Pakistan Poverty Alleviation Fund

Drought Mitigation and Preparedness Program

LORALAI PROJECT
Baseline Survey

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CONTENTS

ACRONYMS

PPAF	Pakistan Poverty Alleviation Fund
PO	Partner Organization
WMC	Water Management Center
DMPP	Drought Mitigation and Preparedness Program
USDA	United States Department of Agriculture
TF	Taraqee Foundation
BRUWAS	Balochistan Rural and Urban Water and Sanitation Project
AusAid	Australian Agency for International Development
USAID	United States Agency for International Development
ILO	International Labor Organization
UNICEF	United Nations Children's Fund
UNHCR	United Nations High Commission for Refugees
CIDA	Canadian International Development Agency
OW	Open Wells
TW	Tube Wells
UC	Union Council

FOREWORD

The water and infrastructure interventions of PPAF are an integral part of its mandate for poverty reduction and improvement in quality of life. In this perspective, Drought Mitigation and Preparedness Program (DMPP) explicitly addresses vulnerabilities resulting from large parts of the country being categorized as high 'water stressed' areas. Typically focused on a union council, a drought mitigation project adopts an integrated approach with a range of micro investments in development, conservation and sustenance of water resources, along with the provision of basic infrastructure at the village level. As part of a sequenced approach, the program in the first instance seeks to capacitate poor communities in terms of preparedness and mechanisms for coping with drought and water deficiency. Subsequently, second generation value adding interventions are incorporated for optimizing agricultural productivity, diversifying cropping patterns, water balancing, watershed and rangeland management along with market linkages and early warning systems.

This study is focused on assessing impact of a DMPP in the dry/arid ecological region of the country, in Union Council Kuch Amakzai of Tehsil Bori in District Loralai, Balochistan. Completed in 2008, it involved 99 sub-projects in irrigation, agriculture, drinking water supply, water conservation and flood protection sectors involving total investment of almost Rs. 42 million.

Initiated by Chief Strategy Officer the study was carried out by Evaluation, Research and Development unit. It was designed and conducted by Muhammad Masood Khalid and subsequently completed under supervision of Tanvir Hussain. Data analysis and report writing was undertaken by Syed Hassan Akbar and editorial assistance was extended by Anita U. Bakhtiar and Madiha Mumtaz(CSO Office). Facilitation and support provided by PPAF's Partner Organization is gratefully acknowledged.

Kamal Hyat

Chief Executive/Managing Director

1. INTRODUCTION

1.1 Introduction:

The Pakistan Poverty Alleviation Fund (PPAF), a non-profit organization established under the auspices of the Government of Pakistan and funded through the World Bank and other International Donor Agencies, is an apex organization of the country that works towards improving livelihoods and mitigating poverty in rural and semi-urban areas. As a part of its mandate, PPAF also undertakes infrastructure interventions with the aim of upgrading irrigation, water and related infrastructure across the country. One such intervention funded by the United States Department of Agriculture (USDA) is the Drought Mitigation and Preparedness Plan (DMPP), which combines a number of sub-projects tailored to the specific needs of the drought hit intervention area and aim at restoring ground water levels as well as ensuring water availability. Due to the extremely technical and specialized nature of undertaking large scale integrated water related interventions, a Water Management Center (WMC) was established by the PPAF in December 2005. WMC is a dedicated unit trained and experienced in approving, funding, supporting and assisting PPAF's Partner Organizations (POs) and implementing integrated water interventions across the country.

1.2 The Partner Organization:

Under USDA funding WMC, as part of its nationwide DMPP initiative, signed an agreement with Taraqee Foundation (TF) on 14th June, 2005 for the execution of a DMPP in Union Council Kuch Amakzai of Tehsil Bori in District Loralai, Balochistan. TF, PPAF's implementing partner for the Kuch Amakzai DMPP was registered in 1994 under section 42 of Companies Ordinance 1984 with seed money from BRUWAS (Balochistan Rural and Urban Water and Sanitation Project). It currently has a staff

of 625 with an annual budget of Rs. 187 million and undertakes projects in micro-credit and enterprise development, environment and related infrastructure, basic health and education, child protection and DMPP. Its major donors, apart from PPAF, include AusAid, CIDA, USAID, Govt. of Balochistan, ILO, UNHCR, and UNICEF[1]. As per the implementation agreement, PPAF will provide detailed technical and financial assistance to TF for the execution of the DMPP in Kuch Amakzai.

1.3 Background:

Pakistan faced an extended drought period between 1998 and 2001 due to a significant decrease in overall rainfall during the preceding years. Mean rainfall in most of Balochistan, southern parts of Sindh and southeastern parts of Punjab, fails to meet 75% - 90% of mean annual evaporation thus for plains located below the 33° N latitude agricultural production is heavily dependent on supplementary irrigation. However, extended periods of low rainfall in Balochistan and Sindh and continued low precipitation over river catchment areas has brought water resources available for agriculture under stress[2]. Union Council Kuch Amakzai of District Loralai has also been affected by the drought conditions mentioned above.

Figure 1.3.1 records rainfall in Balochistan and Sindh between 1986 and 2000. As is evident from the figure, Balochistan saw a prolonged spell of below average rainfall from 1998 to 2000. Rainfall during these years remained well below the 240 mm average with 1999 being the worst year with almost 100 mm rainfall. The result of this decrease was the drying up of water courses in Kuch Amakzai. As a consequence of decreased water flows, inhabitants of the union council increased the use of tubewells and water pumps to meet daily water needs for irrigation and consumption. Indeed, figure 1.3.2 highlights the increase in pumping wells in the union council with both open wells (OW) and tubewells (TW) demonstrating a drastic increase in numbers from 1998 onwards. The decrease in water flows coupled with over use of pumping wells had the twin effect of decreasing surface water and lowering the existing water table in the union council. While the temporary increase in the use of ground water to meet daily needs of the community resulted in transitory relief, its long term effects on water availability in the union council have been drastic.

The cumulative impact of the drying up of surface water and the decrease in local aquifer due to substantially increased use of pumping wells had a negative impact on livelihoods and living standards in Kuch Amakzai.

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[1] Taraqee Foundation. URL:<<http://www.taraqee.org/aboutusnew.htm>>. Date accessed. 08-12-09
[2] Chaudhry, Q. Z; Shiekh, M. Munir; Bari, Anjum; Hayat, Azmat. "History's Worst Drought Conditions Prevail Over Pakistan". Pakistan Meterological Journal. url: << .. http://www.pakmet.com.pk/journal/historyworstdrought2001report.htm..

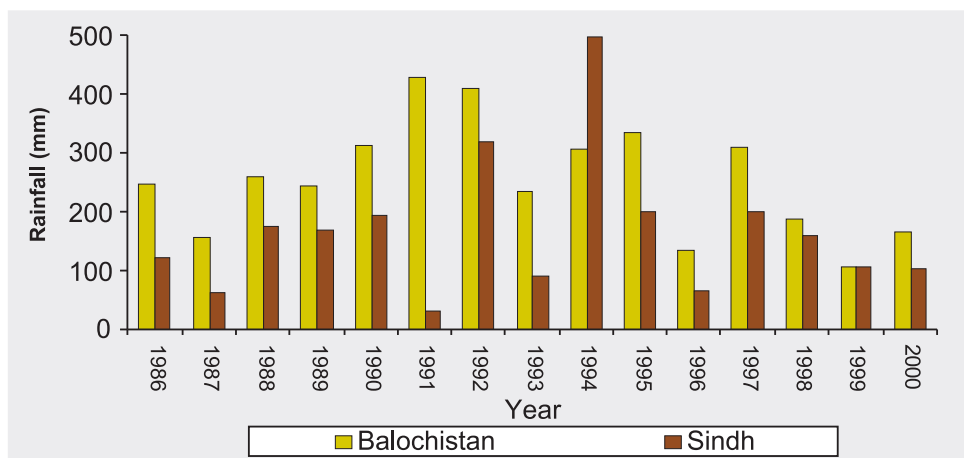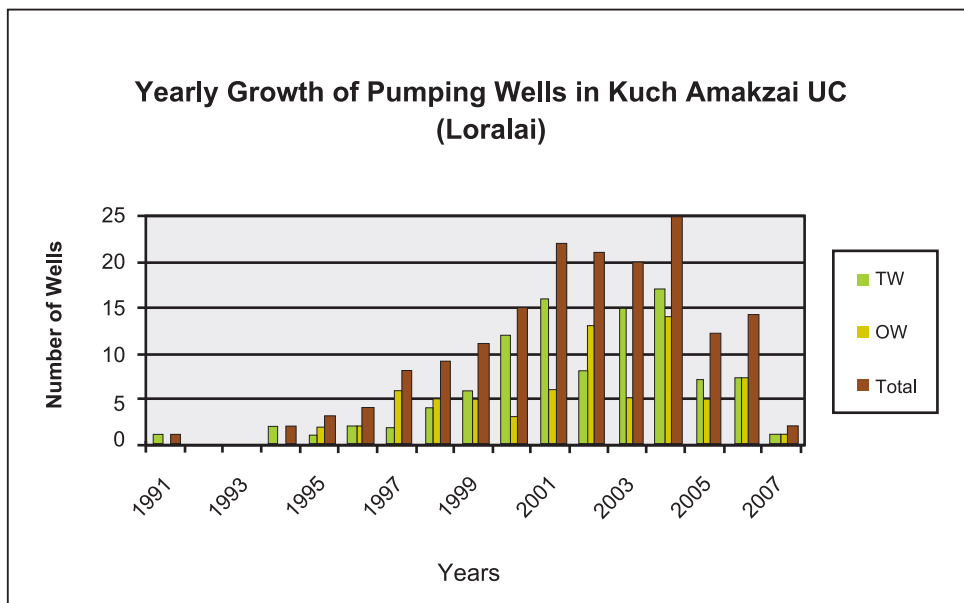Figure 1.3.1 Rainfall in Balochistan and Sindh Provinces 1986 - 2000

Figure 1.3.2 Growth of Pumping Wells in Kuch Amakzai 1991 - 2008

Source: PPAF Water Management Center

1.4 Location:

Kuch Amakzai is located in the district of Loralai, Balochistan. This district is presumably the most developed rain fed region in the province, as it is situated on the edge of its monsoon receiving areas. The district lies from 29° 54′ to 30° 39′ North latitudes and 67° 44′ to 69° 40′ East longitudes. It is bound on the North by Killa Saifullah and Ziarat Districts, on the North East by Musakhel District, on the South East by Barkhan District, on the South by Kohlu district, on the South West by Sibi district and on the West by Pishin district. Total district area is 9830 square kilometers and the total district population, according to the 1998 Population Census, stood at 297,560 with a population density of 30.3 persons per square kilometer. 11.76% of the population lives in urban areas, with an average household size of 9.6 persons while 88.24% of the population resides in rural localities with an average household size of 7.2 persons per household[3].
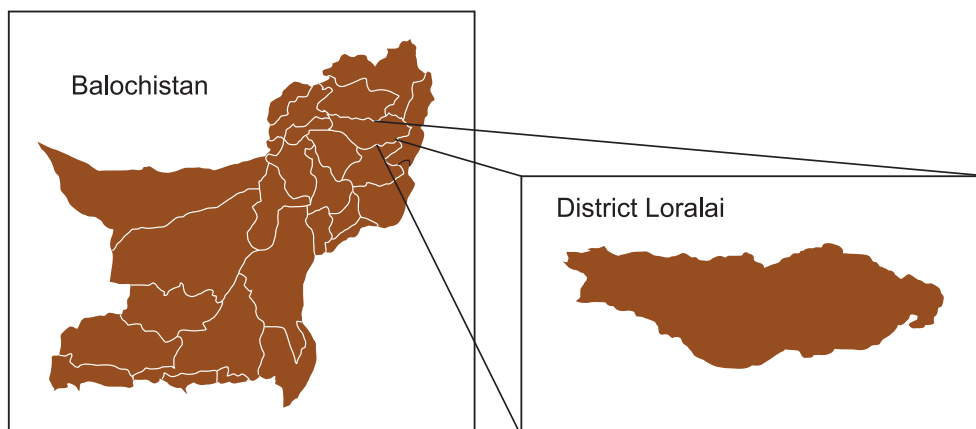
This sparsely populated district, with a low population density, is dominated by dry mountains and hills between which are situated fertile valleys providing valuable sources of livelihood to its residents. Due to the districts topography only 15% of total area is cultivated, with agriculture and horticulture providing the primary sources of income generation.

The project union council Kuch Amakzai is located on the western edge of District Loralai bordering Ziarat, Pishin and Killa Saifullah. The UC is comprised of about

[3] 1998 District Census Report. Loralai. Population Census Organization. Statistics Division. Government of Pakistan. Published September 2000.

1,015 square kilometers of which approximately 3% is cultivated. Apples, apricots, almonds, tomatoes and potatoes are the primary produce in the region. The project area comprises 35 villages/settlements with 95km of paved roads and 130km of unpaved roads. Overall, our project area is located at an elevation of 1500m to 3600m and is a sparsely populated union council with a total population of just 9,872 according to the 1998 population census. Of this 53.03% is male and 46.97% is female.

1.5 The Project:

As mentioned above, Kuch Amakzai has been affected greatly by drought conditions prevailing in Balochistan. As the majority of agricultural activities in the area are dependent primarily on rainwater, with ground water resources acting as secondary sources of irrigation, the drought has increased stress on the local aquifer. WMC's DMPP is tailored specifically for Kuch Amakzai by implementing sub-projects aimed at increasing water conservation, decreasing line losses, increasing water access and lessening the stress on local aquifer. Simultaneously, technical experts at WMC have ascertained that short and heavy spells of rainfall in the area also result in exposing agricultural production: especially in orchards, to flooding. Therefore, corresponding flood protection sub-projects are also built into the overall DMPP to lessen the impact of sporadic heavy rainfall. Table 1.5.1 categorizes the sub-projects planned under the Kuch Amakzai DMPP.

Table 1.5.1 Sub-Projects and Estimated Cost of DMPP in Kuch Amakzai

Type of Sub-Projects	No. Of Sub Projects	Total Cost	CO Share	PPAF Share
Irrigation/Agriculture/Water Conservation Schemes	64	21,231,007	4,246,201	16,984,806
Drinking Water Supply Schemes (DWSS)	6	4,020,273	804,055	3,216,218
Flood Protection Schemes	23	15,210,811	3,042,162	12,168,649
Water Spreading Schemes	6	1,200,000	240,000	960,000
DMPP Total	**99**	**41,662,091**	**8,332,418**	**33,329,673**

The total projected cost of DMPP Kuch Amakzai is Rs. 41.66 million, out of which approximately 20% cost will be borne by the community through contributions in kind, PPAF's share in total project cost is Rs. 33.33 million. 64 sub-projects are planned under irrigation, agriculture and water conservation while 23 sub-projects are planned under flood protection schemes. Water spreading and drinking water supply have 6 sub-projects each under the DMPP.

1.6 Study Design:

The study design combines both "With-Without" and "Before-After" approaches by collecting baseline (April 2008) and impact survey data for a treatment group where the intervention was administered and a control group, where the intervention was not administered. The study follows panel methods by sampling the same households overtime. An impact survey is planned for the year 2010 to collect final level data from respondents.

The households sampled were located in three treatment and three control villages. The distribution of households was as follows:

Table 1.6.1 Sampled Households

Union Council: Kuch Amakzai			
Group	Village	Sampled Households	Sample Size Total
Treatment	Killai Changen	39	
	Langloon	19	
	Obastaghi	20	
	Total	78	
Control	Sagargi	6	
	Toor Tangi	23	
	Zarsaki	7	
	Total	36	114

Overall, 78 households in treatment group were sampled while 36 households in the control group were sampled bringing the total sample size to 114 households. Of particular concern was the geographical spread and dispersed nature of settlements in Kuch Amakzai which led to difficulties in collection of sample data.

1.7 Analysis:

The following analysis conducted for the baseline survey follows a simple with-without approach by comparing the differences between control and treatment households. The following sections focus on basic demographic, economic and social indicators in the study area as the baseline report's purpose is to introduce existing conditions prevalent in our sampled treatment and control communities. Subsequent analysis, conducted on the availability of impact survey data, would seek to incorporate the with-without approach along with the before-after approach examining the impact on outcomes of the DMPP intervention in Kuch Amakzai.
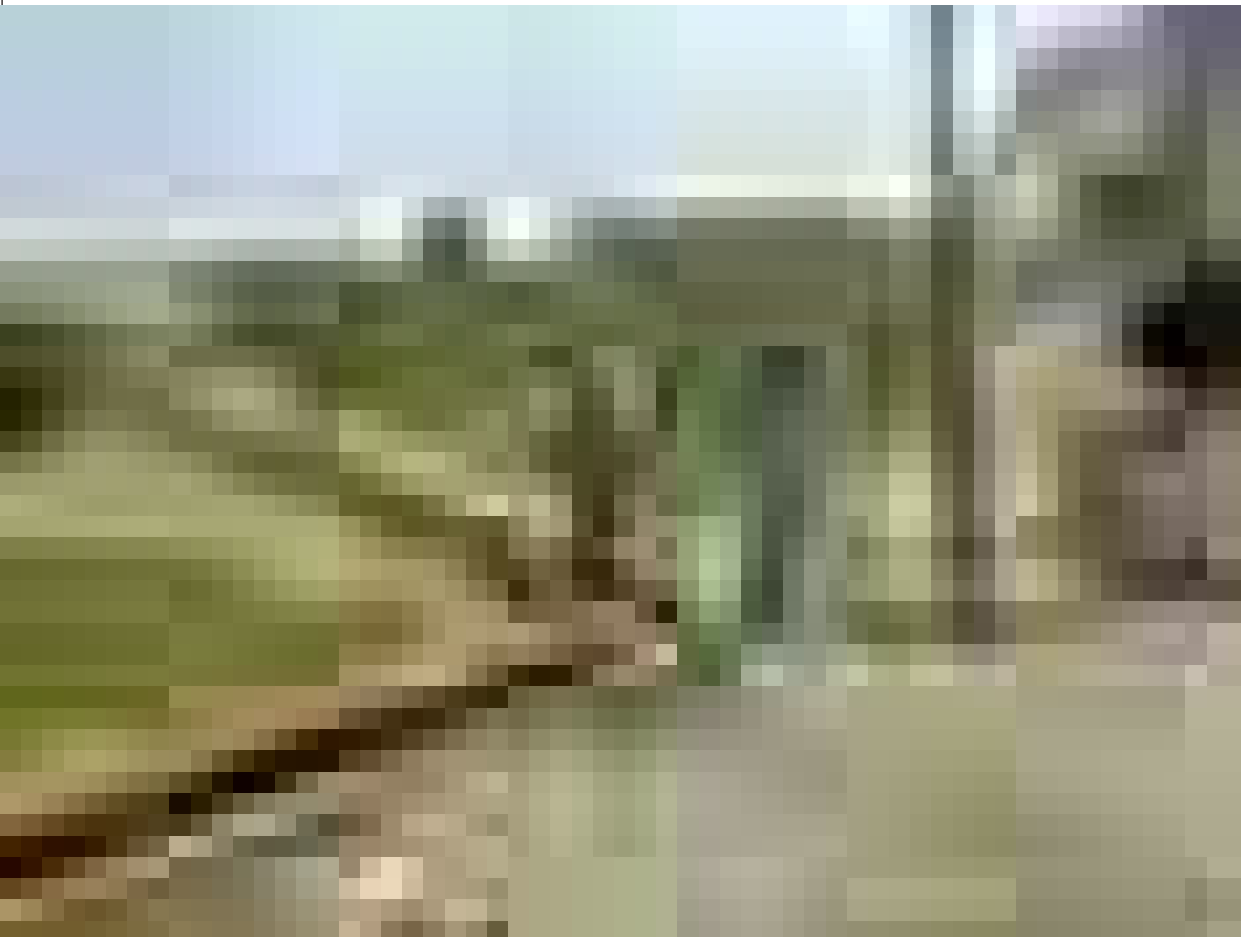
2. DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE

2.1 Demographic Characteristics:

The baseline survey conducted in Union Council Kuch Amakzai sampled a total of 114 respondent households with a population of 816 individuals. Of the 114 households sampled 78 households belonged to treatment villages while 36 households belonged to control villages. Our sampled respondent households demonstrated that 56.85% of population in the control villages was male while 43.15% was female. However, the percentage of male population in the treatment group was slightly higher at 58.98% while female population stood at 41.02% of sampled population.

Table 2.1.1 Demographic Profile

Demographic Profile of Baseline Sample - DMPP Kuch Amakzai						
	Control		Treatment		Total	
	No.	%	No.	%	No.	%
Sampled						
-Households	36		78		114	
-Population	248		568		816	
Population						
-Male	141	56.85	335	58.98	476	58.34
-Female	107	43.15	233	41.02	340	46.16
Average HH Size	6.89		7.28		7.16	
Age (In years)						
-Less than 15	113	45.56	253	44.54	366	44.85
-Between 15 and 60	124	50.00	290	51.05	414	50.73
-Greater than 60	11	4.44	25	4.41	36	4.42
Literacy						
-Total	25	10.08	95	16.73	120	14.71
-Female	1	0.93	11	4.72	12	3.53
-Male	24	17.02	84	25.07	108	22.69

The composition of our sampled population within three age brackets remained the same between treatment and control groups. 45.56 percent of the sampled population was less than 15 years old in our control group and 44.54 percent of our treatment population fell below 15 years of age. In the control group 50 percent of population fell under working age group while 4.44 percent of the population was aged above 60 years. Similarly, amongst our treatment group 51.05 percent of the population was of working age while 4.41 percent was greater than 60 years of age.

2.2 Education:

Overall, the literacy levels between control and treatment groups differed with the control group reporting an overall literacy rate of 10.08 percent compared to 16.73 percent in treatment group. Gender disaggregated literacy demonstrated in table 2.1.1 showed an even greater divide amongst treatment and control groups with just 0.93 percent literacy in the control group amongst women compared to 4.72 percent literacy amongst women in the treatment group. Simultaneously, literacy levels amongst men were also demonstrably greater in treatment group with 25.07 percent reporting literacy whereas amongst the control group only 17.02 percent of male household members were reported as literate.

Table 2.2.1 Education Levels in Kuch Amakzai

Education in Kuch Amakzai: Attendance and Years of Schooling						
	Control		Treatment		Total	
	No.	%	No.	%	No.	%
Education Institution						
-Never Attended	223	89.90	473	83.27	696	85.29
-Previously Attended	13	5.24	49	8.63	62	7.59
-Presently Attending	12	4.86	46	8.10	58	7.12
Years of Schooling						
-1 – 6 years	18	72.00	69	72.63	87	72.50
-7 – 10 years	6	24.00	20	21.05	26	21.67
-11 – 16 years	1	4.00	6	6.32	7	5.83

Table 2.2.1 reports a further breakup of education levels amongst control and treatment groups by reporting both attendance of an education institution and years of schooling amongst the population sampled. Percentage of household members who had never attended school was greater in the control group at 89.90 percent compared to 83.27 percent amongst the treatment group. Significantly, while the percentage of households with 1 to 6 years of schooling remained the same at almost 72 percent amongst both treatment and control groups a marked difference was witnessed in 7 – 10 years of schooling and 11 to 16 years of schooling. While secondary education levels were higher in the control group by almost 3 percentage points, higher education levels were demonstrated to be higher amongst the treatment group with 6.32 percent compared to 4.0 percent in the control group.

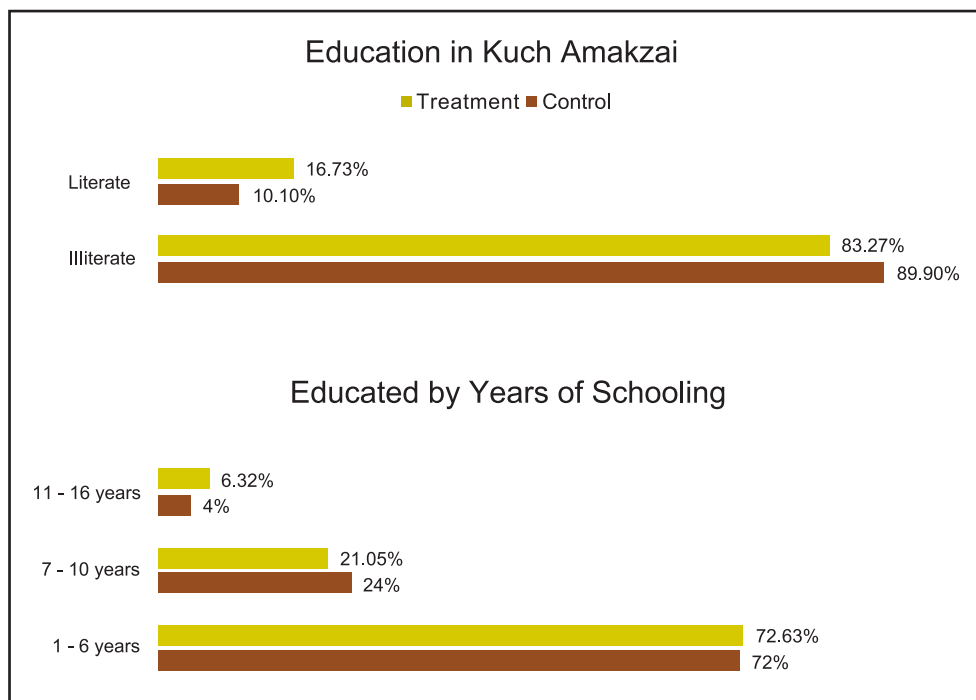Figure 2.2.1 Education Levels in Kuch Amakzai

Figure 2.2.1 above provides a clearer graphical representation of the differences amongst control and treatment groups in overall education levels. While differences in education levels reported were not significantly high, the overall trend demonstrated that more household members were literate in the treatment group than amongst

the control group. Simultaneously, higher education levels were greater amongst the treatment group.

2.3 Employment:

Unemployment, reported in table 2.3.1, was at 47.58 percent in the control group compared to 40.67 percent in the treatment group demonstrating a higher unemployment rate amongst non intervention communities. Overall, our collected sample showed an average unemployment rate of 42.77 percent in Kuch Amakzai.

Table 2.3.1 Employment in Kuch Amakzai

Employment Status In Kuch Amakzai						
Source	Control		Treatment		Total	
	No.	%	No.	%	No.	%
Unemployment	118	47.58	231	40.67	349	42.77
Employment	130	52.41	337	59.33	467	57.23
-Household Work	64	49.23	170	50.45	234	50.11
-Self Farming	39	30.00	65	19.29	104	22.27
-Farm Labor	7	5.38	23	6.82	30	6.42
-Off-Farm Labor	15	11.53	52	15.43	67	14.35
-Service/Job	3	2.30	12	3.56	15	3.21
-Business	0	0.00	4	1.18	4	0.85
-Other	2	1.52	11	3.26	13	2.78

A majority of respondents, both in control and treatment groups were employed in household work with 49.23 percent in the control, and 50.45 percent in the treatment group. Agriculture formed the second highest category of employment with 35.38 percent of household members in the control group reportedly employed in the agricultural sector. Of these 35.38 percent, 30 percent were involved in self-farming or subsistence farming while another 5.38 percent were involved in farm based labor. Correspondingly, only 26.11 percent of household members in the treatment group were involved in agricultural based employment. This demonstrated a 9.27 percentage point difference in employment in the agricultural sector between the two groups. Of 26.11 household members employed in agriculture in the treatment group 19.29 percent were involved in self farming or subsistence farming while 6.82 percent were involved in farm based labor.

The marked difference in agricultural employment between the control and treatment groups was reflected in all other sources of employment as off-farm labor, service/job, and business employment was higher in the treatment group than amongst our control group. Significantly, while 11.53 percent of household members in the control group were employed in off-farm labor the treatment group reported 15.43 percent employment in the same sector.
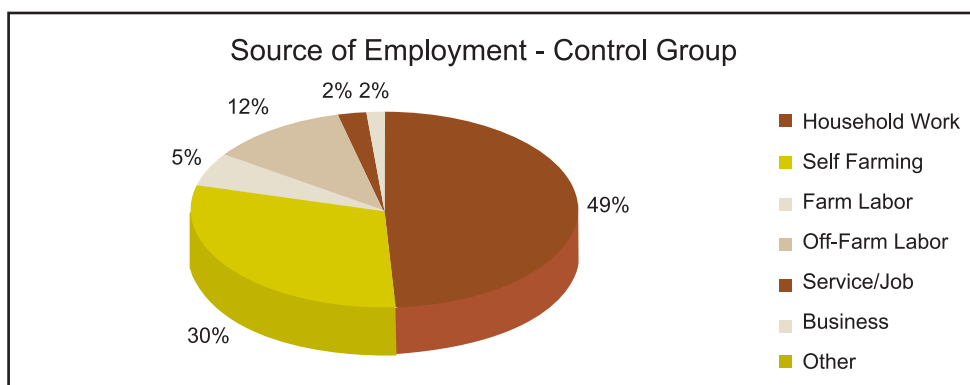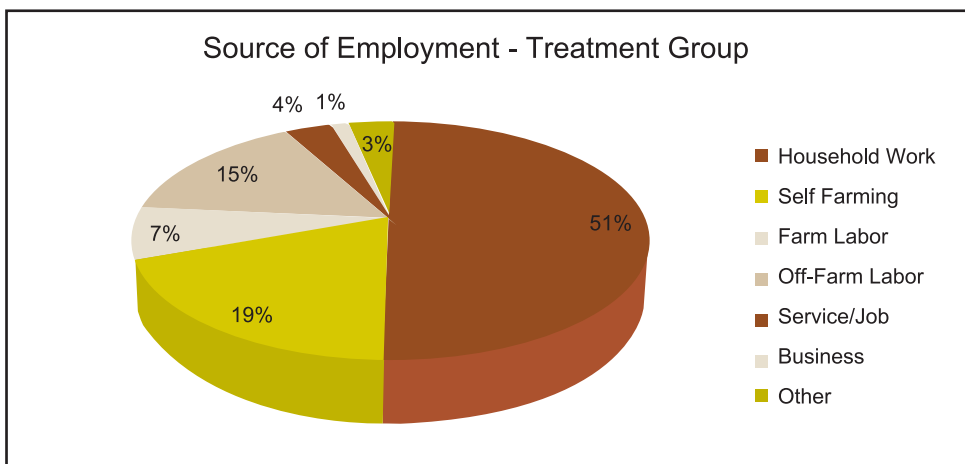
Figure 2.3.1 Control Group – Employment by Source

Source of Employment - Control Group

- Household Work
- Self Farming
- Farm Labor
- Off-Farm Labor
- Service/Job
- Business
- Other

49%
30%
5%
12%
2% 2%

Figure 2.3.2 Treatment Group - Employment by Source

Source of Employment - Treatment Group

- Household Work
- Self Farming
- Farm Labor
- Off-Farm Labor
- Service/Job
- Business
- Other

51%
19%
7%
15%
4% 1%
3%

Similarly, 2.3 percent of household members in the control group reported employment in the service/job sector while in the treatment group 3.56 percent household members were reported to be employed in this sector. Interestingly, while 1.18 percent of

household members reported employment in business sector the control group reported no household member employed under business. Overall, while employment was higher amongst the treatment group, percentage share of household members employed under agriculture was lower than the control group. Significantly, other productive sectors such as business employment and service/job employment were higher amongst the treatment group demonstrating a greater diversity in sources of employment. This greater diversity in employment sources also translates into a greater capacity to mitigate vulnerability risk.

2.4 Housing Infrastructure and Public Service Provision:

Table 2.4.1 below reports housing infrastructure and public service provision, segregated by group, in Kuch Amakzai. The vast majority of households 92.9 percent, in Kuch Amakzai were reported as having Kucha[4] housing structures. The percentage of households living in Kucha structures was marginally greater in the control group at 94.4 percent compared to 92.3 percent amongst treatment group households. In the treatment group another 6.4 percent of households reported living in Semi-Pucca[5] houses while 1.3 percent households reported living in Pucca[6] people living in Pucca houses are the least vulnerable to risk. Correspondingly, 2.8 percent of households in the control group reported living in Semi-Pucca and Pucca housing structures each. Overall, households in the control group were marginally more vulnerable than households in treatment group based on the quality of housing infrastructure. The average number of rooms per household was the same in both the treatment and control group with both groups reporting a little more than 3 rooms as the average.

Another key aspect of vulnerability and poverty, examined in the intervention and non-intervention areas was the kind of latrines in use. A marked difference in latrine use was witnessed between the two groups. While 20.5 percent of households in the treatment group reported having access to latrines inside the house only 2.8 percent households in the control group reported having access to latrines inside the house. Similarly, while 20.5 percent of households in the treatment group reported having access to latrines outside the house but inside the residential compound's four walls, the corresponding number amongst the control group stood at 8.34 percent only. Therefore, while open fields remained the major source of latrine use, the difference between the treatment and control groups was significant. While 59 percent of households in the intervention area reported using the openfields as latrines.

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[4] Kucha refers to houses built with temporary materials such as wood, thatch, mud etc. People living in Kucha households are the most vulnerable.

[5] Semi-Pucca refers to houses built with a combination of temporary and more long lasting materials such as bricks, T-iron, RCC, iron sheet etc.

[6] Pucca refers to houses built with long lasting materials like T-iron, RCC, bricks, cement etc. People living in Pucca houses are the least vulnerable to risk.

88.86 percent of households in the non-intervention area reported use of open fields as latrines. This stark difference demonstrated better access to latrines amongst the treatment households than amongst the control households.

Table 2.4.1 Housing Structure and Public Service Provision in Kuch Amakzai

Housing Structure and Service Provision in Kuch Amakzai						
	Control		Treatment		Total	
	No.	%	No.	%	No.	%
House Structure - Kucha - Semi-Pucca - Pucca	34 1 1	94.4 2.8 2.8	72 5 1	92.3 6.4 1.3	106 6 2	92.9 5.3 1.8
Average No. of Rooms	3.19		3.16		3.18	
Latrine - In-House - Outside - Open Field	1 3 32	2.8 8.34 88.86	16 16 46	20.5 20.5 59	17 19 78	14.9 16.67 68.43
Drainage	14	38.89	42	53.85	56	49.12
Electricity	19	52.78	54	69.23	73	64.03
Water Source - Piped - Canal - Well - Hand Pump	1 1 32 2	2.8 2.8 88.8 5.6	0 7 70 1	0 9 89.7 1.3	1 8 102 3	0.88 7 89.5 2.63
Fuel Source - Gas - Wood - Kerosene	1 36 9	2.8 100 25	0 78 27	0 100 34.62	1 114 36	0.88 100 31.58

Similarly, as latrine access was better in the treatment group, access to drainage and sanitation too was reported to be better amongst the treatment group as 53.85 percent households reported access to adequate drainage compared to 38.89 percent of households in control group. Electricity connection demonstrated the trend witnessed in latrine use and drainage with 69.23 percent households in the treatment group reporting electricity availability while 52.78 percent households in

the control group reported availability of electricity to their homes.

Wells, both open and closed, remained the single most important source of water in Kuch Amakzai as 88.8 percent households in the control group and 89.7 percent households in the treatment group reported accessing well water. The second most important source of water in the control group was hand pumps, with 5.6 percent households reporting access to hand pumps. In the treatment group canal water was reported as the second most important source of water for 9 percent households. Overall, while 8.4 percent households in the control group reported access to water through safest modes of water conveyance such as piped and hand pump water, only 1.3 percent households in the treatment group reported access to safer modes of water conveyance. This meant that treatment group households were more exposed to water contamination and demonstrated greater vulnerability to water borne diseases compared to households living in the non-intervention area.

Significantly, all households in the treatment and control groups reported using wood as their primary source of fuel while kerosene remained the most important secondary source of fuel in Kuch Amakzai, at 25 percent in the control group and 34.62 percent in the treatment group. Access to gas was extremely low in Kuch Amakzai as only 2.8 percent households in the control group reported access to gas services while in the treatment group none of the households sampled reported access to gas services.

2.5 Land under Cultivation:

While average land under cultivation was reported to be marginally greater in the treatment group (3.56 percent) vis-à-vis the control group (3.50 percent), land value in the control group was reported to be higher amongst the control group as compared to treatment group, reflecting that the control group had better quality agricultural land than the treatment group.

This difference in land value and quality is also reflected in the employment data gathered through the survey as agricultural employment forms a greater part of overall employment trends in the control group as compared to treatment group. Indeed, subsequent sections highlighting average incomes in Kuch Amakzai also

Table 2.5.1 Average Landholding in Kuch Amakzai

Average Land Holding in Kuch Amakzai			
	Control	Treatment	Total
Land in Acres	3.50	3.56	3.54
Value in Rs.	1,071,389	634,731	772,623

back up the assertion that land under cultivation is better suited to agriculture in the control group than treatment group as average incomes from agriculture are higher in households living in the non-intervention area as compared to intervention area. Nevertheless, while the correlation between sources of employment, average incomes from agriculture and land under cultivation seems high, a cautionary approach must be adopted in drawing causality. Indeed, one reason for the lower incomes in agriculture and lower land value amongst the treatment group may be a result of continuous drought conditions and decrease in local aquifer amongst intervention households. Subsequent data gathered through impact survey will provide a greater insight into the effects of providing DMPP interventions amongst treatment communities.

3. HOUSEHOLD INCOME AND EXPENDITURE

3.1 Household Income:

Table 3.1.1 below highlights the average household incomes in Kuch Amakzai. The average per capita household income overall was estimated at Rs. 2,089 in Kuch Amakzai. In the control group, the estimated per capita household income stood at Rs. 2,236 while the treatment group reported a lower per capita income of Rs. 2,026. Similarly, while the average monthly household income in the control group was Rs. 15,407 the average monthly household income in the treatment group was estimated at Rs. 14,749. Indeed, greater difference in per capita income compared to monthly household income was a reflection of the greater household size in treatment communities compared to control communities.

Table 3.1.1 Household Income in Kuch Amakzai

Household Income in UC Kuch Amakzai						
	Control		Treatment		Total	
	Actual	% Share	Actual	% Share	Actual	% Share
Agriculture	10,081	65.43	8,194	55.56	8,790	58.77
Livestock	1,699	11.03	1,760	11.93	1,740	11.63
Business	213	1.38	349	2.37	306	2.05
Labor	2,579	16.74	3,416	23.16	3,152	21.08
Service	750	4.87	957	6.49	891	5.96
Remittance	7	0.05	19	0.13	15	0.10
Gift	9	0.06	1	0.01	4	0.03
Other	69	0.45	53	0.36	58	0.39
Average Monthly Income	15,407	100.00	14,749	100.00	14,956	100.00
Average Per Capita Income	2,236		2,026		2,089	

Figure 3.1.1 provides a graphical representation of average household incomes in treatment and control groups. As is evident in the graph, the greatest difference in sources of household income was due to agriculture and labor incomes within the two groups. While agriculture was a greater source of livelihood in non-intervention communities, accounting for 65.43 percent of average household income compared

conversely had a larger share in average household income in intervention communities, accounting for 23.16 percentages compared to non-intervention communities: forming 16.74 percent of average household incomes. This was also a reflection of the earlier data on employment sources as agriculture based employment was considerably larger in control group than in treatment group households.

Figure 3.1.1 Household Income in Kuch Amakzai
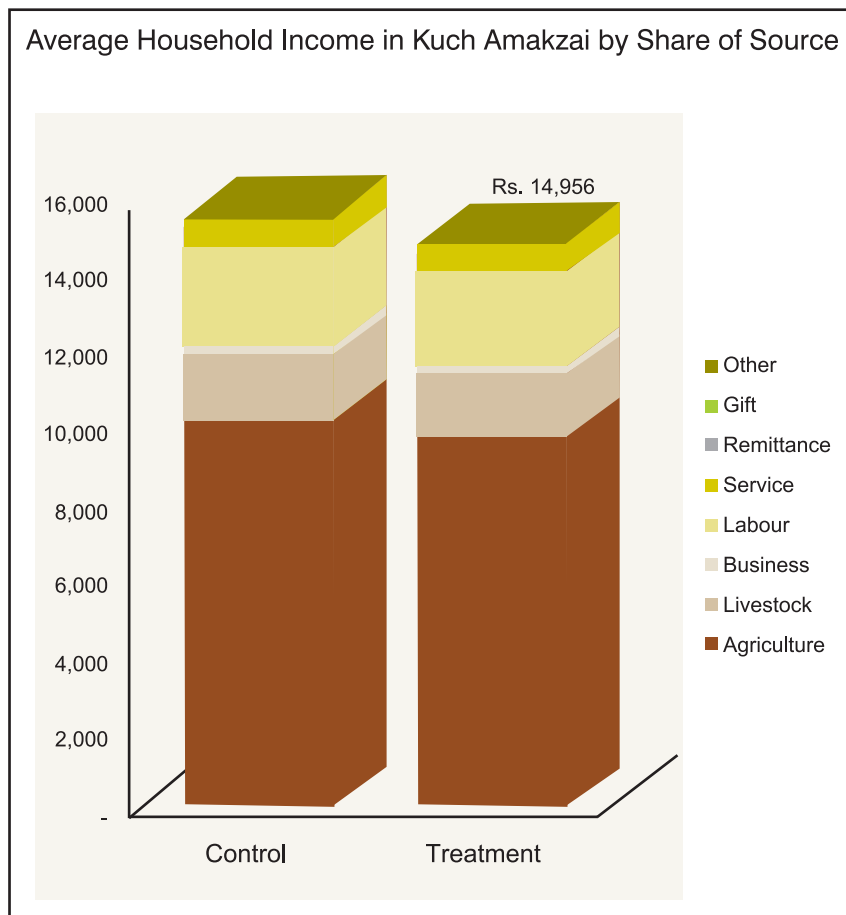
The third major source of livelihood namely livestock, represented an equal share of household income in both treatment and control household by accounting for almost 11 percent of average household incomes. Indeed, non agricultural sources

of livelihood generation in the intervention communities accounted for a larger share of average household incomes at 44.44 percent than in the non intervention communities at 34.57.

3.2 Household Expenses:

As demonstrated in table 3.2.1 food accounted for the largest single source of average household expenditure. Food expenditure on average, was higher amongst non-intervention households. Indeed, the average expenditure on food was Rs. 8,153 in control households accounting for 59.38 percent of total household expenses. In the treatment group, households reported average expenditure on food estimated at Rs. 6,997 accounting for 51.64 percent.

Table 3.2.1 Household Expenses in Kuch Amakzai by Source

Household Expenses in UC Kuch Amakzai						
	Control		Treatment		Total	
	Actual	% Share	Actual	% Share	Actual	% Share
Food	8,153	59.38	6,997	51.64	7,362	54.11
Clothing	921	6.71	1,348	9.95	1,213	8.92
Housing	808	5.88	642	4.74	694	5.10
Health	772	5.62	1,267	9.35	1,111	8.17
Education	236	1.72	338	2.49	306	2.25
Utilities*	72	0.52	57	0.42	62	0.46
Social Functions	1,297	9.45	1,791	13.22	1,635	12.02
Transport	1,254	9.13	831	6.13	965	7.09
Remittance	161	1.17	220	1.62	201	1.48
Other	56	0.41	58	0.43	57	0.42
Total Average Expenses	13,730	100.00	13,549	100.00	13,606	100.00

*Utilities include electricity bills and would not be applicable for all respondents. Telephone and gas connections in intervention area are almost non-existent.

The second highest source of household expenditure was social functions. Control households reported spending 9.45 percent of their overall consumption expenditures on social functions while treatment households spent 13.22 percent under the same head. Expenditure on clothing accounted for 6.71 percent of total expenditure amongst control households whilst among treatment households it accounted for 9.95 percent. While overall total expenditure was less amongst intervention households,

expenditure on health and education remained higher in treatment households compared to control households. Rs. 1,267 and Rs. 338 were spent by treatment households on health and education respectively. Conversely, control households spent Rs. 772 and Rs. 236 respectively on health and education accounting for 5.62 percent and 1.72 percent of total household expenditures.

Figure 3.2.1 Share in Average Household Expenses in Kuch Amakzai

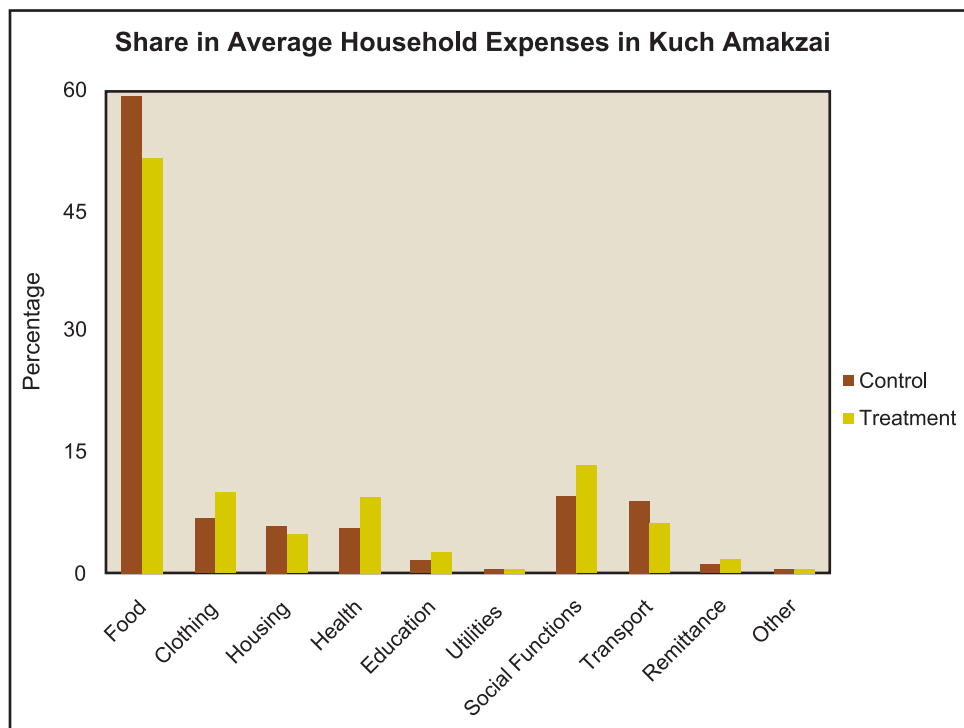**Share in Average Household Expenses in Kuch Amakzai**

Figure 3.2.1 above provides a graphical look at the share of each major source of expenditure in overall consumption of households in Kuch Amakzai. As is evident food, housing, utilities and transport were the main sources of expenditure which had a greater share in overall expenses of households in the control group compared to the treatment group. Clothing, health, education, social functions and remittances share in overall household expenditure was greater in intervention households.