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DECOMPOSITION OF RURAL POVERTY BY DEMOGRAPHIC CONTEXT OF RURAL HOUSEHOLDS: THE CASE FROM KOLA AGRO-ECOLOGICAL ZONE OF HUMBO WOREDA, SOUTHERN ETHIOPIA

Feleke Yehuwalashet Motuma

Department of Geography and Environmental Studies, Wolaita Sodo University, Ethiopia.
Email: naolfeleke@gmail.com

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ABSTRACT

The major objective of this study was to look into decomposition of Rural Poverty by demographic context of Rural Household in kola Agro-Ecological zone of Humbo Woreda. In order to attain this objective, relevant data were collected through structured interview. The generated data were computed through bivariate analysis of rural poverty profile by FGT indices (Incidence, Depth and Severity of poverty) in terms of demographic characteristic of the household in kola agro-ecological zone of Humbo Woreda. The bivariate analysis of rural poverty profile indicated that three FGT poverty measure were becoming less as number of the household members, female-male ratio, and dependence ratio decreasing in kola agro-ecological zone of Humbo Woreda. These indexes also shows that poverty was more severe among age sub-group of 20 to 29 years, informally educated household head, and households without vocational training in kola agro-ecological zone of Humbo Woreda. In this study, researchers clearly identified where poor were more concentrated. This suggests that such group of rural households should get assistance to get them out from poverty. Hence, project designers and other concerned body who participate on rural poverty reduction should look into those indicators of poor rural households to access poor rural households (high risk group) so that poor rural household could targeted.

Contribution/ Originality: This study contribution in the existing literature by looking into decomposition of Rural Poverty by demographic context of Rural Household in kola Agro-Ecological zone of Humbo Woreda.

1. INTRODUCTION

1.1. Background of the Study and Problem Justification

From the perspective of basic needs, the World Bank (2000) defines poverty as minimum consumption expenditure needed to meet the basic needs of the 'shopping basket'.

In the world, the regional share of residents living in extreme poverty is high in African continent. According to the evidence, 47.9 percent of population is living in extreme poverty in this continent (Ncube *et al.*, 2015). Regardless of being second largest continents in the world and having 54 countries, the combine gross domestic product (GDP) of Africa is about 15 times less than the GDP of the USA and about 7 times less than the current GDP of china (Teshome and Quaicoe, 2014). They add that the inappropriate development strategies and institutional weakness are claimed to be one of the main factor for poverty in many African countries.

Sub-Saharan Africa is the only region in the world where poverty is relatively worse off than their counterparts in other parts of the world. Thus, 389 million people are inhabited in extreme poverty ($1.90/day) over sub-

Saharan Africa which is 43.4 percent of the global poor (International Labour Organization (ILO), 2016; Sulaiman *et al*., 2016). Nigeria, Democratic Republic of Congo, Tanzania, and Ethiopia were top four countries contributing the 53 of percent poverty to sub-Saharan African (Beegle *et al*., 2016). Among the extremely poor, poverty is clustered in the rural areas. Rural inhabitants of most Sub-Saharan Africa rely on low-productivity and low-paying jobs (Chuhan-Pole, 2014). Poverty is pervasive in Ethiopia as a great portion of its population lives below $1.90/ a day (Oxford Poverty and Human Development Initiative (OPHI), 2016). Despite of fast economic growth in the past decade, poverty happens ubiquitous in Ethiopia that makes the country among the poorest in the world. Recently, Ethiopia is among the low-income countries in the world with rank of 164 out of 187 countries (WB, 2017).

The incidence of poverty in rural areas is greater and poverty is more severe than in urban areas. And also there is an uneven distribution of poverty throughout the country's rural areas. This means, rural poor are not a homogeneous group (International Fund for Agricultural Development (IFAD), 2011). This is because, poverty is truly a regional specific (context) phenomenon that requires policy and program interventions as of local situation in order to improve the well-being of households and, hence, make them free from poverty (WB, 2015).

If the poor and their problems are to be identified more clearly, then they must be asked what they think and given the opportunity to express their needs as they see realities. As far as the knowledge of the researcher, Different Governement, non-governmental organization and other civil organization working in the Humbo Woreda were asked know t if the research regading poverty were done. In addition, researcher went into library and website to know if the same research to researcher was made in the study area. However, only, researcher was able to find the relevant work of Feleke and Temesgen (2019). Hence, by targeting food poverty Feleke and Temesgen (2019) were carried out research in Humbo Woreda. As far as the knowledge of the researcher, no research was done in Humbo Woreda in general and Its Kola agroecology zone in particular regarding Poverty. But, this study has big gaps, since it did not investigated decomposition of Rural Poverty by demographic context of rural Household in kola agro-ecological zone. These research gaps predictably calls for the need to go deep into the analysis of rural poverty of Kola agro-ecological zone to demographic context so that it would support the on-going poverty reduction program of the country (GTPII).Therefore, deep profile of poverty analysis was required based on condition of the rural households to have relevant policy for poverty alleviation.

1.2. Objective of the Study

The objective of this study was to decompose rural poverty by demographic context of household in kola agro-ecological zone of Humbo Woreda.

2. METHODOLOGY

2.1. Relief and Agro-Ecological Zones of Study Area

In mountainous countries, topography (altitude, steepness and slope characteristics) plays an important role in agro-ecological zonation. Agro-ecological zonation can be defined as a spatial classification of the landscape into area units with "similar" agricultural and ecological characteristics (Hurni, 1995). In Ethiopia, where the most pronounced mountain system in Africa is found, altitude, steepness and slope characteristics have been recognized as primordial parameters for agro-ecological zonation. Hence, Ethiopian land users have traditionally classified their environment to Wurch, Dega, Weynadega, Kola and Berha agro-ecological zone (Food and Agriculture Organization(FAO), 2015). Having this pronounced mountain system, Humbo Woreda have two agro-ecological zones i.e. Weynadega and kola agro-ecological zone in which our study focused on Kola agro-ecological zone.

2.2. Research Design

Quantitative research methods are appropriate in measuring levels and changes in impact and to make inferences from the observed statistical relations between those impacts and covariates (Cresswell, 2003). So, it

maintains that research inquiry should be "objective". That is, time and context-free generalizations are desirable and possible, and real causes of social scientific outcomes can be determined reliably and validly (Mundar *et al.*, 2012). According to this school of thought, researchers should eliminate their biases, remain emotionally detached and empirically justify their stated hypotheses/research question. Hence, for this study the researchers used Quantitative research design to come up with best research analysis of this paper.

2.3. Technique and Methods of Data Collection

According to Kothari (2008) information obtained by means of questionnaires is free from bias as the person conducting the research cannot influence the respondents hence accurate and valid data can be obtained. They are also cheaper, easier to administer and convenient as the respondents are given time to fill in the questionnaires. So, the schedule interview is the principal source of the data gathering tools in this research more than the other. It was designed to both close and open ended question by English language and translated to Afan Oromo for the sample respondents aiming for the clarity. Then the scheduled interview was accessed to sampled household by enumerator to gather both qualitative and quantitative data, which is assumed to relevant to the problem under study.

2.4. Method of Data Analysis

Under this manuscript, poverty was decomposed to different attributes of demographic characteristics of rural households to detect specific social group live in poverty. To achieve this, FGT poverty measures was used. Here our focus was to detect and identify where the poorest households concentrated.

Identification of poverty was normally proceeds by setting a poverty line corresponding to a minimum level below which one is considered poor. In this analysis, household consumption expenditure towards food and non-food item were considered and compared to National poverty line of Ethiopia (7184.00 Birr per adult equivalent per year). In this regard, Foster Greer Thorbecke (FGT) poverty measures were used to identify profile of poverty in Humbo Woreda. Three indicators that emerge from this measure are: the headcount ratio that indicates the prevalence of poverty, the poverty gap that measures the average depth of poverty across the households, and the squared poverty gap that emphasizes the conditions of the poorest of the poor.

3. RESULT AND DISCUSSION

3.1. Decomposition of Rural Poverty by Household Demographic Characteristics

Here, researchers looked at decomposition of rural poverty by household demographic characteristics like family size, female-male ratio, age of household heads, dependence ratio, vocational training and education level of household heads in kola agro-ecological Zone of Humbo Woreda.

3.1.1. Decomposition of Poverty by Age of Household Heads

FGT index computed in Figure 1 shows that the higher incidence, depth and severity of poverty were identified in sub-group of household heads having age of 20-29 year in kola Agro-ecological zone. This shows that sub-group of household heads having age group of 20-29 years were with high incidence, depth and severity of rural poverty in kola Agro-ecological zone of Humbo Woreda.

3.1.2. Decomposition of Poverty by Female-Male Ratio

Decomposition of poverty by female-male ratio of household members is produced in Table 1 through FGT index. The household members having 2.00 and above female -male ratio have highest incidence of poverty (93.8 percent), depth of poverty (45.47 percent) and severity of poverty (20.68 percent). From this, one can understand that incidence, depth and severity of rural poverty were becoming high as female-male ratio is increasing in Kola Agro-ecological zone of Humbo Woreda.

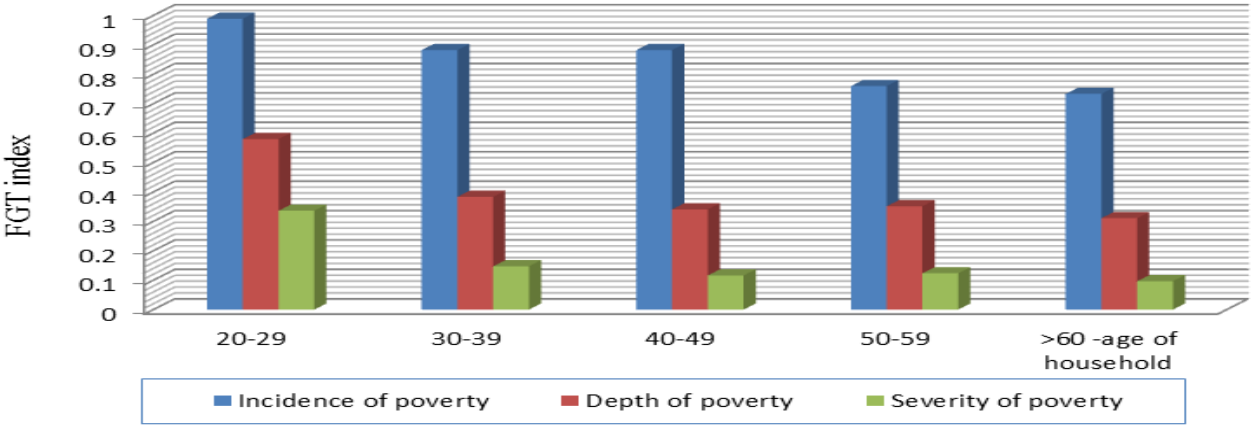

Figure-1. Decomposition of rural poverty by age of household heads.

Source: Survey result, 2019.

Table-1. Decomposition of rural poverty by female-male ratio.

Female-male ratio	FGT index		
	Incidence of poverty	Depth of poverty	Severity of poverty
0.000-0.999	0.733	0.3196	0.1021
1.000-1.999	0.838	0.3848	0.1481
2.000 and above	0.938	0.4547	0.2068

Source: Survey result, 2019.

3.1.3. Decomposition of Poverty by Household Sizes

By considering different family size of rural households, the incidence of poverty is increasing as household number increasing up to the household having 5 members. But, the poverty gap and severity of poverty is becoming high as numbers of the household members increasing. The household having 1 and 2 members escaped from incidence, depth and severity of rural poverty in Kola agro-ecological zone of the Humbo Woreda.

This indicted that depth and severity of rural poverty is becoming high as number of household members increasing while households having one and two number of household members were escaped from incidence, depth and severity of rural poverty in kola agro-ecological zone of Humbo Woreda.

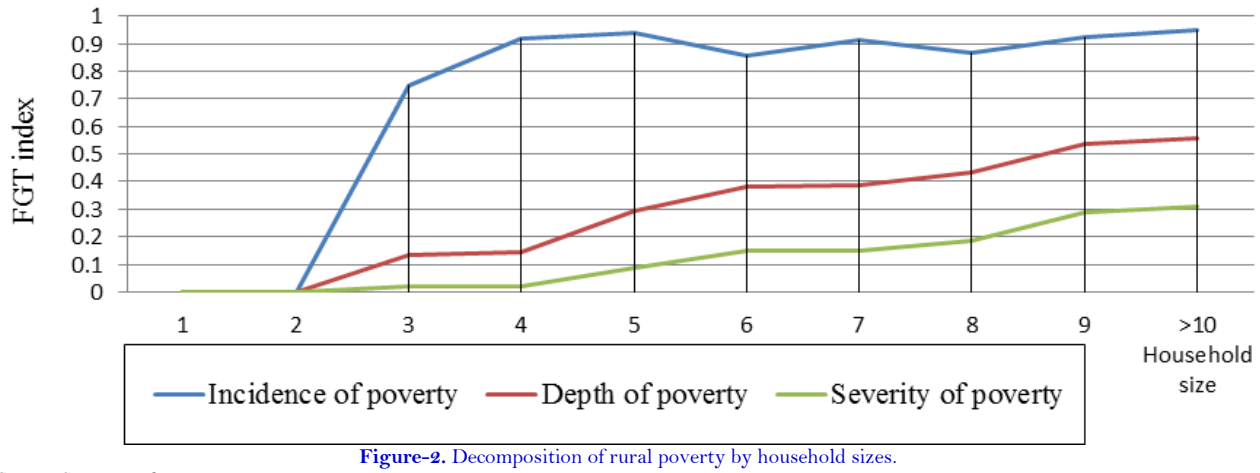

Figure-2. Decomposition of rural poverty by household sizes.

Source: Survey result, 2019.

3.1.4. Decomposition of Poverty by Education Level Household Heads

Rural poverty measurement presented in the Table 2 shows that poverty was worse when educational achievement of household heads was informal. This indicated that household head with formal educational achievement have less incidence of poverty, depth of poverty and severity of poverty in relative with household head with informal educational achievement in kola Agro-ecological zone of Humbo Woreda.

Table-2. Decomposition of rural poverty by education level of household heads.

Educational level Household heads	FGT index		
	Incidence of poverty	Depth of poverty	Severity of poverty
Informal education	0.9136	0.6241	0.3947
Formal education	0.5736	0.2486	0.2541

Source: Survey result, 2019.

3.1.5. Decomposition of Poverty by Household Dependence Ratio

Decomposition of poverty by dependency ratio in kola agro-ecological zone is produced in Figure 3. The result shows that incidence of poverty, depth of poverty and severity of poverty is becoming high as dependence ratio is increasing in the Kola agro-ecological zone. From this one can understand that incidence, depth and severity of rural poverty were becoming worse as dependence ratio increasing. This means, rural poverty is high with household having more dependent members.

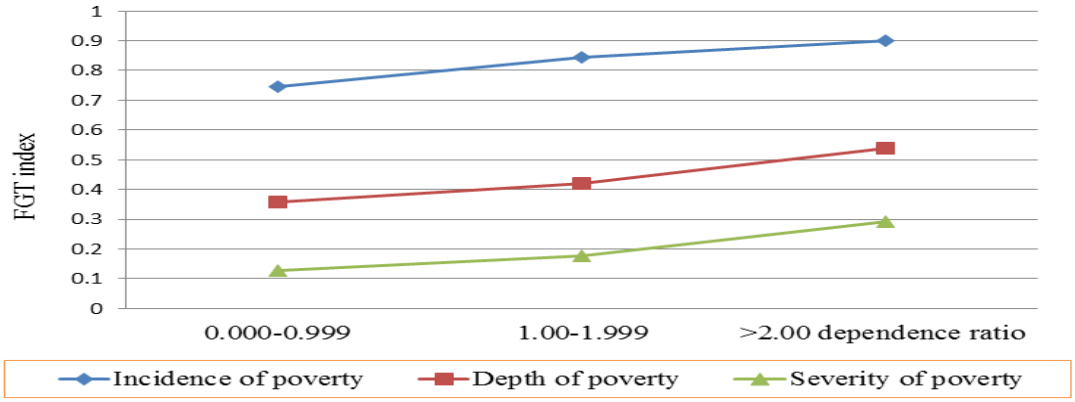

Figure-3. Decomposition of rural poverty by household dependence ratio.

Source: Survey result, 2019.

3.1.6. Decomposition of Poverty by Household Vocational Training

Table 3 shows FGT index of household heads vocational training. Incidence, depth and severity of rural poverty were high among households without vocational training comparing with rural households who got vocational training in the targeted study area. This shows that household without vocational training is living with high incidence, depth and severity of rural poverty in the kola Agro-ecological zone of Humbo Woreda.

Table-3. Decomposition of rural poverty by household vocational training

Vocational training	FGT index		
	Incidence of poverty	Depth of poverty	Severity of poverty
No	0.8750	0.5319	0.2829
Yes	0.5000	0.3526	0.1243

Source: Survey result, 2019.

4. CONCLUSION AND POLICY IMPLICATION

The bivariate analysis of rural poverty profile indicated that three FGT poverty measure are becoming less as number of the household members, female-male ratio, and dependence ratio decreasing in kola agro-ecological zone of Humbo Woreda. Three FGT poverty index of rural poverty also shows that poverty is more severe among age sub-group of 20 to 29 years, informally educated household head, and households without vocational training in kola agro-ecological zone of Humbo Woreda.

Hence, high risk groups of the rural households across different indicators should get attention. Likely, policy makers, project designer and other concerned body who participate on rural poverty reduction should look into indicators of poor rural households to access poor rural households (high risk group) so that poor rural household could targeted. In addition to above, different media and activists should sensitize and disclose those high risk

groups of rural households to make fertile ground for any intervention to alleviate poverty. In order to combat poverty more efficiently, there must be a differentiation among the poor to those capable of working and those who cannot. For individuals who are not able to work, regular social assistance programs can be useful for alleviating poverty. On the other hand, for the poor, who could work, social assistance payments should be complemented with promotion policies. Hence, it is within the means of government and non-governmental organization to engage in massive work in designing intervention plan towards reducing poverty through promotion and protection policy in the study area.

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