



Demographic characteristics of rural households by poverty Status: A case of Kuyu District, Central Ethiopia

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Abstract

The major Objective of this study was to look into Demographic characteristics of rural households by poverty status in Kuyu District, Central Ethiopia. In order to attain this objective, *relevant data were collected through structured interview. The generated data were computed through* descriptive (frequencies, percentages, ratios, mean values, standard deviation, standard error) and t-test inferential statistics to analyze desired household characteristics to poor and non-poor categories in Kuyu district. Hence, Comparing with Non-poor rural households, Poor rural households have less average of family size (AE) in Kuyu district in general and in all agro-ecological zones in particular than Non-poor Households showing significant difference at 1 percent significance level. There was insignificant mean difference between poor and non-poor with regard to dependence ratio and female –male ratio of rural households in the study area and across agro- ecological zone at 5 percent significance level. There was also insignificant mean difference between poor and non-poor in terms of average age household heads at 5 percent significance level in Kuyu district in general and Weynadega agro-ecological zone in particular. However, there was significant mean difference between poor and non-poor in terms of average age household heads at 5 percent significance level in Dega and Kola agro-ecological zone of Kuyu district. Our final conclusion is *that effort should be made to improve the demographic factors to alleviate rural poverty of Kuyu district.*

Keywords: demographic indicators, poverty status, Kuyu district, agro-ecological zone

1. Introduction

Income poverty is based on basic need approach while Multi-dimensional poverty is based on basic capability approach. From the perspective of basic needs, World Bank (2000) [28] Cruz *et al.* (2015) [8]; and Ncube *et al.* (2015) [18]; Beegle *et al.* (2016) [4]; Ferreira *et al.* (2016) [11] define poverty as deprivation in well-being and define the poverty line as minimum income/consumption expenditure need to buy food and non-food basic needs of 'shopping basket'.

In spite of substantial improvement in reducing poverty in some parts of the world over the past decades, still around 76.7 percent of the world's very poor people are living in the rural area (ILO, 2016) [13]. Poverty is the oldest and the toughest like virus that brings about a distressing disease in developing countries. Its rate of killing cannot be compared to any disease from the origins of mankind. It is worse than malaria and HIV/AIDS which are claimed to be the highest killer diseases (Tazoacha, 2001) [21]. Many of developing countries in Latin America, Africa and Asia remain behind developed countries mainly due to lack of infrastructure, education, health services and higher incidence of poverty (Teshome, 2012). Hence, poverty is continued to be a highly threatening social problem that has claimed the lives of millions directly or indirectly in most of these developing world. The problem is more intense in Sub-Saharan Africa including Ethiopia where poverty is chronic in rural areas (Dercon, 2008; Adeyemi, *et al.*, 2009; UNECA, 2012; Sembene, 2015) [9, 1, 27, 20]. Nowadays, across sub-Saharan Africa rural infrastructure has almost deteriorated, farming has languished, food systems have stagnated, and income inequalities have deepened (UNDP, 2012;

Teshome and Quaicoe, 2014) [26, 23]; Kabuya, 2015 [15]; Sembene, 2015) [20].

Accordingly, extreme poverty remains unacceptably high in Ethiopia. For example, Its Gross National Income per capita amounted to USD 619.2, which is less than 1258 USD average for sub Saharan African countries (World Bank, 2016) [32]. The life expectancy at birth in Ethiopia is approximately 63 years, which is substantially lower than the average 67 years recorded for countries with medium human development indices (UNDP, 2016; World Bank, 2016) [24, 32]. The growth elasticity of poverty reduction is -1.53 when using household consumption growth, considerably lower than the world average of -2.02 (Christiaensen *et al.*, 2013) [7]. Ethiopia is among the list of identified 10 countries in the world receiving international humanitarian aid in 2014 (DI, 2016). Ethiopia is among top 15 poorest countries selected in the world to construct international poverty line of \$1.25 (2005ppp) that was used to indicate extreme poverty till 2015 and current international poverty line \$1.90(2012ppp) (Ferreira *et al.*, 2016; and World Bank, 2016) [11, 32]. In 2011, food inflation was 39 percent, three times the sub-Saharan Africa average of 13 percent. Hence, poverty is color of Ethiopia (Headey *et al.*, 2012; Minten *et al.*, 2014) [12, 16].

And also, Ethiopia is the least urbanized country in Africa with urbanization rate of 19 percent which is much below the sub-Saharan average of 37 percent (Haile *et al.*, 2016). Comparing with Urban, The poverty issue of Ethiopia is increasing more in rural areas (Alemu *et al.*, 2011) [3] where almost 83% of the population is living (World Bank, 2015) [31]. This means poverty is more widespread and severe in rural areas than in urban area.

According to the HICES (2016) Survey result, the proportion of the population below the poverty line (poverty head count index) Mounted at 25.6% in rural areas with noticeable difference of 14.8% in urban areas. Hence, in this paper the researchers were interested to see relative distribution or snap shoot of poor and Non-poor households by Demographic characteristics of rural households in Kuyu district in general and across-agro ecological zone in particular.

2. Objective of the study

The Objective of the study was to identify Demographic characteristics of rural households by poverty status in Kuyu district.

3. Research Methodology

3.1. Location of Kuyu district

Kuyu Woreda/district is one of the 180 Woreda/districts in the Oromia regional state of Ethiopia and also one among 13 Woreda/district in North shoa/selale/. It was established as independent Woreda/district in 1933 E.C. This Woreda/district is about 42 km from Fiche and 155km away from Addis Ababa on the way. The administrative city of Kuyu Woreda/district is Garba Guracha. Astronomically, it is located between 9°35' and 9°59' N latitude, and between 38°03' and 38°31' E longitude. In relative terms woreda is located North of Ada'abarga and Meta robi, East of Gindeberet, South of Warajarso, south west of HidabuAbote and West of Dagam. See the following figure.

3.2. Population of Kuyu district

Based on the figure published by the central statistical agency estimation in 2015, Kuyu Woreda/district has total population of 152,366 of whom 75,523 are men and 76,843152 are women. 123,130 or 80.81% of its population are rural dwellers. According to the same source, with an estimated area of 950.75km², Kuyu district has an estimated population density of 160.3 people per square kilometer which is proportionate to zone average of 172.2 people per square kilometer. The inhabitants of this district is mostly believe in orthodox (92.6%), followed by protestant (5.9%), traditional believers (1.06%), Muslim (0.35%), Catholic (0.03%), and finally other believers (0.06%).

3.3. Agro-ecological zones of Kuyu district

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. There are attributes of such units which determine similarities, such as: (i) comparable agro-climatic conditions for annual cropping, perennial crops, or agro forestry, (ii) similar conditions for livestock raising, (iii) comparable land resource conditions such as soil, water or vegetative parameters, or (iv) similar land management conditions such as raggedness of agricultural land, slope steepness, or topography in general. Such attributes of units determining similarities can further be distinguished according to actual or potential conditions. The former may be used for determining actual agro-ecological differentiation of farming systems as they persist today. Potential similarities, on the other hand, are concerned more with the assessment of general land capability, or suitability for specific crops (Mooney 1961;

Westphal 1975; Amare 1978; FAO, 1984; Hurni, 1986; Mesfin, 1990; 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 (Huffnagel 1961; FAO, 1984; Mesfin 1991; Tafesse 1996; Dejene, 2003). Likely, High and rugged mountain ranges that are flat-topped, deep gorges, hills, and plains characterize the study area. The altitudinal range of the district is from 2757m to 1390m above sea level with the highest known mountain peak of Kesi (2757m), Kurfo (2646m) and Fale (2604m). Having this pronounced mountain system, kuyu district have three agro-ecological zone i.e. Dega, Weynadega and kola agro-ecological zone (Agricultural Bureau of Kuyu Woreda/district, 2016/17).

3.4. Research design

Quantitative research is regarded as a deductive approach towards research (Rovai *et al.*, 2014). The quantitative research deals with the statistical analysis and numerical data to provide quantitative information (Holliday, 2007; Patel, 2009). 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 (Creswell, 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.

3.5. Data Types and Sources

This study was designed based on both quantitative and qualitative data types which were gathered from both primary and secondary sources. Primary data was collected from sample rural households by means of structured interview with the help of enumerators. Before the actual survey, the interview schedule was written in English and then translated to its corresponding *Afan Oromo* version for ease of data collection. Field trips were made before the start of the actual survey to pretest the questionnaire on selected rural kebeles. For pretesting purpose, some household heads outside the sample households was interviewed. After incorporation of modifications, the final version of the questionnaire used to gather the data from rural households relevant for the study was prepared. Continuous supervision of the process was made to correct possible errors on the spot. Secondary data was also obtained and utilized from various sources such as reports of district agricultural bureau, zone report and regional reports on issues associated with rural households and rural poverty.

3.6. 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.

3.7. Method of data analysis

To describe situation of rural poverty, descriptive statistics like frequencies, percentages, ratios, mean values, standard deviation, standard error and others were used to assess status of rural poverty based on demographic indicators in the study area. To make inferences from samples to populations, t-test inferential statistics was used to analyze desired household characteristics to poor and non-poor categories in Kuyu district. Inferential

statistics is linked with the chance of an event occurring so that the mean difference of poor and non-poor categories have been compared and contrasted with respect to the desired characteristics by independent sample t-test analysis for continuous variables was used.

4. Result and discussion

4.1 Poverty status of the surveyed households

Before Demographic characteristics of rural households by poverty status, it is better to compute Poverty status of the surveyed households as displayed in table 1 to be clear of our concern. Using the Cost of basic need approach, aggregate consumption poverty indices corresponding to selected Food and Non-food for 2015/16 was computed to 7184.00 Ethiopian Birr per adult equivalent per year (CSA/NPC, 2017). Hence, those households falling below the minimum requirement of 7184.00 Birr were deemed to be Poor, while those above 7184.00 Birr were classified as Non-poor Households. Accordingly, the cut-off values for poverty analysis were used as below for different concept.

Table 1: Poverty status by National Poverty line (7184.00 Birr per year) (Percentage)

Agro-ecological zone	Relative share calculated from Each Agro-ecological zone to poverty status		Proportion of poor and Non-poor		Distribution of Sample households
	To Non-poor households	To Poor households	poor	Non-poor	
Dega	28.88	27.79	49.04	50.96	56.67
Weynadega	8.72	7.90	47.54	52.45	16.62
Kola	5.18	21.53	80.61	19.38	26.71
Total	42.78	57.22	57.22	42.78	100.0

Source: Survey result, 2017

Information presented in Table1 shows that 57.22% of the respondents come under the category of poor, while 42.78% were non-poor in the study area. From its highest sample size, Dega agro-ecological zone has contributed highest number of poor households while Weynadega agro-ecological zone contributed lowest numbers of poor households from its lowest sample size (Table1). Therefore, to total of 57.22% poor households, 27.79%, 7.90% and 21.53% contributed from Dega, Weynadega and Kola agro-ecological zone respectively. In the same way, 28.88% from Dega, 8.72% from Weynadega and finally 5.18% from Kola agro-ecological zone contributed to 42.78% of Non-poor households in the study area. However, through ratio of poor head count to Non-poor head count in respective of agro-ecological zone, Kola is dominated by Poor households by 80.61% comparing to 19.38% Non-poor households followed by Dega by 49.04% in relative of 50.96% non-poor households and finally Weynadega by 47.54% in relative of 52.45% non-poor households(Table1).

This implies that Dega agro-ecological zone has contributed highest number of total households below poverty line as compared to Weynadega and Kola households. But, measuring head count of poor household to non-poor household in

respective of agro-ecological zone, numbers of poor households are much greater that Non-poor households in kola agro-ecological zone that followed by Dega and Weynadega in the study area.

4.2. Demographic characteristics of rural households by poverty status

The demographic variables of rural households are critical important in analysis of the poverty status and concluded as follows.

4.2.1. Average household size in terms of adult equivalent (AE) by poverty status

According to the CSA (2013), Oromia has an average of 5.5 persons per household which is high in comparing with other regional state of Ethiopia. Furthermore figure computed from survey indicated that, the Average household size of the study area was found to be $6.615804 \pm (2.58 * 0.1059855)$ persons per household in Kuyu district (Table2). This means the average household size of rural inhabitant of Kuyu district is more than the average household size of Oromia and other regional state of Ethiopia.

Table 2: Average person per households by poverty status in Kuyu district

Poverty status	Mean	Std. Err.	Std. Dev.	DF	t-value	p-value
Poor	7.133333	0.1462111	2.1188	365	5.9027***	0.0000
Non-poor	5.923567	0.133894	1.67768			
Combined	6.615804	0.10598555	2.03039			

Notes: ** indicates that the coefficient is significant at 0.05 significant levels *** indicates that the coefficient are significant at 0.001 significant level

Source: Survey result, 2017

Regarding household size in terms of adult equivalent (AE), the average household size for the poor and non-poor households with respect to poverty status is indicated in Table 3. Accordingly, the average household sizes (AE) of the sampled rural households for poor and non-poor households were $5.457771 \pm (2.58 * 0.1221684)$ and $6.587476 \pm (2.58 * 0.1300406)$ persons per room in terms of adult equivalent (AE) respectively. Analysis of mean comparison has confirmed that there is existence of

significant mean difference between non-poor and poor sample respondents in their family size (AE) ($t=6.1463$, $p=0.0000$) at 1 percent significant level in Kuyu district. These indicate that poor households have less average of family size (AE) than Non-poor Households in Kuyu district. This means, rural poor household have less productive household members comparing with rural non-poor household in Kuyu district.

Table 3: average person per households in terms of adult equivalent (AE) by poverty status

Agro-ecological zone	Poverty status	Mean	Std. Err.	Std. Dev.	DF	t-value	p-value
Dega	Poor	5.741132	0.1389045	1.430109	206	3.0016***	0.0000
	Non-poor	6.479902	0.2052364	2.072786			
Weynadega	Poor	5.513125	0.2233715	1.26358	59	4.3779***	0.0000
	Non-poor	6.948621	0.2406061	1.295704			
Kola	Poor	3.783684	0.3396112	1.480331	96	6.2659***	0.0000
	Non-poor	6.593797	0.2039412	1.812669			
Grand total	Poor	5.457771	0.1221684	1.530765	365	6.1463***	0.0000
	Non-poor	6.587476	0.1300406	1.884467			

Notes: ** indicates that the coefficient is significant at 0.05 significant levels, *** indicates that the coefficient are significant at 0.001 significant level
Source: Survey result, 2017

Across agro-ecological zone, the average distribution of average person per households (AE) in Non-poor and Poor rural households of Kuyu district is also varying. As depicted on Table 3, poor households have less average of family size (AE) in all agro-ecological zones than Non-poor Households. Similarly the comparison of the existence of significant mean difference between non-poor and poor sample respondents in their family size(AE) is also identified as ($t=3.0016$, $P=0.0000$) in Dega, ($t=4.3779$, $P=0.0000$) in Weynadega and ($t=6.2659$, $P=0.0000$) in Kola agro-ecological zone at 1 percent significance level. This all shows that the mean household size (AE) of the poor category is smaller than the non-poor category across rural agro- ecological zone of Kuyu district. This means, rural poor household have less productive household members comparing with rural non-poor household across agro- ecological zone of Kuyu district.

4.2.2. Female-Male Ratio by poverty status

The poverty status of female-male ration of the rural household members is presented in Table 4. The table shows that relative number of Female members in poor households (84.93%) was greater than Female members in non-poor households (81.99%) in the study area. Among poor household identified by National poverty line (7184.00 Birr), except Kola (91.94 percent) agro-ecological zone, respective proportion of female members in poor households are higher than male members in Dega (80.50 percent) and Weynadega (82.05 percent) agro-ecological zone (Table 4).

This shows that female-male ration is higher in kola Agro-Ecological zone (both for poor and non-poor) than others. Female –male ratio is lower in Dega Agro-Ecological zone than others among the poor households. Hence, we can conclude that female –male ration is higher among poor households than non-poor.

Table 4: Female-Male ratio by poverty status

Agro-ecological zone	Poverty status	Percent.	Mean	Std. Err.	Std. Dev.	DF	t-test	p-value
Dega	Poor	80.50	0.891375	0.053316	0.538461	206	-0.2237	0.8232
	Non-poor	79.67	0.908939	0.057453	0.591518			
Weynadega	Poor	82.05	0.900328	0.074778	0.402691	59	-0.4795	0.6334
	Non-poor	79.04	0.976563	0.135277	0.765203			
Kola	Poor	91.94	1.098403	0.091603	0.814181	96	-1.6245	0.1075
	Non-poor	113.51	1.435088	0.182991	0.797641			
Grand total	Poor	84.93	0.970493	0.044676	0.647423	365	-0.2288	0.8191
	Non-poor	81.99	0.986397	0.053768	0.673714			

Note: Female-male ratio is converted to percentage in column three of above table, ** indicates that the coefficient is significant at 0.05 significant levels, *** indicates that the coefficient are significant at 0.001 significant level

Source: Survey result, 2017

The average Female-Male ratio for poor sample households was 0.970493 with standard deviation of 0.647423 while average Female-Male ratio for non-poor sample households was 0.986397 with standard deviation of 0.673714 in Kuyu district. The average Female-male ratio of poor group was less than non-poor in Kuyu district. However, there is insignificant mean difference ($t=-0.2288$, $P=0.8191$) between poor and non-poor with regard to female –male ratio of rural households in the study area.

Across agro-ecological zone, the average Female-male ratio of Non-poor and Poor rural households of Kuyu district is also varying. As depicted on the above table, poor households have less average Female-Male ratio in all agro-ecological zones than Non-poor Households. However, there is insignificant mean difference between non-poor and poor group of Female-Male ratio across poverty category of Dega ($t=-0.2237$, $P=0.8232$)

Weynadega ($t=-0.4795, 0.1075$) and kola ($t= -1.6245, P=0.1075$) agro-ecological zone at 5 percent significance level.

4.2.3. Age of the household head in years by poverty status

Table5 describes the poverty status of average age household heads. The average age of poor household heads were 46. 88571year with standard deviation of 11.08412 while average age of Non-poor household heads was 48. 64968 years with

standard deviation of 11.5608 in the study area. This means, the highest proportion of poor households related with those household heads that have the lowest average of age. Relative higher average age of household heads was related with Non-poor household heads in Kuyu district. However, there is in significant mean difference ($t=-1.4808, P= 0.1395$) between poor and non-poor in terms of average age household heads at 5 percent significance level.

Table 5: Shows the average age of the poor and non-poor head of households

Agro-ecological zone	Poverty status	Mean	Std. Err.	Std. Dev.	DF	t –test	p-value
Dega	Poor	43.92157	.9280761	9.373109	206	-2.8205***	0.0053
	Non-poor	47.85849	1.037867	10.68549			
Weynadega	Poor	49.44828	1.829282	9.850983	59	1.4829	0.1434
	Non-poor	45.625	1.809891	10.23829			
Kola	Poor	49.77215	1.41524	12.57893	96	-2.5520**	0.0123
	Non-poor	58.15789	3.21479	14.01294			
Grand total	Poor	46.88571	0.7648769	11.08412	365	-1.4808	0.1395
	Non-poor	48.64968	0.9226524	11.5608			

Notes: ** indicates that the coefficient is significant at 0.05 significant levels, *** indicates that the coefficient are significant at 0.001 significant level

Source: Survey result, 2017

Specifically, the average age of the non-poor household heads is 47.85 with standard deviation of 10.68549 in Dega, 45.62 with standard deviation of 10.23829 in Weynadega and 58.15 with standard deviation of 14.01294 in kola agro-ecological zone. While the poor households heads have average age of 43.92157 with standard deviation of 9.373109 in Dega, 49.44828 with standard deviation of 9.850983 in Weynadega and 49.77215 with standard deviation of 12.57893 in kola agro-ecological zone. It follows that, there is significant mean difference between poor and non-poor at 5 percent significance level with regard to age of household heads in Dega ($t=-2.8205, P=0.0053$) and Kola ($t=-2.5520, P=0.0123$) agro-ecological zone and insignificant in Weynadega ($t=1.4829, P=0.1434$) agro-ecological zone of Kuyu district at 5 percent significance level.

Accordingly, poor households are relatively led by younger persons than the non-poor households. This result is agreed with the assumption that, the older the productive age of the household head, the lesser the probability to fall in to poverty trap. From this it is fair to conclude that the lesser the mean productive age of the

survey household heads, the more chance to have greater proportion of households fallen under poverty line in Dega and Kola agro-ecological zone.

4.2.4. Dependence ratio by poverty status

The poverty status of dependence ratio is calculated and given in Table6 and it shows the relative bigger number of children and old person in poor households (73.69%) than Non-poor households (65.25%) in the study area. In Non-poor households, the dependence ratio is 62.39%,65.07% and 85.29% in Dega, Weynadega and Kola Agro-Ecological zone respectively, whereas in poor households it is 72.06%, 58.19% and 82.29% in Dega, Weynadega and Kola Agro-Ecological zone respectively in the study area.

As one can simply deduce about dependency ratio, the economically inactive proportion of the entire population, a higher dependency rate was observed on the economically active part of the population. In the sampled area, both group of households, exhibited slightly different dependency ratios.

Table 6: Dependence ratio by poverty status

Agro-ecological zone	Poverty status	Percent.	Mean	Std. Err.	Std. Dev.	DF	t –test	p-value
Dega	Poor	72.06	0.566574	0.044265	0.447049	206	-0.5870	0.5578
	Non-poor	62.39	0.605380	0.048899	0.503440			
Weynadega	Poor	58.19	0.555718	0.053161	0.286283	59	1.5003	0.1389
	Non-poor	65.07	0.447984	0.048501	0.274364			
Kola	Poor	82.29	0.711577	0.057746	0.513261	96	0.3404	0.7343
	Non-poor	85.29	0.666626	0.121933	0.531493			
Grand total	Poor	73.69	0.619624	0.031699	0.459361	365	0.7933	0.4281
	Non-poor	65.25	0.580712	0.037694	0.472305			

Notes: Dependence ratio is converted to percentage in column three of above table, ** indicates that the coefficient is significant at 0.05 significant levels, *** indicates that the coefficient are significant at 0.001 significant level

Source: Survey result, 2017

On the other hand, the average dependence ratio for poor sample households were 0.619624 with standard deviation 0.459361 and also the average dependence ratio for non-poor sample

households were 0.580712 with standard deviation 0.472305 in the study area. This shows that there is average dependence ratio difference between poor and non-poor. This means that average

dependence ratio is high in group of poor household in the study area. However, there is insignificant mean difference ($t=-0.7933$, $P=0.4281$) between poor and non-poor with regard to dependence ratio of rural households in Kuyu district.

Specifically, the average dependence ratio of the poor household heads have average age of 0.566574 with standard deviation of 0.447049 in Dega, 0.555718 with standard deviation of 0.286283 in Weynadega and 0.711577 with standard deviation of 0.513261 in kola agro-ecological zone While non-poor household heads is 0.605380 with standard deviation of 0.503440 in Dega, 0.447984 with standard deviation of 0.274364 in Weynadega and 0.666626 with standard deviation of 0.531493 in kola agro-ecological zone. However, there is insignificant mean difference ($t=-0.7933$, $P=0.4281$) between poor and non-poor with regard to dependence ratio across poverty category of Dega ($t=-0.5870$, $P=0.5578$) Weynadega ($t=-1.5003$, $P=0.1389$) and kola ($t=0.3404$, $P=0.7343$) agro-ecological zone at 5 percent significance level.

5. Conclusion and recommendation

Poor rural households have less average of family size (AE) in Kuyu district in general and in all agro-ecological zones in particular than Non-poor Households showing significant difference at 1 percent significance level. There was insignificant mean difference between poor and non-poor with regard to dependence ratio and female –male ratio of rural households in the study area and across agro- ecological zone at 5 percent significance level. There was also insignificant mean difference between poor and non-poor in terms of average age household heads at 5 percent significance level in Kuyu district in general and Weynadega agro-ecological zone in particular. However, there was significant mean difference between poor and non-poor in terms of average age household heads at 5 percent significance level in Dega and Kola agro-ecological zone of Kuyu district. Hence, all concerning body including Government and non-governmental organization have to give due attention to rural household characteristics by poverty status against poverty alleviation used for promotion and protection policy in the study area.

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