

## Documentation of Rural Poverty Profile and its Correlates in Pakistan. A Sub-District Level Analysis through Consumption Approach

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### ABSTRACT

*Finding magnitude and Identification of factors that are strongly linked with the rural poverty is an important aspect in developing successful strategies intended for poverty. In this study we have also estimated poverty incidence, intensity and severity among the rural households in Athara Hazari (one of four sub district of Jhang, Punjab Province) along with the other demographic, social and socioeconomic factors of households that affect the poverty. The analysis of the study carried out on the basis of primary data and the same was collected through the structured and specifically designed questionnaires and document analysis. Multi-stage random sampling technique was employed to select 1000 household head as respondents from the different villages of study area. This study used poverty line Rs. 2478/- which was calculated by the Planning Commission of Pakistan. According to the survey conducted in 2017, 40.3% are below the Poverty line (15% people are extremely poor). Depth and severity are 34% and 11% respectively. Majority of families were headed by farmer, illiterate and aged persons and also all three measures, headcount index, depth and severity of poverty were worse among these households. Results of the logistic regression suggest that an increase in the landholding, livestock and total assets of the household have considerably decreasing the probability of being poor in the study area.*

**JEL Classification:** D13, D31, E21.

**Keywords:** Rural poverty, Poverty determinants, Punjab, Household

### INTRODUCTION

Poverty in Pakistan have diverse forms i.e. low income, low expenditure, no access to the resources, no access for any poverty alleviation program to thrive, the questions to be answered are: (i) what proportion of the people are poor? (ii) How far are the poor from the poverty line? (iii) What is the gap between the average poor and the core poor and (iv) what are the determinants of poverty in the given society? During the last few years there has been a lot of interest in the analysis and estimation of poverty in Pakistan. By examining the incidence (Head count index), depth, severity, and linking them with the factors/correlates of poverty in Atthara Hazari Sub-district, this study will provide answers to the above questions in the context of Atthara Hazari (sub district of Jhang District), contribute to the existing body of knowledge and by implication fill a gap in the literature which is mostly linked with the rural areas of Pakistan and Asia. This study would also serve as a platform for people oriented policy for poverty alleviation in the sub district/district/province and also for state.

This particular study is based on the primary data and data is collected through specifically designed questionnaire which was adopted from the literature and in same questionnaire different amendments are made after considering the nature of the area and people (respondant). This sub-district has population of 523,226 people (approx.) and it is of 1650

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square KM, (District Census Report 1998) and (District population welfare office and AC office, Jhang, 2014). The large numbers of houses in the village are in the possession of local people of the district, which had contributed further in complete dependence of villagers on feudal for earning their living even at expense of long life exploitations. (Punjab Cities Improvement Investment Program report , 2009). Government of Pakistan conducts household integrated economic survey on annual basis through Pakistan bureau of Statistics and their latest survey reported that According to estimates (Government of Pakistan, 2016) it is close to 38 percent of the population (74 million approximately) was poor during the year 2015-16. The incidence, depth and severity of rural areas are more porrer then the people who are living in the urban areas of Pakistan and same is the case for Punjab and also for the Jhang District where majority of the household are rural.

## **BACKGROUND**

Pakistan's economy is purely agrarian .When Pakistan came into being, there was a sharp decline in the contribution of agriculture sector into the GDP from 50% during 1949-1950's to about 22% in fiscal year (july 2009- June 2009) but still Agrarian economy of Pakistan is the important contributor in the country's GDP (Perwez, 2011). An overwhelming and huge majority of population lives in the rural areas of nations. As, the majority inhabitants of rural areas are dependent on the agricultural sector for their source of income. According to the statistics of Pakistan about 66% of individuals of rural areas are depending on agriculture for their livelihood whereas about 34% of populations are residing in the urban areas of Pakistan. After the independence, Pakistan's agrarian low skilled economy was transformed into semi industrialized economy. In the developing nations, majority of population depends on the agriculture sector because lack of resources, lack of machinery, no access of skilled labor results in the low productivity. A need was felt to transform the traditional agrarian sector of less developing countries because traditional techniques of agriculture resulted in low returns. In case of Pakistan , the transformation was made possible by implementation of technological and scientific inputs e.g. Use of pesticides , fertilizers , use of high yielding variety (HYV) of seeds and use of tube wells and tractors. Which resulted in the growth from 1.8% to 5% in 1960's. The phenomena was called as "green revolution". According to (Khan, 2009), in 1970's, it was witnessed that income of household was declined because in that decade there was an increase in the landlessness due to the population and changes in the structure of agricultural sector. Secondly, there was a rapid increased in the overseas migration (especially to Middle East) because of rapid growth in industrial sector, low skilled labors started migrating to overseas. Then, in 1980's there was a small improvement in income distribution with high rate of agrarian growth. Basically it was done by dismantling the control of state, deregulation of industrial sector and sharp growth in the foreign remittance inflow into economy. But rural income distribution became unequal to agricultural sector as it grew at relatively low rate in 1990. During 2001-2005 there was no considerable change in the income distribution among rural households. Almost all the societies when gone through the stages of development have seen individuals living in harsh conditions of hunger, poverty, unable to fulfill basic needs for existence. However, poverty is new phenomenon for the developing or less developing countries. Its eradication is always linked with increased monetary growth rates.

## **LITERATURE REVIEW**

Rural poverty specially in the developing countries have been discussed earlier in literature and many authors have discussed this issue in detail in their studies like for Pakistan, [see

2- The complete detail of the study area (Atthara Hazari Sub District) is mentioned in the following URL. <https://www.punjab.gov.pk/jhang>

Sabir & Saboor (2006), Qureshi and Arif, (2001) Khan, et al, (2013); Khan et al., (2014); Arif and Farooq (2012); Alam and Hussain (2013); Haq et al. (2015), Akhtar et al., (2007); Sikandra and Ahmad, (2008); Cheema and Naseer (2013); Awan et. al. (2008), Lawal et al. (2009), Chaudhry & Rehman (2009), Ali & Nishat (2010)], and for the poverty studies and its estimations in South Asia [see Susheela et al., (2000), Mehta & Shah, (2001), Bourguignon and Chakravarty, (2002)] and for some other countries [see Bogale et al. (2005) Lawal et al. (2008), Jehovanes (2010), Minasyan & Mkrtychyan, (2005), Alex (2014), Pogge, (2007)]. They all discussed the poverty issue in detail and found the relationship of poverty with different correlates in their studies. All of the studies have used different definitions for poverty and its measurement and finding the determinants of it by using different approaches.

In our country majority of the studies used household income and Expenditure surveys (HIES) and estimated measures of poverty in different styles and calculated the different attributes of it. And these studies agree that rural poverty fluctuated around 40% during the 1960s, and then declined in the 1970s and 1980s. The incidence of rural poverty increased in the 1990s, after which it showed a declining Trend. Patterns of poverty also differ by province to province and District to district and also between rural and urban areas. The data consistently show that poverty is considerably higher in rural areas as compared with urban areas as reported by many authors [see Amjad and Kemal (1997), Ali and Tahir (1999), Jafri (1999), Arif et al. (2011), Arif (2006) and Qureshi and Arif (1998)]. The HDI (Human Development Index) value of Pakistan in the year 2012 is 0.515 which is in the category of low human development index. It positions Pakistan at the rank of 146th among 187 (UNDP, 2013). Large family size is likely to put an extra burden on a household's assets and resource McKay and Lawson (2002). Jamal (2005) showed that in urban areas dependency ratio is also positively related to the poverty status of the household. The demographic information affords an understanding of the household structures of the sample population. The literature has identified several factors associated with the dynamics of poverty. The changing socio demographic and economic characteristics of the household have been considered as the key drivers of chronic and transient poverty. Regarding the demographic characteristics, larger household size and/or dependency ratio are associated with chronic poverty as it put an extra burden on a household's assets and resource base. Changes in household size and age structures (young, adult and elderly) are also linked with the movements into and out of poverty because of their distinct economic consequences (Jehovanes 2010). Additional children not only raise the likelihood of a household to fall into poverty but it also lead to intergenerational transmission of poverty due to reduction in school attendance of children with a regressive impact on poorer households. A number of studies have shown that the increase in human capital reduces the likelihood of being chronic poor or transient poor. Such evidence from literature has been seen in the milieu of the education of the head of the household as well as the education of the children to overcome the persistent poverty. However, only formal education does not matter; (Arif, 2006) the innate disadvantages and lack of skills are also significantly associated with chronic poverty.

## **DATA AND METHODOLOGY**

The study was conducted on Athara Hazari (Sub District) which is the sub districts of Jhang and is situated in Punjab Province of Pakistan. This study employed a multi stage sampling procedure. In First stage different number of Union Councils selected on the random sampling basis from sub district (on proportionate basis) and in second stage from each Union Council,

3- HIES stands for Household Integrated Economic Survey, which is regularly conducted by the Pakistan Bureau of Statistics, Government of Pakistan.

different number of villages has been selected on random basis (also on proportionate basis) and in the last stage different number of household has been selected from each village on random sampling basis. The data used in analysis are primary data, generated through a specifically designed questionnaire. Every possible effort was made to ensure the reliability and accuracy of the information. Questionnaires were filled from the sampled respondent on the basis of the personal interviews conducted.

The World Bank defines absolute poverty line as 1.25 dollar per adult equivalent per day in 2005, and the same definition is used as a benchmark in this study to determine poverty in the Athara Hazari sub district and converted into Pakistan currency in 2005-2006 the total amount is shown as Rs. 944.47 (GOP, 2008) per adult equivalent per month. The planning commission of Pakistan has adjusted the poverty line for 2001, 2004 and 2005 by using average CPI during these periods. We have used the same method and have adjusted the 2005-06 poverty lines by using average CPI during each year to get the adjusted poverty line for 2017. The updated poverty line for year 2017 will be 2478/- This approach is also used by SPDC, (2013). The same report also reveal that Poor are more categorized as three sub categories which are Poor, ultra Poor and extremely poor and these has been categorized by their income. Extremely poor people are the people with a monthly income of less than 1239 Rupees per adult. Ultra poor are the people with a monthly income of less than 1859 Rupees per adult. Poor people are the people with a monthly income of less than 2478 Rupees per head.

This study uses the absolute poverty approach to determine the extent of poverty in the study area and for finding the correlates two distinct approaches, namely bivariate and multivariate analyses are used. A bivariate analysis of household characteristics is performed to analyze the demographic, social and socio economic correlates of poverty profile in sub-district. Moreover, the poverty profile focuses on presenting the poverty characteristics of various household. In our econometric analysis, we will carry out a multivariate income regression and alternatively a logit model on the potential determinants of poverty in terms of a household's socioeconomic, demographic and economic characteristics. These models will be estimated using household data at the district level.

## **RESULT AND DISCUSSION**

### **Magnitude of Poverty in Athara Hazari sub District**

In our study we have used the most commonly used measure of poverty, the head-count index and share of poor households based on this measure. The head-count index  $P_o$  can be defined as follows:

$$P_o = \frac{H}{N} \times 100$$

Here, H means those households which are below the poverty line and N means Total Household in the sample and by these two variables we will find the Poor Household in percentage. According to the survey conducted in 2017, poverty levels in *Athara Hazari* Sub District is shown in Table 01

**Table 01***Poverty Estimates of Households in Athara Hazari Sub District.*

Poverty Measures	Poverty Estimates
Poverty Incidence	40.3%
Poverty Depth	0.39
Severity of Poverty	0.15

*Source: Primary data*

According to the results of the poverty measures, 40.3% of households are poor. The poverty depth is about 0.39 which means that 39% of the poverty line is required to escape poverty in the *Atthara Hazari* Sub District. The severity of poverty is estimated at 0.15, indicating that there is 15% inequality among the poor.

**Table 02***Magnitude of Poverty in Atthara Hazari Sub District.*

Income Level	Poverty Bands	%	Income Level	Poverty Bands	%
Less than 2478	Poor	40%	1239	Extremely Poor	15%
			1859	Ultra poor	10%
			2478	Poor	16%
More than 2478	Non Poor	60%	3098	Vulnerable	20%
			3717	Quasi Non-Poor	31%
			4956	Non- poor	9%

*Source: primary data analysis*

Further Classification of all Poverty band with respect to the Income level are also highlighted in the above mentioned table 02 which show that out of total poor households (40.3%), 15% are categorized as extremely poor households, (Income level less than 1239 (per capita)) and 10% people are ultra-Poor in study area, whose income is less than 1859 and more than Rs. 1239, and remaining 16% people are categorized as poor and their income level are from Rs. 1859 to Rs. 2478. In Non-Poor there are still three categories which are as categorize as Vulnerable, Quasi Non-Poor and Non-Poor. There are 20% people who are Vulnerable (whose income is less than Rs. 3098 and more than Rs. 2478). These are the people whose considered as Non Poor but there is also a chance (to some extent) that they can be poor in near future if Govt. or they themselves not take interest for their income and 31% people who are Quasi Non poor (Income level from Rs. 3098 to Rs. 3717) and only 09% who are considered as Non-Poor category and their Income are more than 4956.

## A Correlates of Poverty

### A Bivariate Analysis

In our study we describe the impact of demographic, social and socio-economic variables on poverty in the study area after analyzing the data gathered in 2017

#### A-1 Demographic Factors

Demographic factors including (dependency ratio , education attainment , Household size , Job structure , Family type and, Male-Female Ratio , Male-Female ratio ) are calculated and it is found that in educational attainment the household whose heads are illiterate are having

more chance to be poor as compared with the literate in the study area. (Negative relationship). It is concluded that higher dependency ratios are usually in the larger family size household and become the major factor and positively affecting the poverty in the study area. Female-male ratio (for worker) is also determining the poverty rise as in rural areas majority of the families don't like their female to work and go outside and due to this female don't participate in the income generating activities and due to this poverty ratio also increase and the same is also concluded in our study. Female-male ratio an inverse relationship with headcount index, depth and severity of poverty. The tendency shows that there is negative relationship between poverty and female-male ratio of workers.

In Atthara Hazari sub district 40% poor households are headed by farmers and also majority of those are also poor as per survey conducted in 2017. Majority of the families are living in Joint family system in the sub-district. Due to this, it has increase the dependency ratio among the families in the area. Our study concluded that majority of poor people/households are living in joint families. (For Dependency Ratio) The results also show that in our survey if household have the dependency ratio 2 and or more then 2 persons(Per household) it has highest incidence, depth and severity of poverty. And if it is reduce and less then 2 so these household have less probability of being Poor. (For Age of the Head of House Hold) The results show that as if the age of the head of household is also having the positive relationship with the poverty and if the age of the head of the household is on higher side that household has more chances of being poorer then the households that are headed by younger person. as concluded in the survey conducted in the study area.

**Table 03**  
*Decomposition of Poverty by its demographic correlates.*

Poverty Correlates	%age of Poor Households	Household (%)	Headcount index	Depth	Severity
<b>Relating Poverty by (Educational Attainment)</b>					
Post Graduate	0%	0%	0%	1.00	1.00
Graduate/Equivalent	1%	10%	1%	0.32	0.10
Intermediate/College	1%	10%	1%	0.29	0.08
Matric (SSC)	10%	40%	10%	0.26	0.07
Illiterate	27%	41%	27%	0.39	0.15
<b>Relating Poverty by (Job Structure)</b>					
Private Job	12%	25%	12%	0.24	0.06
Government employee	0%	13%	0%	-	-
Farmer	28%	40%	28%	0.46	0.21
Own Business	0%	6%	0%	-	-
<b>Relating Poverty by (Family Type)</b>					
Nuclear family	6%	16%	6%	0.37	0.14
Joint family	34%	84%	34%	0.40	0.16

Relating Poverty by (Household Size)					
1-4	2%	7%	2%	0.36	0.13
5-6	4%	19%	4%	0.52	0.27
7-10	24%	54%	24%	0.35	0.12
Relating Poverty by (Dependency Ratio)					
0.1 - 2	4%	14%	4%	0.40	0.16
2.1 - 4	10%	32%	10%	0.27	0.07
4.1 - 6	2%	10%	2%	0.51	0.26
Above 6	22%	44%	22%	0.51	0.26
Relating poverty by (Female-Male Ratio)					
0.00 - 0.5	8%	16%	8%	0.36	0.13
0.51 - 0.75	4%	13%	4%	0.23	0.05
0.75 - 1	11%	22%	11%	0.50	0.25
Above 1	17%	49%	17%	0.37	0.14

Source: Primary Data analysis, survey conducted in 2017.

#### A-2 Social Factors

Social factors also play important role as determinant of poverty in the rural areas of Pakistan especially in our study area. In our research it is concluded that House structure, House Roof type and Numbers of Rooms in House show different relationship with the poverty. Table 04 describes the decomposition of poverty by its social factors. (For House Structure) It is witnessed that about 75% of poor are living in the Kacha (made of mud) houses. All the three measures, incidence, depth and severity are worse in those families who are living in those houses which are made of mud. The results also show that headcount ratio, depth and severity are very low in those households that are living in those houses which are made of concrete. (Pucca houses) (For House Roof Type) Results show that all the three measures, incidence, depth and severity are worse among the families who are living in that house where Roof type is of Iron Sheets and Wood/Bamboo etc.

(For No. of Room in House) The families living in houses having 01 Rooms and 02 Rooms have direct positive relationship with poverty in the Atthara Hazari sub district, also Poverty Depth and Severity are very high in those families.

**Table 04**  
*Decomposition of Poverty by its social correlates.*

Poverty Correlates	%age of Poor Households	Household (%)	Headcount index	Depth	Severity
RelatinRelating of Poverty by (House Structure)					
Pucca(Concrete)	10%	13%	10%	0.38	0.14
Kacha(made of mud)	31%	81%	31%	0.44	0.19
Mix(Pucca & Kacha)	0%	7%	0%	-	-

Relating Poverty by (No. of Room in House)					
1 Room	9%	11%	9%	0.44	0.20
2 Rooms	25%	31%	25%	0.41	0.17
3 Rooms	4%	35%	4%	0.39	0.15
4 & more than					
4 Rooms	2%	20%	2%	0.07	0.00

Source: Primary Data analysis, survey conducted in 2017.

### A-3 Socio Economic Factors

Below mentioned Table 05 describe the impact of socio economic factors on the poverty. (For Land Holding), Household's landholding is having mix type of relationship with the Poverty. The result concluded that majority of the households are having no land and less land.(Less than 40 acres). This tendency shows the negative relationship between landholdings and incidence of poverty. (For No. of Adults in Household) Our survey results confirmed that less number of adults leads to poverty in the household in sub district of Jhang District. The No. of adults where it is reported as more than 2 is supposed to be poorer than where it is 2 or less than 2. Poverty depth and severity of poverty is also on higher side where no. of adults is more than 02.

(For Total Amount of Assets in the Household) majority of the people are have less than 5 Mln as assets (as reported, estimated figures) Poverty Depth and Severity ratio are also on higher side in both factors.

(For No. of Children in the Household) Majority of the household have from 3 to 6 children and those household where number of children are from 5 to 6 have more poverty ratio compared with other household. (For Household's Livestock Population) The headcount index, depth and severity are high when live stocks population is 1-2 in any number of livestock of the households. We also concluded that the depth and severity are lower among the households that have no livestock or less than 2 live stocks.

<b>Table 05</b>					
<i>Decomposition of Poverty by its correlates (socio economic).</i>					
Poverty Correlates	%age of Poor Households	Household (%)	Headcount index	Depth	Severity
Relating Poverty by (Land Holding)					
No Land	13%	38%	13%	0.30	0.09
Up to 05 Acres	3%	6%	3%	1.00	1.00
05 Acres -40 Acres	23%	53%	23%	0.43	0.18
40 + acres	1%	3%	1%	0.85	0.72
Relating Poverty by (No. of Adults in Household)					
2	14%	37%	14%	0.38	0.14
3	14%	25%	14%	0.44	0.20
4+	12%	37%	12%	0.35	0.12



Relating Poverty by (Total Amount of Assets in the Household)					
Less than 1 Mln	10%	14%	10%	0.34	0.12
1 Mln - 5 Mln	29%	80%	29%	0.40	0.16
5 Mln to 10 Mln	1%	4%	1%	0.85	0.72
10 Mln and above.	0%	2%	0%	1.00	1.00
Relating Poverty by (No. of Children in the Household)					
0-1	3%	14%	3%	0.29	0.09
2	6%	16%	6%	0.46	0.21
3-4	13%	31%	13%	0.39	0.15
5-6	11%	29%	11%	0.32	0.10
6+	7%	10%	7%	0.48	0.23
Relating Poverty by (Household's Livestock Population)					
No Livestock	3%	4%	3%	0.37	0.14
1 - 2	19%	30%	19%	0.45	0.20
3 - 6	13%	41%	13%	0.39	0.15
Above 6	6%	25%	6%	0.27	0.07

Source: Primary Data analysis, survey conducted in August 2017.

## B Multivariate Analysis

### B-1 Results of Multivariate Regression Models

Multivariate Regression Model has been used for the identification of factors in our study area that are strongly linked to poverty and the same has been used by different authors in their studies in past for investigation of correlates/determinants of poverty in their study areas.

**Table 06**

*Determinants of Poverty: Results through Log-Linear Regression Models.*

Dependent Variable: LOG(PCI)	N= 1000								
	Model 1			Model 2			Model 3		
Variables	Coeff.	t-stat	Prob.	Coeff.	t-stat	Prob.	Coeff.	t-stat	Prob.
DPR	-0.032	-1.854	0.04	-0.039	-1.86	0.038	-0.035	-1.887	0.034
HSIZE	-0.027	-2.585	0.01	-0.018	-1.99	0.039	-0.037	-2.585	0.011
AGHH	-0.011	-2.587	0.01	-0.011	-2.53	0.013	-0.011	-2.587	0.011
FAMTY	-0.007	-0.362	0.62	-0.01	-0.50	0.583	-0.007	-0.362	0.717
LPOP	-0.007	-0.362	0.75	-0.01	-0.59	0.553	-0.007	-0.362	0.641
LHOL	0.019	2.075	0.04	0.021	2.018	0.046	0.018	2.075	0.04
TAST	2.791	6.537	0.01	-	-	-	-	-	-
FMRM	0.068	0.616	0.54	0.059	0.564	0.489	0.055	0.616	0.539
LPOP	-0.004	-0.362	0.65	-0.01	-0.51	0.573	-	-	-
EARNH	0.259	4.145	0.01	0.159	1.27	0.207	0.264	4.145	1E-04
PPRM	-0.103	-2.771	0.01	-0.107	-2.6	0.01	-0.133	-2.771	0.006
FMRW	0.016	0.105	0.81	0.018	0.117	0.847	0.016	0.105	0.866
Constant	0.478	2.390	0.015	0.621	2.312	0.016	0.548	2.385	0.017
R2	0.541	0.539	0.532						
Adjusted R2	0.498	0.496	0.491						
F-statistic	12.18	0.000		10.95	0.000	10.45			
Durbin-Watson	1.874	-	1.87	-	1.931	-			

The above mentioned table empirically proves that demographic , socio-economic, and social correlates of households which have significantly affected the poverty in selected sub-district of the study area. Our regression model show its explanatory power as measured by R<sup>2</sup>, to be significantly high (0.532 to 54.11) in all three model that indicates that almost 53.2% change in dependent variable is due to the including explanatory variables. There are some other factors which are not defined in this equation and remaining value indicate these. The joint and overall significance, F-test, is also accepted at 1% significance level in all three models. Variables like (1) Dependency ratio, (2) Household size (3) Age of household head, (4) Family Type (Nucleus or Joint ) and (5) Person Per Room and have negative relationship with CPI (Per capita Income) of the household in all three models and the coefficients of all variables are significant at 5% significance level in these equations in the study area as per the field survey conducted in 2017. And apart from the above mentioned variables in our models, (1) Total Assets (of household), (2) Household' landholding, (3) Male-female ratio (workers), (4) Female-male ratio (workers) and (5) Number of earning per household have positive relationship with per capita income of the household in these models. That show that if dependency ratio increased the same will impact the Poverty positively. And also if the household size will increase so in that household poverty ratio will also increased. Same is the case for Person per room , Family type (Joint or Nucleus) and the age of the head of the household. The same models also describes that if Number of earner in the household will increased so by that poverty will be reduced as due to increased in Number of earners will decreased the dependency ratio in the household. Same also reveals that Male-female ratio(workers) and Female- male ratio(workers) both will decreased the poverty ratio in the household as concluded in the survey conducted in 2017 in the Atthara Hazari Sub district.

### 3.2.2 Results of Logistic model

In our study we have also use the Logistic regression model to analysed the main determinants of poverty in the study area. Same model has also employed by different authors in previous authors. Below-mentioned equation is use as logistic regression analysis which commonly undertaken to explore the influence of various household-level characteristics on the probability of being poor.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + D_1 + D_2 + D_3 + D_4 + D_5 + D_6 + D_7 + U_t$$

The evidence shows that all coefficients expect (1) (Residence in Kacha Houses, having (2) No live stocks), and (3) dependency ratio in the regression are significantly different from zero at 5% level of significance. Age of the households head, household size, Dependency ratio in the household, (D1) not literate, (D2) Head of the household is farmer (by profession), (D3) household head is labor/daily, (D4) Living in kacha house, and (D5) household has no agriculture land were positively correlated with the probability being poor and all coefficient are statistically significant expect (DPR) dependency ratio, (D6) Daily wager at 5% level of significance. Households satisfaction with education facilities, health facilities and household have members in abroad for income purpose are negatively correlated with the probability of being poor.

**Table 07**  
*Results of Logistic Model.*

Dependent variable= 1 if household is poor, 0 otherwise				
Variable	Descriptions	Coefficient	z-Statistic	Prob.
C		-9.3343	-2.58248	0.0011
AG	Age of HH head	0.558	2.457295	0.0112
DPR	Dependency Ratio	0.200	1.191692	0.2334
HSZ	Household Size	0.034	1.979846	0.0477
D1	Not Literate	0.248	1.979846	0.0477
D2	HHH is Farmer	0.315	2.154656	0.0312
D3	No Live Stocks	0.499	2.223391	0.0262
D4	Residence in kacha House(mud)	0.209	1.402054	0.1609
D5	No Agri Land	0.322	2.417297	0.0156
D6	Daily wager /labor	-0.026	-0.13251	0.8946
D7	Joint family system	-0.325	-1.93492	0.053
Log-likelihood	-39.14	Joint Sig	48.25	Prob 0.000

Source: Primary data Analysis

## CONCLUSIONS AND POLICY IMPLICATIONS

This study was conducted to quantitatively determine poverty incidence and its correlates in Athara Hazari Sub district with sample of 1000 households. Poverty is also high in Athara Hazari Sub District. 40.30% are below the Poverty Line and remaining 59.70% people are above the poverty line in the study area. Depth and severity are 39% and 15% respectively. It is also noted that 15% people are extremely poor whose income is Rs. 1239. The study showed that the critical determinants of poverty severity among the respondents were dependency ratio, education of head of household, Land holding size, male –Female ratio, and total value of household assets, household size and formal education. According to the survey conducted in 2017, Average household size is 8 persons and average earner per household is 2.0 persons in Athara-Hazari Sub District. Average Household Size in non-poor households is 7.0 and in the poor household are 9.2. Dependency ratio in poor households are high. Average Room per House in the sub district is 2.7 and Average person per Room are 2.9. Average earner per family in the Non-poor household is 2.19 people per household and in the poor household, it is 1.78 people per household. Which conclude that dependency ratio is one of the major factors in determining the poverty and where it is high. The people of the area are found poorer compared to that of 33% in Punjab Province and 36% in Pakistan and 31% in the world. Majority of families were headed by the farmer, illiterate and aged persons in the study area. Education is the most significant factor that distinguishes the poor from the non-poor. 31% people are illiterate in the study area. Majority if the families are headed by farmers. 80% people are living in the Joint family system and in joint family system poverty is also on higher side. Poverty is on the higher side in that household who are living in Kacha (made of mud) houses.

Our income regression model proves that socio-economic, social and demographic correlates have significantly affected the Poverty level in the selected sub-district. Variables like Dependency ratio, Age of household head, Household size, Family Type and Person Per Room have negatively affected CPI (Per capita income of household) in all three models and

the coefficients of all variables are significant at 5% significance level in these equations. And apart from the above mentioned variables in our models, Total Assets (of household), Household' landholding, Male-female ratio (workers), Female-male ratio of workers and Number of earning per household have positively affected per capita income of the household in our study.

### Policy Implications

Government should take initiative to plan at grassroots-level for increasing the income of rural areas by starting different income generating plans. Social and demographic characteristics of the households are very important reason for increasing the poverty in the rural areas like education, dependency ratio, Household size, female-male ratio so planning for address these micro level issue will be the major factor and by that these household will decrease the poverty. Special focus should also be made for those hold who falls under extreme poverty line. Basic necessities like food, health and education, drinking water, sanitation nutrition and housing conditions should be arranged for rural areas.

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