MULTIDIMENSIONAL IMPACT OF AJK COMMUNITY DEVELOPMENT PROGRAM: AN EMPIRICAL ANALYSIS

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MULTIDIMENSIONAL IMPACT OF AJK COMMUNITY DEVELOPMENT PROGRAM: AN EMPIRICAL ANALYSIS

by

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A thesis submitted in the partial fulfillment of the requirements for the degree of

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Economics

Department of Economics and Agricultural Economics Faculty of Sciences Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi Pakistan 2015
CERTIFICATION

I hereby undertake that this research is an original one and no part of thesis falls under plagiarism. If found otherwise, at any stage, I will be responsible for the consequences.

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DEDICATION

I DEDICATE THIS HUMBLE EFFORT TO

MY MOTHER (LATE),

WHOSE INSPIRATIONAL LIFE HAS BEEN

A SOURCE OF ENCOURAGEMENT THROUGHOUT

MY

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(GULNAZ HAMEED)
ABSTRACT

This has always been the dream of development thinkers, academicians, researchers and policy makers to contribute in materializing the goal of sustainable development with maximum possible equity. A series of development programs have been launched in different regions of the country to materialize this dream. Now it has become a challenging question whether such initiatives are really contributing in the welfare of masses and if so, what sort of policy messages can be taken from such success stories? In this connection, the fundamental objective of this study was to empirically investigate the impact of Azad Jammu and Kashmir Community Development Program (AJKCDP) in multidimensional perspectives. This program was established to directly address the key issues for rural poverty reduction through empowering the community organization to assume the responsibility and ownership for decentralized planning and implementation of development activities. Both secondary and primary data was collected for analysis, for the objectives and thus for extracting meaningful results. The entire AJK was the universe of the study and a sample of 560 respondents was snapped by employing multistage stratified purposive random sampling technique. Four districts were selected from where both male and female respondents who were registered (70 percent) and non-registered (30 percent) were surveyed from selected villages in each of the districts. Data was gathered from the field through personal interviews by using a properly constructed interview schedule. Empirical analysis was operated by using different analytical techniques. There has been
substantial difference in the trend of education profile of registered and nonregistered members from the base year (2003-04) to current year (2013-14). FGT measure of poverty was applied for estimating incidence, depth and severity of poverty in absolute and relative framework. There has been decrease in incidence poverty by 6 percent among the registered members but there was slight increase in depth of poverty. Similarly, the increase in relative incidence of poverty among members was 3 percent less than non-members. Relative depth of poverty has been decreased substantially showing the positive impact of developmental interventions as during the base year around 13 percent boost in income was required to come out of poverty. Now only 7 percent coverage is required. Inequality among the poor has also been reduced more among registered members than non-registered. There are varying reflections of incidence, depth and severity of poverty in different districts of AJK. Beside unidimensional poverty, multidimensional deprivation was also quantified for all registered and non-registered members of AJKCDP under different arbitrary weight arrangements. Most of such empirics clearly demonstrate the fact that multidimensional poverty was reduced in a higher proportion among the members as compared to non-members except in Muzaffarabad. Health dimension has been emerged as the leading contributor in multidimensional poverty as health poverty increased almost in all districts of AJK. Had there been health related initiatives, the fall in multidimensional poverty would have been higher. Probability expressions were modeled with the aid of Logit to check correlates of poverty in the area. Education, cultivated area, assets, employment status, jobs of females, household size and the livestock are going to increase the probability of decrease in poverty. It is
recommended that the success stories of this program should be replicated with great care as area specific interventions are more workable than initiatives in one stroke across the whole valley. One key policy message states that no intervention can be sustainably workable and highly successful in improving the welfare of the masses until health related issues are addressed in conjunction with other initiatives. It has been proved empirically that women’s participation in economic activities plays a pivotal role in reducing poverty. Gender friendly policies are highly beneficial particularly in the remote regions. Health and education related infrastructure should be improved by involving the local community and by inviting private sector through the foundation of corporate social responsibility.
Chapter 1

INTRODUCTION

Pakistan has been confronting the daunting challenge of development in multidimensional perspectives. Regional disparity, geographic misfortune, political instability and policy inattention towards public services are the key denominators of economic failure across various sectors of the economy. Historical trends of growth and development are encouraging to some extent in some regions but other regions including Azad Jammu and Kashmir (AJK) are still facing the dark faces of deprivations in terms of education, health, housing and employment. A variety of developmental interventions has been made to address the socio-economic conditions of the masses. Overtime academicians, development thinkers and researchers have gained interest to visualize the impact of such development initiatives as relevant to the economic and social development of communities which have been deprived since the inceptions of Pakistan. Independent impact evaluation of government interventions in AJK is the missing link of development history of Pakistan which needs to be focussed for deriving workable policy lessons.

1.1 DEVELOPMENT

Development is normally conceived as a multidimensional course of progression which involves not only major changes and challenges in national institutions, social structure and popular attitudes but includes accelerating economic growth, reducing inequality and eradicating poverty as well. The in-
depth meaning of development has three core values which represent common goals of individuals and societies. These values are: “Sustenance” which means ability of meeting basic needs, “Self Esteem” (to be a person) and” Freedom from Servitude” which demonstrates the presence of choices (Todaro P. 1997).

In all societies, the core aim of development is to increase the distribution of life sustainable commodities of various dimensions like food, housing and health, raising levels of living which includes provision of jobs, getting education etc. in addition to getting higher incomes and expanding the range of social and economic choices. In this way, development is a process of economic as well as social transformation which is based on cultural and different environmental factors. In short development means to live healthy and long lives, be acknowledged, having access to resources which are required for having a decent standard of life so as to enable to participate in community’s life (UNDP, 2000).

Economic development can be declared as a complex and complicated matter. It has gotten substantial importance and attraction of the policy makers for the last couple of decades worldwide. The word development covers the needs and ways of providing livelihood for the true inclusion and fortitude of people in poverty affected countries. There were two types of approaches involved in development issues. First approach included “fight against poverty” which encompassed the problems of developing economies and tried to determine solutions for alleviating poverty, starvation and misery in these countries. Second was associated to analysing long-term socio-economic development: which helped to discover the factors assisting in exploring paradigms of lasting development.
The people of any nation lie at the heart of the whole development process. If investment in people is made effectively then this will offer the strongest base for long-term development (United Nation Development Program UNDP, 1999). It includes all capacity building programs commonly used to assist the human capabilities and endorse their overall progress. Investment in health and education sectors is crucial for the betterment of human beings but it is only one aspect while creating financial opportunities through participatory approach is also equally important.

The broad connotation of development is always extended to the idea of sustainable development which addresses the utilization of economic and human resources across generations. If we are meeting the well being of present generation but ignoring the welfare level of next generation, this clearly reflects the fact that we are not developing in a sustainable way. Two main constraints for sustainable development have been poverty and lack of education which are complementing each other. Poverty curtails the good opportunities for quality education while missing links of education augments the incidence of poverty. Moreover, sustainable development has three basic pillars for its organization which are of economic, environmental and social concerns. There is unique mechanism of providing level field play for all stake holders involved in each of these pillars.

1.2 COMMUNITY DEVELOPMENT

Down the road to sustainable development the experimentation of community development has created some success stories. It has evolved over past decades into a familiar discipline of interest to both practitioners and
academicians. However, it is conceptualized in several ways each of which is important for specific environment and region. Most often practitioners take Community Development as a result of economic, social and physical enhancement in a community (Phillips and Pittman, 2008). It is considered a necessary condition for sustainable development. But there are a plenty of composite initiatives which are to be maintained to materialize the dream.

The fundamental goal in the process of sustainable development, the communal knowledge is an important indicator which empowers people by involving them as peoples in combined activities aimed at socio-economic regeneration and development (McCleneghan, 2000). Hence, Community development is a method of a practice in which skills, knowledge and a value base are involved. (Gary Craig, 2005). It is again a challenge how community development can synchronized in adverse environments which societies are not favorably homogenous.

There are many faces of community development. It is explained in terms of involvement, empowerment and capability of community (Singh et. al., 2003). It is seen as constructing societal assets for combined positive social outcomes and it utilizes abilities, knowledge and fundamental policy in their practice (Gilchrist, 2004). Community Development can be termed as collection of different services, frequently structured and delivered on a model which is area-based, with local administrator and delivery structures which functions with variable degree of independence from a central authority (Bhamber, 2003). Each of these connotations is relevant in the policy discussion among development practitioner and academic thinkers.
Community development can be designed in a variety of ways so as to improve of life of rural people. It is not merely a unidimensional process as it covers different programs to make life worth living as well as the economic well being of rural community on sustainable basis (Malcolm, 2003). Community development is used to explain a wide approach of working in different ways which are providing empowerment and are participative. The disadvantaged segments of population are focused more, for example: age, sex, customs, financial status etc. Such provisions could be common and efficiently work with the entire community or a specific set of people like young people. It might be unrestricted or prioritized in order to bring certain policy outcomes related to health, community protection/livelihoods/ or environmental safety. It is essentially about the improvement of a community which involves general individuality/ capability and purpose. It can take the form of voluntary dynamic citizenship with the members of community who organize themselves and take on leadership roles (Budapest Declaration, 2004). Its application in rural and peri urban areas is significantly important in Pakistan’s perspective. One should also be careful that it would not be uniform across region and time.

Community development in the rural part of the country is fundamentally based on exploiting natural resources like forestry and agriculture. However, globalization and urbanization have changed the foundation of rural development. Recreation and Tourism also took part in the process of development as leading economic drivers (David et al. 2009). In this way, the agenda of rural development and community based development has been broadened over time. A myopic thinking is required to observe the diversified dimensions of rural development.
There are a variety of arguments in the process and mechanism of community development in the rural areas. According to United Nations (1995), community development is known as “a process in which members of a community come together to take joint action and produce solutions to common issues. Literature on social and economic development highlighted the significance of the rural areas in third world and present study emphasizes an incorporated approach to cope with the difficulties of rural development. It is proficient allocation and usage of local resources (physical and biological) together with a set of facilities to cover not only the financially, but also the construction of well-developed social services for the betterment of health, education, sanitation, residence, and free of impurities drinking water through community development. Very little efforts have been made in the social sector of rural areas to address the development related issues and to make the development initiatives a success story.

1.2.1 Approaches to Community Development

The cross cutting issues associated to community development are very much relevant in the agenda of policy makers. The idea of Community Development has a longer record (Kleiner et al., 2004). Since 1960’s and 70’s various anti poverty programmes were adopted both in developing and developed countries and community development practitioners have been influenced by structured analysis as to the causes of poverty and disadvantaged which are income inequalities and inequalities of distribution of wealth and land. Now the recent policy in activation of communities is drawing coherent construction of ‘community’ images which can be recognized by their members who are able of concerted action. Based on this concept localities which are identified to be
ineffective are tried to encourage so that these can be converted into efficient successful and integrated communities by using government interventions (Holman V., 2014). Practitioners of community development have developed various approaches over many years to work within local communities particularly the disadvantaged people.

Based on outcomes and objectives, some of approaches to community development include Community Capacity Building which is focused on helping communities which can set and obtain their development objectives (United Nations Development Group). Sustainable Development shows economic, social and environmental development tried to achieve a balanced manner in protection outcome. Similarly the model of Community Driven Development explains that overreliance is shifted from central government to local communities (Mathie et.al, 2010)

Another interesting practice was that of Community Based Participatory Research (CBPR). In this approach, partners are equally involved in the form of community members, researchers, and organization’s representatives. They contribute their skill and decision making and possession in order to get the true fruit of community development (Israel et. al, 2008). Participatory Planning can not be ignored as it includes Community-Based Planning (CBP) and involves the entire community in tactical and management processes (mostly urban planning) or planning at community level either rural or urban (Lefevre et al., 2000). Asset Based Community Development shows the invisible strengths of communities as utilized for sustainable development. Presence of proactive government (federal,
provincial and local) is a sort of pre-requisite in all such approaches functional in various parts of the world.

In this context, community development is said to be a method of giving strength to civil society by assigning priorities to the activities of different communities. It gains through empowering of local communities, including geographical communities, and those communities which organize themselves around definite themes or some policy initiatives. This is the way, the peoples’ capacity is strengthened as self-motivated inhabitants via their section group networks and organizations, and the capability of different organizations and agencies which include public, private, and non-governmental sectors to work with them to determine changes in the respective groups. It is a high priority function in support of dynamic populist life by promotion of independent view of deprived and at risk driven and un-protected groups. Regional specificity is very important in identifying the sector specific challenges which are to be addressed on priority basis.

1.3 COMMUNITY DEVELOPMENT PROGRAM

Overtime, the significance of development programs which are operated on the basis of such approaches of community development has been increased for formulating workable economic strategies. Community Development Program means community development initiatives which are openly sponsored by central government and local government, or large-scale plans which are supported by foundations. The word ‘Program’ is an umbrella term and it normally explains a collection of services, most often planned and delivered on a model based on area,
with local administration structures and deliverance bodies which function with changeable degrees of sovereignty from a central control organization. Program means an extent of consistency and incorporation about financial support of structure, delivery mechanisms, design and assessment processes, though the extent to which incorporation and uniformity is reflected in the true circumstances on the ground varies.

It is important to note that Community Development Programs (CDP) were designed to help communities and different regions so that they were able to realize their long term objectives and goals by providing technical support and grants to create self-sustaining, long-term development in rural areas and was achieved through visioning and strategic plans. CDP aims at promoting partnerships at the local and state levels so to assist communities in advancement of their strategic and/or economic development (www.rurdevusda.gov., 2014). There are direct and indirect benefits for the communities.

There is institutional capacity of a community development program like that of any public institute. CDP is a non-profitable volunteer institution that has multidimensional approaches. CDP struggles for benefits and developmental activities of poor, needy and down trodden community especially socially and economically handicapped. It handle undertakes mobilization, capacity building, networking and research initiatives for encouragement of collective action for developmental and social change. CDP believes in working together and to let the poorest of the poor to take part. It works with various societal and diplomatic groups including women, children, labor and countrymen and networks of down
trodden section of society. The functioning of CDP can be improved with the active involvement of local communities.

The role of non-governmental organizations (NGOs) in CDP has been encouraging and successful at some places. NGOs are broadly distinct as groups of individuals and institutions that incorporate for a definite material of subject, viewpoint or occupation. According to World Bank, NGOs are defined as “NGOs that practise activities to mitigate anguish, endorse the welfare of the poor, for guarding environment, for giving essential social services, or take on community development” (Shah, 2005). Now, there is a scholarly challenge how some proactive NGOs are taken on board to meet the targets of development in any specific CDP.

Most of the NGOs work by involving local people. The connection of NGOs with local communities commonly offers the maximum possibility of raising level of empowerment for good living of communities. Roles of NGOs usually raise the home productivity and to build up domestic markets, assist the community to boost their social, human capital and capital; enhance the intellectual knowledge; support the people to take part in activities which generate income, moreover to serve as a linkage among communities and systems for economic progress.

It is a known fact that community involvement for sustainable development has been a key worry of development agencies and professionals all over the world. Throughout the period of 80s, community organizations, which were working at ground stage to mobilize and effectively utilize local resources, have worked
successfully. Overtime, such organizations gained momentum with diversified initiatives by the including the chronically marginalized groups of the community.

1.4 POVERTY

Theoretically speaking, whosoever is excluded from the opportunities and fruits of growth are entered into the world of poor segments of society. In spite of the fact that countries which are still developing achieved the admirable financial performance for the last few decades, poverty status remained elevated because of different factors like over-population, natural disasters etc. Although, the poverty in the developing countries has decreased by 1 percent per year during early 2000’s, but the global financial crisis which were faced previously would cause approximately 64 million more people to be in severe poverty by the end of 2010 (World Bank, 2010). The cross cutting layers of the concept of poverty are also relevant in the whole debate of economic development which include incidence, depth and severity of poverty. Recent studies show that 1.29 billion people of developing economies lives in absolute poverty (Jalbani, 2014).

Welfare is a composite term the connotation of which is very wide. The global community recognized the fact that the word human growth goes beyond the financial growth. In this way, it is accepted as a multidimensional facet that covers both monetary and non-monetary aspects of human welfare. Likewise, it was argued by Chakravarty (2006) that development is enhancement in human needs, not improvement of income alone. As far as issue of inequity is concerned, the poorest 40 percent of world population get only 5 percent of total world income, whereas, the richest 10 percent population get 54 percent of global income.
(World Bank, 1990). Poverty is the primary dilemma in the countries which are still developing and this is the leading social and economic challenge for them. The statistics of poverty are quite arbitrary in Pakistan varying substantially from rural to urban regions and from plain to hilly regions. Grass root realities are not properly known to the development thinkers until a myopic analysis on the basis of field survey is made.

1.4.1 Income Poverty

Monetary dimension of poverty has been very popular among the development practitioner. Poverty is mainly supposed as obvious deficit in the wellbeing of individual or households and also those who do not have adequate income or utilization to place them above minimum entrance level of wellbeing in any civilization (World Bank, 2000).

Laderchi et al., (2003) said that measurement of the wellbeing by either expenditure or income is an improved way. Therefore, poverty decline requires an increase in earning resources and opportunities to increase individual or household income (World Bank, 1990). So, income remains important to some level as it can help to purchase various capabilities (Maltzahn and Durrheim, 2007). But there has always been an area of discussion in literature for some suitable views of income for the measurement of poverty (Sen, 1976). On the one hand, one dollar approach is ruling in the world while at national level, poverty threshold determined by government (Planning Commission in case of Pakistan) is employed for estimating monetary deprivations.

It is an empirically tested fact that if the income of a person or household
gets higher, the position of monetary and non-monetary attributes of the individual person or household is improved. Though, income as a single indicator is an insufficient measure and should be further more added by other variables such as provision of public goods and services, literacy, housing assets etc. Other regions may show different results due to different nature of resource bases and economic opportunities (Bourguignon and Chakravarty, 2002).

Sen (1999) also support this and according to him income poverty cannot reflect a person’s deprivations while other proportions that are inherently essential like health, education and also human security, though income poverty and deprivation are complexly linked with each other in different human capabilities. Such imperatives are still important for some regions in Pakistan including AJK.

In a nutshell, we must realize that income is not merely an adequate indicator but is the only single aspect of wellbeing which is considered to be one support for addressing poverty and an incomplete alternative to describe complete aspects of life. So, poverty is not merely explained by possessing low income, but it is insufficiency in multidimensional aspects like famine, starvation, under diet, polluted water for drinking, lack of education and health facilities, social exploitation and separation etc. (Central Regional Policy Commission CRPC, 2004).

1.4.2 Multidimensional Poverty

Poverty is globally dubbed as one of the most problematic socio-economic delinquent of the 21st century in the developing world. Many researchers argued that in the concept of poverty not only the lack of requirements of material
wellbeing, but also the contradiction of opportunities for an acceptable life is involved. Poverty is not only about money or lack of access to the required resources but it goes beyond the monetary hardship to affect people’s health, education, social involvement and freedom. Therefore, the solution is needed to attack the problem through many pillars to lessen poverty (UNDP, 2008). It can be said that the people who do not have enough income or other resources like use of assets, services and goods which are equal to income to obtain conditions of life like material goods, diets, standards and services, etc are said to be poor. These make them able to participate in the relationships, play the roles, express their point of views and follow the customary behavior which is expected of them by virtue of their society’s membership (Townsend, 1979).

There are many faces of poverty as it has recently been recognized by the international community of development economists because it is a multidimensional phenomenon (Alkire and Foster, 2008; Yu, 2008; UNDP, 2010; Alkire and Santos, 2010 and Alkire et al., 2011). It seeks the attention of many policy makers and researchers of our country and makes them to think about it in a non-conventional way. The methods used in the poverty’s multidimensional computation are much similar to that used in the traditional unidimensional poverty, but in the accustomed & enlarged shape and giving correct picture of poverty. The measurement of poverty through multiple dimensions gives better outcomes for policy makers. Moreover, it becomes easy to recommend doses of monetary benefits for each sector of the economy.

Deprivation though is an international phenomenon but Asia in general
and South Asia in particular are facing serious issues. We know that poverty is a major problem of developing world and it is thought to be a constraint that leads to deterioration in people’s purchasing power and living conditions (Rufa, 2012). It is a well-known generalization that until poverty is there, the vision of economic development cannot be really materialized. Pakistan and AJK have experienced diversified poverty’s trends over the years. History is evidence that Pakistan and AJK are facing poverty since independence. However, problem of poverty is more in rural areas, as majority of the population is living there. The studies indicated that rate of poverty of households living is almost double in rural region than the urban areas (Zaidi and Vos, 1993). Government of Pakistan has launched widespread development programs in rural areas based on self help and ideas of motivation to reduce poverty. Until now, a number of rural development programs in Pakistan have been launched by three sectors including the government, NGOs and private multinational sector. CDP was started in the year 2000 with Directorate of Social Welfare Government and was named as ADARSH (Association for Development and Rehabilitation of Socially Handicapped). Later in 2003, this name was changed by CDP.

1.5 COMMUNITY DEVELOPMENT IN AJK

AJK was on sustenance level at the time of partition in 1947, but there was a determination of developing the area. Economic development was started during seventies although there was financial constraint but good efforts were made by planners to lay down proper path for development. Community development has been playing an important role in reducing poverty and improving the well being of rural people of AJK for many years.
It is located in the foot hills of Himalayas' between 73° to 75° east longitude and 33° to 35° north Latitude with an area of 13297 sq. km. The area is gifted with natural beauty and substantial forest, vast rangelands and diversified natural flora and fauna. Topography is mainly hilly and mountainous with valleys and plains at some places (AJK at a Glance, 2003).

Poverty and population are possessing causality with interesting results. Population was estimated at about 2.973 million (Census Data, 1998) and estimated to have grown to 4.257 million in 2013. Some 88 percent of the households are rural with an average family size of 6.7 persons and depends on agriculture, livestock and forestry. But reduced productivity, land degradation and farmland fragmentation stimulated an increase in out migration for off-farm employment. As household income from crop and livestock production is generally not enough to sustain the families so 60 percent of the income is estimated to be derived from sources other than agriculture. About 40.3 percent of annual cash income contributions are from farming where maize is the major component followed by wheat, fodder, millet, and rice. A significant portion of farming income i.e. 40 percent is derived from livestock. About 26 percent of the total household income consists of remittances (AJK at a Glance, 2013). More than 40 percent of the population used to live below the poverty line in 2004 (CDP, 2004). The element of depth and severity of poverty was not given. About 40.3 percent of annual cash income contributions are from farming where maize is the major component followed by wheat, fodder, millet, and rice.

In AJK, like other parts of the developing world, many Government Organizations (GOs) and NGOs are working in multitude directions which are
ranging from promotion, equality of gender, human rights, and poverty alleviation etc. There are many ongoing and completed projects some of these projects are Neelum and Jhelum Valley Community Development Program (NJVCDP), National Rural Support Program (NSRP), Integrated Land Management Project (ILMP) and Northern Resource Management Project (NRMP) etc.

But from different projects in the area, it was learnt that if communities are not involved from the start in the preparation of plans and decision making process, they refuse ownership of the services and infrastructures provided by government or NGOs. Therefore, it was thought to design a program on the basis of demand driven approach which must anchor in a community based participating planning process. So that communities themselves can recognize and prioritize their requirements and are empowered to handle specific development activities needed to be addressed in an effective manner (AJKCDP, 2004).
1.6 AZAD JAMMU AND KASHMIR COMMUNITY DEVELOPMENT PROGRAM (AJKCDP)

Poverty eradication is always a core goal of any CDP so was the case with AJKCDP. Poverty is widely and equally distributed across AJK due to its mountainous terrain, small and scattered rural settlements and lack of urban centers. There are many other factors like population growth, remoteness of areas and lack of infrastructure due to which marketing of agricultural and non-agricultural products is difficult. In rural areas mostly the major proportion of family income is spent on food consumption and to meet some rituals or emergencies loans or grants are taken and even livestock is sold by the household.

It is noted that AJKCDP was established to directly deal with the key issues for reducing rural poverty through the empowerment of community organizations so as to assume the responsibilities and rights for decentralized planning and execution of development activities. Azad Jammu and Kashmir Community Development Corporation submitted the AJKCDP to the Community Development Working Party (CDWP) on October 2003 and finally approved on 27 December 2003 with the budget of Rs. 2176.06 million. Authorities responsible for sponsoring / funding are Government Azad Jammu And Kashmir, International Fund for Agricultural Development (IFAD), beneficiaries and other donors. Time duration for the program was seven years i.e. from 2004-2011 but delayed due to staff recruitment and earthquake of 2005. So the program actually started in 2006 and ended in 2013.

Program strategy was to represent the good practices of participatory community based development as has been effectively demonstrated by IFAD’s
other ongoing activities in AJK, Pakistan Poverty Alleviation Fund / National Rural Support Program and other community driven initiatives in the Northern Areas of Pakistan. A strategic option has been prepared to built on these experience and include their successful features in this program by sensitizing and mobilizing of communities.

As poverty cannot be measured in terms of incomes and consumption only, low achievements in education and health are also important determinants. Therefore, improving health and education outcomes not only improve the well-being of the poor but also lead to better health and high incomes. The Program has invested in both economic and social infrastructure where necessary, and as appropriate for enabling both men and women to have greater opportunities giving priorities to areas that are not covered by other ongoing development efforts. The Program also focused on women participation as they are the major stakeholders in the absence of their male counterparts, who go somewhere else in search of jobs to supplement their farm household income, which is not sufficient to make the living as such (AJKCDP, 2010)

In search of the objective of poverty decline and improving the living way of the rural community AJKCDP has consolidated its programs into four major works for sustainable development which are Gender Sensitive Community Development which includes Social mobilization, organization and establishment of community organizations (male, female and mixed Cos) through capacity building, Human resource development and Income generation through vocational skills. In the same pattern, Community Development Fund includes Microfinance window, Infrastructure window and Innovative window. Similarly, Natural
Resource Management was in the form of Agricultural development, Livestock development and Social forestry. Finally Program Management shows Implementation and Coordination.

Now the AJKCDP has completed its phases. A variety of research questions arise in the mind of policy experts related to the implicit and explicit impact of this program. Some of such challenging questions are stated in following line. How Community Development interventions change the welfare level of community? Whether poverty level or wellbeing is affected by AJKCDP? What is the net impact of developmental interventions on the socio-economic life of the beneficiaries? Whether Program interventions are gender specific or region specific? Did the community developmental interventions offer some demonstration effects on non-beneficiaries? Who is getting more benefits at the cost of other stakeholders?

We are interested in real time impacts. If a project achieves its original objectives, it has a real time impact. The successful execution and fulfillment of the objectives of the AJKCDP would make it an ideal model for other programs to follow. Stakeholders and policymakers are often interested in empirical estimates of impact evaluation so as to design workable policies in future developmental adventures. Future budget allocations, or aid money are often dependant on the evidence of Project Impact. There is still no external impact evaluation of AJKCDP and that too in empirical shape and as Impact Evaluation studies are gaining ground to act a derivative of policy change and opens up new avenues of research in multifaceted dimensions which emphasizes the need for present study. It has following general and specific objectives:
1.7 OBJECTIVES

1.7.1 General Objective

i. Studying socioeconomic circumstances of rural community of AJK.

1.7.2 Specific Objectives

ii. To filter out the net impact of the Program among registered and nonregistered members of AJKCDP.

iii. To Estimate multidimensional poverty before and after the completion of the Program.

iv. To identify different correlates of poverty in the area through Logit model.

v. To identify policy derivatives out of impact evaluation evidences.
Chapter 2

REVIEW OF LITERATURE

The review of prose constitutes a significant part of any methodical study and is supported out in all parts of study. It offers the resources of receiving to the limit in a specific field of information. It includes tracing, understanding, and assessing reports of investigation as well as unplanned explanations and views that are linked to an individual’s strategic study plan. It gives responses to queries such as what others have done and what remains still to be done in the part of learning. Thus, the review of prose in any field forms the basis upon which all future work must be built (Borg and Gall, 1989).

The overall determination of the evaluation is to help the investigators develop a thorough empathetic and vision into earlier work and the tendencies that have occurred. It also benefits in evading needless repetition of efforts in directing the study. The evaluation of earlier lessons can help in both preventive, and more evidently, defining study problems, and providing the study options that have been unnoticed as well as the practices used by dissimilar academics in their lessons. Current study has multidimensional aspect to be investigated so review is comprised of different sections like community/rural development studies involving agriculture, income generating activities, capacity building and microcredit related interventions. As estimating poverty is the main objective so studies related to poverty both unidimensional and multidimensional poverty and investigating determinants of poverty relevant researches are also reviewed as follows:
2.1 COMMUNITY DEVELOPMENT THROUGH AGRICULTURE AND INCOME GENERATING ACTIVITIES

Capabilities and competencies of the rural women in the development process were investigated by Amin et al. (2009). Data was collected from 768 respondents (384 husbands and 384 wives). It was found that a majority 60.7 percent of women is illiterate and is involved in almost all activities of the household and agriculture.

Income generating projects are playing a crucial role in rural development. Local leaders, women leaders and other men and women in the village were interviewed directly for empirical data collection for the purpose of gaining knowledge of about women’s role in rural development. Several categories emerged by analysis of data such as the nature of projects, the dynamics and process of women involvement, role of village leadership, and community characteristics and resources. All income generating projects first started at individual level and then gradually developed into group level projects. It was found that the positive attitude of local leaders and community would help women to use their skills with available resources in the villages. The rural women have a potential to generate resources for their families, community and nation, this potential can be properly utilized only by proper motivation. In order to ensure high levels of commitment and involvement of women in income generating projects, the planner should involve these women at the planning stage (Rusinah, 1997).

Central America faces the problem of involvement of rural people in the work of community based projects. Various institutions have taken to promoting
the employment of women in order to improve their living conditions. Many NGOs are also occupied with the realization of appropriate income generating activities through various small scale developmental projects. The rural women role in productive and reproductive processes have been described more accurately, but the increasing poverty hinders the development of rural women (Oseguera-de-ochoa, 1997).

The integrated rural development model is most viable and generally accepted as the best model for rural development. According to this model, rural development is concerned with improved quality life as well as satisfying basic human needs. In this respect, the rural women should empower from each aspect of life. Rural women are usually involved in agricultural activities besides their households’ duties. The strategies for empowerment of women in sustainable rural development through agricultural education need to be examined (Ugbomeh (2001).

A significant relationship was observed between respondent’s socioeconomic status and their involvement in agricultural based income generating activities. It was suggested that the government and other concerned agencies should realize the potential of rural women and come to their help to improve the standard of living and promote national development and self reliance (Daneji et al., 2004).

Developmental statistics of the country showed that sustained improvement in productivity and household development depends upon the recognition of the crucial role of respondents in production, processing and marketing in the small
business sector of the country. Amongst the small business enterprises, poultry is one of the most important sectors in Bangladesh. This sector is capable of generating more revenue for the empowerment and self sufficiency, which in turn reduces poverty in the country and such possibilities for improvement of livelihood deserve to be pursued (Shamsuddoha, 2005).

For sustainable agricultural development, empowerment process is necessary especially women empowerment which faces different type of constraints in decision making related to agricultural activities. The results shows that majority of the women particularly in the study area are illiterate and have small land farms with a monthly family income of less than Rs. 100,000. An overwhelming majority of respondents stated that they have faced problems in agricultural activates in the context of socio economic setup. It is finally concluded that if such constraints can be overcome then conditions in rural areas can be improved (Afzal et al., 2009).

Low level managerial skills and employment resources and NGOs have some relation in rural women’s development. In order to know about this relation, data is collected from 300 female entrepreneurs and analyzed through statistical techniques like Tobit and ordered Probit regression. They concluded that the role of NGOs’ microcredit and institutional support has a great impact on the living standard of rural women entrepreneurs. The study further depicts that livestock and poultry entrepreneurship provides higher economic returns and physical and societal benefits, but absence of major constraints in long term sustainability of such entrepreneurship (Kabir et al., 2012).
Impact of income generating activities on the socioeconomic condition of rural women (n=120) was assessed. The major income generating activity which was the focus of this study is livestock management. As the women have a pivotal role in the economic development of the country and they constitute about 49.6 percent of the total population, their participation in agricultural sector is more when compared to the industrial sector. In agriculture their participation is more visible in the livestock production and management then their participation in crop production. Rural women earn more by the sale of livestock but their income can be further improved by providing them with better marketing facilities for livestock and relevant by products. Besides marketing facilities, credit facilities also play a major role in the empowerment of rural women which is an important step in rural development and poverty alleviation (Jamal et al., 2005).

Socioeconomic characteristics of working women, their level of satisfaction, their family roles and the level of satisfaction of their family members all need special consideration. For this purpose, 120 respondents are interviewed from different working institutions. Out of 120 respondents, 60 were working women and remaining 60 were their husbands and elder child. Results showed that 75 percent were performed their domestic duties along with professional duties. 65 percent female respondents stated that they got their status according to their job and had job security, 20 percent were satisfied with their salaries and 10 percent had faced unfavorable attitudes because of their jobs from their fathers. 73.3 percent were satisfied as working women. 41.1 percent reported that they are not provided the same facilities in their jobs as males. Half of the respondents stated that their jobs are very useful for their families. It was found that married women
perform both their duly jobs like household duties and professional work very well. This result shows that there is remarkable change in traditional society of Pakistan (Nawaz, 2001).

In Shibpur Thana Narsigdi district of Bangladesh income generating activities are usually vegetable production, poultry, livestock and fish culture. These activities are usually sponsored by Bangladesh Rural Advanced Committee. For data collection 107 members of female village organizations in seven villages were interviewed. The results of the study showed that there is no significant relationship between age and family size of participating women and their extent of population (Islam et al., 1996).

Tahir et al. (2010) investigated that rural women play a major role in food security, agricultural production and rural development, but such women face a number of constraints in performing their roles such as cultural norms, male dominance and the traditional beliefs systems. It is emphasized on the betterment of rural women in the agricultural sector by enhancing their literacy rate, launching specific training skills courses and organizing and strengthening existing women’s groups in villages to increase their access to extension services, credit facilities, agricultural inputs and marketing services.

Women involvement in forestry is still below the expected level even after concentrated efforts from a few decades in Bangladesh. Real development in the forestry sector is not possible with the women involvement in forestry programs. Traditional barriers which hinder women participation in Bangladesh is slowly disappearing. Now women play an important role in the forestry production,
especially homestead forestry and agro-forestry. Women also receive training in raising nurseries and tree plantations. 170 self-organized women NGOs were found to operate in the cottage level processing of bamboo and rattan. This is a positive sign to be done much more in order to make women’s participation more effective for forestry development (Cassia-Sanzida-Baten, 1997).

Eastern Island Small holder Farming System and Livestock Development Projects (EISFSLDP) in Indonesia are an important tool for increasing the income of a selected number of relatively poor rural households. The main focus of this project is an agricultural business approach in three provinces in the eastern part of Indonesia. It is perceived that the involvement of members in managing project activities is beneficial in using their time for productive work. For successful implementation of the projects, it is necessary that people of the project location should be involved in project policy, project planning and program development, project technical guidelines and project administration (Sulaiman, 1998).

Rural youth has the potential to play a crucial role in the political, economic and social development. But in spite of this, there is no any informal system for the organizing and training of rural youth in order to utilize their capabilities and competencies for nation. On the basis of this study, it is suggested by the author that for active participation of rural youth in rural and agriculture development, the government should develop and organize rural based NGOs. Secondly, the government should establish technical and vocational institutes and initiate various agricultural development programs for betterment of rural youth (Tahir et al., 2011).
Poverty is increasing recently in both urban and rural communities of Pakistan. Consequently, a large number of people in Pakistan currently live far below a decent standard of living. As greater poverty is found in the country side, the poverty could not be bridged overtime. A linkage found between rural non-agricultural employment and poverty. Non farming workers have been better off than agricultural laborers. It is recommended that the labor abundant and dependent on agriculture combined with mechanized non-agriculture sector than rural poverty can be eliminated because this combination can lead to a broad spread of employment and income (Arif et al., 2000).

By studying different research manuscripts related to development through different income generating activities and agricultural activities which are initiated either by NGOs or government sector, it is concluded that in such literature the main focus is on the rural development projects, and their implementation, the strengthening of rural women’s decision making power, and up to some extent on the role of micro credit. No one study was found to include different factors which play a key role in development like education, social mobilization, capacity building, infrastructure element etc.

2.2 COMMUNITY DEVELOPMENT THROUGH CAPACITY BUILDING

Khander and Pitt (2003) analyzed the impact of Gender-targeted Conditional Cash Transfer (CCT) i.e. Female secondary School Stipend Program in Bangladesh and concluded that Program has increased share of female secondary school enrollment from less than 35% before the Program to more than 50 percent after the completion of the Program. This Program has inspired a similar Program
in Punjab, Pakistan with some differences.

Chaudhry and Dilip (2006) has conducted an Impact Evaluation Analysis of FSSS Program in Pakistan using DD, DDD and RDD approaches which indicated modest but significant impact of the intervention. The average impact of the program was an increase of 6 female students per school and 9 percent increase in relative term. Analysis using household surveys before and after the intervention also revealed the same results.

Qammar (2000) concluded that contribution or concern of men and ladies ranchers in group improvement projects had by and large not been polished as the majority of the nations in the district have been emulating top-down models of expansion framework for a considerable length of time. Essentially, circumstance defined participatory expansion strategies ought to be produced keeping in view the affectability of religious, society and social standards. Doubtlessly legitimate preparing is fundamental for captivating men and ladies in formative work yet money related help is additionally essential. Qammar had taken the one side of measures for development but along with trainings, financial assistance is also necessary. So in present study it is tried to analyze the multidimensional measures which are necessary for development.

Deshpanda (2001) reported that international donors, Governments, scholars, and development experts had paid great attention to microfinance which plays a strategy capable of approaching individuals and connecting them in the development process. The microfinance industry made immense strides toward recognizing hurdles in accessing financial services and thus developing ways to
overcome those barriers. In this paper the main emphasize is laid on micro-finance as micro-finance is only tool to development. But the component of training was missing which is equally essential for development.

Chaudhry (2002) summarized that the participating communities are the ultimate beneficiaries of Community Infrastructure Services Project (CISP). They would participate in the Program by organizing themselves in the form of Community Based Organizations (CBOs). The training needs assessed for them consisted of the motivation, leadership & management, communication, monitoring and evaluation, record keeping and basic financial & accounting techniques, gender & development, micro credit and enterprise development. The training needs for communities in technical areas should cover designing and implementation of CISP related infrastructure, operation and management, vocational skills, natural resource management, environmental issues, health education and hygiene. The training needs for improving living conditions and status of women and children would cover social mobilization, water & sanitation, solid waste management, personal & family health hygiene, first aid, vocational & skill development and micro-enterprises. He pointed out that the involvement of CBOs in the whole development process, starting from need Identification and designing to implementation and operation and maintenance was a major shift from the conventional approach. Finally he concluded that for CBOs to play an effective and sustainable role in the development process there is a need to build and strengthen their capacity. The main defects of Chaudhry’s finding are that he had totally ignored the micro-credit component of NGOs. Micro-credit and trainings are two parallel components of development. So the present study is an attempt to analyze
the impact of these components on rural development.

Capacity building programs of the Sarhad Rural Support Program (SRSP) has a positive impact on women through social enhancement. This positive impact is estimated by interviewing 210 respondents and it is found that SRSP is working successfully in the sample area. Women of sample area fulfill most of their needs through various developmental activities of the SRSP. To enhance the income of local women, various training programs are impacted by the SRSP. These training programs include tailoring, embroidery, dyeing, poultry farming, fruit processing, bee keeping and mushroom cultivation. All these developmental activities significantly increase the income of rural women (Shaukat et al., 2007).

Government personnel who are engaged in the field of agriculture and rural development usually need training. It is found that there are more males than females in the field of research and extension. Most of the respondents are belong to the age of 40, are married and Catholic. Majority of the respondents expressed their desire to undergo educational training [both degree (Doctoral and master) and non degree training]. Their topics of training are on the different aspects of crops, research writing, reporting, extension and other specialized activities. Information needs are very much close to their training needs and this information would be disseminated to respondents through print, broadcast and audio-visual or visual channels (Pamplona, 1996). Women’s role in agriculture and their training needs are studied in order to enhance agriculture on sustainable lines. It is found that short training programs for crop production, livestock care and management, human health and sanitation and handicrafts making for capacity building and skill
development of the desert women are intensively required (Iftikhar et al., 2009).

Participation of men and women farmers in community development programs has normally not been accomplished as most of the economies in the area have been adopting top-down models of the extension system for years. Necessary training and helping materials should be available for developmental workers or social organizers and stockholders. Similarly, location specific participatory extension methodologies must have to be developed keeping in mind the sensitiveness of religious, social and cultural norms. No doubt proper training is necessary for engaging men and women in developmental work, but financial assistance is also important (Qammar, 2000).

Participating communities are the ultimate beneficiaries of the Community Infrastructure Services Project (CISP). They would participate in the projects by organizing themselves in the form of Community Based Organizations (CBOs). The training needs assessed for them consist of motivation, leadership & management, communication, monitoring and evaluation, record keeping and basic financial & accounting techniques, gender & development, and micro credit and enterprise development. The training needs for improving living conditions and the status of women and children would cover social mobilization, water & sanitation, solid waste management, personal & family health hygiene, first aid, vocational & skill development and micro-enterprises. Involvement of CBOs in the whole development process, starting from need identification and designing to implementation and operation and maintenance was a major shift from the conventional approach. Finally it was concluded that for CBOs to play an effective
and sustainable role in the development process there is a need to build and strengthen their capacity (Chaudhry, 2002).

Women farmers have training needs which should be met in the course of rural development. As women knowledge and skill is low in livestock related operations like marketing of livestock products, construction of livestock houses/sheds and slaughter/dressing of farm animals, compounding of feeds, breeding, identification and diagnosis of sick animals, selection and administration of drugs, this women expressed a need for training in all the listed operations. It is also further concluded that predisposing factors of sustainable livelihood and hence rural development are the empowerment of rural women farmers through trainings in all expressed areas in the production of livestock (Farinde and Ajayi, 2005).

Sarhad Rural Support Program (SRSP) imparted various training programs in different aspects of agriculture to support food and income for women which ultimately leads to alleviate poverty and sustainable rural development. For the analysis of the impact of SRSP’s various training programs in agriculture, especially vegetable production, 80 female respondents were interviewed. Results of the study show that only training in vegetable production cannot fulfill the objective of development, but along with training there should be capital, credit availability and marketing facilities (Ahmad, 2007).

By studying the past studies, it is concluded that researchers pay too much consideration to the capacity building of the rural population in different fields of agriculture and in small business enterprises, but they neglected that micro credit is also very important in increasing the capacity of rural population to produce more.
So in the present study, combined effects of both training in different fields and provision of micro-credit have been studied.

2.3 COMMUNITY DEVELOPMENT THROUGH MICRO-CREDIT AND LIVESTOCK:

Impacts of the micro-credit project of the Punjab Rural Support Program (PRSP) in rural areas of Sargodha region [Pakistan] are studied. The major focus of the study is socioeconomic status of respondents before and after receiving micro-credit, their problems in the way of getting credit and the economic activities which the respondents started after getting credit. Results of the study showed that 51.11 percent of the respondents belong to the age group of 28 to 43 years, 71 percent belong to a joint family system, 53 percent have 5 to 8 family members, and 94 percent own their own houses. Majority of the women of the study area are engaged in income generating activities like agriculture, livestock and poultry production. Majority of the respondents (67 percent) had an income of up to Rs. 5,000 before obtaining credit and 90 percent claimed that their income has increased after acquiring credit from PRSP. 73 percent of the respondents did not face any difficulty during getting credit. An overwhelming majority of respondents stated that their social status has been improved and poverty was alleviated due to the micro-credit scheme of PRSP (Saleem, 2001).

Agricultural credit in Pakistan is like credit policies and procedures namely, regarding credit allocation, loan security as well as interest rates, institutional arrangements and factors affecting loan repayment have some historical perspective. The results of the study suggest that measures should be taken to
tackle the problem of loan recovery. These measures include the listing of defaulters for future references and introduction of group lending schemes. It is argued that without credit, agricultural development is impossible (Anka, 1992).

The Centre of Agriculture and Rural Development (CARD) in the Philippines used slightly a modified Garmin approach in reaching the poor through micro-credit. Evaluation of CARD showed that it is successfully reaching the low income people with credit. These people usually have no access to land resources and have poor housing. The loan was usually borrowed for running enterprises like trading agricultural produce; hog raising, retail stores, fishing, fish drying and trading, and food vending. The average labor productivity in such enterprises is 34 percent higher than the market wage rate. It is finally concluded that employment, income and labor productivity increases with the number of repeat loans taken from CARD (Hossain and Diaz, 1997).

Data related to the beneficiaries of Country Women Association of Nigeria (COWAN) is collected from 106 respondents to finds out demographic characteristics of respondents ‘conditions of granting loan, respondent’s attitude towards COWAN micro credit scheme, amount of credit provided by COWAN, duration of credit, constraints facing by respondents towards getting loan and proper utilization of credit. Findings of the study revealed that the majority of women respondents (64.1 percent) belong to the age group of 21-40 years and had 27.4 percent, 17 percent and 8.5 percent education levels up to primary, secondary and higher education, but 16 percent had no informal education. An overwhelming majority (84 percent) of respondents falls into high attitude scores towards the
COWAN microcredit scheme while 16 percent fall into low attitude scores. The respondents utilize microcredit mainly for farming (85.5%) and trading (14.5 percent). The major constraints faced by respondents include lack of finance (37.7 percent), short period for repayment of loan (28.7 percent) and loan defaulters (16 percent). This micro credit scheme had a positive impact on the production level of respondents (75.5 percent). It is recommended on the basis of research findings that a lump sum of money should be granted to respondents to enhance their productivity so their living status may improve (Olujide, 2008).

The multivariate model is developed which aims to identify the factors related to the development of entrepreneurship among the rural women through microcredit. This model is proven to be helpful in identifying entrepreneurship development related factors. Results of the study depict that microcredit programs develop a direct and significant relationship between financial management skills, group identity and development of rural women entrepreneurship. Rural women also find group identity through the help of microcredit, which is used to participate in weekly meetings. It is also observed that if women borrowers have some business experience from their parents’ family and they also have some funds at their disposal then they will take the risk to initiate new business, which will empower them with profit and their social status will improve as well. It is finally concluded that microcredit schemes focus on the development of finance management skills, group identity of borrowers and lead to rural women becoming entrepreneurial and as a result women borrowers are able to stand on their own feet (Sharmina et al., 2008).
It is demonstrated that the livelihood framework can be useful in such an assessment. The livelihood framework gives its scope for exploring and drawing attention to women’s strategies, their motivations, skills, knowledge and capabilities. According to the author, it is crucial to study the life of the credit recipient because the women’s income generating activities are determined by local socioeconomic dynamics. It is concluded that livelihoods are controlled by many factors so the observer should not make the mistake of narrowly judging the impact of microfinance on enterprise development. It is valuable to use the livelihood framework to understand the roots of women’s motivations and what pushes them to withstand the shocks of income generation (Thanuja, 2009).

The group lending model of microcredit is very helpful in promoting developmental interventions in which small scale credit is provided for income generating activities to those groups of individuals who do not have material collateral. Microfinance affects health status in a number of ways such as financing care in health emergencies, financing health inputs like improved nutrition, providing a platform for health education, and also by increasing social capital through group meetings and mutual support (Anna and Johnston, 2009).

Credit supply enhances the income of the livestock growers more than 100 percent. This microcredit helps both in expansion of economies of size and increases in the productivity of the livestock sector from available resources. This expansion of the livestock sector helps in the absorption of the unemployed and untrained labor force. In this way, the problem of migration of the untrained labor towards cities could be mitigated (Abedullah et al., 2009).
Majority of women prefer to receive a small amount of credit in AJK. They further concluded that a majority (38.85 percent) of the respondents were those who are utilizing their loans in any economic activity. The other areas are household/family use, personal use, saving for hard days, and social purpose (Lodhi et al., 2006).

The impact of microcredit scheme of PRSP on productivity of wheat and sugarcane in Faisalabad is evaluated and it can be concluded that microcredit has effectively increased the crop production and also improved the standard of living of the farmers. But for further improvement it is suggested that the size of loan disbursed should be increased according to the requirements of farmers and there should be post disbursement, regular monitoring for proper utilization of credit (Siddique et al., 2006).

The impact of the microcredit scheme of National Rural Support Program (NRSP) on the socioeconomic conditions of the female community in the district Rawalakot, Azad Kashmir is analyzed. 100 female beneficiaries are selected through simple random sampling techniques and interviewed. It is found that the microcredit scheme has impacts up to some extent on the socioeconomic conditions of female community (Muhammad et al., 2006).

Role and effectiveness of the microcredit advanced by Dir Area Support Project (DASP) is analyzed. It is observed that microcredit has positive effects on the agricultural sector. Microcredit schemes have brought improvement in crop yield and cropping patterns, the adequate use of agricultural inputs and as a result the yield of traditional crops like wheat, rice and maize was increased from 950,
1450 and 620 per acre to 1075, 1680 and 725 per acre respectively. Cropped area of respondents increased from 262.61 acres to 323.33 acres. The introduction of vegetables like radish, carrot and turnip in rabi season has brought healthy effect on old cropping pattern. Lastly it was suggested that credit procedure should be further simplified, decrease in interest rate and intensify the credit awareness campaign among farmers (Nazir et al., 2011).

Over the years, many GOs and NGOs made efforts to empower women through microcredit. No doubt microcredit effectively empowers rural women for housing repairs, education and marriages of their children and for consumption purposes. It is also found that a maximum number of women have savings bank accounts (46.9 percent) and post office savings (18.4 percent). Some dissatisfaction was also found in various services of banks such as requirement of collaterals, procedural formalities, loan utilization checks and difficult repayment terms and conditions. Because of such dissatisfactions, many women prefer informal sources of finance. To change such an attitude of women, banks should introduce some proactive strategies aiming at spreading more awareness of microcredit services and encouraging the use of such services under the microfinance umbrella. Research findings also show that women empowerment also depends upon economic empowerment of women and microfinance can serve as a powerful instrument to empower women economically (Meenu et al., 2011).

Around 36 percent of the poor and hungry people of the world live in South Asia and 6 percent in Pakistan. The 6 percent means 49 million of the total population of Pakistan has inadequate resource allocation to education, health care
and rural development. With the passage of time, more and more of people have been added to the pool of the deprived and poverty stricken section of the population. Microcredit can play a vital role in poverty alleviation under such conditions. National development strategy, Development Financial Institutions (DFIs), commercial banks, provincial cooperative banks and NGOs play a crucial role in poverty alleviation through microcredit (Sheikh, 2001).

Microcredit enables rural women to improve their economic and social condition through self employment. It is found that the majority of female loanees of the PRSP’s credit program belong to an age group of 26-40 years. The majority of respondents’ husbands were shopkeepers or running small businesses. 70-66 percent had 2-15 acres landholdings and 66.25 percent had their own land so they are owner cultivator. 70.83 percent belong to low income category by having an annual income of Rs. 5000-75000. Around 90 percent of the respondents are satisfied with the loan scheme and loan amount because PRSP only takes social collateral which can be easily provided by respondents, but they argue the that mark up rate of 20 percent is very high.

It is revealed that majority of respondents used this credit for income generating activities so their income increases up to some extent. Around 96.7 percent respondents repay the credit amount easily and in time. About 90 percent indicated that their poverty reduced after getting credit (Kokab, 2001).

Impact assessment of microcredit was carried on poverty status, agricultural production, income, and consumption and savings of the farmers. It is found that there are positive changes in these variables after utilizing this facility of
Performance of the area of Village Organizations (VOs), opinion of community members about their credit needs and members’ access to credit, utilization of credit and changes in social and economic status of VOs members is assessed. It is found that average share of wheat and sugarcane on all marginal farms has 3.50 and 0.25 acres while on all small farms the area under same crop was 6.47 and 1.10 acres respectively after taking credit. The combination of crop and livestock was 50.00 and 68.18 percent for marginal and small farmers respectively and this percentage increased from 50.00 and 68.18 to 58.61 and 79.54 for marginal and small farmers respectively. The average income of marginal and small farmers by selling crop is Rs. 15,410 and Rs. 26,501 respectively. Before taking credit, 11.11 percent of respondents was well to do, 14.44 percent were better off and 26.67 percent were poor while 32.22 percent were very poor and 15.56% were destitute. After taking credit 12 respondents shifted from better off conditions to well to do, 18 respondents from poor to better off, 15 from very poor to poor and 4 from destitute to very poor category (Ahmad, 2002).

Impact assessment of credit was carried out. The data was collected from 280 small poultry farmers and the selection of farmers was carried out by the multi stage sampling technique. It is found that a majority of farmers (60 percent) are literate, and have education up to secondary school and their average household size is 7. About 20 percent of farmers use loans from cooperative societies while 55 percent depend upon their own funds rose from personal sources. Finally it is concluded that for an enhancement of poultry production, improving level of
education of farmers, years of experience in poultry farming, feeding and veterinary services by extension agent are needed. Usually farmers were shy away from formal lending and rely upon their own savings, friends and relatives. This problem should be tackled by policy makers (Olagunju and Babatunde, 2011).

Impact of SRSP’s micro credit scheme on livestock enterprise development is evaluated (n=60). The results of the study depict that only 33 percent of the respondents utilize credit for the improvement of livestock enterprise and as a result their income increases subsequently. The micro loan are more beneficial for the people. This lays a positive impact on the consumption level and schooling of children of the respondents. About 67 percent of the respondents misused the credit due to various socioeconomic problems. For improvement of the micro credit scheme various suggestions were put forward in this paper like identification of potential borrowers, in time trainings for credit management and livestock breed improvement, and lastly regular monitoring for utilization of credit (Naushad et al., 2007).

The microcredit program of SRSP has a positive impact on women folk. In order to know about this impact, 210 purposely selected respondents of SRSP are interviewed. It is observed that SRSP disbursed microcredit through women/village organizations (W/VOs). There were not very encouraging results about the income of respondents after SRSP’s interventions. The major problem is inadequate amount of credit and lack of marketing facilities. If such problems overcome, then the objective of rural women empowerment and poverty alleviation can be ensured (Shaukat et al., 2007).
The impact of income generating activities like microcredit program as examined and it was concluded that credit provided to the members of community organizations (CO) especially to females through easy and suitable procedure. Overall impact of microcredit was measured through poverty estimation which showed poverty reduced by 2.23 percent and it reflects a positive impact. Keeping in mind the results of the study, it was recommended that Pakistan Poverty Alleviation Fund (PPAF) should extend its activities through participatory organizations (Nasim and Aman, 2009).

It is the emerging need to promote women empowerment. Towards this end microfinance plays a significant role because these rural women with low income and lack of knowledge about banking facilities can do little for betterment. It was further concluded that microfinance proves to be fruitful if it is delivered through self help groups (SHGs). It is found that the main reason for becoming a group member is to get eligibility for availing government schemes and bank loan facilities. The study also proved that saving performance, group loan and bank loan repayment is satisfactory. It was finally concluded that through proper running of business activities like powder and pickles, garments, dairy, kirana and teas, women members an earn money and financially support their families (Padala, 2011).

Impact of microcredit schemes of Small and Medium Enterprises Development Authority (SMEDA) on crop productivity is evaluated. For evaluation, the data is collected from 120 farmers. The results reveal that 76.7 percent of the respondents meet their financial requirements through institutional
credit, 12.7 percent through non institutional credit while only 10.8 percent of respondents use other sources of credit. About 60 percent of the respondents got credit for chemical fertilizer and 47.5 percent got credit for quality seeds and 36.67 percent of respondents got credit for insecticides and pesticides and only 30 percent got credit for tractors and 6.7 percent for farm machinery (Jaffer et al. 2006).

Impact of milk groups on women’s role in dairy production and marketing has been analyzed. A total of 144 households in four Peasant Associations are selected through stratified random sampling for data collection. Women of the targeted area played a pivotal role in dairy production and marketing and they provide labor for feeding and milking of cattle, processing and marketing of butter as much as eight hours per week. The results of the study provide evidence that milk groups have systematic impacts on who provides labor for dairy production and marketing. The results of the study also showed that there are additional time requirements for daily marketing of fluid milk, the reallocation of some milk for processing from targeted area households and a shift in control of dairy income from women to men (Charies et al., 1998).

Hashmi et al. (2007) focus on the role of livestock in poverty reduction in rural areas of Punjab and the data is collected from 600 small farmers. The results revealed that 58 percent of respondents prefer livestock as their first choice to earn more income while 27 percent and 11 percent respondents put the livestock profession in second and third place respectively. An overwhelming majority (96.0 percent) of respondents state that the livestock profession has its prominent role in poverty reduction. The results further depict that as women participation in
livestock related activities increased, their income also increases and poverty is reduced subsequently. The comparison between poor and non poor farmers shows that poverty reduction is positively related with livestock production activities (Hashmi et al., 2007).

Contribution of women in livestock production is very significant. It is found that 30 percent, 31 percent and 41 percent of women are involved in livestock production activities such as fodder cutting, fodder fetching and chaffing respectively. 82 percent, 89 percent, 91 percent, 92 percent and 86 percent of women participate in livestock management activities like feeding, watering, milking, milk processing, manure disposal, and marketing of products respectively. All these activities of women about livestock production and management are not affected by the levels of education, age, size of land holding, extent of women involved in family affairs, their perception about status as house wives and annual income (Gulfaum et al., 2002).

Extent of women participation in crop and livestock production activities in district Faisalabad, Pakistan is explored. 125 women are selected through multi-stage random sampling techniques and data is collected through a well designed interview schedule. The results of the study reveal that women’s participation in vegetable harvesting is high (M=2.58). Among post harvest activities in storage cereals, participation of women is maximized (M=2.87). Similarly, of livestock and poultry management activities, women’s participation is high in the cleaning of animals (M=2.90) (Sadaf and Luqman, 2006).

Women actively participate in livestock management activities like fodder
cutting, watering and feeding of animals, animal shed cleaning, milking, deciding size of herds and purchase and sales of animals, but their involvement in decision making regarding these activities is questionable. The author also describes the main factors which affect women’s participation in decision making.

By studying the past literature, it is concluded that in such literature, only the effect of microcredit and livestock on community/ rural development was studied. They totally ignore the effect of other variables like trainings, social mobilization, age, education and savings in community development. So in the present study, all such variables have been included for authentic results.

2.4 NGOs ROLE IN COMMUNITY DEVELOPMENT

The role of social mobilization of AKRSP in natural resource management, agriculture, livestock and forestry is evaluated and 62 percent of respondents are randomly selected for this purpose and interviewed through pre-tested interview schedule. It was concluded that the socioeconomic standard of people of the research area is affected by sense of responsibility and confidence due to significant improvement in their agricultural production and tree plantation. Due to an increase in agricultural production and NRM, respondent’s income has also increased (Himayatullah et al., 2004). Muhammad (2004) analyzed the role of NGOs in rural development. The main focus of the study is to identify the awareness acceptance and impact of the process of social change. The findings reveal that the process of rural development has changed the prevailing conditions of community in cultivation, income improvement, and health conditions. These changes took place through the methods of interventions by NGOs to solve the
community problems.

Alam et al. (2004) conducted research in order to evaluate the socioeconomic impact of village organizations (VOs) of Dir Area Support Project (DASP) in community development. A total number of 60 respondents were interviewed by using proportionate sampling technique. The results of the study revealed that through this project there was a 34.6 percent increase in savings level and an 80 percent of sample VOs arranged demonstration plots in their respective area. 73 percent of the sample VOs adopted agriculture and forestry packages for development schemes and 37 percent adopted livestock packages. About 7 percent of total members of the VOs got training in different training programs of the project. The data of non VO respondents revealed that 77 percent of non VOs respondents did not become the members of VOs, 50 percent of sample non VO respondents were aware of the different training programs of project, 43 percent were benefitted from different development projects, 20 percent are benefitted from animal husbandry activities and 50 percent benefitted from agriculture related activities. In the end, it is recommended by the author that serious attention should be given to combat anti-NGO propaganda so other members of the community can be motivated to become the members of VO.

Some funds should be provide for the welfare of people and this the good way of reducing the poverty rate in community’s development and for the welfare of people. Funds for different developmental activities should be provided in time and necessary steps should be taken for registration of VOs, which is essential for fund raising and for community development programs on sustainable basis.
Principles of rural development for enhancement of household income are elucidated in such a way that a village cannot be expected to mobilize human power free of cost at all times. They also reported that it is not possible for villagers to initiate rural development activities. thus there has to be an outside agency such as the government or an NGO, which should motivate the villagers and clarify the principle of self help i.e. provision of free labor, willingness of villagers to get organized, generate capital, and to improve their skills so development is sustainable based on indigenous knowledge of villagers (Khan and Shah, 1989). Hussain et al. (1990) provided an overview of the village management system of AKRSP, which is set up in order to combat environmental degradation in the wake of the construction of the Karakorum highway. The village organizations (VOs) of AKRSP are found to be an effective institution for the local sustainable resource management. The role of VOs which is studied in 9 districts of the Gilgit district, strengthen the hypothesis that community development is sustainable and can ensure the conservation of environment.

Poverty due to a lack of economic self sufficiency is the key impediment in the empowerment of women in Africa. Many NGOs have often played a facilitating and leadership role in empowerment and development in relation to the socioeconomic needs of women in poverty. Women are empowered by many organizations. The main goal of such NGOs like Zimbabwe Women Finance Trust (ZWFT) is to expend women’s opportunities through the promotion of access to and participation in the economic process. ZWFT can simultaneously strengthen the African society by socioeconomic improvement and self reliance of women (Maria, 1999).
Abdul Karim et al. (2001) conducted a study on income generating activities of Integrated Rural Development Program (IRDP) in Kannur district of Kerala, India. This study revealed that only 66.2 percent of IRDP beneficiaries have positive income generation. The average net income before and after repayment of micro-credit is highest in fisheries followed by tailoring and milch cattle. Highest positive and significant correlation is found with net income from IRDP schemes followed by entrepreneurial ability.

Income generating activities sponsored by Rural Employment Creation Project (RWECP) played an important role in women empowerment. The RWECP has a positive impact on women empowerment, but its impact on women’s access to assets and their control over self earning is not significant. Women living with their husbands are less empowered as compared to women and abandoned widows because in case of women and abandoned widows, generally there is no male member to control their economic activities and decision making power. On the basis of this study, it is recommended that RWECP incorporate necessary steps to enhance women empowerment irrespective of their types of economic activities, marital status and ethnic affiliation (Parveen et al., 2005).

Mechanisms of the development of village community are found to be very effective for the development of the village community. It is found that mutual cooperation of villages, NGOs and the local government is very important for development. But the degree of contribution of this cooperation changes in three stages. At the initial stage, NGOs play major role for the development of the village community. At the evolving stage, repeated discussions and actions on
cooperative activities among villagers take place where NGOs take the role of advisors and the local government begins to support it. At the maturing stage, the village community becomes powerful enough to request local public goods for the benefit of the village and the local government recognizes that the community has obtained the ability to manage them well (Hirai et al., 2007). Akpabio (2007) worked to assess the socioeconomic characteristics of Women Nongovernmental Organizations (WNGOs) beneficiaries’ contribution for the improvement of socioeconomic status of beneficiaries and determining the existence of significant relationships between pre and post participation of WNGOs beneficiaries. The results showed that beneficiaries of WNGOs were benefitted in terms of increased income, health awareness and skills acquisition. A significant relationship was found between pre and post participation of WNGOs beneficiaries in WNGOs income generation activities. The recommendation is to ensure a sustained continuity of WNGOs women empowerment activities.

Programmatic intervention of Trade Aid Integrated (TAI) usually work for empowering vulnerable women by providing microcredit to start small scale enterprises especially basket weaving and others like it. Rural women are largely barred from access to productive resources as well as equal participation and influence over household decision making because of socio-cultural norms and gendered institutions. TAI is successful in order to empower the rural women up to some extent through its micro-credit scheme. The resulted improved welfare/livelihood of rural women has also increased their assertiveness and confidence level, self worth and given them some level of freedom of movement to transact their business and as well as to support their families (Bashiru, 2009).
Ajadi et al. (2010) examined the efforts of Women Organization (WOs) in improving environmental, education and economic empowerment of rural people. For analysis purposes primary and secondary data was collected, which covers 50 rural settlements. The findings revealed that 2 percent of the respondents are literate, but due to lack of funds and special training, they are unable to improve their indigenous expertise and talents in local economies. About 47 percent of the respondents have access to telephones while only 25 percent have access to radio and telephone. To further improve the working of the WOs, some recommendations are presented by the authors such as WOs should put pressure on the government to develop the rural areas. WOs should encourage and support initiatives for the rights of the rural dwellers especially women and take practical steps to improve their quality of life. Finally, the WOs should mount pressure on the government to initiate and implement such planning which sustains urban and rural areas.

WOs of AKRSP usually participate and play their role in rural and livestock development through the AKRSP development projects. It is found that AKRSP has developed a strategic package for effective utilization of human, financial and material resources for the improvement of the life of the people, especially women, in this region (Sajid, 1998). NRSP (1999) reported that providing small loans to poor female communities for income generation is the most beneficial approach for their development. NRSP uses the forum of COs for delivering small loans. Loans are given through CO to individual members for productive purposes only. The credit program of NRSP allows women to access the credit facility and meet their basic needs effectively. According to the annual report of NRSP, the amount of
credit which was being disbursed to the females was approximately Rs. 845 billion for the purchase of agriculture input, livestock development, enterprise development and development of small infrastructure as individual enterprise.

Majority of the Pakistani population lives in rural areas and severity of poverty exists in such areas. These rural people have disparity of life as shortage of food, malnutrition, low health care facilities, less education and employment opportunities, small holdings etc. In such situations, the two NGOs (AKRSP and NRSP) shown that they can work well in providing support to rural people to build their technical and institutional capacity to enhance their standard of life. For poverty eradication and empowerment of rural people, AKRSP contributed a lot in creating trust and confidence among rural people. For this purpose NRSP followed the dependency model through which the rural poor are at the mercy of paternalistic state. The success of development plans of both NGOs is the long term sustainability of the program through financial autonomy. Many organization also providing loans for short time period so people may improve their income. The roles of NGOs with a special focus on National Rural Support Program (NRSP) in the development of Natural Resource Management via community based approach have been identified. For data collection, a survey was conducted (n=120). NRSP’s community based approach is proven to be an effective strategy in mobilizing the local potentials for development process. The results further indicate that an overwhelming majority learnt livestock care and vegetable production skills and obtained benefits in the form of increased production. Credit approach to finance community includes some complexities such as lengthy procedure; delay in disbursement and high interest rates and their standard of living
It was found that community organizations have a major role in rural development. Social organizers, PRSP and community organization leaders motivate the community members to join the community organizations. Community organizations help their members to get loan from PRSP easily because loans through community organizations have a simple procedure with no collateral. It is also noted that the average income of female members, who initiated livestock business is more than male members. It was concluded that micro credit scheme of PRSP had significant effect on community organization members (Hussain et al., 2005).

Gender related interventions of AKRSP played a pivotal role in women development through various interventions. These interventions are water supply schemes, health and credit facilities and trainings imparted for rural women in different sectors like agriculture, livestock management, vocational and enterprise development. The respondents of the research region mentioned that all these economic activities have positive effects on their income. Besides economic effects, AKRSP’s interventions have another major effect that is the saving of time the rural women have been fetching water before such interventions. The sustainability of such projects required regular monitoring (Humayun, 2006).

As Pakistan is country where the rural development activities faced irregularity and development projects are usually short term and politically based. There is misconception about development projects, usually top down approach is followed and development plans which were initially formulated for plan areas
have been put forward to mountain areas without modification. This type of attitude is the main cause of failure of development project carried out by govt. agencies. In such situations many developmental agencies especially AKRSP has shown a role model picture in such region. Without any distinction of ethnic, linguistic and cultural diversities, inhabitants of such area always ready to participate in development process. The main cause of successful implementation of AKRSP development project is the community participation in identification of project, sharing of cost, project monitoring, implementation and post project maintenance. Thus the AKRSP rural development model can not only adopt in plains but also in mountain areas of developing world (Fazlur Rehman, 2007).

AKRSP has initiated many development programs for rural women in research area. These developmental programs include water supply, health and credit facilities and trainings imparted in various fields through WOs. In this way women not only improve their economic conditions but also improving their own contributing the household income and decrease poverty. It was also observed that this project of AKRSP has brought positive changes in the life of rural women of research area. The success of AKRSP’s project is partly attributed to trainings which are provided in different disciplines. Education and health conditions also improved to large extent and these interventions also reduced the work pressure of the people of the study area. It was concluded by the author that AKRSP has made valuable contributions to improve the access and control of women to education, health resources and economic empowerment opportunities (Khurshid, 2013).

A study was conducted to assess the role of VOs established under
Malakand Rural Development Project (MRDP) in rural development. The study revealed that MRDP provided fund for different rural development interventions like water supply schemes, water channel, water bath bridge constructions and the establishment of small hydropower stations for cheap electricity supply through community participation. Moreover different trainings in agriculture, livestock production and farm production has significantly increased the income of respondents. In the end it was recommended by the author that MRDP development program can be made more successful by creating awareness among other villagers, project evaluation and monitoring, launching more developmental schemes and creating linkages with donor agencies for development interventions in the area (Ahmad et al., 2009).

Effectiveness of AKRSP’s demonstration plots for agricultural technology transfer in District Chitral, Pakistan was determined. It was concluded on the basis of study that these demonstration plots were successful in creating awareness among farmers about modern technologies and motivate them to apply these in their farming practices. By the adoption of modern technologies like chemical fertilizers, farmyard manures and improved seeds have increased the productivity and hence income of the farmers (Khan et al., 2009).

Shakil and Abu-Talib (2010) studied about the sustainability through Citizen Community Board (CCB). They observed that mostly CCBs consist of villagers who cannot read and write proposals and also lack of skill to develop cost estimation. The main objective of CCB is to motivate local community to identify their needs and implement those projects which will empower them. At community
level CCBs improve the skills of villagers such as leadership, management controlling and evaluating skills. There are also various suggestions listed to improve the working of CCBs. Firstly, the government should make policy for collaborative working between more closely NGOs and local influential people. Secondly, male dominated CCBs will be promoted because male dominated CCBs are found to be more effective than female CCBs. Thirdly; interior management of a CCB has to be monitored regularly. Fourthly, CCBs should be strengthened through technical support in preparing project proposals.

Hedayat and Redzuan (2010) made an attempt to illustrate the contributions of NGOs towards empowerment of community for sustainable community development. The main focus is on roles, functions and programs of NGOs such as micro-finance, capacity building and self reliance which assist community to become empowered and eventually attain sustainable development. NGO’s micro credit empowered community economically through creating community access to jobs, income generation and improved economic situation. On the other hand the capacity building program improves the quality of life of the members of community by improving their skills, abilities, knowledge, assets and by motivation of community to get involved in development projects. For sustainable community development, NGOs mobilize communities to be self reliant and discover their own potentials and relay on their own resources.

With the passage of time it was observed that public sector have been contributed considerably through interventions on poverty alleviation but most distressing circumstances was the expenditure on subsidies, food support programs
and low cost housing that has been inactive even in nominal requisites for the poor and deprived. Besides public sector different NGOs are also working in this respect like AKRSP provides grant to village organizations (VOs) for infrastructure, NRSP works in the field of lowering poverty through micro-credit and saving, PPAF works in the field of education and provides worth learning at primary stage. Rukhsana and Taseer (2011) presented a paper which aim to see the effectiveness of collaboration between NGOs and government to get the desired objective of poverty eradication. It is found that schemes like microcredit can be effectively strengthened if the government sector and NGOs effort together.

It is noted that afterward the achievement of Grameen Bank of Bangladesh in poverty eradication many other banks and Micro Finance Institutions (MFIs) of different countries have started working on similar pattern of Grameen Bank for poverty eradication and women empowerment. In Pakistan different NGOs and government institutions are seriously working to eradicate poverty through micro financing schemes but without any formal coordination. The objective of poverty eradication and women empowerment may be achieved if government and NGOs collaborate with each other. Government have all the data related to the social and developmental needs of the country but generally lacks team work, dedication, planning and finance and on the other hand NGOs are the agencies with finances but lack data and information about prioritization of the needs of the country. All these factors strongly point out that if collaborative relations are established between NGOs and govt. on micro credit then the problem of poverty can be eradicated up to certain extent (Rukhsana and Salahuddin, 2011).
There are some impeding factors which cause hindrance in community participation for development. It was found that these segregating factors resist the community empowerment. Elite members also interrupted in community development and caused a major impeding factor. Some recommendations are also presented for the improvement of community participation in development. Firstly, there should also be the involvement of minorities in decision making process. Secondly, policy makers should lessen the political interventions and elite community members so that true participation of local citizens may become possible (Shakil and Abu-Talib, 2011).

Nanik et al. (2011) discussed about the sustainable development through women participation in SMEs business growth in Sindh, Pakistan. For data collection a survey was conducted in five districts Dadu, Nawabshah, Shikarpur, Jacobabad and Kashmore districts (n=300). The results of the study revealed that gender discrimination caused major hindrance in working of women labor force. Rural women of these regions are less confident because their husbands give them tough time, once they involved outside in income generating activities. Such women labor force is usually paid 60 per cent less value of their products because of lack of marketing facilities. If such women are given with equal rights, improved marketing facilities and overcome the criminal activities (Karo kari), then their involvement in SMEs will be improved and they will be empowered socio-economically.

By studying the literature on role of NGOs in community development, it is observed that Past studies neglected that besides different interventions of NGOs,
age, education, dependency ratio and family size were also very important factors for development process. So the current study is a composite study which included all possible variables which are essential for development process.

As the growth economists lifted their consideration towards approximation of poverty which has emerged as a burning task of the fresh century and has taken the problem as a financial matter and examined the uni-dimensional poverty also creating a lot of problem for the whole worlds it should be controlled through strategy, but newly the discussion has moved to the multidimensionality of the dilemma of poverty. Applicable studies of the global community are strong indication that poverty diagnostics has numerous socio-economic extents and its groundwork needs a multi tactical way out. In the evaluation of works, some of the countrywide and global studies have been occupied into thought for both methods.

2.5 UNI-DIMENSIONAL POVERTY

Different studies which are based on unidimensional poverty computation are reviewed in this section to have a clear understanding of different aspects of its measurements and results obtained by various analysts. Anwar (2005) analyzed the complete poverty, which explains the physical requirement of the people. He construe that the people are comparatively deprived if they are incapable to take share in the normal activities in the community or cannot play part by asset of their association of the society. According to him two third of national average per capita, spending as comparative poverty threshold and calculated the comparative poverty as 40.3 percent, which approximately constitute sixty million populace in Pakistan, throughout 2001-02, while the situation was advanced than 34 percent in
1984-85. The study also determined the more levels of comparative poverty in rural areas than urban regions, which was similar to other researches.

Ravallion (1994) categorizes the thought of poverty as objective poverty and subjective poverty. He also examined the connection between Food Energy Intake (FEI) and Cost of Basic Need (CBN) method of objective poverty lines on the basis of data from Indonesia. He initiates virtually no connection between the two approaches. He extends the thought of poverty as basic requirements to conditions of the individual or households comparative to others influential elements in the perceptions of wellbeing at any assumed level of individual or household knowledge over merchandises.

Kakwani (2003) judgmentally observed the various methodologies that are used to idea an exact poverty line and focused on the growth of absolute poverty line to categorize the poor population. He also analyzed that the comparative method based on some idea of relative deprivation, is not an appropriate measure for the developing republics. He hired the FEI process for the experiential example of India and Pakistan. Furthermore the study highlighted the updating of poverty line by using the customer price index to accommodate the inflationary variations over the time. Applicable studies of the global community are strong indication that poverty.

Rao (2006) deliberated the expenditure method to estimate poverty level and highlighted the current advances in the part of demonstrating & size of inequality at countrywide, regional and global level. The study also verified the importance of spending data in standardizing poverty lines and accumulating temporal &
spatial price index statistics for regulating poverty lines and estimating the purchasing power parities.

Naseem (1973) assessed the poverty level in Pakistan for the first time by using the Household Integrated Economic Survey (HIES) data for the years of 1963-64, 1966-67, 1968-69 and 1971-72. He defined the numerous trends of poverty and highlighted the variations in rural & urban per capita revenue. The study examined that the rural per capita income improved during the period of sixties due to green revolution in agriculture segment. Because there are lack of chances in income generating in rural areas because of lack of economic generate. The urban income was meaningfully higher than the rural area. The occurrence of poverty was assessed using the arbitrary levels of per capita spending and income which were Rs. 250 and Rs. 300 per annum for rural and Rs. 300 and Rs. 375 for urban zones and a considerable reduction was experiential in the rural poverty.

Amjad and Kemal (1997) projected the poverty level in Pakistan and emphasized the numerous key reasons of poverty by using the HIES and Pakistan Integrated Household Survey (PIHS) data for the period of 1987-88 to 1992-93. They adjusted the poverty line of 1984-85 by using CPI and monitored the methodology of Malik (1991) to evaluate the revenue poverty. They examined that complete poverty enlarged by 5 percentage points during the deliberate period. The rural poverty improved by 19 percentage points in 1990-91, which was higher than the growth occurred during 1987-88 (15 percentage points) and declined to 15.5 percentage points in 1992-93. The study determined that poverty done the time mostly in 90,s was majorly due to slow development, reduced overseas
transfers, lack of food grants and other macroeconomic organizational adjustment programs.

Haq (2001) assessed the incidence, complexity and severity of poverty on the basis of consumption spending assumed poverty line, between the employed population of ten years and above (31.7, 6.2 and 1.8, respectively) by using the HIES data set 1996-97.

The writer divided the total population into nine different expert groups and examined the level of poverty between them. Furthermore, she also classified the labor force into three stages as self-employed, worker and unpaid family member and established peak difference found between the laborer, expert agriculture and facility workers by profession. Furthermore, lowest 20 percent have 10.5 percent spending as equal to top 20 percent, who have 37.2 percent spending part in consumption spending.

CPRSPD (2008) methodically elaborated the structure of poverty calculation by using the FGT measure on the source of HIES/PSLM data sets from 2001-02 to 2005-06 and assessed the occurrence of poverty (34.46, 23.94, 22.32 percent in 2001-02, 2004-05, 200506 respectively) with the consumption caloric technique based poverty line assumed by the Planning Commission of Pakistan. The base poverty line was familiar for 2004-05 and 2005-06 with the inflationary fluctuations over the period. The outcomes also clarified the higher frequency of poverty in rural area than urban. The study assumed the consumption as a substitution of revenue for the welfare indicator, which comprised the definite and imputed spending of all purchased, self-produced stuffs, gift or help and wages and
salary in kind spent, with the exclusion of expenditures upon durable goods, taxes, fines, wedding and funeral.

Likewise, Cheema (2005) assessed the occurrence of poverty as 34.72 using the HIES data set 2001-02 and analyzed the use of variety of poverty lines and the procedure used for the size of poverty. The updated outcomes were pretty different due to variance in poverty line and difference of other statistical procedures such as cleaning of data, dropping the household, etc. The study also proved the procedures to assess the poverty line and classified the list of items to be comprised in the control of spending as proxy of income for the determination of consistent poverty outcomes.

Different studies have been commenced during last few time periods to measure the magnitude & environment of poverty in Pakistan, that are mainly based on data produced by household revenue and spending Surveys. There is an agreement among various studies that during 1960s, rural poverty improved while urban poverty declined in Pakistan. Nevertheless, in the following period, poverty failed at all levels. Since then, there is no actual agreement occurred on the trends in poverty (Gazadar, Stephen and Zaidi, 1994 and Jafri, 1999). Declined in poverty continued in the beginning of 1990s (Malik, 1991; Amjad and Kemal, 1997; Haq and Bhati, 2001).

Ali et al. (2010) assessed the incidence, complexity, sternness of poverty to inspect the relative poverty dynamics in Pakistan that procedures the level and scale of poverty by using the HIES data for the period of 1998-99 to 2004-05 through illustration a random poverty line. Thy study used 75 percent, 66 percent
and 50 percent of mean consumption spending as comparative deficiencies and originate that 41.38 percent population of the state was poor at 66 percent in 1998-99, while depth & severity was experimental respectively 10.25 and 3.60 percent. In spite of failure of 4.31 percent at the nationwide level comparative poverty was quiet high (37.78 percent) during the period of study. The regional profile of comparative poverty specifies the development in Sindh and Balochistan but deteriorated in Punjab while the inter-provincial opinion disclosures the development in comparative poverty at all the levels. The comparative poverty dynamics for 1998-99 to 2004-05 shows 45.61 percent in Punjab indicating the poorest condition, 44.41 percent in Sindh, 36.40 percent in NWFP (renamed as KPK) and 27.04 percent in Balochistan. The study propose the two point policy for each province while explaining the complete and comparative poor separately and highlight to address are comparatively poor in financial as well as non-monetary features of life like as education, health, etc.

Yasmeen, et al. (2011) examined tendencies of revenue circulation and poverty in Pakistan. They determined that it is not only the increasing growth statistics which are favorable for a state, but also competently interpreted development to the community to generate parity for all citizens and eradication of poverty is authoritative. Poverty is a thoughtful risk that establishes all the concerns like as illiteracy, income circulation, differences, lack of services, defective strategies, etc. However the study highlighted on legislative efforts to eliminate poverty and income inequality and also strained for the result of area specific problems of the population to overwhelm the issue of poverty. Poverty is a serious global problem.
Ivanic et al. in 2011, disclosed that considerable growth in the “Global Food Values” since middle of 2010 by captivating into account the 28 middle and low income countries. The comprehensive info on food manufactures and consumption through 38 food and agriculture merchandises of different individuals or household has been gathered to examine the welfare level. Moreover, The study determined that this value surge internationally increased poverty along with the varied influences across the countries and assessed that in low income economies average poverty alteration was 1.1 percent, 0.7 percent in the mid income countries and growth of 44 million people which drop below the exciting poverty line of $1.25 per day.

All above studies focused on estimation of poverty on monitory basis but it has been proved by different studies that other dimensions also play an important role in determination of poverty so current study includes poverty estimation by multidimensional approach too and the studies based on this approach are reviewed for deriving the approach to be followed.

2.6 MULTIDIMENSIONAL POVERTY

Current part would throw light on various researches carried out on multidimensional aspects of poverty estimation as Thorbecke (2005) analyzed that income method is incapable to discourse the nonmonetary qualities, due to nonappearance as well as inadequacy of applicable markets and do not include the key extents of poverty as level of education, life expectancy, availability of public goods, sovereignty and safety. He concluded that income is an indicator which limits measures of poverty estimation mainly in evolving countries. Sen in 1990,
extended the idea of growth from conventional monetary conditions to success in
the excellence of human counting life expectation, education etc., and exemplified
the sample of 6 countries with the overview of broad ability method. He
determined that financial wealth as the general development in the welfare is
extensively criticized as it is not additional than one mean to augment the living
conditions of the people and it just enhance average economic luxuriousness.
Furthermore, it is fairly incompetent to chase the real valued ends on the
foundation of income alone. He expanded that the competence method based upon
the set of responsibility and beings containing of merchandises, functioning’s and
competence. He also claimed that this method assesses the excellence of life to the
calculation of the competence to purpose and also can be used with the value based
calculation such as desire, happiness etc., to examine welfare of individual or
household.

Bourguinon and Chakravarty, (2002) claimed that poverty of an individual
rises due to deficiency of different traits such as accommodation, health,
education, establishment of public facilities, income, etc., and is essential to keep
the existence level of livelihood. Poverty is existence fundamentally a
multidimensional event, wherever income is only one characteristic or single
measurement. The study clarifies the authoritative multidimensional opinion of
poverty that includes through the incapability of accomplishing the satisfactory
levels of revenue as well as other than income indicators of welfare, while
sustaining a set of axioms such as poverty focus, decomposability, etc. The new
measure of poverty positions the substitute circulations of qualities of wellbeing
and the awareness of substitutability and complementarities is also taken into
attention in inspecting the headcount. In this way, study explained thresholds for every attribute that signifies the nominal level necessary for living.

Atkinson (2003) claimed that numerous deficiencies are not enclosed under the income poverty and requires spreading the term from deepness of income to poor accommodation access, low level of literacy and other qualities. He clarified that the multi-dimensionality focus on including the number of sizes in which people suffer deficiency, with two different methods; 1) social welfare method; and 2) counting method. In adding to concentrating the numerous deficiencies, study also stances the trial to know the interface between different sizes.

Bourguignon and Chakravarty (2003) analyzed that destitution and wellbeing of the populace is dependent upon both monetary and non-fiscal variables, while demonstrating an experiential specimen of provincial populace of Brazil with two properties income and reading proficiency. Yet the demographic qualities of the various sorts of the poor joined in the appraisal were somewhat parallel to the old fashioned routines. They asserted that the multidimensional blueprint envisions destitution in wide view rather than salary as an individual size by utilizing two issues, and supplemented by different qualities and variables, for example, instruction, wellness, settlement, procurement of open assets et cetera. Hence, for the determination of thoughtful the danger of destitution, it is fundamental to know the various sizes through which it is by all accounts extended and enlarged.

Alkire (2002) claimed that income is not sufficient to deploy the multi-strategic phenomena of human wellbeing. Hereafter, multiple sizes of human
development are established for deep empathetic and empirical footing of multidimensional human wellbeing. Similar to the most of the poverty educations, the writer has clarified the multiple areas to make up the wellbeing.

Wagle (2007) elucidated the non-customary conceptualization of neediness through social vicinity and capability technique. He utilized the complete multidimensional structure to look at neediness in the United States by utilizing the information from 2004 General Social Survey. The system incorporates all the three procedures, i.e. a) financial wellbeing; b) capacity; and c) social incorporation, as divided measurements of neediness alongside the various systems of every territory. Yet the demographic qualities of the various sorts of the poor joined in the appraisal were somewhat parallel to the old fashioned routines. Moreover, this structure expects proportional weights between each of the three neediness sizes.

Bibi (2004) complete the poverty appraisal in the middle of Egypt and Tunisia on the base of family unit information, though considering the multidimensional gimmicks of hardships by detailing a neediness line for each one gimmick and joint their one multidimensional neediness holes into multidimensional neediness methodology. The study give the bi-dimensional picture of the neediness that permits better depiction & less mind boggling battle to wipe out the destitution. Moreover, the study took into concern two noteworthy measurements; 1) family costs per capita as an intermediary of wage lack 2) aggregate of rooms every individual as a substitution of convenience hardship, to evaluate the wellbeing. The experiential outcomes demonstrate the propelled level
of poverty modestly in Egypt. Anyhow, both of the gimmicks utilized as a part of the study were thought to be substitutes.

Asselin and Anh (2005) characterized the static and enthusiastic framework of multidimensional destitution of Vietnam for 1993 and 2002. The study utilized the eight basic non-money related clear markers of human and physical resources made in Community Based Monitoring Survey (CBMS) and related the uni-dimensional technique focused around cash metric (wage) process and file of different pointers that embodies under-vocation, incessant ailment, grown-up writing proficiency, under educating, without radio and TV, sort of abiding, drinking water and cleanliness. They confirmed that both uni-dimensional and multidimensional system shows diverse and merged results over the time and space.

Foster (2007) experimentally anticipated the multidimensional destitution in Mexico by utilizing the methodology presented by Alkire and Foster (2007) on the premise of 2005 information gave by CONEVAL. He widened the idea of destitution as salary deficiency to absence of fundamental needs, ability disappointment and neediness as avoidance to give a sufficient perspective of the issue. He utilized the balanced class of Foster, Greer and Thorbecke (FGT) measures centering populace decomposability & dimensional decomposability measures for the focused on battle against destitution. The study utilized the eight separate measurements and double cutoff technique to distinguish the destitute and utilized both equivalent and unequal (settled) weights, where the settled weighting technique give fifty percent weight to wage and rest of the fifty percent weight to
other non-salary measurements just as or eccentrically. Alkire and Foster (2008) proposed new technique that comprises of distinguishing proof methodology, which expands the conventional mix and crossing point approaches and propose a satisfactory substitute. They utilized double cutoff procedure and a class of destitution measures fulfilling the proverbial system including decomposability, dimensional monotonicity and a scope of various properties that are suitable to work with cardinal and also ordinal information. The study sets forth an illustrative case with the information of United States from National Health Interview Survey 2004, for four variables and the information of Indonesia from Indonesian Family Life Survey for five different measurements to gauge the multidimensional neediness.

Bossert et al. (2009) inspected the extent of multidimensional neediness and material hardship through the checking approach by utilizing the study information 2005 and 2006, from 23 European Union part nations (counting Norway and Iceland the two non-part nations). They disregarded the vitality of pay and just taken it, as an incomplete measure of Singular's summon over the financial assets. The study centers the different measurements that contain both subjective and quantitative variables, for example, lodging, future, instruction. Moreover, the study doled out diverse weights to the distinctive measurements that were acquired from an overview of EU natives. They axiomatized the conglomeration system to acquire a class of lists for the whole social orders.

Decancq and Lugo (2010) characterized the part of weights in the multidimensional file of wellbeing, which goes past concentrating on the single
marker and can be effectively displayed and conveyed. They basically overviewed the eight separate methodologies for setting the weighting plan in the multidimensional lists and arranged them into three noteworthy gatherings; 1) information driven technique, which contains of factual recurrence and great process; 2) regulating methodology, which incorporates communicated toward oneself and hedonic procedure; and 3) half and half strategy, that contains of proportionate or subjective, master estimation and value process. He categorized a deficiency index that weights different dimensions according to their particular perceived importance by using the European data. They discussed that the most elevated relative weights are consented to those sizes, which accomplish best furthermore squared with the points of interest and inconveniences of the specific methodology. The procedure allocated better weights to the significant dimensions in which the people have the poorest condition. The study expected the equivalent weighting framework in the multidimensional structure of destitution as it is a long way from uncontroversial alongside the simplicity of reckoning.

Decancq and Lugo (2008) clarified the sensitivity of weights and introduced a bringing together blueprint of applying weights over contrasting the diverse methodologies of setting weights, for example, equivalent weights, information driven weights, event based weights, most favorable weights, multivariate measurable weights, Normative weights, and so forth. They inspected the accurate part of dimensional weights for each of them in the multidimensional reach. They contended that urgent part of weights highlights the correspondence of choices about the change and conglomeration of diverse traits and clarifies the exchange off among the distinctive measurements under thought. In addition the
study additionally discriminatingly inspected the six method of setting weights which are much of the time utilized as a part of the writing and clarified the three essential standards for application of weights among the different territories.

According to Salahuddin and Zaman (2012) poverty index provide a clear picture of poverty when compared with unidimensional poverty and they concluded that there should be an equal measure of multidimensional poverty estimation which will be helpful for policy makers to develop some useful policy for poverty alleviation. They claimed that most critical dimensions to be focused are health and education.

Bellani (2010) examined the subject of deficiency in the multidimensional perspective and highlighted the vital position of weights. He categorized a deficiency index that weights different dimensions according to their particular perceived importance by using the European data. The procedure allocated better weights to the significant dimensions in which the people have the poorest condition. The study distinguished the sizes by their social groups to explain the vital issue of weights.

Foster, et al. (2009) assessed the robustness procedures of the altering weights for the complex indicators which emphasis an assessment showing robust if the position is not overturned at any given set of weight vector. The study considered the resulting robustness relationship between the various groups of weighting techniques and clarifies that how they brand reasonable the whole ordering produced by the numerous indicator. They planned a measure to categorize the strength and demonstrated empirically the practicality of robustness on the base of
Human Development Index data for the years 1998 and 2004 by employing three dimensions like as fitness, education and income. The study accomplishes that certain of the country rankings are completely robust to any change in weights while the others are somehow fairly fragile. The study inspects the supremacy of robustness at different stages in the philosophy and repetition as well. The study suggestions vision through explaining that some of the data groups tend to have higher robust assessment than others.

Mukherjee (2001) clarifies that the state of wellbeing is multifaceted phenomena and the idea of deficiency goes outside the income rejection to the lack of several socioeconomic features of life. He absorbed the problem of approximating the multiple deprivations in the nation and illustrated an experiential example on the source of household basic needs survey data of 1991 for the five districts of the state of West Bengal, India and comprised the three attributes; i) clothing items (number of Saris per adult women), ii) Dwelling (roof height), iii) food items (two meals a day through the year). The impression so proposed attempts to indigenize the weights founded on variability of the variables. He also claimed that weights would depend upon dispersal to elasticity appropriate position to the respective attributes. The difficulty in the study highlights the matters in the assortment of relevant basket of qualities such as food stuff, clothing items, fuel and light, characteristics of dwelling, health services, sanitation etc. The study displayed separately exact forms for individual deprivations and combination across the individuals. The study expanded the weighting process where in the presence of income other marketable features are given less weights in the combination phase. The study suggested appropriate
measure to aggregate the individual deficiencies while joining the product wise number of deficiency to picture the multidimensional poor.

Watson et al. (2008) recognized the Index of Multiple Deprivation (IMD) to measure the seven different areas such as income, employment chances, health and incapacity, education successes, skills and training, housing and social maintenance, living situation and corruptions that consists of multiple parts of each deficiency through the Discrete Choice Experiment by using the 1000 household data from England. All the areas were weighted differently with the better weights to the basic domains i.e. income, education & health, while the employment area was given less weight. Furthermore the study also presented the different masses with respect to zones, to make the sample as overall representative of the population and projected the weighted & un-weighted separately for creation assessment among the two systems.

Penaloza (2011) employed the multidimensional uncertain types and the Foster-Greer-Thorbecke indexes that contain of ordinal variables, to examine poverty and explained the problem of selecting weights in the multi-disciplined situation. The study used the Theil,s theory of double variability of ordinal dichotomous variables, in which the dual series is complete of zeroes and a positive constant only. The impression so proposed attempts to indigenize the weights founded on variability of the variables. He also claims that weights would depend upon dispersal to elasticity appropriate position to the respective attributes.

Poverty is generally defined as deficiency of basic necessities of life that the practice of society renders it and offensive for creditable persons to be without
these (Adam Smith, 1976). Albert and Collado (2004) summarized information on poverty by analyzing the data of Family Income and Spending Survey (FIES) for the year 2000 from Philippine.

National Statistics Office (NSO) recognized the numerous characteristics of the poor. They are laboring the multivariate examination of the causes of per capita income. The study also observed the determinants of poverty which comprises economic, demographic, social, and cultural issues and emphasized the importance of poverty profile that existence a descriptive tool it gives hints for understanding the determinants of poverty.

The study specified that income and expenditures based procedures are inadequate as these indicators relates to the resources of achieving the eventual ends somewhat than the ends in themselves and highlighted to address the all-out allowable sizes to assess the wellbeing of individual. They also claimed that the individuals vary in their skills and features into the achievements of performance’s due to personal, social and environmental issues (Hulme and Mckay, 2005).

2.7 DETERMINANTS OF POVERTY

Townsend (1979) claimed that people deficiency of income and other capitals including assets, goods & services, to accomplish the supplies of life such as foods, material goods, facilities of life, values and services, which permit the individuals to play active roles in the culture, contribute in the social events and trail the routine performance which predictable of them, is classified to be in a state of poverty.
Siddiqi (2005) specified that economic development is essential but not adequate condition to wipe out poverty in the society. He claimed that economic development is one support to attack poverty but not sufficient condition for poverty reduction in Pakistan.

An provisional calculation of the World Bank (2001) emphasized the various connections to poverty in Pakistan, such as illiteracy, lack of health services, lack of access to other facilities, large family sizes, twisted pattern of land ownership, etc. The study assessed that two third of poor population exist in the rural part and collective primary gross employment rate was 69 percent in Pakistan.

Preece (2006) extended the idea of poverty and determined that its right empathetic is actual much important in explaining the linkages of education, food, shelter, etc., with it. He claimed that traditionally, income poverty was of specific attention to the economists in the examination of poverty. She emphasized that human poverty clue is the opponent of the human development approach, which highlight upon the human welfare and development laterally with the earnings or revenue of an individual, while human poverty is an ample broader view as associated to the concept of income poverty.

Chaudary et al. (2010) assessed the effects of different level of education and literacy on the occurrence of poverty in Pakistan. The study used the time sequence data of thirty five years from 1973-2007. The poverty data was mainly collected from Amjad and Kemal (1997), Jamal (2003), Malik (2008) and numerous issues from Economic Examination of Pakistan since 2005. They mostly
focused the empirical study to discover the proofs of extent and efficiency of education in the poverty alleviation efforts in Pakistan. The study also described some other macroeconomic determinants of poverty that were also examined in the study by using the autoregressive regression typical for econometric empirical investigation. The mean of headcount percentage was estimated as 27.63 percent, while the average knowledge rate was assessed as 36.93 percent. The study determined the educational consequence on poverty in direct & indirect conducts and mostly the academy education come up with a commanding tool for poverty improvement with the reverse relationship with the dependent variable.

Shehu (2012) investigated the impact of IFAD Poverty intervention Program on rural poverty through Logit model and recommended to focus on educating the rural communities as well as provision of infrastructure to reduce poverty. Impact assessments were undertaken to measure the significance of rural household poverty status on a given poverty intervention program by using logic model (Sokoto, 2002; Akinleye, 2004; Olaniyan & Bankole, 2005; Buhl & Sen, 2006; Hashmi & Sial , 2007).

Awan and Iqbal (2011) inspected the causes of urban poverty by concentrating Sargodha, an average sized town of Pakistan. The study examined that the urban poverty is different due to heterogeneity of demographic, financial, political parts than the rural condition in Pakistan. The education used main data of 330 families and examined that community area employment, human wealth asset, access to community services decrease the poverty, while big household extent, female conquered household growth the poverty equal in Pakistan. The education
proposes to growth the stock in human wealth and public facilities to ease poverty.

In Pakistan there are many causes of poverty, some of which are increasing population, bad administration, high cost of living, unemployment, insufficient schooling, atmosphere deprivation and imbalance allocation of capital especially agricultural land (Naqvi, et al., 2014).

2.8 CONCLUSION ABOUT REVIEWS

After reviewing in detail every aspect of the study it is concluded that above mentioned studies either focused on one side and some on the other, but current study is a composite research Endeavour covering many aspects altogether so to get maximum possible results in different dimensions in order to draw most relevant and suitable policy implications keeping in view the specific characteristics of a particular region of AJK.
Chapter 3

MATERIAL AND METHODS

3.1 PROFILE OF RESEARCH AREA

3.1.1 Azad Jammu and Kashmir

Politically it is stated that Kashmir is the jugular vein of Pakistan. Azad State of Jammu & Kashmir is situated along borders of neighboring country India in North of Pakistan and covers an area of about 13,297 square kilometers. The area is blessed with thick forests, agricultural fields, vast rangelands, springs, fast flowing rivers and diversified natural vegetation. Historically, while travelling through the area, different tribes and ‘bradries’ (clans) settled in different parts and later on their descendents became inhabitant of the state. The people belonging to different families or tribes came closer due to social and economic causes and are now residing in the same neighborhood which comprises households who identify themselves as a part of a bradri e.g. Mughal, Khawaja, Butt, Gujjjar, Rajput etc. (AJKCDP, 2004). Almost 100 percent population is Muslim, Urdu is National language but ‘Pahari’ is mostly spoken by the people (GOP, 2014). Other common languages are Gojri, Kashmiri and Pashto (Shah, 2010).

Presently AJK is administratively divided into three divisions i.e. Muzaffarabad, Poonch and Mirpur which are further divided in to ten districts. Muzaffarabad consists of three districts Muzaffarabad, Neelum and Hattian, division Poonch comprises Ponnch, Bagh, Sudhnoti and Haveli districts. In third
division districts Kotli, Mirpur, and Bhimber are included. These districts are divided further into 18 tehsils and 32 subdivisions and according to Board of Revenue, Muzaffarabad (2013).

3.1.2 Characteristics of AJK

AJK falls within the Himalayan or-genetic belt including Jamgarh peak but Hari Parbat peak (Neelum valley) is highest peak of the State. It is one of the most beautiful regions of subcontinent due to its fertile and green mountainous valleys. Due to hilly and mountainous topography the area is divided into two regions. The northern districts (Hattian Bala, Muzaffarabad, Haveli, Bagh, Sudhnoti and Rawalakot) are mountainous and southern districts (Mirpur, Bhimber and Kotli) are relatively rolling and plain. The mountain ecosystems are relatively uneven and have low inherent production. Within this delicate environment there is an immense variety of ecological niches upon which livelihood of people is based. Small land holdings, short cropping season, lack of irrigation and lack of cultivable land are the main factors limiting farm income. Urban rural household ratio is 12:88 with an average family size of 6.7 persons. Total rural households are about 3, 40,384 (GOP, 2011) and literacy rate is about 70 percent which is higher than that of Pakistan (AJK at a glance, 2013).

3.1.3 Climate

As altitude ranges from 360 meters in south to 6325 meters in north, climatic conditions of AJK vary from region to region and create quick contrasts of weather. In south climate is sub-tropical while it is moist temperate in north. Rainfall pattern of the area varies in terms of distribution and amount and average
annual rainfall range is 1000mm to 2000mm. Average minimum temperature range is between 04°C to 07°C and average maximum temperature ranges between 20°C to 32°C (AJK at a Glance, 2013).

3.1.4 Economic Resources

Historically, the economy of Azad Kashmir is agricultural which means the main source of production has been land, which included crops, vegetables, and fruits etc. and it also promoted source of livelihood requirements like fuel, wood and fodder for livestock which promote dairy products (Planning and Development Department AJK, 2014). Low-lying areas grow crops like barley, millet, maize, wheat mangoes and also raise animals while areas which are elevated and spread with less population depend on forestry and livestock. There are marble and mineral resources in some areas of AJK near to Mirpur and Muzaffarabad. Local household and Arts and Crafts industries produce carved wooden objects, textiles, pashmina shawls, woolen and silk clothing, rugs, basketry copper etc. (Britannica.com). Cultivated area about 193,456 hectares, that is almost 13 percent of total area and 92 percent of its cultivable area is rain-fed. Around 89 percent of households possess small land holdings ranging from one to two acres. Major crops include maize, rice and wheat while minor crops comprise pulses, grams and oil seeds. Major fruits produced in AJK are apples, apricots, pears and walnuts. Livestock and agriculture income ranges between 30-40 percent household earnings. Additionally agriculture, arts and crafts, textiles remittances have played major role in Azad Kashmir’s economy. It was predictable that figure for Azad Kashmir was 25.1 percent in 2001. People residing in upper areas are depending on remittances more than those of lower areas, with regard to annual household
income. Billions of dollars were granted by global donors for rebuilding of hit areas of 2005 earthquake due to losses in bureaucratic chains there were substantial delays in helping the deprived persons and people continued living in tents long after earthquake (Naqash and Afaq, 2006).

3.1.5 Education and Health

The Government of AJK has been giving a priority to education and allocated 30 percent of total recurring budget along with 70 percent of development budget for this sector. Due to this investment AJK has a literacy rate of 70 percent which is higher than that of Pakistan (AJK Education Department, 2013). According to 2005 National Educational Census in AJK, Gross Enrollment rate for boys is 98 percent and for girls, it is 90 percent. Health sector coverage rate is still not sufficient in AJK. There is an average of 0.208 Doctors per 1000 population, 0.178 Medical Officers/Specialists per 100 population, 0.016 dentists per 1000 population and 0.013 Health Managers per 1000 population in whole AJK. In the area, there are approximately 3111 hospital beds, which mean one bed per 1368 people. On the whole, there are 20 public sector hospitals, 33 RHCs and 215 BHCs in all districts of AJK (Directorate of Health Muzaffarabad, 2013).

3.1.6 Per Capita Income and Employment

Main source of income of rural population of AJK is forestry, agriculture, livestock and non-formal employment and national per capita income on average was estimated to be 1368US$. Unemployment ranges between 9-13 percent while social indicators of health and population did not show much proficiency (Economic Survey of Pakistan, 2013).
## TABLE 3.1 District Wise Description of Cos

<table>
<thead>
<tr>
<th>Districts</th>
<th>Frequency of Strengthened Cos</th>
<th>Frequency of Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muzaffarabad</td>
<td>190</td>
<td>5384</td>
</tr>
<tr>
<td>Neelum</td>
<td>68</td>
<td>1481</td>
</tr>
<tr>
<td>Hattian</td>
<td>36</td>
<td>1063</td>
</tr>
<tr>
<td>Poonch</td>
<td>110</td>
<td>4439</td>
</tr>
<tr>
<td>Bagh</td>
<td>295</td>
<td>5956</td>
</tr>
<tr>
<td>Sudhnoti</td>
<td>154</td>
<td>3469</td>
</tr>
<tr>
<td>Haveli</td>
<td>31</td>
<td>681</td>
</tr>
<tr>
<td>Mirpur</td>
<td>107</td>
<td>2519</td>
</tr>
<tr>
<td>Kotli</td>
<td>390</td>
<td>5626</td>
</tr>
<tr>
<td>Bhimber</td>
<td>66</td>
<td>1597</td>
</tr>
</tbody>
</table>

Source: AJKCDP
3.2 METHODOLOGY FOR DATA COLLECTION

3.2.1 Universe of Study

The government of AJK faced many economic issues after partition (1947) but during 1970’s economic development started in the area and many non-profit organizations besides government proposed rural development works in AJK. The AJKCDP was proposed in lines with the IFAD’s supported community development programs to reduce poverty and uplift vulnerable people of the rural areas of AJK, socially as well as economically. The AJKCDP was established in 2004 but properly started working after 2005 earthquake, as a private, non-profit organization/corporation with the purpose to improve the social and economic conditions of rural population with alliance of different government departments (AJKCDP, 2010). The development programs of AJKCDP have the key feature of formation and strengthening of community organizations in village communities which have multipurpose of enhancing the potential of rural people to recognize and then solve their problems. The AJKCDP works in all ten districts of the AJK for the completion of its mission of initiating the grassroots development. All districts of the region acted as the universe of present study. Out of these ten districts, four districts, Bagh, Muzaffarabad, from earthquake hit areas and Kotli, Sudhnoti from others were purposively chosen as study area for current research endeavor. These districts were selected as there were maximum number of strengthened Cos who obtained different interventions from AJKCDP as shown in table 3.1.

3.2.2 The Population

According to Nachmias and Nachmias (1996) ‘Universe’ of the study can
be defined as the whole group from which the sample is to be chosen while a group of interest for the researcher is termed as ‘Population’ from where he/she would hypothesize the result of the research. So a ‘Population’ from a viewpoint of methodology is the aggregate of all cases that confirms the selected set of conditions, i.e. “people” and “resident of a specific area”.

One of main focus of the program was to organize and build up capacity so as to link the selected community groups with different Government Line Departments on participatory basis for sustainable community development. Terms of partnerships were developed to facilitate the COs and Line Agencies in activity planning and responsibility sharing agreements. The ultimate objective was to enable COs to interact directly with the concerned Line Agencies or non-Governmental Organizations in development related activities. Direct linkages result in better coordination between the communities and external bodies.

The CDP model in creating access of COs to various line agencies such as Agriculture, Livestock, Forest, Irrigation, Sericulture, Fisheries, Education etc. has been appreciated by masses. The linkage between Line departments and community organizations has been formal through LADDERS Team/ Local Support Organizations.

Workshops were organized for line agency officials to present their plan in consultation of CO and discussed problems with practical solutions. Various training programs were organized in which the potential line agency officials provided Resource Person services. All the people of study area including both registered and non-registered members of AJKCDP served as population in current
3.2.3 Sampling Procedure and Sample Size

Sampling is the procedure used to choose unit (like household) from a population of interest in order to have fair generality of outcomes (Techim, 2006). There are different views regarding the sample size, some are in favor of estimating in qualitative terms while other support statistical method as a proper technique. The sample size would be comparatively small in qualitative studies (Krejcie and Morgan, 1970).

As it is difficult to interview the entire populace for collecting data therefore, viewing the constraints, a systematic procedure was adopted for sampling. Multistage sampling procedure was adopted. Four districts, at least one from each division were purposively selected. Then from each districts different villages having more number of strengthened COs were selected. Finally registered members from COs of AJKCDP were randomly selected from the sampled villages and from the same area non-registered members were also selected randomly. In order to determine the appropriate sample size a complete list of COs was taken from staff of AJKCDP. There were two types of COs, strengthened and weakened, only strengthened COs were considered for determining sample size. From these COs then beneficiaries/registered members were selected and number of these registered members to be selected as sample size was determined by consulting table developed by Bartlett, Kotrlik, & Higgins (2001) which was developed by using Cochran’s Formula, 1977 as shown in appendix. So 83 respondents from each districts was determined as required sample size but it was rounded off to 90. A total of 360 registered members of AJKCDP were randomly selected from all
districts. For the purpose of comparison, half of this number i.e. 45 non-registered members from each district were also interviewed making 180 non-registered respondents. Thus, making total sample size of 540 respondents, both registered and non-registered members in the ratio of 70:30 were taken. Data was taken for two time periods i.e. before and after the program to filter the impact of the program. So information was collected from the same respondents for 2004-05 (base year) by using recall method and for 2013-14 (current year) through a proper data collection technique.

3.2.4 Instrumentation for Data Collection

Secondary data in addition to primary data is used in present study. For the collection of required information several instruments were considered which may be appropriate for the process of research.

3.2.4.1 Primary Source of Data

For deriving exact-precise information survey method is very essential. According to Carson et al., (1996) the direct face to face interaction for questioning is the most suitable and common method and it is useful for survey method. Primary data was collected during personal observations and interview schedule. For the reason of data collection the significance of the interview schedule and survey method was taken in to consideration, in the light of literature reviewed and objectives of research a well planned consultation program was formulated. Keeping in view nature of the study, it was considered that the complicated schedule of interview would be insufficient for collection of actual data and necessary information. So, to support the research work field visits/ interviews were carried out to closely observe the related people for determining
the ground realities.

3.2.4.2 Secondary Sources of Data

The research was furthermore improved by the analysis of endorsed records of AJKCDP to get their modus program’s outline. Published reports, annual reviews, third party evaluation and research papers related to operational strategies and community organization of AJKCDP have been widely reviewed for substantiating major results and finally study’s conclusion. The survey was carried out from July 2013 to October 2013 but during winter season due to harsh weather data from some areas could not be collected and remaining survey was carried from March 2014 to May 2014. After completion of survey of research area, all data was systematized and entered in appropriate software (SPSS) for analysis. Software STATA and DAD were used for poverty estimation but before data analysis procedure data was properly screened in order to avoid errors in data. The main purpose of data screening is to check the correctness of entered data, and checking the data for outliers.

3.3 SCREENING OF PRIMARY DATA

Multivariate and Univariate screening of data is essential for deterioration analysis (Tabachnick and Fidell, 2001). The present data was screened by following steps.

3.3.1 Detection of Incorrectly Entered Data

The screening of data is finding of erroneously available data. Reliability of data analysis can be considerably pretentious by incoming the wrong data. Frequency analysis is the best method for finding incorrect data (Horn, 2007).
3.3.2 Identifying and Dealing With Missing Data

The missing values in data create botheration & can be either non-random or random. The missing values result in data loss as sample size reduces. The missing values can be treated by adopting three techniques. First is to not do anything, second is deletion of data case having missing value and third is replacing the missing values i.e. imputation. The missing values can easily be found by using frequency distribution analysis. So in the present study frequency distribution analysis was done to detect missing values and its result showed there were no missing values in the data.

3.3.3 Detecting Outliers

There may be various reasons of outliers (Tabachnick and Fidell, 2007) which are: incorrect data entry, reading of missing values as real data due to failure of specifying them in computer syntax and finally, outliers embody population that is proposed by researcher to sample having extreme values more than a normal distribution. Different techniques for detection of outliers are: Mild and extreme outliers in the data are graphically represented by using Box Plot. Upper quartile (Q3) and Lower quartile (Q1) are shown in a box plot beside the median which is shown by a black line in middle in the Box plot and also largest and smallest scores which are, horizontal lines shown at bottom and top of box plot and the outliers which could be extreme or mild (Steven, 2006).

Graphical methods like Histogram and Normal Probability Plot were used to check normality of data (Martin, 2007). Common view with reference to the proportioned distribution of data values (mesokurtic) is shown by Histogram and it also tells whether the case gather around a central value. The Histogram’s shape
tells with reference to positive skew (far distant values to the right of the distribution) or negative skew (far detached values to left of distribution). Level of normality can also be identified with the help of a graphical method i.e. NPP. For a sample having normal distribution it is anticipated that all the points will lie less or more on a straight line and moreover, the points should be clustered around horizontal line through zero without having a pattern (Norusis, 1994).

3.4 ANALYTICAL FRAMEWORK

After detecting outliers many other analytical methods were used to analyze data. The current study involves date analysis in three steps. First step included simple expressive statistics such as means, sums, ranges, frequency distributions and percentages which were used to analyze data related to study’s general objectives. Second step was to estimate poverty both unidimensional and multidimensional poverty and in third step Logit Model was applied in order to analyze the data for specific study’s objectives.

3.5 UNIDIMENSIONAL PROFILE OF POVERTY ESTIMATION

According to World Bank (2011), poverty is evident deficit in well being having multidimensional character. It occupies little proceeds and unable to get essential things compulsory for endurance. It includes poor rank of health, education, insufficient accessibility of fresh water and sanitation, defective physical safety and lack of ability and chance to develop one’s way of breathing. Poverty in its big sense contacts with irregularity of probability. The poor of developing countries are relatively higher damaged than the poor of developed nations.

Laderchi et al. (2003) tells that poverty can be estimated through two
approaches including income and payments. For Poverty improvement it must to enhance the income of individual/household and in addition of betterment in earning property. Absolute poverty usually means that when people may become unable to obtain sufficient resources to continue least health facilities, whereas relative poverty comes when government decided the certain minimum levels of living standard but people cannot enjoy that standard.

Income/expenditure is the easy technique for poverty dimension. If individual’s income/expenditure is below poverty line then he/she must considered as poor (World Bank, 2000). Poverty can be predictable with allusion to poverty line at global and country level. Consequently, for the purpose of comparison the World Bank applied reference poverty line set at $1 and $2 per day.

3.5.1 Poverty Thresholds

Income approach is the mainly familiar for poverty evaluation and is mostly used to see the degree of lower levels of income/expenditure. When income is frequently harder to measure then consumption approach is used. Generally subjective poverty line, relative poverty line and absolute poverty line are used in poverty revision.

- **Subjective Poverty Threshold**

Population into poor and non poor on the basis of anxiety of households and individuals are referred as subjective poverty line. i.e., poor or not. Van Praag et al. (1980) said that every person is the best investigator of their own situation. Kapteyn and Layden are the most common subjective poverty line, it includes that persons of each house are approach for getting the information concerning to
income that every individual believes is essential for their needs.

- **Relative Poverty Threshold**

  Overall division of income and expenditure in any economy are referred as relative poverty line. Generally population of society has two categories i.e. advantaged / non-poor and disadvantaged /poor classified by relative poverty line. Income and expenditure are the financial indicators that relative poverty line generally uses. Minimum level of these variables is fixed at some level, when estimating poverty. After calculating, specified fixed levels are considered poor and falling above are considered as non-poor (Ravallion, 1998). According to Cheema (2005) relative poverty line is mostly used to measure the disparity rather than poverty.

- **Absolute Poverty Threshold**

  To maintain a least possible level of wealth at given a fixed level of income or expenditure are referred as Absolute poverty line. The essential reason of using absolute poverty line is estimating the expenditure which is involved in buying a basket of basic goods and services facilitate a person to achieve a minimum expected level of comfort in terms of basic requirements. Economic growth is very vulnerable to the result of absolute poverty line. The global poverty line fixes 1.25 dollar per capita per day as a value of smallest amount of income needed for an individual, so that he is not considered as poor. The utter poverty lines do not have a lot of attraction in developing countries whereas in under-developed countries, as majority of population live with lowest cost of living so depend on absolute poverty lines are more related.
3.5.2 Measuring Absolute Poverty Threshold

In literature, two methods are generally used for estimating absolute poverty lines like 1) The cost of basic needs method, 2) The food energy intake method.

1) Basic Need Cost Method: For estimating poverty lines, the cost of basic needs method is used and it includes the bundle of foods used by the poor at local prices. To measure poverty line, is to find out food expenditure bundle of poor as reference group and then estimates the cost of using this bundle using the prices experienced by reference group.

2) The Food Energy Intake Method: The food energy consumption process exogenensis the poverty line by finding the lowest consumption spending at which individual’s food energy intake is just enough to meet fixed food energy calories intake used to measure food energy intake.

3.5.3 Applicability of Poverty Threshold for Current Data

For the evaluation of poverty the current research focused on absolute poverty line expected by calorie intake method. In this study to find out the occurrence such as depth and severity of poverty at various levels, 2350 calories per adult/day intake equivalent as authorized poverty line of Planning Commission of Pakistan is used. To measure the poverty in observed area the determined amount of calories intakes transformed into monetary terms. For base year, poverty line of Rs. 878.64 is used and for current year poverty line of year 2010-11(Rs.1745) according to Economic survey of Pakistan (2013-14) was adjusted on the basis of consumer price index which is similar to the inflationary changes and therefore, Rs. 2265.59 was estimated and used as a poverty line for the year 2013-14 see Table 3.2.
Table 3.2 Per Capita Equivalent Monthly Poverty Thresholds

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Poverty Line (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>878.75*</td>
</tr>
<tr>
<td>2013-14</td>
<td>2265.59**</td>
</tr>
</tbody>
</table>

*Economic Survey of Pakistan  ** Author’s own estimation
3.5.4 Poverty Gap Index

It is defined as average distance under the poverty line as a proportion of the poverty line and this mean is taken over the whole population while the non poor is counted as having zero poverty gaps. In other expressions it is the mean short fall from the poverty line and is expressed in percentage of poverty line. The PGI is a measure of the deepness of poverty of a country or a region, basing on the growing poverty scarcity of the poor relative to the selected poverty line. Given that the head count ratio is not responsive to disparity in the group of those who are previously below the poverty line. In literature, several measures are used to examine poverty index. But, in generally FGT (Foster, Greer and Thorbecke) method is used for the assessment of poverty. Foster, Greer and Thorbecke (1984) showed three poverty measures. So, Poverty Gap Index technique may be used for calculating the severity, incidence and deepness of poverty. The FGT equation is given below:

\[ FGT = \frac{1}{N} \sum_{i=1}^{M} \frac{(Z - Y_i)}{Z} \]

Where:

- \( Z \) = Agreed upon Poverty line
- \( Y_i \) = average real spending of the household member \( i \) (here it is per capita expenditure for person \( i \))
- \( N \) = # of individuals in the sample population (all households in adult equivalents)
- \( M \) = # of poor individuals (all household members in adult equivalent below poverty line)
3.5.4.1 Headcount Ratio

The percentage of population under the poverty line shows as Head count Ratio. For poverty estimation at household level, world headcount index is used. Furthermore, at individual levels, headcount ratio is used.

Headcount ratio formula is given below:

$$FGT_0 = \frac{K}{N}$$

Wherever,

$K =$ Number of poor

$N =$ Number of total population

3.5.4.2 Poverty Gap Ratio

The poverty gap ratio thus refers to the average poverty gap by calculation the degree to which the household on average fall below the poverty line which also shows the shortfall of the poor’s expenditure from the poverty line showed as an average of all people in population.

Poverty Gap Ratio formula is given below:

$$FGT_1 = \frac{1}{N} \sum_{i=1}^{N} \left( \frac{Z_i - Y_i}{Z_i} \right)^2$$

3.5.4.3 Squared Poverty Gap Ratio

To measures the severity of poverty (inequality among the poor), squared poverty gap is used. This tool arrest the variation in income levels among the poor and determines the severe of poverty that is responsive to the allocation of welfare.

FGT formula of squared poverty gap is given below:
After determined the Poverty Gap Index of registered and unregistered members separately, the difference of difference of poverty given us the whole picture of poverty of that area, was considered.

3.6 A PROFILE OF MULTIDIMENSIONAL POVERTY

The recent literature focused Poverty as a flexible issue that covers through the letdown to guarantee basic needs, lack of control over the funds, lack of education, lack of health, malnourishment, lack of shelter, lack of access to sanitary water and hygiene, weakness to shocks, fighting and crime, lack of political self-determination and voices (Chaudhry et al., 2010). Sen (1990) regarded the term poverty as execution failure. Chakravarty (2006) also advocated the similar philosophy that living standard is viewed in terms of the position of existing capabilities of the person to function. The multidimensional poverty gives the more accurate picture of poverty because it covers several proportions such as education, health and living standard. Even though a lot of questions take place, while taking into explanation the multiple dimensions of poverty that how many dimensions are taken into thought; how the weights will be given and what will be the cutoff points? After the influential work of Alkire et al. (2011), most of the troubles in the measurement of multidimensional poverty have been taken into deliberation. Alkire et. al., 2011 methodology is used to measure MPI in current study, which pursued about the similar methodology as Alkire and Foster (2007, 2011a,b). Unit

\[
FGT_i = \frac{1}{N} \sum_{i} \left( \frac{Z_i - Y_i}{Z_i} \right)
\]
of study is based on registered and non-registered members of AJKCDP of four districts of AJK. For MPI estimation Different sizes, cutoffs and weights are used and mentioned in detail for this study as:

### 3.6.1 Dimensions of Multidimensional Poverty

Poverty is an incident which tells not only the capability to purchase goods but also forbid an individual or household from enjoying life. Thus, education, health and living standard can be helpful for estimating such condition. So, complete intervention scheme, not simply in economic characteristic but also social dimensions as well to control poverty and therefore, issue of poverty may be tackled as socio-economic incident. Alkire et al., (2011) methodology is used in the present study. This was based on three dimensions and ten indicators. Ten indicators which have composed Multidimensional Poverty Index i.e. MPI 2011 included two indicators for education, two for health and six indicators for living standards. The present study used same three dimensions as included in that methodology but indicators are a little modified depending on the availability of data.

1) **Education:** For eliminating poverty at individuals or households, obtaining higher education is the best solution. According to Jolliffe and Datt, (1999) educational achievements are the key determinant of poverty and it consists of educational level of parents/ household head and adult educational level in a household as well.

   Likewise Nasir and Nazli, (2000) explained that higher level of education increases the chances to flight individual or household from poverty. Chaudary et
education is a powerful determinant and poverty index is directly affects the levels of education. Preece (2006); Abuka et al., (2007); Qureshi and Arif (2001); Arif and Bilquees (2007) and so on, emphasized the importance of the role of education in offensive poverty.

The study in hand used one display in the dimension of education to analyze the impact of education in the poverty improvement i.e. the number of years of education of respondents.

2) **Health**: According to Sen (1990) lack of health is both cause and effect of poverty and delay in the way of achieving certain potential. Whereas, there is a direct association observed between the lack of health and literacy and poverty in Pakistan (World Bank 2001). In the same way several other studies like, Asselin and Anh (2000); Mohanty (2010); Alkire and Foster (2007); Yu (2008); Wagle (2008); Alkire and Santos (2010); UNDP. (2010), etc. also shown that to achieve the survival level of calm and worried, better health is the most important factor and that it should be taken as separate dimension to pin down poverty.

For the dimension of health, the occurrence of diseases among respondent’s household has been taken. If respondent’s household has been suffering from common diseases like cough, cold and fever during the year then considered as non poor. The households are considered as poor if they are suffering from more than three common diseases like malaria, typhoid, hepatitis etc. during the year.

3) **Living Standard**: Foster (2007) clarified, if electricity, gas, piped water, telephone is not available in the house and toilet is not connected to public sewerage or pit, that family is considered as poor. Likewise, Haq and Bhatti (2001) argued that hunger in the society resulted as the lack of housing and other facilities
for household or an individual.

Likewise, Ray (2006) to improve the welfare level of the society, the importance of the public services such as electric, gas, telephone, etc must be considered. Similarly, there are a lot of studies such as Mukherjee (2001); Krujik and Rutten (2007); Nussbaumer et al. (2011); Jamal (2013); Anwar and Qureshi (2002); Jamal (2009);Naveed and Islam (2010); Asselin and Anh (2000); Sackey (2005); Hussain (1994); Watson et al. (2008); Caroline (2003); etc., which explained that living standard is most important in determining the poverty index.

Following Alkire et al., (2011) methodology, the study in hand used five indicators in the dimension of living standard which are type of houses, type of sanitation used, source of drinking water, type of fuel used for cooking and final indicator includes household assets. Household assets further included availability of radio, television, washing machine, refrigerator, air conditioner, telephone, motorcycle, car etc. Electricity was available to majority of respondents before and after the program so it was not included in the dimension of living standard. The first four indicators covered through this dimension were tackled in a categorical format as shown in tables 3.3, 3.4, 3.5 and 3.6.

### 3.6.2 Weighting Structure

In multidimensional poverty, assign appropriate weight to different indicators within and across each dimension is very important. Thus, Nobel et al., (2009) explained that the concept of separate domain of require facilitate the researchers to clearly control the weights assigned to each of the domains and emphasized equal weights to each of the several dimensions. Likewise, Chakravarty and Zoli (2009)
Table 3.3 Type of Houses

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kaccha</td>
</tr>
<tr>
<td>2</td>
<td>Wooden Planks</td>
</tr>
<tr>
<td>3</td>
<td>Kaccha/Pacca</td>
</tr>
<tr>
<td>4</td>
<td>Pacca</td>
</tr>
<tr>
<td>5</td>
<td>Any Other</td>
</tr>
</tbody>
</table>

Table 3.4 Type of Sanitation/Latrine

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No latrine/ In the open</td>
</tr>
<tr>
<td>2</td>
<td>Pit/ Dry raised</td>
</tr>
<tr>
<td>3</td>
<td>Common flush latrine in Compound</td>
</tr>
<tr>
<td>4</td>
<td>Flush Latrine inside house</td>
</tr>
<tr>
<td>5</td>
<td>Any Other</td>
</tr>
</tbody>
</table>
### Table 3.5 Source of drinking Water

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spring water</td>
</tr>
<tr>
<td>2</td>
<td>Dug well unprotected</td>
</tr>
<tr>
<td>3</td>
<td>Public Tap</td>
</tr>
<tr>
<td>4</td>
<td>Hand Pump</td>
</tr>
<tr>
<td>5</td>
<td>Community water Tank</td>
</tr>
<tr>
<td>6</td>
<td>Piped into Yard</td>
</tr>
<tr>
<td>7</td>
<td>Piped into House</td>
</tr>
<tr>
<td>8</td>
<td>Any other</td>
</tr>
</tbody>
</table>

### Table 3.6 Source of cooking fuel

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fire wood only</td>
</tr>
<tr>
<td>2</td>
<td>Fire wood and crop residual</td>
</tr>
<tr>
<td>3</td>
<td>Fire wood and LPG</td>
</tr>
<tr>
<td>4</td>
<td>Fire wood and Kerosene</td>
</tr>
<tr>
<td>5</td>
<td>Fire wood and Biogas</td>
</tr>
<tr>
<td>6</td>
<td>Any other</td>
</tr>
</tbody>
</table>
more focused on three domains such as life expectancy, literacy and per capita GDP. They assigned the same weights in the observed study of multidimensional poverty across 164 countries of the world (except for China and India).

However, two different alternative methods have been taken into account in the study of multi dimensional poverty. It gives the acceptable way when there is no influential reason to weight one dimension more than the other, referred as equal weighting system (Foster, 2007). The weights will be as $W= (1/3, 1/3, 1/3)$ under the equal weighting system. Second is the alternate weighting, in which different dimensions are given unequal weights consisting of the sum of 1, for example in the nonappearance of income, three dimensions will be weighted as, weight of 0.50 is given to dimension-1, weight of 0.20 and 0.30 or 0.25 can be given to dimension 2 and 3.

The study in hand used both equal weight and alternate weight methodology as the purpose of the current study is to find out the impact of a particular program on the respondent’s poverty level so by using nested weights impact on different dimensions can be filtered out. In case of equal weights 1/3 or 0.33 weight was given to all three dimensions but as in the dimension of living standard there are five indicators so a weight of 1/15 was given to each indicator making a total of 1/3 for this dimension. For alternate weighting structure, all three dimensions were assigned 0.5 weights one by one and remaining two dimensions were given 0.25 weights each. The weights assigned to all three dimensions are sum up to one in both cases. Dimensions, indicators, cutoffs and weights assigned to each dimension are summarized in Table.3.7 for equal weighting structure.
Table 3.8 shows the weights assigned to three dimensions for Alternate Weighting structure.

3.6.3 Identification of MPI Poor

A deprivation score is assigned to each individual according to the deprivations he/she possessed in the component indicators.

3.6.3.1 Deprivation Cut-Off

Deprivational score for each individual can be calculated by taking weighted sum of the experienced deprivations and this deprivation score lies between 0 and 1 for each person. The deprivation score increases as deprivation increases for each individual and reaches a maximum of 1. The score 0 is assigned to individual who is not deprived in any dimension. Notational form can be written as:

$$C_i = W_1I_1 + W_2I_2 + \ldots + W_kI_k$$

Where $I_i = 0$ if individual is not deprived in indicator $i$ and $I_i = 1$ when he or she is deprived in indicator $i$. $W_i$ is the weight which is attached to indicator $I$ and sum of all weights is equal to 1. Here the sum ‘1’ and this is different from Alkire and Foster methodology (2007 and 2011) where the sum of weights is equal to the total number of indicators used.

3.6.3.2 Poverty Cut-Off

To indentify the multidimensionally poor people, a second cutoff is used and this cutoff was termed as Poverty cutoff in Alkire and Foster (2007) methodology. It is the share of weighted deprivation individual must have to be considered as poor which is (1/3) in present study and shows the vulnerability of being poor. It is denoted by $k$ and it is different from Alkire and Foster (2007,
Table 3.7 Dimensions, Indicators, Cutoffs and weights for MPI Estimation

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
<th>Cutoff/ Deprived if</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Number of schooling years</td>
<td>≤ 5 years of schooling*</td>
<td>1/3</td>
</tr>
<tr>
<td>Health</td>
<td>Occurrence of diseases in respondent’s household</td>
<td>≥ 3 common diseases</td>
<td>1/3</td>
</tr>
</tbody>
</table>
| Living Standard | i. Types of Houses  
   ii. Sanitation  
   iii. Source of Drinking water  
   iv. Type of cooking fuel  
   v. Assets Owned  
   i. Kaccha/wooden planks  
   ii. No latrine or pit dry raised**  
   iii. Spring water or dug well  
   ** iv. Fire wood/ Crop residual**  
   v. ≤ two common assets (Radio, TV etc.) | 1/3     |

Note: * shows that it is related to MDG4 i.e. Achieve Universal Primary Education and ** shows relevancy to MDG7 which is “Ensure Environmental Sustainability”

Table 3.8 Alternate weighting Structure for Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Weight 1</th>
<th>Weight 2</th>
<th>Weight 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>0.5</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Health</td>
<td>0.25</td>
<td>0.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Living Standard</td>
<td>0.25</td>
<td>0.25</td>
<td>0.5</td>
</tr>
</tbody>
</table>
20011a) where it shows the number of deprivations of an individual to be considered as poor.

Whereas in this methodology if $c_i \geq k$ then individual or household is considered as poor. In other words it can be expressed as if an individual has deprivation score equal to or higher than 1/3 then he/she is identified as poor. The individuals whose score is less than poverty cutoff that is one third of the weighted considered indicators, even not zero, is converted to 0 and they are identified as non-poor. This step is thus referred as censoring the deprivations of non-poor as any of the deprivations have not been considered in Censored Headcounts. In order to differentiate censored deprivation score from original one, notation $c_i (k)$ is used for censored score. So when $c_i \geq k$ it means $c_i (k) = c_i$ and if $c_i < k$ it shows $c_i (k) = 0$. Thus, $c_i (k)$ represents the deprivation score for the poor.

3.6.4 Aggregation (Computing MPI)

In this step the data of poor people is combined together in order to construct the multidimensional poverty index. Following Alkire and Foster (2011a) measure of Adjusted Headcount ($M_0$), calculating MPI combines two key information: first is the incidence/proportion of people of a given population whose share of weighted deprivation is equal to $k$ or more ($H$) and second is the intensity of their deprivation ($A$) i.e. the average proportion of weighted deprivations which they experienced (Foster et al., 2011).

3.6.4.1 Multidimensional Headcount Ratio ($H$)

Multidimensional $H$ ratio illustrates the percentage of the multidimensional
poor population, by expending a cumulative cut-off point “k” as explained before and it is denoted by “H”. Multidimensional headcount ratio “H” can be calculated as:

$$H = \frac{b}{n}$$

Whereas “b” is the number of the poor and “n” is the total population under concern. in a similar way the traditional headcount ratio, it ranges from zero to one. To measure the occurrence of poverty for its openness and easiness in calculation, for this purposed Headcount ratio is used. But in this way some drawbacks are: Naveed and Islam (2010) this ratio provides useful information about the occurrence of poverty but cannot explained the deepness of dearth faced by the poor. The headcount ratio violates the axioms of move and monotonicity as it does not increase if a poor person’s deficiency increases.

3.6.4.2 Intensity of Poverty (A)

The average deprivational score of multidimensional poor people is the second component and can be shown as:

$$A = \frac{\sum_{i=1}^{n} q_i(L)}{n}$$

Where $q_i(L)$ is Deprivational score (censored) of individual I and n represents the number of multi dimensionally poor people.

3.6.4.3 Adjusted Headcount Ratio ($M_0$)

Alkire and Foster, (2008) Explained adjusted Headcount ratio, as the total number of deprivations faced by the poor divided by greatest possible number of scarcity faced by the all people. In this manner, it joins the information of “H”
referred as incidence of poverty and the (A) referred as the average degree of the scarcity of the poor as well. As a result “M₀” is calculated as the product of “H” and “A” and it is sensitive to the occurrence and degree of the multidimensional poverty.

\[ M₀ = HA \]

For different groups in the population like province, region, gender or ethnic group, M₀ can be calculated. It is responsive to scarcity of the poor, if a person becomes poor in more dimensions, it increases poverty level. It can be familiar for the comparison across the different sizes of groups among provinces and different sized countries in international comparison as well.

“M₀” can also be broken down into dimensions in order to recognize the share of each dimension in any region or group in the overall multidimensional poverty for the policy makers (Alkire and Foster, 2007). In spite of numerous properties of “M₀”, unluckily it is not capable to gives specific information regarding the deepness of scarcity.

### 3.6.4.4 Adjusted Poverty Gap Ratio (M₁)

The adjusted poverty gap we used detailed information to calculate products such as N, G and H₁. Poverty line is then reduced by the persons accomplishments subtracted by the poverty line is used when average normalized gap G is calculated. This is the sum of the values of the poverty gaps divided by the number of the scarcity. However, poverty gap will persistently be equal to 1 in case of ordinary data (Alkire and Foster, 2008). Thus, the adjusted poverty gap is calculated as:

\[ M₁ = HAG \]
This formula shows that $N_1$ is equal to the average poverty gap $G$ measure multiplied by the “$M_0$”. It gives needed information on the deepness of scarcity of the poor and satisfies the axiomatic framework as well on the behalf of some important properties. If the poverty of any poor person become deeper in any dimension, that may lead to increase in adjusted poverty. The higher value of $G$ will raise the value of “$M_1$” whereas, the lower value of “$G$” will inversely affect the “$M_1$”.

3.6.4.5 Adjusted Squared Poverty Gap Ratio ($M_2$)

It indicates the strictness of multidimensional poverty among the poor populace. The measure combines the information on the incidence of poverty and the series and unkindness of scarcity. It can be calculated by taking the product of “$M_0$” or “HA” and average severity of deprivation “$S$”, whereas by squaring each poverty gap individually to get the average severity of scarcity “$S$” or replacing the “$G$” with the squared normalized poverty gap “$S$”. So that, it provides information regarding the severity of scarcity as calculated by the square of the normalized deficit with the data of the poor and complemented to “$M_0$” to contains the slighter gaps and highlight the larger ones. The “$M_2$” calculate can be shown as:

$$M_2=HAS$$

This shows the summation of squared normalized gaps divided by the maximum possible summation of squared normalized gaps. It assures the convey property and is very responsive to the variation with which scarcity are scattered among the meager and not just their average stage.
3.7 MODEL SPECIFICATION FOR POVERTY DETERMINANTS

Multi dimensional poverty and its effects on different variables can be examined using binary logistic technique because of its desirable properties and flexibility in interpretation of results (Hosmer and Lemshow, 2002). The model covers both quantitative and qualitative explained and explanatory variables (SAS, 1995).

There are two categories of dependent variable of logistic model: continuous and discrete, while ordinal response variable is of binary nature i.e. it takes only two values (0,1) (SAS, 1995). However binary logistic regression technique was used in this study.

3.7.1 The Logistic Distribution

The logistic distribution is given by Everitt (1998):

$$f(x) = \frac{\exp[(x-\alpha)/\beta]}{\beta[1+\exp-(x-\alpha)/\beta]^2}, \quad -\infty < x < \infty, \quad \beta > 0$$

Where the mean and variance of the logistic distribution is $\alpha$ and $\pi^2 \beta^2/3$ respectively. Whereas its skewness is ‘0’ and its kurtosis is ‘4.2’. If $\alpha = 0, \beta = 1$ then $f(x) - F(x)[1 - F(x)]$

Logistic distribution is different from normal distribution with respect to its mean and variance (Abdelrahman, 2010).

3.7.2 Logistic Regression Model

That variable which illustrates binary nature (1,0) we highly prefer the
logistic proportion (Maddala, 2007 and Gujrati, 2005):

\[ \text{Logit}(P_k) = \ln \frac{P_k}{1 - P_k} = \beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k \]

Whereas logit model is constructed and interpreted as follows:

\[ \text{Logit}(P_k) : \text{Log-odd ratio} \]

\[ \frac{P_k}{1 - P_k} : \text{Odd ratio in favour of being a poor where:} \]

\[ P_k = \text{Prob}(Y_k = 1) = \frac{1}{1 + e^{-(\beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k)}} = P_k = \text{Prob}(Y_k = 1) = \frac{e^{\left(\beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k\right)}}{1 + e^{\left(\beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k\right)}} : \]

Response probability to be modeled of being poor

\[ 1 - P_k = \text{Prob}(Y_k = 0) = \frac{1}{1 + e^{-(\beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k)}} : \text{Response probability to be modeled of not being poor} \]

\[ \frac{P_k}{1 - P_k} = e^{\beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k} \]

After applying log on odd-ratio

\[ \ln \frac{P_k}{1 - P_k} = \beta_0 + \sum_{i=1}^{m} \beta_i X_{ij} + \mu_k : \text{Log-odd ratio becomes a linear function of the explanatory variables. In a logistic distribution as} P \to 0 \text{ then logit} P \to -\infty \text{ and as} P \to 1 \text{ then logit} P \to \infty. \text{The association among response variable and predictor is usually not linear in logistic estimation that is why logistic regression have no assumption for predictor (Abdelrahman, 2010). Robust variance matrix is used in logistic regression due to its more consistency over usual standard errors (Wooldrige, 2002).} \]
3.7.3 Maximum Likelihood Estimation

Maximum Likelihood Estimation (MLE) are more attractive in logistic regression because it is different from Ordinary Least Square (OLS). Dependent variable is binary in nature. Thus dependent variable and its error term are not normally distributed. Moreover MLE is more appropriate for large sample size (Green, 2009). MLE tries to maximize log likelihood LL instead of minimizing the residual (Meddala, 2007 and Gujrati, 2005). So it is more appropriate to estimate the parameters of the Logit model.

3.7.4 The Odd Ratios

Odd ratios are sort of probability that some outcome will occur. To know the change in odds resulting from a unit change in predictor can be calculated by exponentiation the estimated parameter $e^\beta$ i.e. odd ratios (Field, 2005). If odd ratios are below one greater will be the effect of that variable controlling for all other variables in the model. If exp $\beta$ is greater than one it implies that as predictor increases the odds of the outcome occurring increases and vice versa.(Field, 2005). In case of two identical groups of odds the odds ratio is equal to 1 (Field, 2005 and Abdelrahman, 2010).

3.7.5 Marginal Effects/ Marginal Probabilities In Logistic Regression

In logistic regression log of odd-ratios are presented by parameter estimates. Estimated co efficient does not show the marginal effect on the dependent variable (EView 5 User’s Guide, 2004). Hence, for interpretation of parameters the slope co-efficients are transformed (Green, 2003, and Newell and Soren, 2003). For any distribution marginal probabilities are the first derivative but
there is no need to check derivative if covariate is dummy variable (Kirchkamp, 2010).

### 3.7.6 Statistical Significance of Parameters: The Wald Test Statistics

Individual statistical significance of the partial slope coefficient is estimated using Wald statistics with chi-square distribution with degree of freedom equal to number of covariates in the model. It tests the hypothesis for significance of slope coefficient for each predictor. Wald statistics defined as (SAS, 1995 and Afifi et al., 2004):

\[
Wald = \left( \frac{\hat{\beta}}{\sigma(\hat{\beta})} \right)^2
\]

While Wald test statistic used by Field (2005):

\[
Wald = \frac{\hat{\beta}}{\sigma(\hat{\beta})}
\]

### 3.7.7 Goodness of Fit Test of The Logit Model: THE R²

In case of binary dependent variable R^2 is not meaningful to measure goodness of fit. Some other measures are considered to check models with qualitative variables (Maddala, 2007):

\[
pseudoR^2 = \frac{L_{UR}^{2/n} - L_{R}^{2/n}}{(1 - L2/N_R)L_{UR}^{2/n}}
\]

\[
McFaddenR^2 = 1 - \frac{\log L_{UR}}{\log L_R}
\]
\[ \text{count}R^2 = \frac{\text{number of correct predictions}}{\text{total number of observations}} \]

\( R^2 \) ranges from 0 to 1. As \( R^2 \) gets larger, better the goodness of fit would be. This measure depends upon the discrete values of responses and number of observations for each category (Meinel, 2009). Evidence showed that McFadden is a conservative measure while McKelvey-Zavoina’s Pseudo-\( R^2 \) is more closely approximates the \( R^2 \) (Bruderl, 1992).

**3.7.8 Goodness of Fit Test Of The Logit Model: The Pearson Chi-Sq**

Deviations from the saturated model are calculated by pearson chi-square statistic. But p-value of this statistic is useless (Hosmer et al., 1997).

**3.7.9 Goodness of Fit of The Logit Model: The H-O Chi-Sq**

Hosmer and Lemshow (1989) gave goodness of fit test for logistic regression model with binary response variable which divides data into 10 categories of same size based on probabilities. Data is sorted in ascending order of probabilities. Because packages use different algorithms to select cutpoints that decide the deciles and it is also affected by the choice of groups (Hosmer et al., 1997).

**3.7.10 Goodness of Fit Test For Logit Model: The Log-Likelihood Ratio Test**

Likelihood ratio chi-square is the second most frequently used chi-square. It is similar to F-test in testing the significance of all regression coefficients equal to zero (Field, 2005 and Green, 2009). Log-likelihood ratio takes the form (Field, 2005):
\[
\log - \text{likelihood} = \sum_{k=1}^{N} \{Y_k \ln(P(Y_k)) + (1 - Y_k) \ln(1 - P(Y_k))\} \quad \text{or}
\]
\[
\log - \text{likelihood} = 2[\text{LL}_{\text{new}} - \text{LL}_{\text{baseline}}]
\]

Log-likelihood ratio (LLR) depends on sum of probabilities and it identifies the percentage of unexplained information in the model i.e \(\beta_1 = \beta_2 = \ldots = \beta_p = 0\), (Gujrati, 2005). A significant p-value provides the evidence that at least one of the regression coefficients is non-zero (Abdelrahman, 2010).

3.7.11 Measure Of Predictive Accuracy of the Logit Model: Sensitivity And Specificity

Sensitivity measures the accuracy of the prediction of events and specificity measures accuracy of prediction of non-events. These two measures depend upon the chosen value of probability as a yardstick to decide event or non-event. As probability cut point moves from 0 towards 1; the sensitivity decreases and specificity increases. Hence high values of both are desired for accuracy (SAS, 1995).

3.7.12 Measure of Predictive Accuracy: ROC CURVE

If predictive accuracy is high ROC rises sharply and area under the curve is large and vice versa (SAS, 2005 and Weiss, 2008). An arbitrary scale for interpreting area under ROC curve is given by Weiss (2008). If area under ROC curve is above 0.7 than results would be acceptable.

3.7.13 Diagnostic Tests For Multicollinearity

Multicollinearity demonstrates that a portion of the illustrative variables are connected i.e. not free in numerous relapse models.
**CORRELATION COEFFICIENTS**

Multicollinearity can be located by analyzing the specimen relationship coefficients between all sets of free variables in the example through connection framework. The estimation of test ranges between zero to one. As indicated by Gujrati (2005), the general guideline is that if zero-request relationship coefficients between two indicators is high i.e., in overabundance of 0.7 (seventy percent) then the indicators are said to be exceedingly collinear. Any relationship that surpasses 0.7 ought to prompt affirm that collinearity may influence factual results. Anyhow high zero-request connections are a sufficient however not an essential condition for the presence of multicollinearity in light of the fact that it can exist despite the fact that the zero-request or straightforward relationship are similarly low i.e., 0.50. Hence, it is ideal to utilize some other multicollinearity analytic measurements, for example, Variance Inflation Factor (VIF) and Tolerance (TOL).

**VARIANCE INFLATION FACTOR**

Variance Inflation Factor (VIF) measures the seriousness of multicollinearity in a conventional minimum squares relapse examination. VIF gives record that measures how much the difference of an expected relapse coefficient is expanded due to collinearity. There is no formal cutoff to be utilized with VIF for deciding the vicinity of multicollinearity. Anyhow as per Field (2005), if the estimation of VIF surpasses 10, the variable is said to be very collinear. Kutner (2004) clarified that if the estimation of VIF is over five which implies that multicollinearity swelled the standard lapses which lower t-test beneath two which implies that importance level gets to be over 0.05.VIF can be calculated as:
\[ \text{VIF} = \frac{1}{1 - R^2} \]

Where \( R^2 \) is the coefficient of determination obtained from a regression of an independent variable on all remaining independent variables.

- **TOLERANCE**

  Tolerance (TOL) of a variable is characterized as one less the squared various connection of relapse of an autonomous variable on all staying free variables. The estimation of TOL is dependably lies somewhere around zero and one. As indicated by Wooldrige (2009), as the estimation of TOL is near to zero the more noteworthy the level of collinearity of a variable with different regressors. Then again, close the estimation of TOL to one, the more prominent the proof that the variable is not collinear with different repressors.

**3.8 LIMITATIONS OF THE STUDY**

For the collection of reliable data and information every possible effort were made but researcher faced some limitation due to huge geographic spread of area of research and existence of socio cultural values of people of the area while conducting research as:

- Due to financial and time constraint it was not possible to conduct a comprehensive study of all COs of research area, so a representative sample size taken for the purpose of research

- Daily chores of respondent’s life and unavailability of the particular respondents made a large amount of the sampling less feasible.

- Social and cultural norms bound some of female respondents to give
information about all interventions of AJKCDP due to which researcher was unable to collect data for some variables.

- Topography of the researcher area sometimes made it difficult to cover far flung areas of sample districts for data collection.
RESULTS AND DISCUSSION

This chapter myopically synchronizes the results of data analysis in different sections. First section explains the general as well as demographic information of the respondents to show their socioeconomic conditions. In second section, results associated to developmental interventions are explained along with theoretical and policy linkages. Third part shows the poverty estimations of the sampled respondents in terms of before and after scenarios of AJKCDP so as to check the net impact on the welfare of masses. Final section describes the result of Logit model for explaining the effect of various correlates associated to poverty reduction.

4.1 GENERAL INFORMATION OF RESPONDENTS

4.1.1 Age Wise Distribution of Respondents

In order to find out an individual’s ability for taking benefit of the available opportunities, age is considered as an important determinant. It has direct relationship with the responsibilities of the households and the data collected for this variable supports this relationship. The data showed that a great majority of registered members (35.2 percent) belonged to the age group of 36-45 years followed by other group of registered members i.e. 26-35 years (25.5 percent) who were engaged in different developmental activities. While 6.7 percent, 20.9 percent and 14.4 percent of the respondents belonged to the age groups of 15-25, 46-55 and 55+ respectively. Similarly, most of the respondents of non-registered members (31.2 percent) were included in the age group of 36-45 followed by 27.2
percent, 19.4 percent, 15 percent and 7.2 percent who fall in the age groups of 26-36, 46-55, >55 and 15-25 respectively. The diagnostics of field survey revealed that middle aged respondent were more involved in developmental activities as compared to young or old respondents in study area. This finding is contradictory to the observations of Fendru (1995) who claimed that younger respondent’s are usually the member of credit lending groups who were also actively involved in some sort of income generating activities.

4.1.2. Gender Distribution of Respondents

AJKCDP organized both male and female Community Organizations (COs) in all districts of AJK. As sample were randomly drawn from all COs of the selected area so sampled respondents included both male and female respondents. Based on the collected information, gender distribution is presented in Table 4.2 which clearly shows that majority of sampled registered members (61.4 percent) were male while female members were about 38.6 percent. On the other hand, 62.2 percent males and 37.8 percent females were comprised of non registered members.

4.1.3. Literacy Status of Respondents

In the socio-economic development of a country, education plays a pivotal role in refining the welfare level of the people. The positive consequence of a developmental program mostly relies on the literacy rate of the residents of that particular area. Education transforms mindset, behavior and actions of people, so it considered as one of the key motivating factors for development of any society. As more than eighty percent of the population of AJK lives in rural areas and education influences adorably in the development of rural population. Education brings social change, improves the way of living of rural masses and creates
Table 4.1 Age wise distribution of sample respondents

<table>
<thead>
<tr>
<th>Group (Years)</th>
<th>CO members</th>
<th>Non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>15-25</td>
<td>24</td>
<td>6.7</td>
</tr>
<tr>
<td>26-35</td>
<td>92</td>
<td>25.5</td>
</tr>
<tr>
<td>36-45</td>
<td>117</td>
<td>35.2</td>
</tr>
<tr>
<td>46-55</td>
<td>75</td>
<td>20.9</td>
</tr>
<tr>
<td>55+</td>
<td>52</td>
<td>14.4</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.2: Gender distribution of Sample respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>CO members</th>
<th>Non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Female</td>
<td>139</td>
<td>38.6</td>
</tr>
<tr>
<td>Male</td>
<td>221</td>
<td>61.4</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
awareness among them about their rights. It further creates job opportunities for rural people who are deprived and swinging in the lower ladder of development. High literacy rate signifies better future presumptions of any developmental plan or program. The literacy rate of respondents is shown in table 4.2 which indicates that that majority of beneficiaries (79.1 percent) were literate in base year (2004-05) and this rate improved to 80.5 percent in current year (2013-14). While 76.1 percent non-beneficiaries were literate in base year who did not show much improvement (77.1 percent) in their welfare level as compared to beneficiaries. This result contradicts to that of Aneela et al. (2009) in which it has been shown that majority of respondents (73 percent and 77 percent) were illiterate.

4.1.4 Literacy Level of Respondents

Table 4.4a demonstrates the detail of the literacy levels of registered members which shows that in base year, from literate respondents, an overwhelming majority (41.1 percent) was having education of matriculation (10 years of schooling) followed by 17.8 percent, 10.8 percent, 6.7 percent and 3.3 percent having middle, intermediate, primary and above intermediate levels of qualifications respectively. In the same order, in current year, these proportions were 42.2 percent, 17.2 percent, 12.8 percent, 4.7 and 3.6 percent which was showing a little difference. For non-registered members, matriculate respondents were constituted of the larger proportion of literate masses (38.3 percent) which is slightly lower than that of registered members in base year. Other respondents have education of middle, intermediate, primary and above intermediate level qualifications in the proportion of 17.2, 10.0, 9.5 and 1.1 percent respectively in base year while percentage of 16.7, 10.0, 7.2 and 1.6 in current year in
Table 4.3a: Distribution of Registered Members according to Literacy status

<table>
<thead>
<tr>
<th>Group</th>
<th>Base Year (2004-05)</th>
<th>Current Year (2013-14)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Literate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>287</td>
<td>79.7</td>
</tr>
<tr>
<td>Illiterate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>73</td>
<td>20.3</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.3b: Distribution of Non-Registered Members according to Literacy status

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Literate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>137</td>
<td>76.1</td>
</tr>
<tr>
<td>Illiterate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>23.9</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.4a: Distribution of Registered Members Across Literacy Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>73</td>
<td>20.3</td>
<td>70</td>
<td>19.5</td>
</tr>
<tr>
<td>Primary</td>
<td>24</td>
<td>6.7</td>
<td>17</td>
<td>4.7</td>
</tr>
<tr>
<td>Middle</td>
<td>64</td>
<td>17.8</td>
<td>62</td>
<td>17.2</td>
</tr>
<tr>
<td>Metric</td>
<td>148</td>
<td>41.1</td>
<td>152</td>
<td>42.2</td>
</tr>
<tr>
<td>Intermediate</td>
<td>39</td>
<td>10.8</td>
<td>46</td>
<td>12.8</td>
</tr>
<tr>
<td>Above Inter.</td>
<td>12</td>
<td>3.3</td>
<td>13</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.4b: Distribution of Non-Registered Respondents Across Literacy Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>43</td>
<td>23.9</td>
<td>41</td>
<td>22.8</td>
</tr>
<tr>
<td>Primary</td>
<td>17</td>
<td>9.5</td>
<td>13</td>
<td>7.2</td>
</tr>
<tr>
<td>Middle</td>
<td>31</td>
<td>17.2</td>
<td>30</td>
<td>16.7</td>
</tr>
<tr>
<td>Metric</td>
<td>69</td>
<td>38.3</td>
<td>75</td>
<td>41.7</td>
</tr>
<tr>
<td>Intermediate</td>
<td>19</td>
<td>10.0</td>
<td>18</td>
<td>10.0</td>
</tr>
<tr>
<td>Above Inter.</td>
<td>2</td>
<td>1.1</td>
<td>3</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100</td>
<td>180</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
same order. A maximum number of respondents have literacy level of metric (41.7 percent) but it is again slightly less than that of registered members. It shows that more literate people of the area participated in AJKCDP activities, which is clearly reflecting the importance of education in launching such poverty reduction programs.

4.1.5 A Profile of Household Size of Respondents

Family size is another important aspect having effect on income and consumption. Theoretically, there is negative correlation between household size and expenditure/income per person especially in under-developed countries. In current study all persons who lives together and shares meals from a common kitchen comprised a family or household which includes wife, husband, unmarried daughters, sons, mother and father etc. The information of family size of respondents is presented in table 4.4. The data reveals that the average size of family of registered members and non-registered members for base year were 5.42 and 5.31 respectively and for current year these figures are 5.52 and 5.58 respectively both of which are less than the national family size (6.7) (AJK at a glance, 2013). Moreover, family size of non-registered members is somewhat higher than that of registered members. These results are similar to that of Ferdoushi et al. (2011).

4.1.6 A Profile of Family Structure

The term ‘family structure’ shows the pattern of role, ability, position and affiliations within family. The family structure may be in the joint category or in nuclear form. Joint family in current study means an extensive family in which
married brothers and sons live jointly having combined property and contribute to income while nuclear family only consists of a male head, his wife and their kids. The data in table 4.6 illustrate that vast majority (64.7 percent) of registered members belonged to nuclear family and remaining 17.5 percent belong to joint family in base year and this pattern modified to 82.5 percent nuclear families in current year. while non registered members showed the same pattern which shows that trend towards nuclear family structure is increasing. After earthquake of 2005 in districts Bagh and Muzaffarabad, mostly families preferred to live in separate houses by using aid/grant amount for reconstruction due to which nuclear families increased in number.

4.1.7 Income Profile of Households

Economic condition of a household can be fairly indicated by household income. The main sources of income in selected area are from services, agriculture, trading and remittances. The detail of income of registered non registered respondents is presented in table 4.6a and 4.6b which shows that average monthly income of registered members is significantly higher than non-registered members as proved by paired T-Test results see annex 2.

It is deducted from survey that registered members had been involved in different income generation activities and other interventions of AJKCDP due to which their average monthly income per person and per household showed an increase when compared with that of non-registered members. Niaz and Luqman (2005) and Ferdoushi et al. (2011) also concluded the same results showing increased average monthly income of beneficiaries than non beneficiaries who have no access to credit facility of program.
4.1.8 Dependency Ratio of Respondents’ Household

In determining income of a household, percentage of earning persons has been identified as very important variable and it is accepted at worldwide level that as the percentage of earning persons expands in a household, total household income also expands. Dependency ratio is estimated by dividing total number of earning persons of a household by total number of household members. The data in table 4.8 revealed that mean number of earners is slightly more (1.22) for registered member’s household than that of non-registered members (1.21) in base year while in current year this number improved for both categories but improvement is more (1.41) in registered members of AJKCDP than in non members (1.38). This matches with results of Ahmad et al. (2011) which showed more number of earning persons (1.99) in member’s family than non-members family (1.59). Further Table 4.8 presented the dependency ratios of respondent’s families showing slightly higher dependency ratio for non-registered members (0.27) than that of members (0.25). The results are matching to that of Ferdoushi et al. (2011).

4.1.9 Landholding of Sample Respondents

As AJK is characterized by fragmented land structures so mostly land holding is measured in Kanals which is smaller unit than kanals (8 Kanal=1 acre) Table 4.9a shows 34.2 percent registered members in base year and 33.1 percent in current year possess no land. Other figures show that a vast majority (47.8 percent) of registered members belong to the land holding category of 1-10 kanals in base year and this percentage increased to 49.5 percent in current year. Whereas, only 13% and 5% of registered members acquired 11-20 kanals and >20 kanals land
### Table 4.5: Family size of Respondents

<table>
<thead>
<tr>
<th>Categories</th>
<th>Registered Members</th>
<th></th>
<th>Non-Registered Members</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.42</td>
<td>5.52</td>
<td>5.31</td>
<td>5.58</td>
</tr>
<tr>
<td>Min.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Max.</td>
<td>18</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

### Table 4.6a: Family Structure of Registered members

<table>
<thead>
<tr>
<th>Family structure</th>
<th>2004-05</th>
<th>2013-14</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>Joint</td>
<td>127</td>
<td>35.3</td>
<td>63</td>
</tr>
<tr>
<td>Nuclear</td>
<td>233</td>
<td>64.7</td>
<td>297</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
<td>360</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

### Table 4.6b: Family Structure of Non-Registered members

<table>
<thead>
<tr>
<th>Family structure</th>
<th>2004-05</th>
<th>2013-14</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>Joint</td>
<td>64</td>
<td>35.6</td>
<td>31</td>
</tr>
<tr>
<td>Nuclear</td>
<td>116</td>
<td>64.4</td>
<td>149</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100</td>
<td>180</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.7a: Distribution of Registered Members on Monthly Income Basis

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Income of Household/ Month</th>
<th>Total Income of Household/ Month/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9884.17</td>
<td>21399.58</td>
</tr>
<tr>
<td>Min.</td>
<td>3100.0</td>
<td>7350</td>
</tr>
<tr>
<td>Max.</td>
<td>25280.0</td>
<td>53620.0</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.7b: Distribution of Non-Registered Members on Monthly Income Basis Rs.

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Income of Household/ Month</th>
<th>Total Income of Household/ Month/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9386.03</td>
<td>19641.39</td>
</tr>
<tr>
<td>Min.</td>
<td>3100.0</td>
<td>7200</td>
</tr>
<tr>
<td>Max.</td>
<td>25880.0</td>
<td>52420.0</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.8: Distribution of Respondents on the basis of Dependency Ratio:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Registered members</th>
<th>Non-Registered members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earning persons (average No.)</td>
<td>1.22</td>
<td>1.41</td>
</tr>
<tr>
<td>Dependent persons (average No.)</td>
<td>5.43</td>
<td>5.45</td>
</tr>
<tr>
<td>Dependency Ratio (average)</td>
<td>0.25</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
holding category respectively in base year while in current year these figures have
changed to 12.3 and 5.1 kanals in same order. Same is the pattern for non-registered
members with a slight difference that there is more percentage of landless
respondents as compared to registered member as shown in Table 4.1.9b.

4.1.10 Land Use Efficiency of Respondents

It is clear from table 4.9 that more than 60 percent respondents have farm
land holding of different size. This land is further used either for cultivation or left
uncultivated. Table 4.10 presents the division of total farm land between cultivated
and uncultivated area on average and also shows the land use efficiency in base
year and current year for all respondents. Land use efficiency is calculated by
dividing cultivated area by total farm area and it tells about the percentage of land
being utilized for cultivation. Figures show that registered members possessed
more land (6.5 Kanal) on average in base year as compared to that of non
registered members (6.0 Kanal) but land use efficiency is less for members i.e. 64.3
as compared to non members (68 percent). While in current year land use
efficiency increased for members by 0.7 percent and decreased for members by 2
percent which shows probability of positive impact of AJKCDP agriculture related
interventions as registered members utilized more of their land holding for
cultivation when compared with that of base year.

4.1.11 Major Crop Production

Farm land is cultivated in research area for the production of different
crops, the major crops grown in area and average distribution of cultivated area
among different crops are shown in Table 4.11 for respondents. Table also
Table 4.9a: Distribution of Registered members according to Size of Landholding

<table>
<thead>
<tr>
<th>Farm Size (Kanal)</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>0</td>
<td>123</td>
<td>34.2</td>
</tr>
<tr>
<td>1-10</td>
<td>172</td>
<td>47.8</td>
</tr>
<tr>
<td>11-20</td>
<td>47</td>
<td>13</td>
</tr>
<tr>
<td>&gt;20</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

(. 8 kanal = 1 acre, 2.47 acre = 1 hectare, 19.76 kanal = 1 hectare)

Table 4.9b: Distribution of non-registered members Across Landholding

<table>
<thead>
<tr>
<th>Farm Size (Kanal)</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>0</td>
<td>71</td>
<td>39.5</td>
</tr>
<tr>
<td>1-10</td>
<td>79</td>
<td>43.9</td>
</tr>
<tr>
<td>11-20</td>
<td>24</td>
<td>13.3</td>
</tr>
<tr>
<td>&gt;20</td>
<td>6</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.10: Distribution of Respondents According to Land Use Efficiency. (Average)

<table>
<thead>
<tr>
<th>Category</th>
<th>Farm Area (Kanal)</th>
<th>Uncultivated Area (Kanal)</th>
<th>Cultivated Area (Kanal)</th>
<th>Land Use efficiency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.5 6.42</td>
<td>2.33 2.25</td>
<td>4.12 4.18</td>
<td>68 66 -2</td>
</tr>
<tr>
<td>Members</td>
<td>6.0 5.98</td>
<td>1.9 1.96</td>
<td>4.1 4.0</td>
<td>68 66 -2</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Figure 1: Distribution of Respondents According to Land Use Efficiency. (Average)
presented the change in average yield of different crops in current year for registered and non-registered members of the program. It is clear from the table that Wheat, maize, fodder crops and vegetables are mainly grown by respondents in the study area in base and current year. Further it shows that average yield (Maunds/ Kanal) of Wheat, Maize, and vegetables is changed positively for respondents but this increase is more for registered members (12.78 percent, 17.9 percent and 29.11 percent respectively) as compared to that of non-members (10.57 percent, 15 percent, 27.27 percent) in same order except for fodder which remained same (10 percent) for both. It can be concluded that not only the land use efficiency but average crop yield for major crops also increased for registered members more than that of non-members and it is due to the agriculture related interventions of AJKCDP.

These results are in tally with the findings of Khurshid N. (2013) who explored that 35.8 percent of registered respondents of AKRSP reported an increase in vegetable yield per unit area after availing the credit and agricultural related trainings.

4.1.12 Type of House of Respondents

In study area types of houses vary depending on the economic condition of the household. Table 4.12 reflects types of houses of respondents of study area before and after the program. It reflects that there is a drastic change of house type from Kaccha and Hut wooden planks to Pacca and Kaccha/Pacca from base year to current year for respondents. Registered members showed more improvement in house type as compared respondents. Registered members showed more
improvement in house type as compared to non-registered members. According to data presented in table 4.12 Pacca houses increased by 117.3 percent for members as compared to an increase of 96.7 percent for non-members. It shows that members improved their houses more than non-members however maximum percentage of both type of respondents (39.4 percent of members and 36.1 percent of non-members) are living in Kaccha/Pacca type of houses in current year while in base year maximum number lived in Kaccha houses (58.4 percent members and 58.9 percent non members). This change might be due to the fact that after earthquake of 2005 houses were reconstructed on the basis of need of the time. However, beneficiaries showed more improvement than non-beneficiaries and this result matches with the results of the study of Khurshid (2013).

### 4.1.13 Distribution of Respondents On The Basis Of Sanitation Type

Table 4.13a shows type of sanitation used by the registered members in base year and current year and it reflects that in base year an overwhelming majority did not use any latrine i.e. 42.8 percent but in current year 41.7 percent members have latrine inside their houses as compared to 27.2 percent in base year showing 53.1 percent increase. Non members showed almost same sanitation type in base year and shows improvement (48.8 percent) in current year but this improvement is less as compared to members as 35.6 percent have latrine inside their houses.

### 4.1.14 Basic Household Amenities

Household amenities/assets are good indicators of determining the level of poverty of residents and show the quality of life and their levels of income. Data presented in table 4.15 shows that most of respondents have access to electricity in
Table 4.11a: Distribution of Registered members according to major crop production

<table>
<thead>
<tr>
<th>Crops</th>
<th>2004-05 Average</th>
<th>2013-14 Average</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cultivated</td>
<td>Production</td>
<td>Yield</td>
</tr>
<tr>
<td>Wheat</td>
<td>3.03</td>
<td>4.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Maize</td>
<td>3.80</td>
<td>5.53</td>
<td>1.45</td>
</tr>
<tr>
<td>Fodder</td>
<td>0.01</td>
<td>.05</td>
<td>5</td>
</tr>
<tr>
<td>Vegetable</td>
<td>0.50</td>
<td>.79</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.11b: Distribution of non-Registered members according to major crop production

<table>
<thead>
<tr>
<th>Crops</th>
<th>2004-05 Average</th>
<th>2013-14 Average</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cultivated</td>
<td>Production</td>
<td>Yield</td>
</tr>
<tr>
<td>Wheat</td>
<td>2.87</td>
<td>3.74</td>
<td>1.30</td>
</tr>
<tr>
<td>Maize</td>
<td>3.68</td>
<td>5.32</td>
<td>1.44</td>
</tr>
<tr>
<td>Fodder</td>
<td>0.01</td>
<td>.05</td>
<td>5</td>
</tr>
<tr>
<td>Vegetable</td>
<td>0.46</td>
<td>.76</td>
<td>1.65</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.12a: Distribution of Registered Members according to type of houses

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacca</td>
<td>52</td>
<td>14.4</td>
<td>113</td>
<td>31.4</td>
<td>61</td>
<td>117.3</td>
</tr>
<tr>
<td>Katcha/Pacca</td>
<td>79</td>
<td>21.9</td>
<td>142</td>
<td>39.4</td>
<td>63</td>
<td>79.8</td>
</tr>
<tr>
<td>H.Wooden Planks</td>
<td>18</td>
<td>5.0</td>
<td>2</td>
<td>0.6</td>
<td>-16</td>
<td>-88.9</td>
</tr>
<tr>
<td>Katcha</td>
<td>210</td>
<td>58.4</td>
<td>102</td>
<td>28.3</td>
<td>-108</td>
<td>-51.4</td>
</tr>
<tr>
<td>Any Other</td>
<td>1</td>
<td>0.3</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>360</strong></td>
<td><strong>100</strong></td>
<td><strong>360</strong></td>
<td><strong>100</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.12b: Distribution of Non-Registered Members according to type of houses

<table>
<thead>
<tr>
<th>Category</th>
<th>2004 Frequency</th>
<th>2004 Percent</th>
<th>2013 Frequency</th>
<th>2013 Percent</th>
<th>Change Frequency</th>
<th>Change Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacca</td>
<td>30</td>
<td>16.7</td>
<td>59</td>
<td>32.8</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>Katcha/Pacca</td>
<td>38</td>
<td>21.1</td>
<td>65</td>
<td>36.1</td>
<td>27</td>
<td>71</td>
</tr>
<tr>
<td>H.Wooden Planks</td>
<td>6</td>
<td>3.3</td>
<td>3</td>
<td>1.7</td>
<td>-3</td>
<td>-50</td>
</tr>
<tr>
<td>Katcha</td>
<td>106</td>
<td>58.9</td>
<td>53</td>
<td>29.4</td>
<td>-53</td>
<td>-50</td>
</tr>
<tr>
<td>Any Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180</strong></td>
<td><strong>100</strong></td>
<td><strong>180</strong></td>
<td><strong>100</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.13a: Distribution of Registered Members according to type of Sanitation

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latrine inside House</td>
<td>98</td>
<td>27.2</td>
<td>150</td>
<td>41.7</td>
<td>52</td>
<td>53.1</td>
</tr>
<tr>
<td>Common Latrine in Compound</td>
<td>84</td>
<td>23.3</td>
<td>88</td>
<td>24.4</td>
<td>4</td>
<td>4.8</td>
</tr>
<tr>
<td>Pit or Dry Raised</td>
<td>22</td>
<td>6.1</td>
<td>20</td>
<td>5.6</td>
<td>-2</td>
<td>-9.1</td>
</tr>
<tr>
<td>No Latrine/In Open</td>
<td>154</td>
<td>42.8</td>
<td>101</td>
<td>28.1</td>
<td>-53</td>
<td>-34.4</td>
</tr>
<tr>
<td>Any Other</td>
<td>2</td>
<td>0.6</td>
<td>1</td>
<td>0.3</td>
<td>-1</td>
<td>-50</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100</td>
<td>360</td>
<td>100</td>
<td>-1</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.13b: Distribution of Non-Registered Members according to type Sanitation

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latrine inside House</td>
<td>43</td>
<td>23.9</td>
<td>64</td>
<td>35.6</td>
<td>21</td>
<td>48.8</td>
</tr>
<tr>
<td>Common Latrine in Compound</td>
<td>48</td>
<td>26.7</td>
<td>49</td>
<td>27.2</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Pit or Dry Raised</td>
<td>11</td>
<td>6.1</td>
<td>9</td>
<td>34.4</td>
<td>-2</td>
<td>-18.2</td>
</tr>
<tr>
<td>No Latrine/In Open</td>
<td>77</td>
<td>42.8</td>
<td>57</td>
<td>31.7</td>
<td>-20</td>
<td>-25.9</td>
</tr>
<tr>
<td>Any Other</td>
<td>1</td>
<td>0.6</td>
<td>1</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100</td>
<td>180</td>
<td>100</td>
<td>-1</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
base year and current year followed by, radio, television. It further reflects limited access to other household amenities like refrigerator, telephone, computer, washing machine, motorcycle and, cars in base year. In current year situation improved both for members and non members but showing lit bit better situation for beneficiaries.

4.2 CLASSIFICATION OF INTERVENTIONS OF AJKCDP

AJKCDP has launched number of interventions for the developmental of the study area by empowering poor households but provided through formation of community organizations at village level. Data from AJKCDP published material showed that about 70 percent of total COs formed in all districts of AJK are strengthened covering approximately percent of rural population (AJKCDP, 2013). Table 4.16 shows categories of different interventions and their distribution among registered CO members of AJKCDP. Program’s interventions are divided in four broad categories: Credit Pool, Natural Resource Management (NRM), Infrastructure and Trainings. Table further shows that 42.5 percent of members have availed Credit Pool facility, 39.2 percent members availed NRM and Infrastructure each while 91 percent have availed different types of Trainings. NRM, infrastructure schemes and trainings are further divided into different categories and are described in detail in next sub sections. The field staff of AJKCDP made regular visits and arranged meetings in order to mobilize the targeted beneficiaries about the impact of these interventions and unite them for joint venture. The achievements of all developmental programs of AJKCDP rested on community participation.

4.2.1 Credit Pool Intervention:

Purchasing power of poor population of developing nations should be enhanced to
Table 4.14: Distribution According to Basic Amenities in Respondents’ House

<table>
<thead>
<tr>
<th>Amenities</th>
<th>Registered Members</th>
<th></th>
<th>Non-registered Members</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Electricity</td>
<td>264</td>
<td>73.3</td>
<td>325</td>
<td>90.3</td>
</tr>
<tr>
<td>Radio</td>
<td>322</td>
<td>89.4</td>
<td>320</td>
<td>88.9</td>
</tr>
<tr>
<td>Television</td>
<td>202</td>
<td>56.1</td>
<td>296</td>
<td>82.2</td>
</tr>
<tr>
<td>Freezer</td>
<td>75</td>
<td>20.8</td>
<td>176</td>
<td>48.9</td>
</tr>
<tr>
<td>Telephone</td>
<td>94</td>
<td>26.1</td>
<td>330</td>
<td>91.7</td>
</tr>
<tr>
<td>Computer</td>
<td>12</td>
<td>3.3</td>
<td>34</td>
<td>9.4</td>
</tr>
<tr>
<td>Washing machine</td>
<td>29</td>
<td>8</td>
<td>51</td>
<td>14.2</td>
</tr>
<tr>
<td>Bicycle</td>
<td>2</td>
<td>0.6</td>
<td>9</td>
<td>2.5</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>1</td>
<td>0.3</td>
<td>12</td>
<td>3.3</td>
</tr>
<tr>
<td>Car</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Table 4.15: Distribution of Registered Members According to Interventions Availed:

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>%age</th>
<th>No</th>
<th>%age</th>
<th>Total</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td></td>
<td>No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Pool</td>
<td>153</td>
<td>42.5</td>
<td>207</td>
<td>57.5</td>
<td>360</td>
<td>100</td>
</tr>
<tr>
<td>NRM</td>
<td>141</td>
<td>39.2</td>
<td>219</td>
<td>60.8</td>
<td>360</td>
<td>100</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>141</td>
<td>39.2</td>
<td>219</td>
<td>60.8</td>
<td>360</td>
<td>100</td>
</tr>
<tr>
<td>Trainings</td>
<td>91</td>
<td>25.3</td>
<td>269</td>
<td>74.7</td>
<td>360</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
bring betterment in their living conditions. In this way the poverty can be reduced by empowering rural communities. This goal could be achieved through provision of micro-credit to rural communities which has been proved to be an essential method of socioeconomic uplift by enhancing their purchasing power. In the state of Azad Jammu and Kashmir, AJKCDP providing micro-credit through developing a credit pool between CO members and AJKCDP with an aim to reduce poverty.

The loan amount is determined by the amount of saving of particular CO i.e. AJKCDP provided double of the amount saved by CO and is dispersed on need based mechanism. In this way loan is provided to different members of that CO for some specific purpose like purchase of livestock, purchase of input or to start some new business etc. Table 4.16 shows that an overwhelming majority (57.5 percent) of registered members availed this facility for different purposes.

4.2.2 Distribution of Natural Resource Management Related Interventions:

Natural resource management component is further divided into three types of interventions i.e. poultry, Agriculture and Livestock related interventions were carried out by the Program to reduce the poverty of beneficiaries.

Table 4.16a shows that out of total members who have availed NRM interventions, a vast majority (48 percent) has availed livestock related interventions in which goats and cows are distributed among selected needy members so that they can increase their income. 37 percent registered respondents have availed poultry related interventions in which live birds were distributed to CO members. Only 21 percent members availed agriculture related activities like Kitchen gardening, demo plots showing a little response of registered members.
4.2.3 Distribution of Infrastructure Related Interventions:

The rural economic and social infrastructure development supported by the program is further divided in different schemes as listed in Table 4.16b. These physical interventions of the Program did not materially benefit the members but played very important role to provide comfort in their life by one way or the other. The table further shows that 22.6 percent members have availed drinking water supply schemes while road and footpath facilities were availed by 21.3 percent members each, followed by other interventions like irrigation channel, hand pump, water storage tank, first aid posts, primary school and demo latrine in small percentages (app. 4-6 percent).

4.2.4 Distribution of Trainings Related Interventions

Training component was a major intervention for capacity building of registered members of rural areas so as to focus their behavioral changes and to increase the household incomes. Trainings are further divided into three main categories of capacity building, service provider and most important income generating trainings. These are then further sub categorized as shown in Table 4.16c which reflects the distribution of CO members according to trainings availed.

4.2.5 Level of Satisfaction of Respondents towards Interventions Availed

In order to check response of registered members towards different intervention which they availed, a scale was developed and their responses about satisfaction level towards different interventions were estimated through frequencies and percentages. It was analyzed that only a small proportion of beneficiaries (8 percent) who availed credit facility was dissatisfied while a great
### Table 4.16a. Distribution according to types of NRM Availed by Members:

<table>
<thead>
<tr>
<th>Category</th>
<th>Interventions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Resource Management</td>
<td>Poultry</td>
<td>52</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Agriculture</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Livestock</td>
<td>68</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>141</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

### Table 4.16b. Distribution according to types of Infrastructure Facility Availed

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking Water Supply Scheme</td>
<td>32</td>
<td>22.6</td>
</tr>
<tr>
<td>Road Facility</td>
<td>30</td>
<td>21.3</td>
</tr>
<tr>
<td>Water Storage Tank</td>
<td>8</td>
<td>5.7</td>
</tr>
<tr>
<td>Foot Path</td>
<td>30</td>
<td>21.3</td>
</tr>
<tr>
<td>Irrigation Channel</td>
<td>8</td>
<td>5.8</td>
</tr>
<tr>
<td>Hand Pump</td>
<td>8</td>
<td>5.8</td>
</tr>
<tr>
<td>Dug Well</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>First Aid Post</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Primary Schools</td>
<td>7</td>
<td>4.9</td>
</tr>
<tr>
<td>Demo Latrine</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>141</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.16c. Distribution according to types of Trainings Availed by Members:

<table>
<thead>
<tr>
<th>Category</th>
<th>Trainings</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO Capacity Building Trainings</strong></td>
<td>Community management skill</td>
<td>13</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Credit pool management</td>
<td>20</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>Leadership &amp; management skill</td>
<td>6</td>
<td>6.6</td>
</tr>
<tr>
<td><strong>Services provider Trainings</strong></td>
<td>Poultry Management Trainings</td>
<td>15</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td>Deworming Training</td>
<td>4</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Kitchen Gardening</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Income Generation /Vocational Trainings</strong></td>
<td>Embroidery/Fabric Painting</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Tailoring</td>
<td>13</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Electrician /Plumber</td>
<td>9</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>Computer Training</td>
<td>4</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Kitchen Gardening</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>91</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14
Table 4.17: Distribution of AJKCDP’s Interventions and Respondent’s Level of satisfaction

<table>
<thead>
<tr>
<th>Category</th>
<th>Great extent</th>
<th>Some extent</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Credit Pool</td>
<td>78</td>
<td>51</td>
<td>60</td>
<td>39</td>
</tr>
<tr>
<td>NRM</td>
<td>69</td>
<td>49</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>40</td>
<td>28</td>
<td>81</td>
<td>57</td>
</tr>
<tr>
<td>Trainings</td>
<td>20</td>
<td>22</td>
<td>21</td>
<td>23</td>
</tr>
</tbody>
</table>

Source: Own calculations from data of Field Survey 2013-14

Table 4.18: Unidimensional Poverty (Absolute) Estimates of Respondents (Expenditure Based)

<table>
<thead>
<tr>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H₀</td>
<td>H₁</td>
</tr>
<tr>
<td>Registered</td>
<td>0.35</td>
<td>0.26</td>
</tr>
<tr>
<td>Non-Registered</td>
<td>0.37</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
majority was satisfied to great extent (51 percent) and remaining (39 percent) were satisfied to some extent. It proves that credit pool was a successful intervention carried by AJKCDP furthermore information acquired from Program staff also showed that recovery of loans was also satisfactory and as it was their policy to approve loan to any CO on the basis of amount of their saving. This saving provides not only provide security but also motivate CO members to produce their own resources for sustainable community development.

Satisfaction level towards NRM according to Table 4.17 reflects that an overwhelming majority i.e. 49 percent of members were satisfied to great extent. It was observed while surveying that provision of poultry birds and kitchen gardening related interventions were very appreciated by beneficiaries as it helped them in earning and saving in short time period. On the other hand 21 percent members showed dissatisfaction towards NRM.

Member’s response towards infrastructure related interventions as shown by Table 4.17 reveals that 28 percent were satisfied to great extent while a great majority (57 percent) was satisfied to some extent and only 14 percent were not satisfied at all. Although this component did not materially benefit the communities but provided comfort to their life by one way or the other. Overall this component was rated as satisfactory (AJKCDP, 2013).

As far as capacity building component of AJKCDP was concerned, a vast majority of registered respondents (55 percent) was not satisfied because mostly CO members of same village were trained on same trade resulting in saturation of skilled or trained individuals in same locality and skills of those who could not go
out of the village remained unutilized. Furthermore, some of the participants did not in need of getting that training so the efforts of the AJKCDP staff were wasted. Only 22 percent trainees were satisfied to great extent and 23 percent were to some extent. As per understanding, training alone did not lead to development. There should be proper mobilization and financial assistance for specific uses of training (Subair, 2003).

4.3 Poverty Estimation of Respondents in AJK

In this section result of poverty estimations are discussed in detail for both registered and non registered members in base year and in current year scenarios.

4.3.1 Unidimensional (Absolute) Poverty Estimation:

The results of unidimensional poverty estimations are presented in Table 4.18 showing incidence $H_0$, intensity $H_1$ and severity of poverty $H_2$ in base year and current year for respondents. It shows 35 percent incidence, 2.6 percent intensity and 0.3 percent severity of poverty for registered members in base year while in current year incidence of poverty decreased to 29 percent and intensity and severity of poverty changed to 2.9 percent and 0.4 percent respectively. In case of non-registered members, $H_0$, $H_1$ and $H_2$ are estimated as 37 percent, 2.6 percent and 0.35 percent respectively in 2004-05 and these values changed to 34 percent, 3.1 percent and 0.4 percent in current year in same order. When these poverty estimates are compared for all respondents it is clear that non-registered members are suffering from more poverty incidence. Khurshid and Abdul (2013) concluded the same results that incidence of poverty for households having credit facility from AKRSP is lower than the households without credit facility. Table 4.18 further reveals that
poverty decreases for both type of respondents but this decrease is high for registered members then for non registered members.

4.3.2 Difference of the Difference in Absolute Unidimensional Poverty

For the purpose of comparison difference in poverty for registered and non registered members between base year and current year is calculated and then difference of the difference is also computed as shown in Table 4.19 reflects that poverty incidence decreased in study area for all respondents with the passage of time i.e. from 35 percent to 29 percent for members and 37 percent to 34 percent for non members but this decrease is 3 percent more in registered members than non registered members. These results are in tally with that of Nasim and Aman (2009) as they checked the overall impact of microcredit and estimated a reduction in unidimensional poverty by 2.23 percent thus concluding a positive impact. Therefore, they suggested the extension of micro credit scheme of PPAF through participatory organizations across the country level to all clusters suffering from poverty. Similarly, Rashid (2008) concluded the same results that PFCAD project positively effect on agriculture sector and reduced all indicators of absolute poverty after the program than in Baluchistan thus showing overall positive impact. As far as intensity and severity of poverty, there is a minor increase for all respondents as shown in table 4.18.

4.3.3 Unidimensional (Relative) Poverty Estimation of Respondents

As unidimensional poverty can also be calculated by using relative poverty line estimated by taking average expenditures of respondents. Table 4.20 shows the results of relative unidimensional poverty and it shows that $H_0$ is 50.8 percent for
registered members in base year and it increased to 53.8 percent in current year while this incidence of poverty is 50 percent for nonregistered members in base year and increased to 56 percent in current year showing more increase in poverty for non-registered members as compared to registered ones. Relative poverty shows the inequality among the respondents meaning that the rich became richer and poor became poorer with the passage of time and this result is in accordance with overall world poverty scenario.

4.3.4 Difference of the Difference for Relative Unidimensional Poverty

Table 4.21 shows the net difference in poverty of both type of respondents before and after the program and it revealed that incidence of poverty is increased by 3 percent for registered members and it increased by 6 percent for nonregistered members in current year. It proved that poverty increase in beneficiaries of AJKCDP (3 percent) is less than that of non beneficiaries i.e. 6 percent and this result matches with that of Khurshid and Abdul (2013) who showed a less increase in poverty of registered members of AKRSP when compared with non members.

4.4 MULTIDIMENSIONAL POVERTY ESTIMATION

Information regarding incidence of poverty, depth and severity of poverty can be provided by mapping multidimensional poverty which can further be utilized to provide information for decision making and then to design interventions from local level to national level (Akinyemi, 2010). As there is an increase in poverty reduction programs funded by the GOs and/or NGOs which have created a demand to estimate multidimensional poverty for the future policy intervention.
Table 4.19: Difference of the Difference in absolute unidimensional Poverty (%)

<table>
<thead>
<tr>
<th>Categories</th>
<th>2004-05</th>
<th>2013-14</th>
<th>Difference of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H₀</td>
<td>H₁</td>
<td>H₂</td>
</tr>
<tr>
<td>Registered</td>
<td>35</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Non-registered</td>
<td>37</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Difference</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
Table 4.20: Unidimensional Poverty (Relative) Estimates of Respondents (Expenditure Based)

<table>
<thead>
<tr>
<th>Category</th>
<th>2004-05</th>
<th></th>
<th>2013-14</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H₀</td>
<td>H₁</td>
<td>H₂</td>
<td>H₀</td>
</tr>
<tr>
<td>Registered</td>
<td>0.508</td>
<td>0.127</td>
<td>0.038</td>
<td>0.538</td>
</tr>
<tr>
<td>Non-Registered</td>
<td>0.500</td>
<td>0.127</td>
<td>0.037</td>
<td>0.560</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14

Table 4.21: Difference of the Difference in Relative unidimensional Poverty (%)

<table>
<thead>
<tr>
<th>Categories</th>
<th>2004-05</th>
<th></th>
<th>2013-14</th>
<th></th>
<th>Difference of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H₀</td>
<td>H₁</td>
<td>H₂</td>
<td>H₀</td>
<td>H₁</td>
</tr>
<tr>
<td>Registered</td>
<td>50.8</td>
<td>12.7</td>
<td>3.8</td>
<td>53.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Non-registered</td>
<td>50.0</td>
<td>12.7</td>
<td>3.7</td>
<td>56.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Difference</td>
<td>0.8</td>
<td>0</td>
<td>0.1</td>
<td>2.2</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
Table 4.22: Multi-dimensional Poverty Indices of AJK (Equal & Alternate Weight basis)

<table>
<thead>
<tr>
<th>Dimensions &amp; weights</th>
<th>Category</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$H_0$</td>
<td>$M_0$</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>.564</td>
<td>.434</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Members</td>
<td>.578</td>
<td>.405</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.600</td>
<td>.417</td>
</tr>
<tr>
<td>Living stand 0.33</td>
<td>Members</td>
<td>.647</td>
<td>.534</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.794</td>
<td>.526</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>.661</td>
<td>.451</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.600</td>
<td>.451</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>.647</td>
<td>.534</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.794</td>
<td>.526</td>
</tr>
<tr>
<td>Living stand 0.25</td>
<td>Members</td>
<td>.661</td>
<td>.451</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.600</td>
<td>.451</td>
</tr>
</tbody>
</table>

Source: Own Estimations from Data of Field Survey 2013-14
4.4.1 Multidimensional Poverty Estimates of Respondents for AJK

In context of current study multidimensional poverty is mapped keeping in view the same aspect of future policy derivatives. So by following Alkire et al., 2011 methodology it was attempted to calculate multidimensional poverty of respondents for the first time in AJK. Table 4.22 shows the results of multidimensional poverty estimations on equal and nested weight basis and it is clear that giving equal weights to all dimensions, Adjusted head count ratio/incidence of poverty $M_0$ for members was 43.4 percent in base year and it decreases to 28.4 percent in current year. On the other hand $M_0$ for non members decreases from 43.5 percent to 34.2 percent showing a less decrease in poverty when compared with that of members. The reasons for this decline seem to be the improvement in education and living standards with the passage of time.

As far as depth of multidimensional poverty/ adjusted poverty gap i.e. $M_1$ is concerned, it is almost equal for both categories of respondents (almost 27 percent) in base year and decreases in current year for both, while this decrease is more for members (18 percent) than for non members (25 percent) reflecting members are having better distribution of resources of life than nonmembers. These circumstances of multidimensional poverty depth are helpful to draw an important policy lesson that there should be an equal distribution of resources among the poorest segment of the area on priority basis and such anti poverty programs would be helpful in future thus positive impact of Program is being concluded on beneficiaries.

As far as adjusted squared poverty gap/severity of multidimensional
poverty $M_2$ is concerned table 4.22 shows a decline for both categories but again this decrease is more (20 percent to 11 percent) for members than for non members (21 percent to 19 percent) which proved that AJKCDP helped in reducing the poverty of registered members more.

Different weights are assigned to dimensions of education, health and living standards to check separate effect of these dimensions in poverty profile of respondents. Education was assigned a weight of 0.5 while 0.25 weight was assigned to other two dimensions each to trace multidimensional poverty it is found that situation is better than with that of equal weights as $M_0$ decreased from 40.5 to 21 percent and 41.7 to 29.6 percent for registered and non registered members respectively (Table 4.22). It reflects that education status of residents of AJK is not very bad as literacy rate for AJK is about 70 percent (AJK at a glance, 2013) that’s why when education is given 50 percent weight then multidimensional poverty figures showed improvements. It can be concluded that education played an important role in reducing overall multidimensional poverty milieu in AJK especially for members of CDP and also showing more participation of literate persons in such Programs.

Table 4.22 further tells us the result of multidimensional poverty estimates when second dimension health is given more weight (0.5) than other dimensions (0.25) surprising results were obtained as $M_0$ was above fifty percent i.e. 53.4 percent and 52.6 percent in base year and increased to 54 percent and 53.6 percent in current year for beneficiaries and non beneficiaries of the program respectively. It reflects that health conditions are very poor in the study area due to which health
poverty shows chronic figures regardless of members and non members. The reason behind it is that AJKCDP established only few First Aid Posts and among sampled members only 4.2 percent have availed this facility showing no improvement in this dimension. Published data of AJK about limited health facilities available in the country (AJK at a Glance, 2013) also support this finding which put emphasis on giving special attention to this sector both by government and non government funded programs. Depth and severity of poverty $M_1$ and $M_2$ slightly varied from base to current year for all respondents with the passage of time, further necessitating the strong attention on improving health conditions of the residents of AJK by providing equal health facilities to all population.

Finally dimension of living standards is given 0.5 weight and table reflects the multidimensional poverty milieu, according to which $M_0$, $M_1$ and $M_2$ for all sampled respondents showed improvements with time especially for members reflecting an overall positive impact of program. It means that house and housing facilities are improved in study area which reduces poverty to great extent.

### 4.4.1.1 Contribution of Dimensions in MDP Index for AJK

Table 4.23 shows the relative contribution of different dimensions of education, health and living standard to incidence $M_0$, depth $M_1$ and severity $M_2$ when equal weights are assigned to them. Contribution of dimension in MDP index tells the percentage of a particular dimension which contributes in poverty estimates “$M_0$, $M_1$, and $M_2$”. Table is reflecting that the share of education is lowest (18.8 percent) in $M_0$ in base year for all respondents while in current year contribution of living standard of members towards $M_0$ is minimum showing
members are less deprived in this dimension. On the other hand health is the
dimension which contributed maximum to \( c \) for non members in base year (42.55
percent) and as well in current year (45.58 percent) showing poor health
conditions. Education contributed highest in depth and severity of
multidimensional poverty computed with equal weights and it is because the lowest
category in education is illiterate respondents having 0 year of schooling so it is
reflected in more depth and severity of poverty proving education dimension an
important attacking side for poverty reduction. When MDP index is computed
varying the weight of each dimension then contribution of each dimension to
poverty estimates also varied as shown in tables 4.24, table 4.25 and table 4.26.

The above mentioned results portrayed the picture of multidimensional
poverty for all sampled districts of AJK but it would be helpful if all the districts be
examined separately for drawing some important policy implications which would
be area as well as dimension based. Furthermore, out of sampled four districts two
(Bagh and Muzaffarabad) are 2005 earthquake hit areas so examining district wise
poverty became more crucial for developing some district based policies.

4.4.2 MDP Index of Respondents for District Bagh

MDP index was estimated for district Bagh following same method as for AJK,
assigning same weights and nested weights for all dimensions and figures obtained
are presented in Table 4.27. The table depicts that when computed with equal
weights of dimensions, adjusted head count ratio is 37.5 percent for “registered
members” in base year and it decreased to 25.9 percent in current year while for
“non-registered members” it was 36.5 percent in base year and declined to 27.5
percent
Table 4.23: Contribution of Dimensions in MDP estimates of equal weights.

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Education</td>
<td>Members</td>
<td>18.8</td>
<td>35.63</td>
</tr>
<tr>
<td>0.333</td>
<td>Non-Members</td>
<td>23.40</td>
<td>28.33</td>
</tr>
<tr>
<td>Health</td>
<td>Members</td>
<td>40.44</td>
<td>25.76</td>
</tr>
<tr>
<td>0.333</td>
<td>Non-Members</td>
<td>42.55</td>
<td>31.72</td>
</tr>
<tr>
<td>Living Standard</td>
<td>Members</td>
<td>40.72</td>
<td>38.60</td>
</tr>
<tr>
<td>0.333</td>
<td>Non-Members</td>
<td>34.04</td>
<td>39.95</td>
</tr>
</tbody>
</table>

Source: Own Estimations from Data of Field Survey 2013-14

Table 4.24: Contribution of Dimensions to MDP Indices for Alternate Weight

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Education</td>
<td>Members</td>
<td>33.26</td>
<td>54.31</td>
</tr>
<tr>
<td>0.50</td>
<td>Non-Members</td>
<td>40.0</td>
<td>46.50</td>
</tr>
<tr>
<td>Health</td>
<td>Members</td>
<td>33.26</td>
<td>18.29</td>
</tr>
<tr>
<td>0.25</td>
<td>Non-Members</td>
<td>33.33</td>
<td>23.67</td>
</tr>
<tr>
<td>Living Standard</td>
<td>Members</td>
<td>33.49</td>
<td>27.40</td>
</tr>
<tr>
<td>0.25</td>
<td>Non-Members</td>
<td>26.67</td>
<td>29.82</td>
</tr>
</tbody>
</table>

Source: Own Estimations from Data of Field Survey 2013-14
### Table 4.25: Contribution of Dimensions to MPI for Alternate Weight 2 (%)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th></th>
<th>2013-14</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
</tr>
<tr>
<td><strong>Health 0.50</strong></td>
<td>Members</td>
<td>66.35</td>
<td>51.65</td>
<td>39.63</td>
<td>77.51</td>
<td>67.77</td>
<td>54.51</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>67.07</td>
<td>60.01</td>
<td>48.99</td>
<td>79.27</td>
<td>70.76</td>
<td>59.93</td>
</tr>
<tr>
<td><strong>Education 0.25</strong></td>
<td>Members</td>
<td>10.64</td>
<td>23.21</td>
<td>37.66</td>
<td>9.81</td>
<td>22.17</td>
<td>38.24</td>
</tr>
<tr>
<td><strong>Living Standard 0.25</strong></td>
<td>Members</td>
<td>23.0</td>
<td>25.14</td>
<td>22.71</td>
<td>11.68</td>
<td>10.06</td>
<td>7.25</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>17.74</td>
<td>23.40</td>
<td>28.10</td>
<td>11.22</td>
<td>9.53</td>
<td>7.94</td>
</tr>
</tbody>
</table>

Source: Own Estimations from Data of Field Survey 2013-14

### Table 4.26: Relative Contribution of Dimensions to MPI for Alternate Weight (3%)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th></th>
<th>2013-14</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
</tr>
<tr>
<td><strong>Living Standard 0.50</strong></td>
<td>Members</td>
<td>67.08</td>
<td>64.41</td>
<td>55.99</td>
<td>55.72</td>
<td>43.95</td>
<td>28.99</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>65.10</td>
<td>58.70</td>
<td>61.60</td>
<td>57.32</td>
<td>41.65</td>
<td>37.84</td>
</tr>
<tr>
<td><strong>Education 0.25</strong></td>
<td>Members</td>
<td>10.46</td>
<td>20.66</td>
<td>33.08</td>
<td>17.01</td>
<td>35.08</td>
<td>55.24</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>16.92</td>
<td>19.49</td>
<td>23.41</td>
<td>23.37</td>
<td>41.42</td>
<td>53.10</td>
</tr>
<tr>
<td><strong>Health 0.25</strong></td>
<td>Members</td>
<td>22.46</td>
<td>64.41</td>
<td>10.93</td>
<td>27.27</td>
<td>20.97</td>
<td>15.77</td>
</tr>
</tbody>
</table>

Source: Own Estimations from Data of Field Survey 2013-14
Although the incidence of poverty estimates show a decrease for both respondents but this decrease is more for beneficiaries of the program than that of non beneficiaries and it reflects members of program are having better living conditions than non members after completion of program. Adjusted poverty gap decreased with time from 20.8 percent to 11.5 percent for members and from 21.7 percent to 15.2 percent for non members and similarly adjusted squared poverty gap declined from 14.5 percent to 8.1 percent and from 14.3 percent to 9.1 percent in same order showing slight difference for respondents. On overall basis it can be concluded that MDP index decreased for “registered members” proving that different interventions of program helped respondents to improve their standard of life more than non members.

Dimension of education is then assigned more weight (0.5) and M₀ calculated further decreased for all respondents than that calculated with equal weight (0.3) i.e. 34.4 percent for “members” in base year which declined to 24.4 percent in current year while changed from 35.6 percent to 29.6 percent for “non members”. It means that registered members of AJKCDP are better off in dimension of education than others in the area thus reducing MDP figures in district Bagh further it proves that improvement in literacy rate can decrease poverty level to great extent. Similar results were given by Batana (2008) who calculated multidimensional poverty in different Sub-Saharan countries following Alkire and Foster (2007) methodology using institutive, regional and dimensional decomposable measures and concluded same that schooling is the utmost contributor in multidimensional poverty of almost all the countries. When health dimension has given 0.5 weight then quit changed results are obtained showing
### Table 4.27: Multi-dimensional Poverty Indices of Respondents of District Bagh

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H₀</td>
<td>M₀</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>.500</td>
<td>.375</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Non-Members</td>
<td>.511</td>
<td>.365</td>
</tr>
<tr>
<td>Living stand. 0.33</td>
<td>Members</td>
<td>.512</td>
<td>.344</td>
</tr>
<tr>
<td>Living stand. 0.25</td>
<td>Non-Members</td>
<td>.523</td>
<td>.356</td>
</tr>
<tr>
<td>Education 0.50</td>
<td>Members</td>
<td>.681</td>
<td>.484</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Non-Members</td>
<td>.652</td>
<td>.479</td>
</tr>
<tr>
<td>Living stand. 0.25</td>
<td>Members</td>
<td>.725</td>
<td>.509</td>
</tr>
<tr>
<td>Living stand. 0.50</td>
<td>Non-Members</td>
<td>.699</td>
<td>.499</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
48.4 percent and 47.9 percent $M_0$ in base year which changed slightly to 47.2 percent and 49.9.9 percent in current year for members and nonmembers respectively. It shows poor health conditions of the area as people are more deprived in this dimension. 2005 earthquake might be one of the reason because a devastating destruction was being done during that time which ultimately adversely affected the health facilities too. Some medical units were established soon after earthquake for the habitants but were not permanent e.g. Qatar Hospital was established in the district for three years only. Existing health units are not fulfilling the needs and people have to travel for longer distances for treatments. Furthermore, diseases increased in number like hepatitis, cancer etc. and other water borne and viral diseases are spreading day by day making situation worst. Therefore, health poverty needs to be curbed by taking serious measures to provide more health institutions/facilities to the existing one which are 3 Hospitals with 250 beds, 5 Rural Health Centers with 60 beds and 15 Basic Health Units/ Dispensaries with only 30 beds (AJK at a Glance, 2013). As there were not much health related interventions provided by “AJKCDP” so situation is more or less same for both members and non members with slight improvement shown for members in current year. As far $M_1$ and $M_2$ are considered the estimates showed some positive changes with time.

Finally when living standard is assigned more weight, then table 4.27 reflects that in base year $M_0$ is 50.9 and 49.9 % and it tremendously reduced to 29.7 percent and 32.1 percent for “members and non members” respectively. It seems that after 2005 earthquake living conditions of the residents were improved for all respondents but more for members showing positive impact of the program. The
reason behind this improvement is that after 2005 earthquake many governmental and nongovernmental organizations worked in the area for the rehabilitation and betterment of the people of this district which ultimately upgraded their life style and therefore “incidence, depth and severity” of multidimensional poverty decreases in this dimension as is clear from the table 4.27.

4.4.2.1 Contribution of Dimensions in MDP Index for District Bagh

Table 4.28 shows the contributions of all three dimensions in poverty estimates and is clear that with equal weights, in base year dimension of living standard contributed more towards incidence of multidimensional poverty (about 41%) for all respondents but in current year highest contribution is from health dimensions reason being discussed earlier in previous section. While in depth and severity, education contributed highest in base year i.e.36.12 percent and 51.63 percent for members and 35.89 percent and 52.11 percent for nonmembers respectively. In current year these figures changed to 54.22 percent and 77.14 percent for members and 55.65 percent and 77.66 percent for nonmembers in same order. Thus improvement in education can reduce these poverty estimates while living standard dimension of members contributed minimum in these estimates of M_1 and M_2 i.e. 21.69 percent and 10.29 percent respectively.

When education is given more weight than contribution of education increased in all MDP Index values considerably as depicted from the table 2.28. Similarly when health is given more weight than other dimensions, its contribution increased and living standard when assigned more weight showed more contribution towards “M_0, M_1 and M_2”.
Table 4.28: Contribution of Dimensions in MDP estimates of equal weight for Dist. Bagh. (%)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th></th>
<th>2013-14</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
</tr>
<tr>
<td><strong>Education 0.33</strong></td>
<td>Members</td>
<td>20.0</td>
<td>36.12</td>
<td>51.63</td>
<td>27.27</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>21.12</td>
<td>35.89</td>
<td>52.11</td>
<td>29.10</td>
</tr>
<tr>
<td><strong>Health 0.33</strong></td>
<td>Members</td>
<td>38.89</td>
<td>28.43</td>
<td>21.27</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>36.21</td>
<td>27.36</td>
<td>19.89</td>
<td>35.65</td>
</tr>
<tr>
<td><strong>Living Standard 0.33</strong></td>
<td>Members</td>
<td>41.11</td>
<td>35.45</td>
<td>27.09</td>
<td>32.73</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>40.51</td>
<td>37.21</td>
<td>26.44</td>
<td>35.41</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14

Table 4.29: Contribution of Dimensions to MPI of Weight 1 for Dist. Bagh %

<table>
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<th>Dimensions and weights</th>
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<th>2013-14</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
</tr>
<tr>
<td><strong>Education 0.50</strong></td>
<td>Members</td>
<td>34.55</td>
<td>54.42</td>
<td>69.27</td>
<td>48.72</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>35.12</td>
<td>55.32</td>
<td>68.52</td>
<td>49.98</td>
</tr>
<tr>
<td><strong>Health 0.25</strong></td>
<td>Members</td>
<td>31.82</td>
<td>20.29</td>
<td>13.52</td>
<td>28.21</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>29.62</td>
<td>19.65</td>
<td>12.87</td>
<td>24.65</td>
</tr>
<tr>
<td><strong>Living Standard 0.25</strong></td>
<td>Members</td>
<td>33.64</td>
<td>25.30</td>
<td>17.22</td>
<td>23.08</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>34.51</td>
<td>25.57</td>
<td>19.11</td>
<td>25.45</td>
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</table>

Source: Own estimations from data of Field Survey 2013-14
Table 4.30: Contribution of Dimensions to MPI for Weight 2 in % for Bagh

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<th>2013-14</th>
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</thead>
<tbody>
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<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>64.52</td>
<td>53.68</td>
<td>44.62</td>
<td>72.27</td>
<td>57.43</td>
<td>38.92</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>63.25</td>
<td>54.94</td>
<td>41.65</td>
<td>69.56</td>
<td>54.24</td>
<td>28.32</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>11.61</td>
<td>23.38</td>
<td>36.32</td>
<td>12.61</td>
<td>30.41</td>
<td>53.89</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>12.55</td>
<td>24.88</td>
<td>36.84</td>
<td>13.87</td>
<td>31.65</td>
<td>59.26</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
<td>Members</td>
<td>23.87</td>
<td>22.94</td>
<td>19.06</td>
<td>15.13</td>
<td>12.16</td>
<td>7.19</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14

Table 4.31: Contribution of Dimensions to MPI of Weight 3 in % for Bagh.

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
</tr>
<tr>
<td>Living Standard 0.50</td>
<td>Members</td>
<td>67.48</td>
<td>60.85</td>
<td>50.14</td>
<td>61.05</td>
<td>49.61</td>
<td>32.62</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>66.23</td>
<td>60.87</td>
<td>56.14</td>
<td>62.01</td>
<td>52.58</td>
<td>54.65</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>11.04</td>
<td>21.91</td>
<td>35.31</td>
<td>15.79</td>
<td>34.88</td>
<td>57.94</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>10.16</td>
<td>17.87</td>
<td>29.23</td>
<td>12.97</td>
<td>28.11</td>
<td>30.66</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Members</td>
<td>21.47</td>
<td>17.24</td>
<td>14.55</td>
<td>23.16</td>
<td>15.50</td>
<td>9.44</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>23.67</td>
<td>21.78</td>
<td>17.11</td>
<td>25.35</td>
<td>19.87</td>
<td>15.10</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
4.4.3 MDP Indices of Respondents for District Muzaffarabad

When district Muzaffarabad is analyzed for multidimensional poverty then it is found that when equal weights are assigned to all dimensions then $M_0$ is 26.7 percent and 28.5 percent in base year and slightly increased to 27.4 percent and 29.9 percent in current year for “members and non members” respectively shown in table 4.33. Although $M_0$ increased for both categories of respondents but this increase is slightly more for non members showing members a little bit in better situation than nonmembers. This district is also 2005 earthquake hit area and in base year poverty estimates reflect that people of the area had better living conditions as poverty was less than even that of district Bagh but there were widespread destruction in this district which, in spite of rehabilitation and development plans by governmental organizations and NGOs, is still contributing towards increasing multidimensional poverty. According to data records (SERRA, 2013) there were maximum damages in Muzaffarabad district destroying/damaging 146,789 houses whereas in district Bagh the damaged/destroyed houses were 95,516 during 2005 Earthquake. Therefore, it could be the possible reason that people being deprived in one third of the selected dimensions increased in percentage from base year to current year. When more weight is attached with education dimension than other two than table shows that respondents are slightly less deprived in current year than in base year in education as figures depict a slight decrease in $M_0$ from 24.2 percent to 23 percent for members and from 26.4 percent to 26.3 percent for nonmembers showing members in a little bit better position, while depth and severity remained more or less same with passage of time. Dimension of health is then given 0.5 weight and observed that situation is very
Table 4.32:  Multi-dimensional Poverty Indices of Respondents of District Muzaffarabad:

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$H_0$</td>
<td>$M_0$</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>.378</td>
<td>.267</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Non-Members</td>
<td>.375</td>
<td>.285</td>
</tr>
<tr>
<td>Living stand. 0.33</td>
<td>Members</td>
<td>.411</td>
<td>.242</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.428</td>
<td>.264</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>.711</td>
<td>.456</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Non-Members</td>
<td>.712</td>
<td>.448</td>
</tr>
<tr>
<td>Living stand. 0.25</td>
<td>Members</td>
<td>.422</td>
<td>.308</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>.421</td>
<td>.306</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
worst in current year as $M_0$ value changes from 45.6 percent to 50.8 percent for members and even largely increased from 44.8 percent in base year to 51.2 percent in current year for non members. This situation forced to think about the reasons for having such high MDP estimates for respondents of Muzaffarabad in current year and it was explored that after earthquake health conditions were worsened in the area as medical facilities are not sufficient for the region. There are 2 hospitals with 550 beds, 4 RHCs with 48 beds and 37 BHUs with 74 beds in this district (AJK at a Glance, 2013). So health is the most critical front to be focused at urgent basis. Similar finding was presented by Salahuddin and Zaman (2012) who concluded health and education to be the most critical dimensions in multidimensional poverty measure and poverty dramatically rise on these dimensions in Pakistan. $M_1$, $M_2$ values also increased from base year to current year but more for nonmembers than members. It can be concluded that AJKCDP did not provide health related interventions (First aid posts) properly to the resident of the area so health side is considered to be neglected by the Program and should be focused in future. Finally living standard dimension which included five indicators of house and housing facilities/assets was given more weight and again $M_0$ values showed no improvement as Table 4.32 depicts that its value changes from 30.8 percent to 31.4 percent for members and increases from 30.6 percent to 33.2 percent for non members. The reason behind it is the same as discussed before i.e. 2005 earthquake due to which depth and severity also show increasing trend.

### 4.4.3.1 Contribution of Dimensions in Mdp Index for District Muzaffarabad

Decomposition of different dimensions according to their relative contribution in multidimensional poverty Index shows that health and living
standard dimension contributed more than education both in base year and in current year as shown in Table 4.33. Highest contribution is from health side i.e. 44.59 percent in 2013-14 for registered members, while living standard imparts 43.65 percent in MDP index in same year when 0.33 weight is attached to each dimension showing more deprivations in these dimensions. members reflecting an alarming situation for all respondents and demands for specific health related initiatives to be undertaken in the area. Whereas, in M1 and M2 maximum contribution is from education dimension as depicted by table 4.34. Education is then assigned more weight and it is observed that contribution towards M0 is highest (37.5 percent) from health dimension in current year for Surely health when attached highest weight must have been contributed highest score in poverty indices and that is so as table 4.35 proved that people are highly deprived in health and therefore contribute a lot towards all indicators of MDP. Education contribution is very low (5.45 percent) in current year for members showing them better off in education side. As expected, living standard dimension having more weight, have added maximum to MDP indices followed by health dimension.

4.4.4 Mdp Indices of Respondents for District Kotli

When district Kotli is being analyzed separately on equal weight basis then results show a decrease in M0 from 39.3 percent to 36.2 percent for members while for nonmembers it slightly decreased from 41.5 percent to 40.7 percent from base year to current year portraying “members” better off (Table 4.39). As far as values of M1 and M2 are concerned, although there is a decrease for nonmembers and increase for members but overall reflecting a better position for members. Then alternate weights are assigned and analysis depicted for Weight 1 as shown in table
Table 4.33: Contribution of Dimensions in MDP estimates of equal weights for District Muzaffrabad (%)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>12.50</td>
<td>25.47</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>13.45</td>
<td>26.12</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Members</td>
<td>44.44</td>
<td>30.66</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>42.01</td>
<td>26.33</td>
</tr>
<tr>
<td>Living Standard 0.33</td>
<td>Members</td>
<td>43.06</td>
<td>43.87</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>43.99</td>
<td>47.22</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14

Table 4.34: Contribution of Dimensions to MPI of Weight 1 for Dist. Muzaffrabad (%).

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Education 0.50</td>
<td>Members</td>
<td>27.59</td>
<td>47.68</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>28.33</td>
<td>49.21</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Members</td>
<td>36.78</td>
<td>21.52</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>34.22</td>
<td>22.33</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
<td>Members</td>
<td>35.63</td>
<td>30.72</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>38.22</td>
<td>27.14</td>
</tr>
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</table>

Source: Own estimations from data of Field Survey 2013-14
Table 4.35: Contribution of Dimensions to MPI for Weight 2 for Muzaffrabad

<table>
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<th>2013</th>
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<td></td>
<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
</tr>
<tr>
<td>Health 0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>75.61</td>
<td>62.78</td>
<td>52.85</td>
<td>77.60</td>
</tr>
<tr>
<td>Non-Members</td>
<td>73.52</td>
<td>59.87</td>
<td>45.56</td>
<td>74.23</td>
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<tr>
<td>Education 0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>5.49</td>
<td>13.67</td>
<td>25.33</td>
<td>5.45</td>
</tr>
<tr>
<td>Non-Members</td>
<td>7.69</td>
<td>14.98</td>
<td>30.25</td>
<td>7.10</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>18.90</td>
<td>23.54</td>
<td>21.81</td>
<td>16.94</td>
</tr>
<tr>
<td>Non-Members</td>
<td>19.56</td>
<td>24.62</td>
<td>24.55</td>
<td>18.66</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14

Table 4.36: Contribution of Dimensions to MPI of Weight 3 in % for Muzaffrabad.

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
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<th>2013-14</th>
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<td>M₀</td>
<td>M₁</td>
<td>M₂</td>
<td>M₀</td>
</tr>
<tr>
<td>Living Standard 0.50</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>63.06</td>
<td>63.83</td>
<td>55.41</td>
<td>61.95</td>
</tr>
<tr>
<td>Non-Members</td>
<td>61.23</td>
<td>60.87</td>
<td>56.14</td>
<td>61.01</td>
</tr>
<tr>
<td>Education 0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>8.11</td>
<td>16.41</td>
<td>28.50</td>
<td>8.85</td>
</tr>
<tr>
<td>Non-Members</td>
<td>9.26</td>
<td>17.87</td>
<td>29.23</td>
<td>9.97</td>
</tr>
<tr>
<td>Health 0.25</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Non-Members</td>
<td>29.87</td>
<td>21.78</td>
<td>17.11</td>
<td>29.35</td>
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</table>

Source: Own estimations from data of Field Survey 2013-14
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Table 4.37: Multi-dimensional Poverty Indices of Respondents of District Kotli

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
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<th>2013-14</th>
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<tbody>
<tr>
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<td>(M_0)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.33</td>
<td>Members</td>
<td>.711</td>
<td>.393</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.33</td>
<td>Non-Members</td>
<td>.721</td>
<td>.415</td>
</tr>
<tr>
<td><strong>Living stand</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.33</td>
<td>Members</td>
<td>.810</td>
<td>.308</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.50</td>
<td>Members</td>
<td>.712</td>
<td>.411</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.25</td>
<td>Non-Members</td>
<td>.711</td>
<td>.461</td>
</tr>
<tr>
<td><strong>Living stand</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.25</td>
<td>Members</td>
<td>.732</td>
<td>.281</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.50</td>
<td>Non-Members</td>
<td>.722</td>
<td>.301</td>
</tr>
</tbody>
</table>

Source: Own estimations from data of Field Survey 2013-14
Table 4.38: Contribution of Dimensions in MPI of equal weights. (%) Dist. Kotli

<table>
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<tr>
<th>Dimensions and weights</th>
<th>Category</th>
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<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$M_0$</td>
<td>$M_1$</td>
</tr>
<tr>
<td><strong>Education 0.33</strong></td>
<td>Members</td>
<td>23.33</td>
<td>47.19</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>19.69</td>
<td>26.94</td>
</tr>
<tr>
<td><strong>Health 0.33</strong></td>
<td>Members</td>
<td>54.44</td>
<td>40.45</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>60.36</td>
<td>53.06</td>
</tr>
<tr>
<td><strong>Living Standard 0.33</strong></td>
<td>Members</td>
<td>22.22</td>
<td>22.36</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>20.36</td>
<td>20.06</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data from Field Survey 2013

Table 4.39: Contribution of Dimensions to MPI of Weight 1 in % for Dist. Kotli.

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$M_0$</td>
<td>$M_1$</td>
</tr>
<tr>
<td><strong>Education 0.50</strong></td>
<td>Members</td>
<td>30.84</td>
<td>41.12</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>32.84</td>
<td>42.44</td>
</tr>
<tr>
<td><strong>Health 0.25</strong></td>
<td>Members</td>
<td>52.25</td>
<td>37.48</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>51.16</td>
<td>41.56</td>
</tr>
<tr>
<td><strong>Living Standard 0.25</strong></td>
<td>Members</td>
<td>17.91</td>
<td>21.88</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>16.87</td>
<td>17.12</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14
Table 4.40: Contribution of Dimensions to MPI of Weight 2 in % for District Kotli

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>68.38</td>
<td>57.60</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>69.11</td>
<td>61.44</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>14.19</td>
<td>23.60</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>12.89</td>
<td>15.56</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
<td>Members</td>
<td>17.43</td>
<td>18.80</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>17.58</td>
<td>23.11</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14

Table 4.41: Contribution of Dimensions to MPI of Weight 3 in % for Kotli.

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Living Standard 0.50</td>
<td>Members</td>
<td>21.78</td>
<td>22.00</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>20.79</td>
<td>42.00</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>19.64</td>
<td>41.13</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Members</td>
<td>57.43</td>
<td>36.00</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>60.21</td>
<td>35.98</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14
4.39 tells approximately the same decrease in incidence of multidimensional poverty for all respondents after the program but members are far more better (\(M_0\) 29.7 percent) in education than non-members (36.1 percent \(M_0\)). It is clear that registered members are more educated as compared to non members in education dimension which is further supported by low \(M_1\) and \(M_2\) values for members. For Weight 2 situation is similar for this district as for other districts (Bagh and Muzaffarabad) i.e. health poverty is increasing for both members and nonmembers. \(M_0\) shows an increase of 4.1 percent in current year for members while for non members this increase is about 9.6 percent making \(M_0\) 55.6 percent (table 4.39) in current year which is highest value of adjusted headcount ratio among all values for the respondents of AJK. It means that nonregistered members of district Kotli are suffering from acute health poverty putting a serious and urgent emphasis on improving health conditions by providing proper medical facilities. Living Standard dimension is assigned more weight i.e. Weight 3 and results depict a positive change in poverty estimates for respondents, also overall values are less than those of all other scenarios of the same district. There is a decrease in \(M_0\) from 28.1 percent to 25.8 percent for members and from 30.1 percent to 28.9 percent for nonmembers again proving members enjoying somewhat better living conditions than others in the area. So a positive impact of the program under study can be claimed by examining different scenarios of poverty estimation excluding health sector where a lot need to be planned in future.

4.4.4.1 Dimensional Contribution in Mdp Indices for District Kotli

Maximum contribution in MDP indices is from health dimension in all scenarios of estimations explaining that sampled respondents are more deprived in
Table 4.42: Multi-dimensional Poverty Indices of Respondents of District Sudhnoti:

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H₀</td>
<td>M₀</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>.747</td>
<td>.344</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Members</td>
<td>.811</td>
<td>.399</td>
</tr>
<tr>
<td>Living stand. 0.33</td>
<td>Non-Members</td>
<td>.732</td>
<td>.310</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>.724</td>
<td>.385</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>.774</td>
<td>.411</td>
</tr>
<tr>
<td>Living stand. 0.25</td>
<td>Non-Members</td>
<td>.749</td>
<td>.438</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>.698</td>
<td>.431</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14
this dimension as compared to dimensions of education and living standard as clear from table 4.38, 4.39, 4.40 and 4.41. Another interesting result is given in table 4.40, that nonmembers are less deprived in education than members both in base year and current year as clear from lower $M_0$ values for them. Furthermore, non members contributed 26.94 percent in base year and 28.85 percent in current year towards $M_1$ as compared to 47.19 percent and 38.64 percent in same order for members. But when the decrease in contribution to $M_1$ is compared then members showed a more decline in this figure with time and same is the case with $M_2$. It is thus concluded that nonmember respondents of district Kotli are better in education than members but more deprived in health and living standard dimensions than non members. Overall respondents show minimum deprivation in living standards as contribution to “$M_0$, $M_1$ and $M_2$” are minimum by this dimension in all scenarios thus reflecting respondents of Kotli district having better conditions in five indicators of this dimension.

### 4.4.5 MDP Indices for District Sudhnoti

Table 4.42 illustrates the MDP estimates in four scenarios of dimensional weights and first row reflects that incidence decreased for members from 34.4 percent to 32.6 percent in current year while for non members it shows a minor decrease i.e. from 39.9 percent to 38.9 percent when equal weight was assigned to all dimensions. Severity and depth increased for all respondents but overall members show a better position. By assigning more weight to education MDP indices decreased for all respondents of district Sudhnoti and proved to be less deprived in this dimension (table 4.42). When health has given more weight then again same result obtained as for other districts, an increase in health poverty ($M_0$)
from 38.5 percent to 47.4 percent is shown for “members” while increase is from 41.1 percent to 46.1 percent for “non members”. Data revealed that non members are less deprived in health dimension than members moreover the increase in health poverty is less than that of members, which tells that the program is inactive in providing health related interventions to the registered members and this situation demand a well organized health facility from such developmental programs. Another noticeable result was obtained when living standard attained 0.5 weight, “adjusted head count ratio” was highest in base year i.e.43.8 percent for members and 43.1 percent for nonmembers thus depicting that in base year living conditions of the respondents were worst among all districts. It means people of the area were more deprived in five indicators of this dimensions as compared to the people of other sampled districts in base year. After completion of the program value of “adjusted head count ratio” as clear from table 4.42 last rows, although decreased for all respondents but this decrease (35.3 percent) is more for members than for nonmembers (37.2 percent) proving positive impact of the program in terms of living standard dimension.

4.4.5.1 Dimensional Contribution in MDP Indices: District Sudhnoti

The relative contribution which each dimension imparts in MDP index helps us to determine the people’s percentage deprivation in that particular dimension. For district Sudhnoti in case of equal weight estimations health dimension is the major contributor in multidimensional incidence of poverty before and after the program for all respondents as table4.43 reflects in second row. Education contributed minimum in base year while in current year living standard dimension contributed lowest showing members to be least deprived in this dimension after
Table 4.43: Contribution of Dimensions in MPI of equal weights of Sudhnoti (percentage)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$M_0$</td>
<td>$M_1$</td>
</tr>
<tr>
<td>Education 0.33</td>
<td>Members</td>
<td>20.21</td>
<td>40.71</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>24.84</td>
<td>40.12</td>
</tr>
<tr>
<td>Health 0.33</td>
<td>Members</td>
<td>40.94</td>
<td>28.21</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>47.12</td>
<td>34.88</td>
</tr>
<tr>
<td>Living Standard 0.33</td>
<td>Members</td>
<td>30.85</td>
<td>31.07</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>28.20</td>
<td>25.10</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14

Table 4.44: Contribution of Dimensions to MPI of Weight 1 for Dist. Sudhnoti. (Percentage)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$M_0$</td>
<td>$M_1$</td>
</tr>
<tr>
<td>Education 0.50</td>
<td>Members</td>
<td>33.63</td>
<td>57.87</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>32.81</td>
<td>40.12</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Members</td>
<td>40.71</td>
<td>20.05</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>41.11</td>
<td>39.80</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
<td>Members</td>
<td>25.66</td>
<td>22.08</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>27.85</td>
<td>20.01</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-
Table 4.45: Contribution of Dimensions to MPI of Weight 2 for Dist. Sudhnoti.
(Percentage)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Health 0.50</td>
<td>Members</td>
<td>65.71</td>
<td>44.01</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>69.11</td>
<td>65.65</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>13.57</td>
<td>31.75</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>10.89</td>
<td>14.35</td>
</tr>
<tr>
<td>Living Standard 0.25</td>
<td>Members</td>
<td>20.71</td>
<td>24.23</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>20.02</td>
<td>19.95</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14

Table 4.46: Contribution of Dimensions to MPI of Weight 3 for District Sudhnoti (%)

<table>
<thead>
<tr>
<th>Dimensions and weights</th>
<th>Category</th>
<th>2004-05</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M₀</td>
<td>M₁</td>
</tr>
<tr>
<td>Living Standard 0.50</td>
<td>Members</td>
<td>47.15</td>
<td>47.41</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>41.81</td>
<td>50.52</td>
</tr>
<tr>
<td>Education 0.25</td>
<td>Members</td>
<td>15.45</td>
<td>31.06</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>19.64</td>
<td>23.10</td>
</tr>
<tr>
<td>Health 0.25</td>
<td>Members</td>
<td>37.40</td>
<td>21.53</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>39.81</td>
<td>16.34</td>
</tr>
</tbody>
</table>

Source: Own estimations on the basis of data obtained from Field Survey 2013-14
the program. In depth and severity of multidimensional poverty education contributed maximum and living standard is the least contributor in current year. Health is again major contributor in $M_0$, when education was having more weight in base and current year. Education contributed more in $M_1$ and $M_2$ in both time periods (Table 4.44). Definitely health must have contributed maximum in $M_0$ when assigned more weight and it is so as clear from table 4.45 while education’s contribution is high in $M_1$ and $M_2$

Table 4.46 revealed maximum contribution of living standards in base year towards $M_0$ but in current year health is the main contributor. Overall contributions of different dimensions varied in different scenarios of poverty estimations. But health remained the main contributor among all in most of the cases.

**4.6 ECONOMETRIC ANALYSIS OF POVERTY CORRELATES**

This sub-section presents the results for estimates of logistic regression which attempts to lay emphasis on major correlates of poverty status and it also assesses whether quantitative link can be possibly established between poverty status and poverty reduction programs like the one understudy, that is, “AJKCDP”.

The dependent variable is dichotomous as is the case in any standard logistic regression which assumes the value of 1 for poor and 0 for non-poor. The logistic regression is done for primary data collected for the year 2013-14 which covers 540 households that includes both those households who undertook in the program and those who opted out of it. It must be borne in mind here that poverty status is determined on the basis of shortfall in income from poverty line.
4.6.1 Logistic Regression Analysis:

The maximum likelihood estimates for logistic regression are presented in table 4.52. Most of the correlates are highly significant at 5 percent level of significance. The results indicate that households in which family head is working in either private or public sector has a better and statistically significant chance of being non-poor. Similarly, such significant and regressive impact on being poor is also recorded for other variables like number of livestock, number of physical assets, age of household head, squared of household head age, total cultivated area, and whether any female in the household does a job. However, a couple of variables like presence of first aid facility and squared of household size though found out to be statistically insignificant still have expected signs of the coefficients. Nevertheless, it is peculiar to note that the coefficient of presence of school has a positive sign and is also statistically significant. This might hint towards apparent poor situation that characterize many schools in Pakistan at large which might also be consistent with those schools found in the study area. Consequently, the fact that presence of first aid facility has an insignificant impact on the probability of being non-poor and that presence of school is consistent with higher chance of being poor as shown by its positive and significant coefficient, this might suggest that health and education facilities are quite inefficient to reduce poverty levels. Turning the attention towards assessing the impact of intervention on poverty status which is also the primary focus of this research, the results summarized in table 4.47 reveals that number of interventions taken by households plays no significant part in determining poverty status as its p-value is greater than the highest acceptable significance level of 10 percent. Along with this, the sign of
its coefficient is also contradictory. However, using an interaction between number of interventions and education of household head presents an interesting result which can have implications for ensuring efficiency of any such poverty reduction schemes as the one under the focus of this research project. This interaction term has a negative sign and is also statistically significant at 5 percent level of significant and this implies that household heads with better education in terms of years of schooling have a better chance to escape poverty. Consequently, it can be duly concluded that poverty reduction programs is a necessary condition for poverty reduction but education is a sufficient condition for ensuring that benefits of such programs can be translated into poverty reducing gains. Hence, education and poverty reduction programs are complementary inputs to any serious national poverty reduction effort. Analogy for this conclusion can be found in the coordination failure concept of economic development at the macro level in which a coordinated push is required to different parameters like education and health just to name a few in order to improve the level development and not just to capital alone as commonly believed. All of these results are line with other studies like Mok et al., 2007; Hashmi and Sial, 2008; Iqbal and Awan, 2010; Edoumiekumo et al., 2013 and Naqvi et al., 2014.

4.6.2 Odd Ratios Analysis

Odd ratios are a bit more intuitively appealing way of lending suitable explanation to the results found for logistic regression. Hence, table 4.47 also includes odd-ratio values for each correlate. Ennin et al., (2011) states that a value of odd ratio ($a$) greater than one means that “success” is $a$ times as likely to occur as “failure” for a unit change in $X$ and in case of less than one, this implies that
event is less likely to occur for a unit change in X. Consequently, as dependent variable in this study assumes 1 for poor and 0 for non-poor. A value of odd ratio less than 1 is more desirable. In line with this and examining the odd ratios for each correlate in table 4.47 shows that chance of being poor reduces by 74 percent for household heads in public sector while the same is 73 percent for those who are in private sector. This suggests that private sector and public sector employment has about the same impact on poverty status contrary to those results found by Ranathunga and Gibson; 2014. Similarly, an incremental increase in number of physical assets or livestock assets is consistent with 26 percent and 8 percent reduction in the probability of being poor respectively. In the same tune, an increase in household head age by one year would reduce the probability of being poor by 27 percent while increase in the size of cultivated area by an acre would cause a reduction by a mere of 8 percent. Likewise, probability of being poor reduces by 50 percent in those households in which a female does any kind of job and presence of school is associated with odds of being poor about 5 times as higher as that of non-poor households. As age doubles the odd of being poor is about as much as that of being non-poor since the value of odd ratio for household head age squared are 1. However, as for the interaction between education and number of interventions taken the odd ratio shows that about a simultaneous increase in schooling year and number of interventions reduces the chance of being poor by 6 percent.

4.6.3 Marginal Effects Analysis

Marginal effect is another interesting way to lend explanation to the correlates of logistic regression and hence, table 4.47 makes a record them. Along with this
### Table: 4.47  Determinants of Poverty: Maximum Likelihood Estimates: 2013-2014

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Coefficient</th>
<th>Odd-Ratio</th>
<th>Marginal Effects</th>
<th>X</th>
<th>z-stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHH works in public sector</td>
<td>-1.01</td>
<td>0.36</td>
<td>-0.16</td>
<td>0.32</td>
<td>-3.41</td>
<td>0.001</td>
</tr>
<tr>
<td>HHH works in private sector</td>
<td>-1.00</td>
<td>0.37</td>
<td>-0.17</td>
<td>0.45</td>
<td>-3.57</td>
<td>0.000</td>
</tr>
<tr>
<td>Number of livestock</td>
<td>-0.08</td>
<td>0.92</td>
<td>-0.01</td>
<td>5.37</td>
<td>-3.63</td>
<td>0.000</td>
</tr>
<tr>
<td>Number of assets</td>
<td>-0.31</td>
<td>0.74</td>
<td>-0.05</td>
<td>3.56</td>
<td>-3.41</td>
<td>0.001</td>
</tr>
<tr>
<td>Age of HHH</td>
<td>-0.32</td>
<td>0.73</td>
<td>-0.06</td>
<td>46</td>
<td>-3.65</td>
<td>0.000</td>
</tr>
<tr>
<td>Total cultivated area</td>
<td>-0.09</td>
<td>0.92</td>
<td>-0.01</td>
<td>4.10</td>
<td>-2.49</td>
<td>0.013</td>
</tr>
<tr>
<td>Female does some job</td>
<td>-0.70</td>
<td>0.50</td>
<td>-0.12</td>
<td>0.21</td>
<td>-2.47</td>
<td>0.014</td>
</tr>
<tr>
<td>HH size</td>
<td>1.08</td>
<td>2.94</td>
<td>0.19</td>
<td>5.56</td>
<td>3.01</td>
<td>0.003</td>
</tr>
<tr>
<td>Presence of school</td>
<td>1.72</td>
<td>5.58</td>
<td>0.30</td>
<td>1.02</td>
<td>2.47</td>
<td>0.014</td>
</tr>
<tr>
<td>Presence of First Aid</td>
<td>-0.01</td>
<td>0.99</td>
<td>-0.01</td>
<td>0.57</td>
<td>-0.06</td>
<td>0.954</td>
</tr>
<tr>
<td>Age of HHH Squared</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>2237.81</td>
<td>2.64</td>
<td>0.008</td>
</tr>
<tr>
<td>HH Size Squared</td>
<td>-0.04</td>
<td>0.96</td>
<td>-0.01</td>
<td>34.70</td>
<td>-1.47</td>
<td>0.142</td>
</tr>
<tr>
<td>Interaction between education of HHH and intervention</td>
<td>-0.06</td>
<td>0.94</td>
<td>-0.01</td>
<td>7.80</td>
<td>-2.23</td>
<td>0.026</td>
</tr>
<tr>
<td>Intervention</td>
<td>0.43</td>
<td>1.54</td>
<td>0.07</td>
<td>0.94</td>
<td>1.60</td>
<td>0.109</td>
</tr>
<tr>
<td>Constant</td>
<td>4.59</td>
<td></td>
<td></td>
<td></td>
<td>2.68</td>
<td>0.007</td>
</tr>
</tbody>
</table>

Pseudo R² 0.2580

Pearson goodness of fit test statistics 494.24 (0.7468)
Likelihood ratio chi-sq test statistic 171.905 (0.0000)
n*AIC/ BIC 524.466/ -83.823
Specificity/ Sensitivity 89.04% / 51.81%
Correctly classified 77.59 %
Area under ROC curve 0.8321
Iterations 5
added benefit of using marginal effect analysis is the use of threshold value for each correlate under investigation which is shown in the column X. However, the use of this threshold is of no value in case of dichotomous variable. Looking at the age variable of household head it can be seen that after passing the threshold age of 46 years any addition year in age reduces the chance of being poor by 6 percent. As for size of cultivated area, if threshold value of 4 acre is reached any further increase in cultivated area by 1 acre reduces the chances of being poor by 1 percent. Concentrating on number of livestock assets and number of physical assets once threshold value of 5 and 3 in case of each respectively is reached any further addition in both kind of assets reduces the probability of any household to be poor by 1 percent and 5 percent for number of livestock assets and number of physical assets respectively. However, after a threshold of 5 family members any further addition to the household roster leads to increase the odds of being poor by 19 percent. Such poverty reducing patterns are also recorded for variables like household size squared and interaction between education and number of interventions as marginal effects in each case is -0.01. However, as for intervention variable it is found to be positive yet statistically insignificant.

Moving toward qualitative variables, marginal effects are -0.16, -0.17, and -0.12 for whether family head works in private sector, whether family head works in public sector, and whether any female is doing a job in the household respectively. This suggests that probability reduces for being poor in each case. Some of the other variables like presence of school and presence of first aid facility have marginal effects of 0.30 and -0.01 respectively though the coefficient for the latter is insignificant.
4.6.4 Individual Significance of Correlates

The model for determining poverty status is estimated using Maximum likelihood technique which lies at the core of any standard logistic regression. This estimation technique maximizes the log likelihood function through an iterative process like Newton’s method. However, there are still other methods as well like Pseudo likelihood and Weighted likelihood which can also be used given certain pitfalls arises in terms of biasness of coefficients by maximum likelihood technique. As for the individual significance, the study has used p-value of z-statistic as more direct and operationally convenient way rather than using a more elaborate technique of comparing tabulated and estimated z-statistic value. Using three reference values for the level of significance as is often the case with any econometric analysis in research 1 percent, 5 percent, and 10 percent – it is found that apart from three variables which household size squared, number of interventions taken, and whether health facility is available all of the variables are strictly significant at 5 percent or 1 percent level of significance. These p-values are also consistent for odd ratios and marginal effects.

4.6.5 Overall Fit of the Model

In order to assess the fitness of the model, the study has used pseudo $R^2$, Pearson goodness of fit statistic, and likelihood ratio of chi-statistic. As for the value of pseudo $R^2$ it can be seen in table 4.52 that the correlates help explain about 25 percent variation and this low value is consistent with any analysis based on cross sectional data. Similarly, the value for Pearson goodness of fit statistic is evaluated using its p-value against the null hypothesis that model is good fitted as
suggested by Stata Manual. Hence, as its p-value is greater than the acceptable benchmark value of 5 percent and 10 percent, the null hypothesis of a good fitted model can’t be rejected on any grounds. Turning towards likelihood ratio of chi-square test statistic, table 4.52 shows that its corresponding p-value is less than 1 percent hence it implies that at least one correlate is non-zero and this leads to the conclusion that model is reliable and good fitted.

4.6.6 Tests for Predictive Accuracy

ROC value and sensitivity and specificity values are used to check of predictive accuracy. Where sensitivity shows the percentage of true positive identified by the test as meeting a certain while as for specificity it measures the proportion of true negative correctly specified. ROC curve is plotted with sensitivity on the vertical axis and 1-specificit on the vertical axis for each cut-off point. The corresponding curves for each of these can also be found in the appendix. Table 4.47 also records the values of each of these tests.

Though higher values are ideal for sensitivity and specificity are ideal, as for this study using a cut-off point of 0.5 the value for sensitivity and specificity is 89 percent and 51 percent respectively while about 77 percent are correctly classified (appendix iii). In case ROC value, it is found to 0.83 which confirms good predictive accuracy (appendix iv).

4.6.7 Multicollinearity Diagnostics

Multicollinearity is the prospective relationship between the independent variables of any deterministic regression and this logic also extends to logistic regression. The importance for checking for multcollinearity arises because any
model ridden by it results in inefficient estimators. However, some degree of multicollinearity always exists between independent variables. Hence, standard methods to check for multicollinearity are used for the logistic regression in table 4.47 which can be found in the appendix v. Before assessing these methods, it must be mentioned here that the model has used squared terms for household size and age of household head so correlation between them would be extremely high. Another way which is constructed from another variable in the model is interaction between number of interventions and education in terms of years of schooling for household head only. Hence, there is high correlation between number of interventions and this interactions term is inevitable. Consequently, as suggested by Jaccard and Turrisi (2005) one way to get around this is by using the mean centered approach which subtracts mean from each value of the variable concerned before checking for Multicollinearity. Hence, age squared is calculated by first subtracting average age from each value of age and then squaring it. The same comes out for household size and number of interventions and education of household head. After making these adjustments, it can see in the annexture vi, that value of VIF, TOL, and R-squared are all well below the alarming level in case of VIR and R-squared and well above in case of TOL. As for correlation coefficient, it is also low between each possible pair of independent variables as shown in annexture vi. One important observation from correlation matrix is that age and age squared in only 0.14 while for household size and household size squared, it is only 0.56. These values have emerged as the result of the adjustment mentioned above.
SUMMARY

AJK is rural-cum-urban economy the development of which has always been a challenge for policy makers. A good chunk of population reside in the typical rural pockets scattered in various valleys of uneven land and natural resource base. Most of them are supporting their families with different sources like subsistence farming, nonfarm employment and remittances etc. The rural masses of the study area are facing the same issues as that of other regions in the country which include lack of education, employment and health facilities leading to wide spread poverty. To address the issue of deprivations in many factes, a number of rural/community development programs have been launched for long times. The most popular program “Azad Jammu and Kashmir Community Development Program” was initiated on the basis of participatory approach with a fundamental objective of reducing poverty. Poverty has been broadly renowned as a matter of deprivation in several dimensions. With the expansion of knowledge in the realm of development economics, the indicators other than income and multidimensionality of poverty have gained much attention among the academicians researchers and policy makers. In this new context poverty is now computed in terms of deprivations of shelter, food, education, health and/or other basic needs. So, this research endeavor went ahead of the monetary phenomena and emphasized the importance of provision of several services to eradicate poverty.

The current study was accomplished under the umbrella of many different interventions of AJKCDP for community development through COs. A comprehensive interview schedule was constructed after thoroughly reviewing of
literature in line with the objectives of the research. A sample of 540 respondents was drawn by adopting systematic procedure. This was comprised of 360 registered members and 180 nonregistered members. The data collected was analyzed by using different statistical techniques including unidimensional and multidimensional poverty by using FGT measure. Finally, Logit regression model was operated by incorporating some logical indicators. The important information collected is summarized as under:

- The results reflected that majority (35.2 percent) of registered members and non members (31.2 percent) belong to the age group of 36-45.
- Around 80 percent members and 76.7 percent non members were found to be literate in the base year and in current year which increased to 80.5 percent and 76.7 percent respectively during the current year.
- Majority of members (41.1 percent) and non members (38.3 percent) were having 10 years of schooling in the base year and these rates changed to 42.2 percent and 41.7 percent in current year. While more members (3.3 percent in base year and 3.6 percent in the current year) were having above intermediate education than that of non members (1.1 percent and 1.6 percent in same order) which shows the tendency of members getting better in education.
- Data showed that mean house hold size of registered members was 5.58 and 5.52 for non-registered members in current year.
- Average monthly income per household per person is slightly higher for registered members than that of non registered members in the base year but considerably high in the current year.
- The number of earning person (1.41) is higher for registered member’s
household than for non-registered household (1.38) in the current year.

- An overwhelming majority of 47.8 percent of registered and 43.9 percent non-registered members had land holding of 1-10 kanals in the base year which changed to 49.5 percent and 46.11 percent in the current year.

- Land use efficiency estimates demonstrate that there was a positive change of 0.7 percent for members from base year to current year while non-members showed a decline of 2 percent in the land use efficiency of their farm land.

- Registered members also changed their house type from Kaccha house to Kaccha/Pacca or Pacca house category considerably more than that of non-members and also sanitation type i.e. latrine inside the house is increased more for members than that for non-members.

- Beneficiaries showed their level of satisfaction to great extent towards Credit pool 51 percent, NRM 49 percent, Infrastructure 28 percent and only 22 percent towards Trainings related intervention.

- Incidence of poverty for absolute unidimensional poverty decreased about 6 percent for members as compared to 3 percent decrease for non-members after the program. While depth of poverty increased from 2.6 percent in base year to 2.9 percent (members) and to 3.1 percent (non-members) in current year.

- Incidence of relative poverty which showed inequality of resource distribution among respondents, increased more for non-members (6 percent) than for members (3 percent) while depth of poverty showed a more decrease for non-members than for non-members.

- Multidimensional poverty empirics, for equal and nested weight arrangement of three dimensions, for overall AJK showed overall more percent reduction
for members than for non members except for the case when health dimension was assigned more weight among the dimensions.

- District wise bifurcations for multidimensional poverty measurement reflected more decrease for members as compared to non-members in all districts except for district Muzaffarabad. In this way health poverty increased for all respondents in all districts. Thus health dimension proved to be the most prominent indicator of deprivation in the study area.

- When correlates of poverty in the area were checked through Logit model then results showed that age of house hold head (HH), HH education, HH employment status, cultivated area, assets, number of earning persons and female employment are important factors to reduce poverty in the area.
CONCLUSION

This research concludes that the practice of community development dynamics has been successful in improving welfare of local people in their socio-economic spectrum, their standard of living, education etc. by the participation of local community. The initiatives like credit pool, Natural Resource Management, Infrastructure and different training programs of AJKCDP have demonstrated a positive impact on rural community as these increased their income and raised their living standard. Majority of the beneficiaries are satisfied either to the level of “great extent” or to the tune of “some extent” by these interventions. This research endeavour is the novel and opening attempt to map and measure the extent of multidimensional poverty in AJK through FGT measures. The results strongly indicate that interventions of AJKCDP for development of communities through formation of COs can significantly decrease the incidence and depth of poverty of AJK not only uni-dimensionally but also multi-dimensionally. Health was found to be the most neglected component of the study area as ignored by the government and the program also itself. It was witnessed that health poverty has increased in the area with the passage of time. Among all sampled districts only Muzaffarabad district showed a slight incline of 1 percent in multidimensional poverty which might be due to 2005 earthquake and thus demand more developmental efforts. The institutional failure in the valley has also been a hurdle in the successful completion of development programs.

In the research area age and employment status of household head, livestock availability, physical assets and female employment have significant negative
relationship with poverty thus played an important role in reducing poverty. As far as interventions of the program under study are concerned, an important implication was observed that these interventions have significantly reduced poverty only for educated members thus highlighting the importance of education dimension in such developmental ventures.

Besides of these positive impacts, there are some shortcomings in different interventions of AJKCDP. Firstly, the training part of this program could not satisfy registered members as there was oversaturation of trained members in the same locality and even some trainees did not require those training. Moreover there was no follow up mechanism to check the usefulness of those trainings. Secondly health related interventions like first aid post were implemented on very small scale in spite of poor health conditions of the populace.

RECOMMENDATIONS/POLICY IMPLICATIONS

Although a sufficient amount of attention was given by AJKCDP in community development through COs but there remained some shortcomings which call for a skilful notice. Based on face-to-face interactions with respondents and data analysis of research findings, following policy lessons have been derived for further improvement in the valley and for replicating the same development initiatives in fine tuned ways.

- One thing is established that the process of socio-economic development is significantly associated to health and education related interventions but the tempo of success is varied across regions depending on some other
complementing factors including resource foundations of the economy and relevant institutional mechanism.

- Health issue should be focused at first priority because no intervention would sustainably work for improving welfare level of the community until health related issues are tackled in combination with other initiatives.

- Gender friendly policies are highly recommended especially in the remote regions where women spent a plenty of their time in domestic affairs. Their fundamental awareness and empowerment through trainings and skill development is highly linked to the reduction of poverty through health improvements, child care and employment generation.

- The provision of infrastructure particularly in health and education sectors should be improved on priority basis by involving the local community and by inviting private sector through the foundation of corporate social responsibility. In general, the structured roads and facilitating transport system can give a good boost to the tourism industry which would further create employment and other economic opportunities.

- A good level of political awareness of AJK masses can be capitalized by further mobilizing the communities for realizing the grass root level problems and finding their indigenous solution through participatory mechanism.

- Provision of public services including housing and household services would be the hallmark of sustainable development if the element of good governance is seriously taken care of.
FUTURE VISION OF RESEARCH

Community development process is recently gaining great importance, so it requires research on regular basis and consideration for readjustment and reorganization of its principals and generalizations towards continuously changing environment. There is always a room for improvement as any developmental theory cannot be perfect. Present study is based on participatory community development approach which is becoming popular in recent times and most of the empirical researches are validating its basic philosophy and prospects. The current study was accomplished under the umbrella of similar idea.

- This research highlights different researchable issues to instigated research in this area for further validation of developmental theories, as analytical results of current study would add to the unexplored areas in community development and also open up the doors for other researchers to accomplish their research in this area.

- Although the present research is multifaceted one but this study was carried out by using cross sectional data of two time periods but more reliable results would be achieved by using panel data.

- In the current study data was collected from CO members randomly regardless of gender specification but gender specific data would be helpful to draw some useful gender specific policy implications.

- Furthermore, due to time and financial constraint data was collected from four districts but data from all districts would be helpful to draw more accurate area specific findings and implications.
LITERATURE CITEDs


Adil, S. A. 2003. Impact of micro credit on poverty alleviation and agri-production:


Ajadi, K. O., J. A. Adebisi and F. M. Alabi. 2010. Assessment of the impact of


Alam, I., A. Ikramullah and N. Ahmad. 2004. The Role of Village Organizations of


Alkire, S. 2007. Choosing dimensions: The capability approach and


Ampaire, A. and M. F. Rothschild. 2010. Effects of trainings and facilitation of


Bhamber J. 2009. Effective Community Development Programme: A summary of


Chen, S. and M. Ravallion. 2008. The developing world is poorer than we thought, but no less successful in the fight of poverty. Development Research Group,
World Bank. p. 84-99


Development. Northern Areas administration and IUCN-The World Conservation Union, Karachi, Pakistan.


Khurshid N. and A. Saboor. 2013. Impact assessment of Economic Interventions of AKRSP on the lives of rural women: A case study of Northern Areas of


Meenu and A. Sangeela. 2011. Women Empowerment through Micro-Finance interventions in the Commercial Banks: An empirical study in the rural


Pamplona, E. C. 1996. Information and Training needs of government personnel engaged in agricultural and rural development in regions 11 and 12


Preece, J. 2006. Widening participation for social justice: Poverty and Access to...
Education. Dortrecht Springer. p. 113-126.


SDPI, 2002. Impact of trade liberalisation on lives and livelihood of mountain communities in the northern areas of Pakistan. Sustainable Development Policy Institute, Islamabad, Pakistan. p. 43-56


Stockute, R., A. Veaux and P, Johnson. 2006. Logistic Distribution 


Sulaiman, F. 1998. The impact of Agricultural Development project on Women: A
case study of the Eastern Islands small holders farming system and livestock development project (EISFSLDP). The journal of Agrio-Ekonomi Indonesia, 17(2): 59-79.


http://shodhganga.inflibnet.ac.in/bitstream/10603/4889/16/16_references. 139 pp.


Tauqeer, H. S. and H. Butt. 2011. Income generating activities through micro-


