone town, there is no feasible infrastructure (i.e. road, electricity, water, telephone and internet). These residential and infrastructural problem arises the lack of adoption of technology among rural households according to their residence. Non-adoption of technology results in low production which offer households vulnerability to poverty. To get out of poverty and increase productivity rural infrastructure play a great role in connecting households settled in different residents and making good condition for marketing, social facilities etc.

The access to Micro Finance Institutions and the rural household livelihood governance quality status are another variable those significantly determines in reducing poverty in the rural households of Jimma Geneti. Even if there were good condition and possibility for rural household's livelihood diversification, the initial capital is needed and also there should be good governance on it. Additionally, the land holding status of rural households of the study area is another determinant in reducing poverty. As discussed earlier crop production and livestock production are the most important sources of income for the rural households of Jimma Geneti. Land redistribution were not held after 1975 E.C .The policy maker can take it as a solution and encourage the households in engagement of another source of income generating activities such as: engagement of households in fishing activities, beekeeping, chicken fattening. The huge fish potential of Lake *Fincha'a*, if utilized in a sustainable manner, can help improving the lives of the people of the rural households of Jimma Geneti. The problems with the local fishermen of the area are the use of traditional fishing technologies like papyrus/reed boat transportation system and locally made fish mesh that limited the benefits from fishing. In addition, only small proportions of households are engaged in the activity because of problem of startup capital. Hence, organizing residents of the area into fishing association and supporting them with startup capital that could enable them to purchase motorized boats and standardized fish mesh could be one way out to the problem.

6. Significance of the Study

This study helps the policy makers, researchers, and community of the study area in different ways. First, it helps the district to know the poverty situation better; second, it helps to understand factors determining the situation and third, it helps to design development interventions from governmental or non-governmental institutions. Most importantly, since any policy action that aims at reducing level of poverty starts with understanding of the extent of poverty, its basic determinants, and major manifestations, analysis of this type could offer insight for such an end findings. Finally, used as reference for further researches, findings and recommend the best direction for interventions.

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