Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.3, No.12, 2013

Estimating the magnitude and correlates of poverty using consumption approach in Khyber Agency (FATA)

Muhammad Mehboob Alam
PhD Scholar, Karachi Pakistan
email: mehboobkhan51@gmail.com

Syed Irshad Hussain
PhD Scholar, Karachi Pakistan
email: syedirshadims@gmail.com

Abstract

Poverty is an integral part of the human condition, though its existential aspects differ from culture to culture and from region to region. As such, experts on the subject cannot reduce it to a single factor but focus on the forces which combine to cause the vicious cycle of poverty. The present study was used Poverty consumption approach to find out the incidence and correlates of poverty in Khyber Agency, Fata with a sample size of 110 households in its background. We have applied two different methods, poverty profile and an econometrics approach in our empirical analysis. According to the survey results, 48.1 % households are above and 51.9 % households are below poverty line. The depth and severity of poverty are 10.52% and 3.7% respectively. The results show that dependency ratio, persons per room, household size and age of head of the household have positively affected the level of poverty while household' landholding, total assets of the household and earning members per household have negatively the incidence of poverty. The results of logistic model show that age of the households head, household size, household head is illiterate, household head is farmer, residence in kacha house was positively and significantly correlated with the probability being poor while households satisfaction with education facilities and household have members in abroad for income purpose are negatively and significantly correlated with the probability of being poor. Our final conclusion is that the people of the area may be introduced to new patterns of thinking to change their lives for the better. Awareness programs may be launched to prepare the new generation for the changes and challenges ahead. In this regard, the women of the area may be educated and empowered to enable them to actively participate in income-generating activities on sustainable grounds.
Keywords: Poverty, households, FATA, Pakistan

Introduction of Poverty and Methodology

1.1 Background

Poverty is one of the greatest issues in the world, and Pakistan has been encountering it since the inception of its birth. In general terms poverty has defined as person is living below the standards determined by the norms of a society, i.e., lack of sufficient resources to purchase the essentials of life; especially, food, shelter and clothing. Theorists have not been uniform in approaching poverty and its parameters; hence its definition varies from model to model. For example, Ravalli, (1992)[1] thinks that poverty exists in a society where a person(s) does not achieve a certain amount of income or stuff required to satisfy a reasonable minimum standards of the society. Another universal definition comes from World Bank and an internal donor Agency i.e., a person earning less than one dollar a day is declared as poor (World Bank, 1990)[2]. In short, Poverty has many dimensions, among them the most important measurement is "consumption poverty". Consumption poverty is the degree to which the consumptions of a family or household fall below the poverty line. The incidence of consumption poverty is

1 Ravallion, M., 1992, "Poverty Comparisons: A Guide to Concepts and Methods. LSMS Working Paper No 88", The World Bank Washington, D.C.

2 World Bank, 1990, "World Development Report", pp.11-20

different between urban and rural areas of Pakistan. Approximately 74% poor people are lived in rural areas in Pakistan. (World Bank, 1995).[1]

In Pakistan, 34.46 % populations were living below the poverty line in 2001 which can decrease to 23.9% and 22% in 2005 and 2006 respectively. Approximately 39.26% and 22.69% population were living below poverty line in rural and urban areas in 2001 respectively which has declined to 28.10% and 14.9% in 2005 respectively (UNDP, 2005)[2]. According to ADB Report, (2002)[3] poverty in provinces also showed increasing trend between 1993 and 1999. It can show that the poverty incidence in Punjab has risen from 25.5% to 33%; in Sindh from 24.1 % to 26.6 %; and in Khyber Pakhtunkhwa from 24.6% % to 45.5 %. Khyber Pakhtunkhwa is the poorest province of Pakistan. The incidence of poverty is high in Khyber Pakhtunkhwa as compare to the country as a whole. Out of total, 44% populations are living below the poverty line. Irrespective of demography, poverty is higher in Khyber Pakhtunkhwa both in terms of depth and severity. According to the different poverty estimates average per capita expenditure is also lower as compare to the rest of the country(GOP, 2004)[4]

The Federally Administered Tribal areas are some of the most underdeveloped areas of Pakistan and are in need of immediate attention and consideration on the part of policy-makers, law-enforcing agencies, and social workers. The following figures are enough to clarify the point under discussion: out of total, 17% of populations are literate and the women literacy rate is only 3% in 1998. The low literacy rate is connected with poor enrolment, high drop-out, and access to higher education, outmoded curriculum and untrained teaching staff (FDGP, 2007)[5]. There is no such substantial data available regarding poverty of FATA in general and Khyber Agency in particular. In most of the surveys, FATA is considered as a militarily restricted area and is excluded from the sample surveys (PIDE, 1999)[6]. Keeping in view of the above scenario, this study is an attempt to estimate the level of poverty and correlates in Khyber Agency (FATA). These estimates are based on the survey results from the selected villages of all three Tehsil (Bara, Jamrud and Landikotal) of Khyber Agency.

1.2: Problem Statement

Poverty is a difficult phenomenon and has a strong linked with economics, social, demographic and political factors. The main concern of study is to find out the level of poverty in Khyber Agency and to analyze the demographic and economic and social characteristics of household lying below the poverty line. The problems to be addressed are:

1. How many households are extremely poor, Ultra poor and below the poverty line?
2. How the demographic characteristics of the household affect poverty?
3. How the social characteristics of the household affect poverty?
4. How socio-economic characteristics of the household affect poverty?

1.3: Objectives of the Study

1. To estimate poverty incidences using the income-expenditure approach in the selected villages of Khyber Agency, Fata.
2. To document the poverty correlates of poor households on various socio economic, demographic and social variables.

1.4: Significance of the Study

The main reasons of poverty in Pakistan are income inequality therefore it is important to identify the poor before any target intervention that aim to reduce or alleviate poverty, so this study can help the government agency, NGOs and other donor agency that are working for poverty alleviation. It can also provide policy makers

1World Bank, 1995, “Pakistan Poverty Assessment, Report No. 14397-PAK”, p.1&17

2 United Nations Development Programme (UNDP), 2004, “Poverty Environment Nexus in Pakistan”, by Dr. Chaudhry Inayatullah.

3 Asian Development Bank, 2002, “poverty in Pakistan; issues, causes and institutional responses”, (Islamabad: 2002: ADB)

4 Government of Pakistan, 2004, “Economic Review”, Ministry of finance, Islamabad

5 Finance Division, Government of Pakistan, 2007/08, ‘Human Development for the 21st Century’ “Poverty Reduction Strategy Paper-II”, Chapter 9, pp.151-198

6 Pakistan Institute of Development Economics (PIDE) Islamabad, Pakistan, 1998-99, “Profile of Poverty in Pakistan”, by Sarfraz K. Qureshi and G. M. Arif, MIMAP Technical Paper Series no. 5.

and planners, whether relating to Government or NGOs, with enough solid material and strong socioeconomic background for initiating developmental schemes and projects. In short, last but not the least; it will enhance my knowledge on development sector of the economics.

1.5: Methodology

Poverty analysis consists of three major steps. These are; Identification of the welfare measure, assigning a poverty line and then aggregating results. (World Bank, 200)[1]
There are generally three lines of poverty such as absolute poverty line, relative poverty line, subjective poverty line which are applied to identify or categorize the population according to their instance of poverty in literature. This study uses the absolute poverty approach to determine the extent of poverty in Khyber Agency.

1.5.1: Data for Analysis

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 on the basis of the personal interviews conducted.

Secondary data was also used and sourced from the population census reports of FATA 1961, 1972 and 1998. Data related to the land utilization, major crops, natural recourses, health etc were obtained from the revenue office of Khyber Agency.

1.5.2: Sample Procedure and Sample size

The results would have been more accurate, if the whole of the population of the selected villages had been interviewed. Subject to certain constraints such as limitation of resources like time and cost, the study was restricted only to main villages of Khyber Agency.
Keeping in view the nature of the study, the time and financial as well as security constraints, a sample of 110 households were selected in different village with the assumption of representing the whole population.
For selection of sample respondents, multistage sampling approach was adopted. In the first step the 110 households were selected in all three Tehsil (Bara, Jamrud and Landikotal) of the Agency on the basis of population/ number of household in each Tehsil. After that in each Tehsil villages have selected through probability sampling technique.
In the second phase we employed simple non probability sampling trough out the Agency and selected 11 households from each village based on convenience and willingness of the respondents to answer our question.

1.6: Econometric Model

This study can also use an income regression model to determine how various indicators of the poverty such as socioeconomic and demographic and social characteristics of households affect the poverty and per capita income of the household. The regression model is estimated by SSPS. The income regression model has been used extensively by researchers[2] attempting to explain poverty.

$$\mathbf{LnY = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_{5+} \beta_6 X_{6+} \beta_7 X_{7+} \beta_8 X_{8+} \beta_9 X_9 + \beta_{10} X_{10} + U_t}$$

With usual assumptions, where

Ln Y = Natural log of Per capita income divided by poverty line X_1 = Household size
X_2 = Size of the land of household X_3 = Age of the household head
X_4 = Total Number earner per household X5= Dependency ratio
X6= Female-male ratio of workers X7= Female-male ratio of members
X8= Person per room per household X9= Household livestock population
X10= Total Assets

1.6.1: Logistic Model

This study can also use a logistic model to determine how socio-economic and demographic factors affecting poverty in Khyber Agency. In logistic model we have used dummy variables.

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + D1 + D_2 + D_3 + D_4 + D_5 + D_6 + D_7 + D_8 + D_9 + U_t}$$

1 World Bank ,2005 , "Introduction to Poverty Analysis", pp.14-15
2 Ravallion, M., 1996, " Issues in Measuring and Modeling Poverty," The Economic Journal, Vol.106, pp.1328-1343

With usual assumptions, where

Y = 1 if the household is below the poverty line 0 otherwise
X_1 = Household size X_2 = Age of the household head
X_3= Dependency ratio
D1= 1 If the head of the household is illiterate 0 otherwise
D2= 1 If the head of the household is farmer 0 otherwise
D3= 1 If the household head is labor or daily wager 0 otherwise
D4= 1 If the household has no agriculture land 0 otherwise
D5 = 1 If house structure is kacha 0 otherwise
D6= 1 If the household satisfy with health facility in the area 0 otherwise
D7 = 1 If the household have member in aboard for income purpose 0 otherwise
D8= 1 if joint family system 0 otherwise
D9 = 1 if the household satisfy with education facility in the area 0 otherwise

1.7: Definition of Poverty Line

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 Khyber Agency and converted into Pakistan currency in 2005-2006 the total amount is shown as Rs. 944.47 (GOP, 2008)[1] per adult equivalent per month.

1.7.1: Price Adjustment

In Pakistan poverty level is measured by using three different poverty lines, e.g. poverty line is estimated by the Planning Commission of Pakistan and poverty line estimated by Pakistan Integrated Household Survey (PIHS) 1998-99 data. In Pakistan poverty line is adjusted or computed by using average CPI rate so many time e.g. Amjad and Kemal (1997)[2] have adjusted the 1984-85 poverty lines by using the average CPI and to get poverty estimates for 1992-93, 1993- 94, and 1996-97. 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 2011. The updated poverty line is mention in the following table.

Table 1: Updating the Poverty line to FY 2010

Years	Inflation	Poverty line
2005-06	-	944.47
2007	7.8%	1018.13
2008	12 %	1134.70
2009	20.8%	1370.72
2010	11.7%	1531.099

Source for inflation: State bank of Pakistan

1.7.2: Adult Equivalence Scale

Adult equivalent scales are used for transforming the number of household members to adult equivalents for ready comparisons and easy understanding. The estimates is based on a simple equivalent scale that weighs 0.8 to individual younger than 18 years old and 1 for all other individuals (GOP, 2008).[3]

1.8: Constraints and Limitations

- The time duration and resources for conducting this research is very short that it is not sufficient to provide things in details.

1 Government of Pakistan (2008), Second Poverty Reduction Strategy Paper , Ministry of Finance, Report No. 47352-PK , Chapter 3 , pp. 65-77

2 Amjad, H. and A. R. Kemal, 1997, "Macro-economic Policies and their Impact on Poverty Alleviation in Pakistan", The Pakistan Development Review

3 Government of Pakistan, 2008, "Second Poverty Reduction Strategy Paper" , Ministry of Finance, Report No. 47352-PK , pp. 80-82

- Law and order situation in most parts of Khyber Agency was the main hurdle in accessing the target area.

2: Literature Review

A significant research work has been done by researchers to study the level and correlates of poverty e.g. Susheela et al., (2000)[1] has conducted study on the level of poverty in rural households in Dharwad district, Karnataka, India. The results show that landless and joint family is positive relationship with poverty. The percentage of the poor households varies with the landholding and types of family. In landless, small, medium and large landholding households, 54.8, 34.2, 29.8 and 2.1 % of households were below the poverty line respectively. In joint and nuclear families 39.5 and 12.2% of household were below the poverty line respectively. (Ahmad, 2004)[2] has conducted study in poorest regions of Bangladesh. However, the crucial correlates of poverty found to be the occupation and land ownership followed by gender, age and location. To analyze the effect of socio-demographic variables on Rural Poverty (Thompson, Traub, & White, 2010)[3] conducted a study on "Socio-Demographic predictors of rural poverty". For the precision of variables in discriminating among poor and non-poor families, a random sample of thirty low income rural states of U.S. was selected". By using the discriminate analysis, the results suggested that at five percent of level of significance the predictor variables are highly significant among non poor and poor individuals of rural states. Furthermore, the study concluded that household's head were poor, semi-skilled; residents of farm that tends to be old have large number of children and pay very less on the travelling for employment purposes outside the country's side.

Jefferis & Kelly, (1999)[4] have analyzed the correlates of poverty in Pakistan and they have used the 1993/94 household survey data. Female head of the household has positive, and years of schooling of the household head has inverse relationship with the level of poverty. Malik, et al., (2006)[5] have studied the level and correlates of poverty in the village of Southern Punjab, Pakistan. They have used income regression and logistic models. Household size, age and female head of the household, dependency ratio, persons per room and female-male ratio of workers, and residence in Katcha house have positive relationship with poverty. Total assets, education level of the household members, participation rate, household's landholding and population of livestock, household head is farmer have negative relationship with poverty. In short, chronic poverty is present in the many areas of the Pakistan. The main reasons are harsh environmental conditions and social deprivation due to tribal tradition. (CPRC, 2004)[6].

2.1: Dimensions of Poverty

According to (CPRC, 2008–09)[7], Poverty has three dimensions: breadth, depth and duration.

- Poverty breadth refers to the different measurement of poverty, people can be considering poor through many ways. This can be in terms of, for example,
- Poverty depth refers to how much the poor people far from the poverty line.
- Poverty duration refers to the span of time in which people consider to be poor. Poverty is remaining for a long time is known as chronic poverty, but is also commonly called long-term poverty. People who move into and out of poverty are said to experience transitory poverty (also known as transient poverty).

1 Susheela et al., 2000, "Prevalence of poverty in rural households of Dharwad district", Dept. of Family Resources Management, Rural Home Science College, Dharwad-580005, India: Karanataka Journal of Agricultural Sciences. 13 (1): 228-229.

2 Ahmad, M. u. (2004). Socio-Demographic correlates of rural poverty in Bangladesh:A case study of Gaibandha Sadar and Tanore upazilas. Bangladesh -e- journal of sociology vol.1 .

3 Thompson, A., Traub, B. J., & White, R. P. (2010 Socio-Demographic predictors of rural poverty:A regional anaylsis. http://www.ag.auburn.edu/auxiliary/srsa/pages/Articles/SRS%201983%201%2076-96.pdf

4 Jefferis, K. R., and T. F. Kelly, 1999, "Bostswana: Poverty amid Plenty", Oxford Development Studies. 27(2): 701-727

5 Malik, S., Chaudry, I. S., & Ashraf, M. (2006). Rural Poverty in Pakistan. Some related concepts ,issues and empherical analysis.

6 Chronic Poverty Research Centre (CPRC), 2004, "The Chronic Poverty Report", website;www.chronicpoverty.org

7 Chronic Poverty Research Centre (CPRC), 2008–09, The Chronic Poverty Report, website: www.chronicpoverty.org

Baronets et al., (2005)[1] consider duration to define chronic poverty; they told that chronic poor are those, who have per capita income under poverty line for a long period. He told that the chronic poor are not separate group; they are the people or minority group who are not engage in labor market. The poor women or girls are the most likely to experience chronic poverty.

2.2: Poverty Line

To identify the poor one must need the determination of poverty line while its determination depends on the living standard of the people which can vary from person to person and culture to culture. There are many disagreements among the living standards but it is important to finalize the poverty line before make any attempt to estimate the poverty. Poverty line is defined a degree under which persons, households and group of people are excluded from the minimum standard of living (CRPR, 2002)[2]. Due to limited resources in most of the developing countries particular in Pakistan has used the absolute poverty method to estimate the poverty. Absolute poverty is defined the cost of food and a set of basic needs. If the individual or households are unable to meet these needs, are considered as poor (CPRC, 2002)[3]. In estimating poverty, two different problems must be faced "first in identifying the poor among the total population and second in constructing an index of poverty using the available information on the poor". First problem occur in the choice of a determining the poverty line e.g. "selection of poverty line in terms of real income per head" and second problem occur in the ascertaining those who satisfy the minimum standard e.g. "fall below the poverty line and those who do not" (Sen, 1976)[4] In short, Pakistan does not have an official poverty line, therefore we have used the absolute poverty line US$ 1.25 introducing by World Bank in 2005-2006 and this poverty line adjusted by using average CPI rate in Pakistan in each year for 2011.

3: Result and Discussion

According to the field survey June 2011, poverty levels vary in Khyber Agency as shown in Table 33. 7.5 % households are extremely poor in Khyber Agency; 12.3% are ultra poor; and 32.1 % are poor. According to the field survey June 2011, in Khyber Agency, 48.1 % households are above and 51.9 % households are below poverty line. The depth and severity of poverty are 10.52% and 3.7% respectively. The people of Khyber Agency are poorer compared to that of 44% in Khyber Pakhtunkhwa, 36% in Pakistan and 31% in the world.

Table 2: Poverty Level in Khyber Agency

Poverty Bands	Frequency	Percentage	Income
Extremely poor	**8**	7.5	<765.55
Ultra poor	**13**	12.3	<1148.30
Poor	**34**	32.1	<1531.09
Headcount Index	**-**	51.9	-
Poverty Depth	**-**	10.52	-
Severity of Poverty	**-**	3.7	-

Source: Primary data Analysis

1 Barrientos, A., Hulme, D. and Shepherd, A., 2005, "Can Social Protection Tackle Chronic Poverty", The European Journal Of Development Research 17, pp 8-23

2 The Centre for Research on Poverty Reduction and Income Distribution (CRPRID), Planning Commission, 2002, "Issues In Measuring Poverty in Pakistan", P.4

3 The Centre for Research on Poverty Reduction and Income Distribution (CRPRID), Planning Commission 2002, Issues In Measuring Poverty in Pakistan, P.9-10.

4 Sen, A 1976, Econometrica, vol 44, No, 2 , pp.219-231.

3.1: Correlates of poverty

3.1.1: Relating Education level of the Household Head and poverty

The heads of the families are mostly illiterate and a small number is headed by educated persons. Table 3 shows that all three measure headcount index, depth and severity are worse among the households that are headed by illiterate persons. The results also show that as a level of education of households increase, the incidence, depth and severity of poverty decrease.

Table 3: Relating Education level of the Household Head and poverty

Level of Education	As %age of Poor Households	Headcount index	Poverty Depth	Severity of Poverty
Illiterate	67.273	34.906	0.087	0.033
Below Primary	7.273	3.774	0.004	0.001
Primary To Matric	21.818	11.321	0.012	0.002
More than Matric	3.636	1.887	0.002	0.000

Source: Primary data Analysis

3.1.2: Relating Occupations of the Household Head and Poverty

According to field survey June 2011, the poverty incidence, depth and severity are high in the households that are headed by farmers. The results also show that more than 50 % poor households are headed by farmers. More than 70% poor people are living in the households that are mange by farmers, daily wager and labor in Khyber Agency.

Table 1: Relating Occupations of the Household Head and Poverty

Occupations of Household Head	As %age of Poor households	Headcount index	Poverty Depth	Severity of Poverty
Businessman	9.091	0.047	0.005	0.001
Farming	52.727	27.358	0.070	0.028
Government or Private Employee	10.909	0.057	0.004	0.000
Daily wager/Labor	20.000	10.377	0.021	0.006
Shopkeeper/Driver	7.273	3.774	0.005	0.001

Source: Primary data Analysis

3.1.3: Relating household's landholding and poverty

Table 5 results show that household's landholding has negative relationship with poverty in Khyber Agency. The result also shows that poverty incidence, depth and severity very high among landless household and the households that have less than 3 acres size of land.

Table 2: Relating household's landholding and poverty

Size of land (Acres)	As %age of Poor Households	Headcount index	Poverty Depth	Severity of Poverty
Landless	34.55	17.925	0.035	0.012
Up to 3	50.91	27.358	0.052	0.017
3.1 - 6	10.91	5.660	0.012	0.005
More than 6	3.64	1.886	0.006	0.003

Source: Primary data Analysis

3.1.4: Relating Household size or Composition and Poverty

As far as the household size is concerned, we have concluded that as a household size increases the all three measures, headcount index, depth and severity of poverty is also rising. The results also show, on average 8 and above members in a household imply the highest incidence, gap and severity of poverty. We have also concluded

that an optimal household size is 1 to 5 members, as it experiences a lower headcount index, depth and severity of poverty.

Table 6: Relating Household size or Composition and poverty

Household Size	As %age of Poor households	Headcount index	Poverty Depth	Severity of Poverty
1-5	3.64	1.887	0.002	0.000
6-7	16.36	8.491	0.013	0.003
8-10	29.09	14.151	0.037	0.014
Above 10	52.73	27.35849	0.053	0.019

Source: Primary data Analysis

3.1.5: Relating Dependency Ratio and poverty

Poverty in Pakistan especially in the rural area is due to high dependency ratio. Table 7 shows that the dependency ratio is positively correlated with incidence, depth and severity of poverty in Khyber Agency. The results show that the dependency ratio 2 and above 2 persons imply the highest incidence, depth and severity of poverty.

Table 7: Relating Dependency Ratio and poverty

Dependency ratio	As %age of Poor households	Headcount index	Poverty Depth	Severity of Poverty
0.1 - 2	3.64	1.887	0.001	0.000
2.1 - 4	38.18	19.811	0.039	0.013
4.1 - 6	34.55	17.925	0.031	0.009
Above 6	23.64	12.264	0.034	0.034

Source: Primary data Analysis

3.1.6: Relating House Structure and poverty

Evidence shows that about 80% of poor are living in the kacha houses. The results also that the all three measures, headcount ratio, depth and severity of poverty are very High among the households that are living in Kacha houses.

Table 8: Relating House Structure and poverty

House Structure	As %age of Poor household	Headcount index	Poverty Depth	Severity of Poverty
Pucca	5.45	2.830	0.002	0.000
Kacha	78.18	40.566	0.083	0.030
Pucca& Kacha	16.36	8.491	0.019	0.007

Source: Primary data Analysis

3.2 Regression Analysis

3.1.1: Income Regression Model

In the model the log of income of a household divided by poverty line is the function of the household size, Age of the head of household, household's landholding, number of earner (s) per household, female-male ratio(worker), female-male ratio(members), livestock population, dependency ratio, persons per room and total value in rupees of physical assets. The results of the regression analysis indicate that the explanatory power of the regression equation, as measured by R^2, to be significantly high (54.57 and 54.11) in both equation respectively. In other word, an average of 54.34 % changes in dependent variable is due to the including explanatory variables and 45.66 % of model did not explain due to other factors. The joint and overall significance, F-test, is accepted at 1% level of significance in both equations. All variables have correct sign. Household size, age of household head, dependency ratio and persons per room in the house have negatively affected per capita income of household in both equations and the coefficients of all variables are significant at

5% significance level in both equations expect dependency ratio which is significant only in equation one. Household' landholding, total assets of household, female-male ratio of workers and earning member per household have positively affected per capita income of the household in both equation and total assets, earning members per household and household's landholding is significant at 5% level of significance while coefficient of the female-male ratio of workers is not significant in both equations. Empirically, thus we prove that socio-economic, demographic and social characteristics of household have significantly affected the level of poverty in Khyber Agency, Fata.

Table 3: Determinants of Poverty: Log-Linear Regression Results

Dependent Variable: LOG(PCI)				N= 106		
Equation 1				Equation 2		
Variables	Coefficients	t-stat	Prob	Coefficients	t-stat	Prob
HSIZE	-0.018046	-1.986	0.048	-0.037712	-2.585	0.011
AGHH	-0.011232	-2.531	0.013	-0.011461	-2.587	0.011
LPOP	-0.010064	-0.507	0.613	-0.007116	-0.362	0.717
LHOL	0.021557	2.018	0.046	0.022134	2.075	0.040
TA	2.74	6.326	0.000	2.800	6.537	0.000
EMPH	0.159086	1.270	0.207	0.264885	4.145	0.0001
PPRM	-0.117122	-2.596	0.010	-0.123642	-2.771	0.006
DPR	-0.042073	-1.982	0.042	-	-	-
FMRW	0.018415	0.117	0.907	0.016611	0.105	0.916
FMRM	0.062777	0.5641	0.574	0.068446	0.6160	0.539
Constant	0.822076	2.396	0.018	0.584801	2.400	0.018
R2	0.545728	-	-	0.541113	-	-
Adjusted R2	0.497909	-	-	0.498092	-	-
F-statistic	11.41256	0.00000		12.57798		0.0000
Durbin-w-s	1.959905	-	-	1.926309	-	-

"A dash (-) in second equation refers to the situation where corresponding variables are dropped in the equation to reduce multicollinearity".

3.2.2 Results of Logistic model

We also use the logistic regression as anther econometric technique to analysis the main determinants of poverty in terms of some qualitative and quantitative factors. The evidence shows that all coefficients expect D4, D6, D8 and dependency ratio (DPR) in the regression are significantly different from zero at 5% level of significance. Age of the households head, household size, household head is not literate, household head is farmer, household head is daily wager or labor, residence in kacha house, household has no agriculture land, dependency ratio, joint family system were positively correlated with the probability being poor and all coefficient are statistically significant expect dependency ratio, household has no land and joint family 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. The coefficient values of household have member in abroad and household satisfaction with education facilities in the area are statistically significant at 5% level of significance.

Table 4: Results of Logistic Model

Dependent variable= 1 if household is poor, 0 otherwise					
Variable	Coefficient		z-Statistic		Prob.
C	-13.03152		-3.15942		0.0016
AG	0.604		2.457295		0.014
D1	0.248		1.979846		0.0477
D2	0.336		2.154656		0.0312
D3	0.569		2.223391		0.0262
D4	0.209		1.402054		0.1609
D5	0.322		2.417297		0.0156
D6	-0.026		-0.13251		0.8946
D7	-0.241		-1.69591		0.0899
D8	0.023		0.125089		0.9005
D9	-0.374		-1.93492		0.053
DPR	0.200		1.191692		0.2334
HSZ	0.034		1.979846		0.0477
Log-likelihood	-43.22	Joint Sig	55.16	Prob	0.00000

Source: Primary data Analysis

4: Conclusion and Recommendation

4.1: Conclusion

In the study, we have undertaken bivariate and multivariate analysis of the household socioeconomic and demographic characteristics using primary data, collected in the selected villages of Khyber Agency, Fata. The results of survey data show that the joint family system is the dominant mode of living in the Agency with a household having 11.075 members on average. According to survey report, the level of poverty in Khyber Agency is 51.9 % which is higher if compared to that of 44% in Khyber Pakhtunkhwa, 36% in Pakistan and 31% in the world (2001). The depth and severity of poverty are 10.52% and 3.7% respectively. Majority people of Khyber Agency think that the major causes of poverty are political instability coupled with law and order situation in the region, unemployment, and lack of educational and health facilities, terrorism, Militant operation, unemployment and inflation The all three measures, headcount index, depth and severity of poverty were worse among the households that are headed by illiterate, farmer, and age persons. The result also shows that the incidence, depth and severity are high among the households that are living in kacha houses and the households they have no piece of land. Due to high dependency ratio, the headcount index, gap and severity of poverty are worse among the households that have on average 8 and more than 8 members in their families. The result of the econometric models show that household size, age of household head, persons per room, dependency ratio, household' landholding, total assets of the household and earning member per household have significantly affected per capita income of the household in Khyber Agency. It shows that household size, age of household head, persons per room, dependency ratio have inverse relationship with the per capita income of the household and have positive relationship with incidence of poverty. Household' landholding, total assets of the household, earning member per household and female-male ratio of worker have positive relationship with per capita income of household and inversely related to the incidence of poverty. The results of logistic model shows that age of the households head, household size, household head is illiterate, household head is farmer, household head is daily wager or labor, residence in kacha house was positively and significantly correlated with the probability being poor while households satisfaction with education facilities and household have members in abroad for income purpose are negatively and significantly correlated with the probability of being poor.

In short, the core objective of this study has been to search into and find out the incidence and correlates of poverty in the selected villages of the Khyber Agency through absolute or income-expenditure poverty approach. Our findings show that poverty incidence is higher in families whose household heads are aged, illiterate, farmer, and rely solely on agriculture and on average household size more than 8.

5.2: Recommendations

- The area is mainly rain-fed yielding less to meet the economic requirements, therefore, alternative sources of income may be sought to complement the agricultural source.

- Arrangements for vocational training may be made to provide technical skills to the young generation so that they will be enabled to generate income.
- An evolutionary approach should be employed to educate and empower the women of the area to the extent that they may be able to actively participate in the process of income generation: separate vocational centers may be established to provide them with the required skills, such as needlework and handicrafts.
- Micro credit programmers may be launched for providing business opportunities to the people with proper training to prepare the new entrepreneurs for different businesses.
- The study uses only Consumption Poverty approach as a tool to determine the levels of poverty in the area; young researchers may be encouraged to employ other tools to capture the real depth of the issue, such as “nonfood consumption share approach”.
- Government and NGOs should accelerate their efforts to sponsor such studies in other areas of Khyber Pakhtunkhwa especially in Fata before their initiating and launching developmental schemes.