

Impact Assessment of Basic Services and Infrastructure Component of Pakistan Poverty Alleviation Fund (PPAF)



February 2016

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Table of Content

EXECUTIVE SUMMARY	1
1 INTRODUCTION	5
1.1 Background	5
1.2 Terms of Reference of the Study.....	5
1.3 Coverage of Interventions	6
1.4 Organization of the Impact Assessment Report.....	6
2. OBJECTIVES AND METHODOLOGY	7
2 Objectives of the Impact assessment.....	7
2.1 Methodology Adopted to Address Objectives	7
2.1.1 Literature Review.....	7
2.1.2 Questionnaire Development.....	7
2.1.3 Data Collection	8
2.1.4 Transect Walk	8
2.1.5 Partner Organizations' Working.....	9
2.1.6 Financial and Economic Analysis.....	9
2.1.7 The Team	10
3 FINDINGS OF THE IMPACT ASSESSMENT	11
3.1 Irrigation Water Schemes.....	11
3.1.1 Relevance	11
3.1.2 Demand or Supply Driven	12
3.1.3 Deepening, Saturation, Integration and Holistic.....	13
3.1.4 Execution of the Schemes: Quality and Operation and Maintenance (O&M) Coverage	14
3.1.5 Financial and Economic Impact: Irrigation	15
3.1.5.1 Financial Internal Rate of Return (FIRR).....	16
3.1.5.2 Economic Internal Rate of Return (EIRR)	16
3.1.6 Local Economy	17
3.1.7 Livelihood	17
3.1.8 Social Impact of Irrigation Water Schemes	18
3.1.8.1 Social Inclusion	19
3.1.8.2 Impact on Social Services: Education and Health.....	19
3.1.8.3 Impact on Social Interaction.....	19
3.1.8.4 Networking and Linkages.....	20
3.1.8.5 Beneficiaries' Assessment of Irrigation Schemes	20
3.2 Drinking Water Supply Schemes (DWSS)	21
3.2.1 Relevance	21
3.2.2 Demand or Supply Driven	22
3.2.3 Deepening, Saturation, Integration and Holistic.....	22
3.2.4 Execution of the Schemes, Quality and O&M Coverage	22
3.2.5 Financial and Economic Impact of the Interventions	23
3.2.5.1 Financial Internal Rate of Return (FIRR).....	24
3.2.5.2 Economic Internal Rate of Return (EIRR)	24
3.2.6 Local Economy	24

3.2.7	Livelihood	25
3.2.8	Social Impact of the Drinking Water Supply Schemes	26
3.2.8.1	Need of DWSS	26
3.2.8.2	Health Impact	27
3.2.8.3	Findings From Qualitative Data	28
3.3	Roads and Bridges.....	29
3.3.1	Relevance.....	29
3.3.2	Demand or Supply Driven	29
3.3.3	Deepening, Saturation, Integration and Holistic.....	30
3.3.4	Execution of the Schemes, Quality and O&M Coverage	30
3.3.5	Financial and Economic Impact of Roads and Bridges	31
3.3.5.1	Financial Internal Rate of Return	32
3.3.5.2	Economic Internal Rate of Return	33
3.3.6	Local Economy	33
3.3.7	Livelihood	34
3.3.8	Social Impact of Roads and Bridges Schemes.....	35
3.3.8.1	Inclusiveness.....	35
3.3.8.2	Gender Empowerment.....	35
3.3.8.3	Improved Health and Education Services	36
3.3.8.4	Impact on Social Interaction.....	37
3.4	Drainage and Sanitation	38
3.4.1	Relevance.....	38
3.4.2	Demand or Supply Driven	38
3.4.3	Deepening, Saturation, Integration and Holistic.....	39
3.4.4	Execution of the Schemes: Quality and O&M Coverage	39
3.4.5	Financial and Economic Impact of the Drainage and Sanitation Schemes	41
3.4.5.1	Financial Internal Rate of Return	41
3.4.5.2	Economic Internal Rate of Return	42
3.4.6	Local Economy	42
3.4.7	Livelihood.....	42
3.4.8	Social Impact of Drainage and Sanitation Schemes	43
3.4.8.1	Inclusion	43
3.4.8.2	Gender Empowerment.....	43
3.4.8.3	Functioning and Management of the Drainage System.....	44
3.4.8.4	Solid Waste Management.....	45
3.4.8.5	Impact on Community Well-Being	46
3.4.8.6	Health Impact	46
3.5	Renewable Energy.....	48
3.5.1	Relevance.....	48
3.5.2	Demand or Supply Driven	48
3.5.3	Deepening, Saturation and Holistic	48
3.5.4	Financial and Economic Impact of Renewable Energy Schemes.....	49
3.5.5	Social Impact of Energy Schemes	50
3.5.5.1	Inclusiveness.....	50
3.5.5.2	Pre and Post-Scheme Usage of Energy and Fuel Sources.....	50

3.5.6	Impact on Education and Household Members' Workload.....	51
3.5.7	Environmental/Health Impacts	52
3.5.8	Overall Beneficiary Assessment.....	52
4	Environmental and Social Management Framework (ESMF)	53
5	PRINCIPLES OF PPAF III.....	54
5.1	Holistic	54
5.2	Integration	54
5.3	Deepening and saturation	54
6	STRENGTHS AND WEAKNESSES OF THE PROGRAM	56
6.1	Strengths.....	56
6.2	Weaknesses	57
7	RECOMMENDATIONS	58

Annexes

Annex-1: Tables

Annex-2: Benefits and cost streams

Annex-3: Tools

List of Tables

Table 2.1 IA Respondents Identified by Sector, Province and Gender	8
Table 3.1: Relevance of Irrigation Schemes	11
Table 3.2: Increase in Household Income	15
Table 3.3: Uncultivable Land Converted to Cultivable Land.....	15
Table 3.4 EIRR of the Irrigation Water Schemes	16
Table 3.5 Poverty Scenario.....	18
Table 3.6 Asset Possession by the Beneficiaries	18
Table 3.7: Increase in Social Interaction	20
Table 3.8: Benefits Through Irrigation Interventions	20
Table 3.9: Sources of Drinking Water Pre- Scheme.....	21
Table 3.10: Financial Contribution for O&M.....	23
Table 3.11: EIRR DWSS	24
Table 3.12 Poverty Scenario: DWSSs	25
Table 3.13: Water Sources after the Scheme	26
Table 3.14: Satisfaction Level	27
Table 3.15: Cash Contribution for O&M.....	31
Table 3.16: Income Increase Responses	32
Table 3.17 EIRR: Roads and Bridges	33
Table 3.18: Benefits Post Schemes.....	33
Table 3.19 Poverty Scenario: Post Roads and Bridges Schemes	34
Table 3.20: Cash Contribution: O&M	41
Table 3.21 EIRR: Drainage and Sanitation	42
Table 3.22 Poverty: Beneficiaries of Drainage and Sanitation Schemes (%)	42
Table 3.23 Inclusiveness.....	43
Table 3.24: Impact on Women's Workload.....	44
Table 3.25: Overflow of Drains	45
Table 3.26: Health Status Post Intervention	47

Table 3.27: Perceptions: Selection of Beneficiaries	50
Table 3.28: Energy and Fuel Sources: Pre Scheme	50
Table 3.29: Energy and Fuel Sources: Post Scheme	51
Table 3.30: Impact: Cooking	51
Table 3.31: Impact: Kitchen Activities	51
Table 3.32: Fuel Collection	52
Table 3.33: Impact: Pollution	52

List of Figures

Figure 3.1: Irrigation Schemes Priority	12
Figure 3.2: Responses Showing Consultations at Planning Stage.....	12
Figure 3.3: Watercourse Interventions by PPAF.....	13
Figure 3.4: "Yes" Responses on "Cleaning of Water Channels" (%).....	14
Figure 3.5: FIRR of Irrigation Schemes	16
Figure 3.6: Impact of irrigation interventions on Social Services	19
Figure 3.7: DWS Schemes Priority.....	22
Figure 3.8: Benefits from DWSS.....	23
Figure 3.9: FIRR of DWSS.....	24
Figure 3.10: Priority of Roads and Bridges	30
Figure 3.11: Responses (%): Positive Impact.....	32
Figure 3.12: FIRR: Roads and Bridges.....	33
Figure 3.13: Possession of Assets.....	35
Figure 3.14: Improvement in Accessibility in Village after the Scheme.....	35
Figure 3.15: Priority of Drainage and Sanitation.....	38
Figure 3.16: Satisfaction Level with Overall Condition of Drainage.....	40
Figure 3.17: FIRR of Drainage and Sanitation Schemes.....	41

ABBREVIATIONS

BRSP	Balochistan Rural Support Program
CO	Community Organization
DWSS	Drinking Water Supply Scheme
EIRR	Economic Internal Rate of Return
ESMF	Environmental and Social Management Framework
FGD	Focus Group Discussion
FIRR	Financial Internal Rate of Return
IA	Impact Assessment
KII	Key Informant Interview
KP	Khyber Pakhtunkhwa
NGO	Non-Government Organization
NRSP	National Rural Support Program
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PMERO	Planning, Monitoring, Evaluation and Research Officer
PO	Partner Organization
PPAF	Pakistan Poverty Alleviation Fund
SEBCON	Socio-Economic and Business Consultants
SRSO	Sindh Rural Support Organization
SRSP	Sarhad Rural Support Program
SHER	Society for Human Empowerment and Rural Development
ToR	Terms of Reference
TV	Tele Vision
UC	Union Council
VO	Village organization

EXECUTIVE SUMMARY

Background and Methodology

An Impact Assessment (IA) of Pakistan Poverty Alleviation Funds' (PPAF) intervention pertaining to Basic Services and Community Physical Infrastructure (CPI) schemes was conducted by SEBCON Islamabad from May to September 2015. The focused sectors were: Irrigation Water, Drinking Water Supply, Roads and Bridges, Drainage & Sanitation, and Renewable Energy. The sample selection was undertaken in consultation with PPAF staff based on multi-stage criteria. Four types of questionnaires were developed for data collection: for individual households, Focused Group Discussions/Key Informant Interviews (FGDs/KIIs), Partner Organizations (POs), and Environmental and Social Management Framework (ESMF) stakeholders. The data was collected from 40 Union Councils (UCs) from 12 districts of four provinces of the country. The scheme-wise coverage and approach is detailed in Section-2 of the main report.

Findings

Relevancy of the Executed Schemes: The data collected from individuals and FGDs during field investigations and explained in relevant sections of the main report indicates that majority of beneficiary respondents ranked high the need and the priority of the schemes. The schemes were considered a priority because they addressed the economic and social problems of the comparatively poor segments of the society in the target districts.

Demand Driven or Supply Driven: A great majority of respondents stated that schemes were relevant. Affirmative responses regarding priority were 100% for energy, 83% for Drinking Water Supply Schemes (DWSS), 79% for Roads, 75% for irrigation and 62% for drainage & sanitation showing that schemes were demand driven.

Execution, Quality and Operation and Maintenance (O&M) Coverage: The schemes were designed by the engineers of POs in consultation with the intended beneficiaries. The Community Organizations (COs) executed the construction work through hiring contractor services, while quality and quantity monitoring was done by COs' members under the guidance of PO engineers. It was noticed during the FGDs and field visits that the designs were appropriate, and construction quality reasonable. The infrastructures were still in working condition. However, construction quality of drainage and sanitation schemes was a mix of good and average. In most cases maintenance of schemes is undertaken on a need-basis. COs clean and maintain the schemes on a collective basis. This is the traditional approach to solve local problems and is not necessarily in line with the stipulation by the project that monthly contributions be generated by COs.

Financial and Economic Internal Rate of Return (FIRR & EIRR): The IRRs of the schemes, presented below, were calculated using direct development cost of the schemes, incremental O&M, and incremental benefits being derived by the beneficiary communities over a period of 10 years. The assumptions used and approach applied is detailed in the methodology section.

Financial and Economic Internal Rate of Return of the Schemes (%)

Irrigation		DWSS		Roads and Bridges		Drainage and Sanitation		Renewable Energy		Overall	
FIRR	EIRR	FIRR	EIRR	FIRR	EIRR	FIRR	EIRR	FIRR	EIRR	FIRR	EIRR
51.2	57.2	15.0	15.2	35.6	36.8	16.4	16.2	22.3	21.0	33.8	36.1

Although, IRRs of certain sector schemes are low due to linear step assumptions on recurrent expenditures and because of difficulty in quantifying certain indirect benefit streams in view of the limited scope of the schemes, still it shows that the schemes had a significant economic contribution towards beneficiary households and the local economy. The data collected on poverty bands from the beneficiary communities also suggests contribution of the schemes towards improvement of livelihood.

Local Economy and Livelihood: All the schemes were found contributing towards the local economy in varying degrees. The schemes have created social and economic capital in the form of better health of men, women and children. Data on poverty bands reflect that the percentage of transitory vulnerable, transitory non-poor and non-poor population has been in the range, highest 98% in the irrigation sector schemes to lowest 58% in the renewable energy schemes. The scenario amongst the beneficiaries of DWSSs, roads and bridges, and drainage and sanitation is 70%, 71% and 78%, respectively. In the absence of baseline data, it is not possible to assess the actual reduction in the poverty bands.

Social Impact of the PPAF Schemes: The ‘bottom-up approach’ to poverty reduction has been promoted on the grounds that it made development more inclusive and responsive to the needs of the poor. COs were formed as a prerequisite for entitlement for PPAF financial support. The social impacts of the schemes are given below.

Inclusiveness: The field investigations revealed that the schemes were mostly inclusive except irrigation schemes where male domination was more evident and women’s participation was limited. In the irrigation schemes, marginalized and very poor households without any land holdings were not directly included. Other schemes such as roads and bridges, drainage and sanitation, DWSSs and renewable energy were highly inclusive in terms of social impact.

Social Services and Gender Impact: As detailed in the main report, there was evidence of a positive social impact and well-being status of the beneficiary communities due to increases in income levels, expectedly due to irrigation and road schemes, and better health and hygienic living environment derived from other schemes. The household level data indicates an increase in the education of children, improvements in intake of food quantity and quality, and the health status of the beneficiary households including women and children. Incidents of skin allergies and diseases have reduced where schemes have been executed. The use of water pumps by beneficiaries has increased from 14% in the pre-intervention scenario to 45% after the project, besides access to public taps from 2% to 19%, both having positive implications for the health and hygiene of the beneficiaries with major benefits to women and children.

The water collecting points provided near households were considered convenient and safer thus increased numbers of women were allowed outside the houses to collect drinking water whereas the number of men collecting water was reported to have reduced. The IA further reveals that in majority of the cases (88%) the respondents were getting a steady supply of water throughout the year

A major positive impact of the interventions on gender was observed in terms of reduction of the workload of women performing cleaning and sanitation tasks. Similarly, construction/repair of streets as part of the drainage and sanitation interventions improved the mobility of women inside the villages. The roads and bridges schemes have also increased social interaction of the communities, especially women.

Slight changes in behavior of beneficiaries were observed regarding disposal of solid waste. The beneficiaries' started using proper waste disposal mechanisms like refuse bins in the post intervention scenario; the number of respondents using these bins increased from 1% to 7%. Furthermore, solid waste disposal in the streets decreased from 52% to 43%.

Environmental Impact: The schemes were mostly small in financial terms and scope of work. More than 90% schemes were of less than Rs.1 million, some with a lower limit of Rs.0.2 million. Therefore, their externalities and impact on the overall environment is limited and difficult to assess. However, most of the schemes – particularly drainage & sanitation and DWSSs– played a positive role in reducing pollution inside homes and outside in the streets that had a well-being effect on all household members, especially women and children, thus positively contributing to the environment.

Environmental and Social Management Framework (ESMF): POs report that they take cognizance of ESMF guidelines being mandatory condition attached with the financial support provided by PPAF. On the other hand, PPAF is not comfortable with the performance of some POs in implementing ESMF related mandatory actions. Not surprising, there are two different points of view that need resolution by PPAF.

Principles of PPAF III

Holistic: PPAF has been successful in observing a holistic approach in addressing poverty and gender issues. Schemes of different sectors within an area i.e. integrated sets of interventions which mutually re-enforced each other's strengths.

Integration: Field findings show that PPAF's approach embedded with integration had a significant impact on poverty reduction and socio-economic improvement of the beneficiary villages.

Deepening: During the field visits, the team observed that in many instances deepening efforts were made. In the villages where more than one scheme had been executed, people had benefited more as compared to single scheme villages.

Saturation: PPAF funded intensive investment, which means more than one infrastructure schemes were executed within one village for a more sustainable and efficient economic and social impact. However, PPAF success in this regard is limited mainly because of the huge need/demand for a variety of infrastructure schemes in many of the poverty-ridden target areas.

Strengths and Weaknesses of the Program

Strengths

- **Holistic Approach:** PPAF adopted a holistic approach in addressing development issues of the poor rural communities.
- **Inclusive Community Participation:** Beneficiaries have been part of all stages of the schemes' development. The communities' contribution in the schemes and execution has created ownership. No major conflict was reported due to implementation of the schemes that reflects inclusive participation of the communities.
- **Women's Participation:** Creation of women COs has created opportunities for the poor women, enabling them to improve their social standing and economic well-being.

- Focus on Critical Infrastructure: The PPAF has invested in critical infrastructure with social and economic productive implications for the villages of the target districts.
- Working through Partner Organizations (POs): Successful implementation of a large number of schemes spread over a huge geographic area including all provinces of Pakistan has been possible due to PPAF's strategy of engaging local NGOs as POs.
- Deepening and Saturation: PPAF is pursuing this approach in the target districts remarkably.
- ESMF: ESMF is an important aspect of PPAF's development agenda that keeps track of environmental and social impacts and designs mitigations for any adverse impact.

Weaknesses:

- Large geographic coverage thinly spreads the available funds. Poverty alleviation impact is localized and does not cover whole villages in many cases.
- A large number of COs are in place. This would require substantial amounts of funding and manpower for their capacity building to bring these COs to a level where they could continue and maintain the infrastructure on a sustainable basis.
- There is limited evidence of impact in terms of female empowerment. However, behavioral change has been observed in many cases.
- Adequate capacity building of farmers in value addition and marketing has not been carried out for harnessing potential benefits of increased productivity and diversification.

Recommendations:

- PPAF should continue its investments with increased fund allocation for irrigation water, and road & bridge schemes.
- Investment in DWSSs and drainage and sanitation schemes should be up-scaled.
- Alternate energy schemes should be extended to irrigation water and DWSSs.
- Irrigation water schemes should be accompanied by value addition and marketing-related capacity building of CO members.
- Investment in infrastructures benefiting women, including capacity building, needs to be continued and even increased in the future.
- For O&M coverage, in case of major repairs, beneficiaries need to be linked with relevant Government Departments.

1 INTRODUCTION

1.1 Background

Pakistan Poverty Alleviation Fund (PPAF) is an autonomous not-for-profit private sector organization set up by the Government of Pakistan to work for poverty alleviation in the country. PPAF philosophy is based on community-driven development for poverty alleviation in the country. PPAF strives for improving the quality of life of the poor segments of society through broadening the range of opportunities and socio-economic mainstreaming of the poor and disadvantaged including women. The main strength of the PPAF is its Partner Organizations (POs) mainly comprising of local Non-Government Organizations (NGOs). PPAF interventions include social mobilization, livelihood support, access to credit, infrastructure, energy, health, education and disaster management.

In order to carry out an impact assessment of its interventions pertaining to the basic services and infrastructure components, PPAF asked for proposals through open competition. SEBCON (Pvt.) Ltd. competed and, based on its competitive Technical and Financial Proposal, the firm was awarded the contract by PPAF on 6th May 2015 to undertake the Impact Assessment (IA) of the water and infrastructure components under the World Bank funded PPAF III Project effective from 2009.

1.2 Terms of Reference of the Study

The detailed Terms of Reference (ToRs) of the IA assignment includes the following specific scope of study.

- i. Undertake the overall economic and financial analysis of the project interventions/development schemes.
- ii. Quantify the immediate outcomes of returns (social, economic - ERR and FRR) of the selected project interventions (Basic Community Infrastructure, Local Area Up-scaling & Up-gradation and Holistic Rural Development under SCAD) to the target communities, especially vulnerable groups, women and children.
- iii. Estimate the impact of the above with respect to incomes, livelihoods and overall social and economic well-being of project beneficiaries. Assess and quantify the project contribution to additional livelihood opportunities and its impact at the household level in project target areas. This impact analysis will use the different filters including gender, poverty ranks (Poverty Scorecard), social exclusion, etc., to assess the distributional equity of project benefits.
- iv. Assess and measure project externalities, both positive and negative. This may include an analysis of the effect of the project on the local economy with regards to the creation of (temporary) employment and investment opportunities, the effect on natural resources, etc.
- v. Examine the extent to which the process of providing Basic Services and Infrastructure to the communities, specially the women and marginalized groups, proactively involved on-demand creation, or was it a supply driven focus.
- vi. In case of O&M, whether maintenance/running and replacement costs and the mechanisms to enable the communities were adequately instituted and examine whether the O&M arrangements are still functional and effective.

- vii. Compliance of ESMF framework at the intervention design, implementation and O&M post-completion stages.
- viii. The assessment should include visits to project sites including completed schemes to assess whether PPAF's implemented interventions are still continuing/functioning adequately and an overview of the communities' long term plans to sustain them.

1.3 Coverage of Interventions

The IA of PPAF interventions has covered basic services and community physical infrastructure projects which include the following:

- i. Irrigation Water Schemes
- ii. Drinking Water Supply Schemes (DWSS)
- iii. Roads and Bridges Schemes
- iv. Drainage and Sanitation Schemes
- v. Renewable Energy Schemes

1.4 Organization of the Impact Assessment Report

The IA report has been organized into six parts. Part One provides background information about PPAF, scope of work, and interventions assessed for impact. Part 2 of the report contains the methodology adopted to conduct IA. Part Three of the report deals with findings of the evaluation which include design & implementation of the interventions, financial and economic internal rate of return of the schemes, social impact of the schemes, and post-completion sustainability of the schemes. Part Four deliberates upon Environmental and Social Management Framework (ESMF) while fifth part deals with realization of the principles of PPAF III. The sixth part contains the strengths and weaknesses observed during the impact assessment process, while the seventh part provides recommendations.

2. OBJECTIVES AND METHODOLOGY

2 Objectives of the Impact assessment

The objectives of the impact assessment as enunciated in the Impact Assessment (IA) TORs are as follows:

- i. To assess the PPAF's Basic Services and Infrastructure component design, with a focus on relevance, efficiency and effectiveness.
- ii. To examine whether the Basic Services and Infrastructure component was inclusive, and not stand alone, and the extent to which it was well entrenched into the PPAF-III principles of holistic, integration, deepening and saturation.
- iii. To ascertain and critically analyze the quality of Basic Services and Infrastructure sub-projects/schemes and their efforts to bring about change at the village level and in the lives of the direct and indirect beneficiaries.
- iv. To determine the sustainability of the Basic Services and Infrastructure sub-projects/schemes against the post-completion Operation and Maintenance (O&M), sustainability of benefits from interventions, and highlight areas of weakness including internal and external factors of hindrance, if any.
- v. The extent to which the component was able to leverage productive linkages with the government, private sector and other development partners.

2.1 Methodology Adopted to Address Objectives

The following methodology was adopted to conduct the impact assessment of the community physical infrastructure (CPI) schemes.

2.1.1 Literature Review

Relevant literature including project appraisal documents, other project-related documents and spreadsheets, etc., provided by PPAF to SEBCON were reviewed for an in-depth understanding of the PPAF objectives, working philosophy and execution of CPI schemes.

2.1.2 Questionnaire Development

Four questionnaires were developed for data collection from the field. One questionnaire (Annex-3a) was developed and used for collection of data from individual households. The second questionnaire (Annex-3b) was developed and utilized during Focused Group Discussions (FGDs) and Key Informant Interviews (KIIs) in the field. The third questionnaire (Annex-3c) pertaining to Partner Organizations (PO) was drawn on to gather information from key persons of the POs. Finally, the fourth questionnaire (Annex-3d) was prepared for obtaining information from POs and PPAF regarding actions pertaining to Environmental and Social Management Framework (ESMF).

The FGDs, KIIs and POs related data collection was conducted by SEBCON Consultants and Field Supervisors while household-level data was collected by teams of qualified male and female enumerators hired by SEBCON. SEBCON consultants held training sessions with the enumerator teams to ensure understanding of enumerators and supervisors of the various concepts, objectives, and the questionnaires of the study for data collection. The teams belonging to Punjab and KP were trained in Islamabad while teams belonging to Sindh and Balochistan were trained in Karachi. The teams' understanding and questionnaires' accuracy

were pre-tested for necessary amendments prior to the teams' field visits. The questionnaires were shared with PPAF prior to the undertaking of field work.

2.1.3 Data Collection

Provinces, districts and Union Councils (UCs) were selected in consultation with relevant PPAF staff for the collection of data required for IA. The identified and approved locations are presented in Annex-1 (Table-1). Three districts were identified for the Southern Punjab with nine Union Councils (UC). In Balochistan five UCs were included from three northern/Central districts. In Sind twelve UCs were identified from three northern/central districts. Finally, in Khyber Pakhtunkhwa (KP) eight UCs were selected from one northern and one southern district.

The District-wise CPI schemes' respondents selected by sector and data collected accordingly are reflected in Table 2.1.

Table 2.1 IA Respondents Identified by Sector, Province and Gender

Treatment Group															
Response /Sector	Punjab			Sindh			Baluchistan			KP			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Irrigation	102	2	104	4	3	7	94	5	99	24	0	24	224	10	234
Drainage &Sanitation	7	14	21	9	6	15	16	33	49	15	28	43	47	81	128
DWSS	0	31	31	39	38	77	49	0	49	14	24	38	102	93	195
Roads &Bridges	4	38	42	36	34	70	0	0	0	36	36	72	76	108	184
Energy	0	0	0	12	9	21	0	0	0	0	0	0	12	9	21
Total	113	85	198	100	90	190	159	38	197	89	88	177	461	301	762
Control Group															
	Punjab			Sindh			Baluchistan			KPK			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Control Group	52	11	63	66	0	66	62	0	62	61	0	61	241	11	252

M= Male F= Female T= Total

The data shows that a total of 762 respondents "treatment group" PPAF funded schemes were identified for possible field teams' visit in the four provinces. The sectoral coverage of the "treatment group" was: irrigation, drainage and sanitation, drinking water supply schemes, roads and bridges, and renewable energy. In addition, 252 respondents from the "control group" were identified for possible field visits. The information is provided by gender and by province. The single largest portfolio of 31% was for the irrigation schemes followed by 26 % for DWSS sector. As expected, the data reveals that the irrigation schemes primarily benefit males while DWSS benefit the female segment of the population. The "renewable energy" sector is new and forms only 3% of the total schemes. Keeping in view the existing gender bias in favour of males, the PPAF funded portfolio by gender is not that discomfoting since some 39.5 % of the portfolio went for females as against 60.5 % was for males.

2.1.4 Transect Walk

IA team members, supervisors/consultants, held transects walks/physical inspections of the completed infrastructures developed under PPAF funding followed by FGD sessions. During the walks, scheme designs, quality of construction and maintenance conditions were examined. It was also assessed if the completed CPIs were still viable/functional.

2.1.5 Partner Organizations' Working

The key persons of POs responsible for coordination and execution of PPAF schemes for the last few years were interviewed. This helped the team members understand relevancy of their experience and expertise as well as institutional strengths and the working mechanism of the concerned POs.

2.1.6 Financial and Economic Analysis

The financial and economic analysis of 87 schemes from the four provinces was conducted applying Internal Rates of Return (IRR) analytical tool. Out of the 87 schemes; 28 were irrigation, 21 Drinking Water Supply (DWSS), 23 Roads and Bridges, 13 Drainage and Sanitation, and 2 Renewable Energy.

The data for deriving IRRs was collected during FGDs conducted by the consultants and the field team supervisors. The schemes chosen for IRRs were those that were completed prior to 30 June 2014. Further, IRRs were calculated with the assumption that benefits and cost streams taper off after 10 years. The data relating to FIRR and EIRR included: development costs, O&M costs (using linear step assumptions on recurrent expenditures), and incremental benefits derived by the communities on completion of the schemes (could not quantify and monetize some of the indirect benefit streams in view of the limited scope of the schemes and time constraint). Assumptions included: schemes continue to remain productive during the calculation period, benefits and recurring cost remain constant over 10 years and prices of input/output remain constant. Also, the completed schemes would continue to have streams of benefits and costs over a period of ten years---the cutoff point. FIRR were calculated through FGDs undertaken for individual schemes. Province level EIRRs were based on respective FIRRs in conjunction with conversion factors derived taking into consideration ADB and World Bank Guidelines. Benefits and cost streams are at Annex-2. During analysis, the field team supervisors were referred back the data, where required, for re-verification and/or for obtaining any additional information/data for analysis.

At the sector level, the scheme specific basis/assumptions are presented below

Irrigation Water Schemes

- i. Increase in yield per acre
- ii. Area increased under cultivation
- iii. Increase/decrease in cost of production per acre
- iv. Output prices per kg at farm gate
- v. Well maintained schemes
- vi. Input and output prices remain constant over the calculation period

Roads and Bridges Schemes

Costs savings per year for:

- i. education related travelling
- ii. health related travelling
- iii. job related travelling
- iv. social activities related travelling
- v. bringing household item
- vi. bringing agricultural inputs
- vii. transportation of Agricultural output
- viii. Calculations incorporate direct costs and direct/indirect benefits.

Drinking Water Supply Schemes

- i. monetized value of time saving of men/women per year using Rs.62.5 per hour (wage rate Rs.13000/pm working 8 hours for 26 days)
- ii. Money value of time saving of children or other means such as animals per year using Rs.50 per hours.
- iii. Saving due to reduction in health expenditure per year.
- iv. Time saving calculated above would have been utilized for some other productive activities but values have been used for time saving only to avoid double counting.
- v. Used direct costs and direct/indirect benefits.

Drainage and Sanitation Schemes

- i. Saving in health expenditure of women per year (imputed value in rupees provided by interviewees).
- ii. Saving in health expenditure of children per year
- iii. Saving in health expenditure of other household members per year
- iv. Saving in expenditure pertaining to hygiene/mosquito control expenditure per year
- v. Used direct costs and direct/indirect benefits.

Renewable Energy Schemes

- i. Saving in replacing old light system (non-electric sources) to energy savers/lights per year
- ii. Income generation from extended shops opening time per year
- iii. Income generation from technician service provision per year
- iv. Used direct costs and direct/indirect benefits.

FIRRs were calculated based on individual schemes which were then aggregated at provincial level and finally at the country level. All Sector schemes were also aggregated at country level to obtain the overall IRR of schemes pertaining to the five sectors covered in the impact evaluation.

2.1.7 The Team

The key IA team members included: Project Coordinator (Kamran Sadiq), Team Leader and Rural Development Specialist (Mohammed Tariq Durrani), Economist and Community Development Specialist (Dr. Muhammad Zulfiqar), Gender and Social Expert (Ms. Sarah Javeed) and M&E Expert (Shafi Gul). Four enumeration teams – one for each province comprising of a Supervisor, two male and two female enumerators, were fielded for data collection. In addition, Data Entry Operators, Translator, etc., were engaged to facilitate the team in the conduct of the study and finalization of the report.

3 FINDINGS OF THE IMPACT ASSESSMENT

Intended benefits of the schemes are dependent on the design and execution of the interventions carried out under PPAF funding. Based on field investigations, the service/infrastructure-wise findings of the team are presented below.

3.1 Irrigation Water Schemes

Agricultural productivity has a direct relationship with the availability of irrigation water. Researchers have argued that the socio-economic conditions of the rural communities having irrigation water facilities are much better than those of rain-fed areas¹. The same is true for Pakistan as generally poverty is comparatively less in districts having irrigation water facilities than those with limited irrigation water facilities². Therefore, irrigation water-related interventions have economic significance for the beneficiary communities. The findings regarding relevancy, quality and execution of the irrigation water schemes are presented below.

3.1.1 Relevance

The irrigation water schemes were included in the program to address the PPAF objective of increasing income of the poor beneficiaries through increased productivity. Irrigation water schemes have direct bearing on the productivity of natural assets. Lining of water channels, besides better management of crop production systems for increased productivity, enables farmers to bring more area under cultivation from the water saved as a result of lining of watercourses.

The IA team considers that the schemes undertaken under the PPAF funding be rated high in terms of relevancy for the beneficiary communities who earlier faced irrigation water losses in the irrigation water conveyance system due to non-lined water courses, in some cases exacerbated by sandy soils such as in Girot, Khushab district. Support from PPAF for irrigation water schemes was considered most relevant by the beneficiaries. This is supported by the responses of the benefiting individuals. Table 3.1 reveals that 99% of the overall beneficiaries were cultivating land in "treatment group"³ as against the 62% in the "control group"⁴ which is an indication of the relevancy of the schemes. The province-wise details are reflected in the table given below.

Table 3.1: Relevance of Irrigation Schemes
(Q: Does your household work on any cultivable agricultural land?)

Treatment Group										
Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	103	99	7	100	98	99	24	100	232	99
No	1	1	0	0	1	1	0	0	2	1
Total	104	100	7	100	99	100	24	100	234	100
Control Group										
Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	59	94	16	24	35	56	46	75	156	62
No	4	6	50	76	27	44	15	25	96	38
Total	63	100	66	100	62	100	61	100	252	100

¹ Asayehgn K. (2012)

² <http://www.bisp.gov.pk/PIDERReports/poverty> and Agricultural Census 2010

³ Beneficiary of PPAF investment.

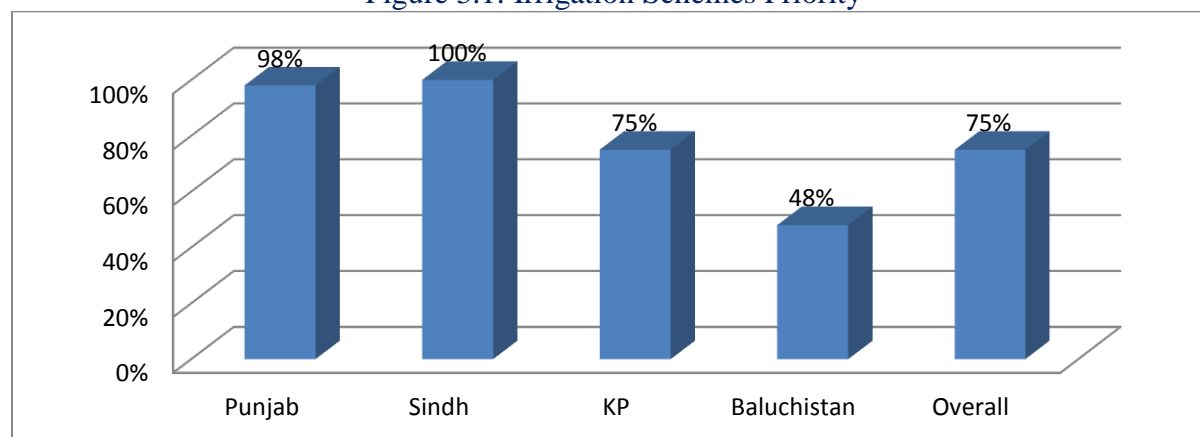
⁴ Non beneficiary of PPAF investment.

The above table reflects that 100% beneficiaries from Sindh and KP, and 99% from Punjab and Balochistan possessed cultivable land in the treatment group pointing to relevancy of the schemes for the beneficiaries. In contrast to treatment group, the cultivable land possession in the control group was 94% in Punjab, 24% in Sindh, 56% in Balochistan and 75% in KP reflecting a correct choice of beneficiaries for award of irrigation water schemes.

3.1.2 Demand or Supply Driven

To assess whether the irrigation water schemes were demand driven or supply driven, a question on the priority aspect of the schemes was asked from the Community Organization (CO) members. According to the data collected on the priority question, 100% respondents from Sindh replied in the affirmative while affirmative responses from Punjab, KP and Balochistan were 98%, 75% and 48%, respectively, with an overall average of 75% as reflected in Figure-3.1.

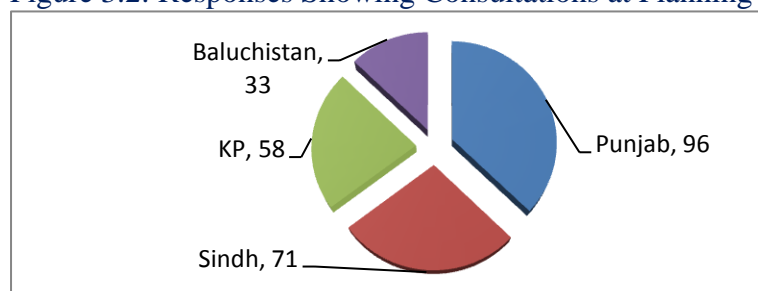
Figure 3.1: Irrigation Schemes Priority



Source: Field Survey

The data provided in the above table reflects that the irrigation water schemes were a priority of the beneficiary farmers and an important source of livelihood. Relatively less affirmative response (48%) on priority of irrigation water schemes from Balochistan does not undermine the importance of the schemes towards the livelihood of the beneficiaries as 99% of them were cultivating their lands. The less enthused beneficiaries' opinion from Balochistan perhaps reflects some social mobilization irritant between the beneficiaries and the POs. This view is indirectly supported by responses of the beneficiaries regarding the question of consultations before initiation of the schemes i.e. at the planning stage. This is shown in Figure 3.2, where only 33% of the respondents were affirmative about "consultations" with POs from Balochistan compared to 96% from Punjab, 71% from Sindh and 58% from KP.

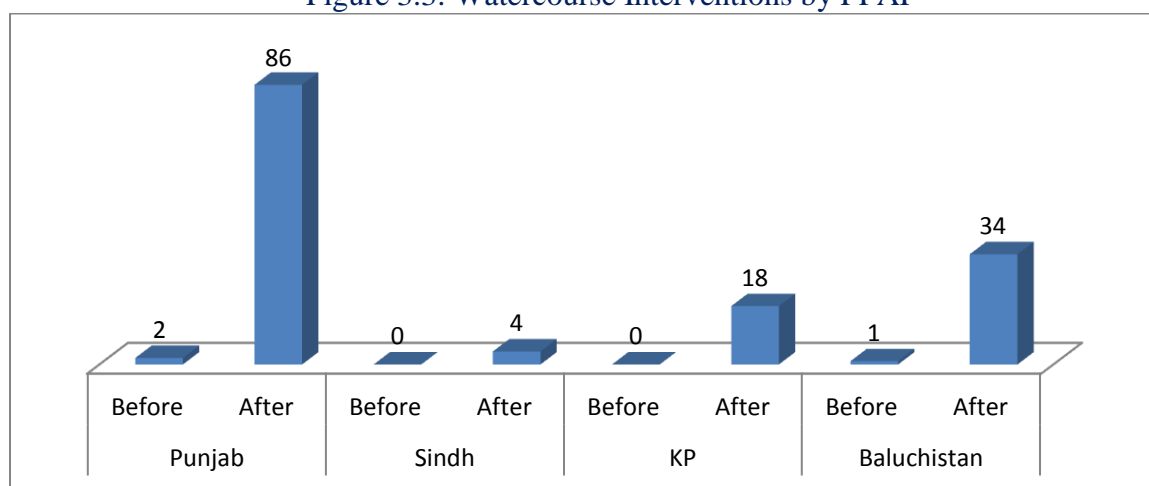
Figure 3.2: Responses Showing Consultations at Planning Stage



Source: Field Survey

Water, being a scarce input required for agriculture production systems, is significantly lost in its conveyance system (more than 50%) if watercourses are not lined while water lining could reduce water losses by 22.5%⁵. Annex-1 (Table 2) shows that before launch of irrigation schemes, 94% watercourses were identified by the intended beneficiaries as unlined and only 1% lined. Thus a significant quantity of irrigation water was lost during conveyance which otherwise could have irrigated additional land or provided more water to the same land. This scenario in itself constitutes demand for irrigation schemes in the beneficiary areas. Annex-1 (Table 2) further reflects that after undertaking of PPAF irrigation schemes, the irrigation water transportation through lined watercourses by beneficiaries increased from 1% to 61% for the four provinces as a whole. The province-wise *before* and *after* comparison of lined watercourses is given in Figure 3.3 below.

Figure 3.3: Watercourse Interventions by PPAF



Source: Field Survey

The above figure shows that amongst the sample beneficiary farmers, lined watercourses in Punjab increased from 2 to 86, the highest number; followed by Balochistan from 1 to 34. In Sindh and KP, 0 to 4 and 0 to 18 were the corresponding lined watercourses for *before* and *after* schemes. The schemes made more irrigation water available in the beneficiary villages and consequently improved cropping intensity and increased cropped area resulting in increased income of the beneficiary communities; and economic opportunities for indirect beneficiaries such as laborers, artisans and marketing persons. This is further supported by financial and economic analysis of the irrigation schemes, explained in section 2.1.5.

3.1.3 Deepening, Saturation, Integration and Holistic

The data of irrigation schemes under PPAF III shows that efforts were made for deepening and saturation in irrigation sector schemes⁶. Integration and holistic approach was also evident in some areas benefitted from the irrigation schemes⁷.

⁵Arshad M. et al. 2009.

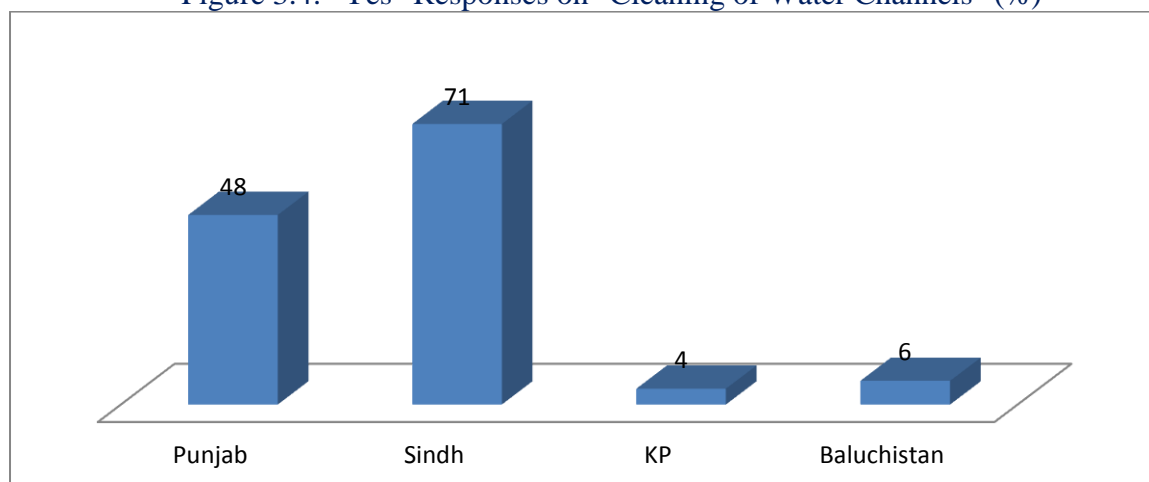
⁶ 16 irrigation schemes were executed in village Goohal of district Chakwal followed by 15 irrigation schemes in village Changa of the same district. Village Garda Babar of Zhob district had 14 irrigation schemes. Village Lawa of district Chakwal, village Jharkal of district Khushab and village Rarasham of district Musakhel implemented 11 irrigation schemes each while 10 schemes were executed in village Chowar of district Ghanche. There were 30 other villages in various districts where 4 or more than 4 and up to 9 schemes were executed under PPAF financial support.

⁷In village Goohal of district Chakwal 14 schemes from other sectors were implemented in addition to 16 irrigation schemes. The 14 schemes included; traditional stilt traps, solar based irrigation pump, check dams and

3.1.4 Execution of the Schemes: Quality and Operation and Maintenance (O&M) Coverage

The IA Consultants, during their visits to the four provinces, undertook transect walks around various CPI schemes constructed with PPAF financial support. The irrigation water schemes completed during the last 2-5 years were visited to observe design, construction quality and maintenance conditions of the irrigation water schemes. It was reported by the CO members that designs of the schemes were developed by the engineers of POs after visits to the sites along with the intended beneficiaries. The COs executed the construction work under the guidance of the engineers from POs. COs' involvement in various stages of schemes' planning and execution is also supported by an earlier assessment conducted in 2011, *User/Beneficiary Assessment Survey*. It was also reported by the CO members that the construction quality of irrigation channels was generally satisfactory and cost-effective. Their assertion was validated as the channels observed by the team were in good condition. However, in many cases such as Dir Upper, Khushab and in Balochistan, maintenance of irrigation water schemes is undertaken on need basis. When the beneficiary farmers come across siltation/mud or damage to the watercourses, they clean and maintain the schemes on a collective basis and labor/cash needed is also collected on need basis. This is the traditional approach to solving local problems and is not necessarily in line with the stipulation by the project that monthly contributions be generated by COs. The Team does not find anything wrong with the prevalent practice. Therefore, there is no reason to necessarily follow the project guide lines of collecting monthly maintenance contributions. That the traditional practice works, is supported by Figure 3.4.

Figure 3.4: "Yes" Responses on "Cleaning of Water Channels" (%)





Source: Field Survey

The households' cleaning of irrigation water channels have the highest percentage in Sindh with 71% followed by Punjab 48%. The percentages for KP and Balochistan are low, i.e., 4% and 6% respectively. During the field visits it was observed that the Rural Support Program (RSP)-developed COs' performance in maintaining irrigation channels was relatively better. Glimpse 3.1 reflects the condition of RSP-developed COs' water channel in Dir Upper (Left) and a non-RSP developed CO's water channel at Mitha Tiwana (Right).

mini dams. In village Changa one scheme each of mini dam and check dam was executed in addition to 15 irrigation schemes. Village Rarasham executed 10 DWSS and a flood protection scheme. Similarly more than one sector interventions were made in many other villages with irrigation schemes

Glimpse 3.1: Maintenance of Irrigation Channels RSPs vs. Other POs

	
View of a channel where PO was an RSP	View of a channel where PO was other than RSP

The above scenario suggests the need for further capacity building of non-RSP POs and their strengthening through additional manpower for better O&M by COs. The PO selection criteria may also be further refined to select POs who have the capacity to provide engineering guidance to COs for construction and maintenance of infrastructure schemes.

3.1.5 Financial and Economic Impact: Irrigation

Irrigation-related infrastructure development was a felt need of the beneficiary communities due to its direct impact on agricultural productivity and the resultant increase in incomes. As shown in Table 3.2, the survey reflects that 100% respondents in KP, 95% respondents in Punjab, 52% respondents in Balochistan and 29% respondents in Sindh reported increase in their incomes due to implementation of the irrigation water schemes. The relatively low percentages for Balochistan and Sindh require further probing since it was not possible for the IA team to again visit the relevant COs..

Table 3.2: Increase in Household Income

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	99	95	2	29	51	52	24	100	176	75
No	2	2	3	43	45	45	0	0	50	21
Don't know	3	3	2	29	3	3	0	0	8	3
Total	104	100	7	100	99	100	24	100	234	100

Source: Field Survey

The increase in incomes of the households was mainly due to an increase in the productivity of agricultural lands, and to some extent due to increase in the area under cultivation, because of the increased availability of irrigation water. This is substantiated by the data provided in Table 3.3 where 18% of the respondents stated that uncultivable land has been brought under cultivation.

Table 3.3: Uncultivable Land Converted to Cultivable Land

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	16	15	2	29	5	5	20	83	43	18
No	88	85	5	71	94	95	4	17	191	82
Total	104	100	7	100	99	100	24	100	234	100

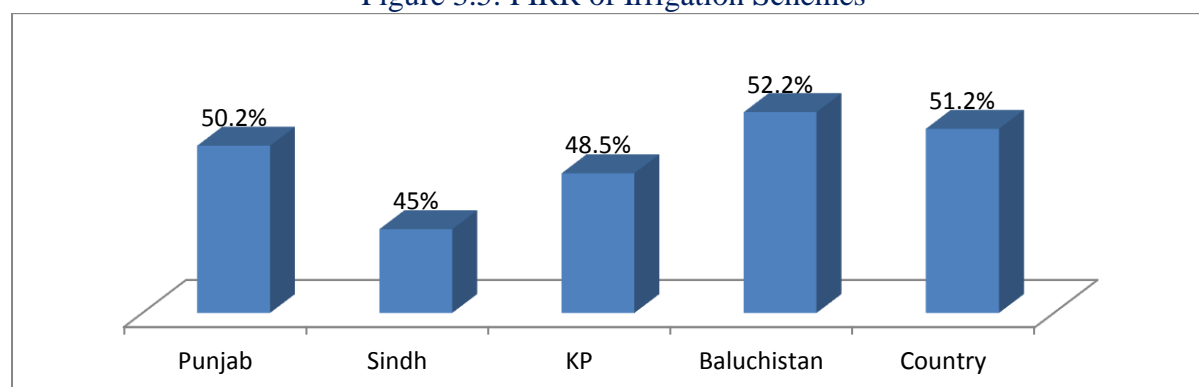
Source: Field Survey

3.1.5.1 Financial Internal Rate of Return (FIRR)

The FIRR of irrigation water schemes was calculated using direct cost of the schemes and incremental O&M costs, and incremental benefits derived by the beneficiary communities in the form of increased productivity over a period of 10 years. The FIRR basis and assumptions are detailed above in the methodology section. The FIRR of the irrigation water schemes was first calculated at the scheme level, then aggregated at the provincial level, and finally at the country level.

FIRR of the irrigation water schemes for Punjab was calculated using data of schemes from Khushab, D.G. Khan and Bahawalpur districts. The calculations reveal an overall FIRR of 50.2% for irrigation water schemes in Punjab. FIRR of the irrigation water schemes for Sindh was calculated using data of schemes from Gotki district. The overall FIRR was 45.1% for irrigation water schemes for Sindh. The FIRR of the irrigation water schemes for KP was calculated using data of schemes from D.I. Khan and Dir Upper district. The overall FIRR is 48.5% for irrigation water schemes in KP. FIRR of the irrigation water schemes for Balochistan was calculated using data of schemes from Loralai, Sibi and Musakhel districts. An FIRR of 52.2% for irrigation water schemes in Balochistan was calculated. Aggregating the calculations at country level, FIRR at country level was 51.2%. A graphic presentation of FIRRs is given below in Figure 3.5.

Figure 3.5: FIRR of Irrigation Schemes



Source: Field Survey

The calculations show high FIRRs of over 45% for all the four provinces. The highest FIRR is for Balochistan at 52.2%, Punjab at 50.2% followed by KP at 48.5%, and Sindh at 45%. FIRRs reflect that the irrigation water schemes executed under PPAF are productive and farmers are drawing benefits on account of increased land productivity.

3.1.5.2 Economic Internal Rate of Return (EIRR)

EIRRs were calculated from FIRR related data. Conversion factors were applied to the provincial aggregate FIRRs to obtain EIRRs. The province-wise EIRR is provided in Table 3.4.

Table 3.4 EIRR of the Irrigation Water Schemes

Province	EIRR	Aggregate EIRR at Country Level
Punjab	56.80%	57.20%
Sindh	50.60%	
Khyber Pakhtunkhwa	53.80%	
Balochistan	58.20%	

Source: Field Survey

The EIRRs at provincial and aggregate level reveal that the irrigation water schemes contribute significantly to the beneficiaries' household incomes as well as the local economy of the beneficiary districts. It may be noted that the EIRR for the country is higher (57.2%) than the FIRR (51.2%).

3.1.6 Local Economy

Irrigation water schemes have the highest economic return as compared to other PPAF funded schemes. In all the four provinces, a significant increase in crop productivity was reported after implementation of irrigation schemes ensuring sufficient availability of irrigation water. The province-wise responses indicate an increase in area under crops of 92% for KP, 88% for Punjab, 57% for Sindh and 26% for Balochistan. This has also contributed to the growth of the local economy.. During FGDs, a number of instances were observed where, besides an increase in the incomes of the farmers, the schemes created job opportunities for seasonal labor engaged in agricultural and marketing activities, increased demand for agricultural equipment and inputs, introduction of improved seed varieties and fertilizers, and marketing of agricultural produce. Increased investment in household health and education was also reported by the respondents because of additional income.

A number of other benefits such as creation of linkages with other entities particularly Agriculture Department, introduction of high value crops, more marketing activities, etc., also contributed to the local economy

A key informant in Girot informed that due to the irrigation schemes, contacts with Agriculture Department were established and they benefit from provision of improved seed and information pertaining to crops

3.1.7 Livelihood

A livelihood is a mean of making a living. It encompasses people's capabilities, assets, income and activities required to secure the necessities of life⁸. The field survey revealed that as a result of implementation of irrigation water schemes, livelihood of the beneficiary communities has improved and is comparatively more sustainable than before the initiation of PPAF funded schemes.

A beneficiary farmer at Loralai informed that with PPAF's contribution sufficient water is now available to CO members. He now grows vegetables on more area and earns almost double compared to the pre scheme period .

Although baseline data was not available regarding the poverty scenario of the beneficiary communities, the data collected during field survey, presented in Table 3.5, shows significant poverty alleviation in the target villages. It may be noted that poverty alleviation could also be due to various other (PPAF and non PPAF) interventions in the area, PPAF funded irrigation schemes being one such intervention. It is difficult to isolate the contribution of PPAF funded irrigation schemes for poverty alleviation.

⁸<http://www.ifrc.org>

Table 3.5 Poverty Scenario

Poverty Band	Punjab	Sindh	KP	Balochistan	Overall
Extremely Poor	0%	0%	4%	0%	0.4%
Chronically Poor	1%	0%	0%	0%	0.4%
Transitory Poor	3%	0%	0%	1%	2%
Transitory Vulnerable	14%	14%	13%	4%	10%
Transitory Non-Poor	13%	14%	33%	19%	18%
Non-Poor	68%	71%	50%	76%	70%

Source: Field Survey

Overall the transitory non-poor and non-poor categories constitute 88% of the beneficiary population in the four provinces– but this is not necessarily all due to PPAF funded interventions. To reiterate, it is difficult to ascertain the exact share of irrigation schemes in poverty reduction along with many other possible determinants including socio-political and gains derived from other sources in the target districts which contributed to improved livelihood.

The field survey showed that all beneficiaries have shelter. The majority have 1-3 rooms. Possession of other assets was also significant. Table 3.6 points to improved and sustainable livelihoods of the beneficiary communities in Punjab, Sindh and KP, followed by Balochistan.

Table 3.6 Asset Possession by the Beneficiaries

Asset	Punjab	Sindh	KP	Balochistan	Overall
Tractor	28%	43%	13%	10%	19%
Thresher /trolley	23%	57%	8%	1%	13%
Motorcycle	74%	71%	58%	82%	76%
TV	70%	71%	54%	6%	41%
Cooking stoves	23%	43%	92%	1%	21%
Air conditioner, geysers, washing machine, etc.	61%	86%	58%	13%	41%
Cow/goat/sheep	91%	86%	67%	95%	90%
Buffalo/bullock	50%	86%	25%	5%	29%

Source: Field Survey

The above data suggests that the irrigation water schemes sponsored by PPAF may have contributed to the livelihood of the beneficiaries who are leading a comparatively better life than in the period before the schemes. However, assessment of other factors, contributing to current livelihood scenario in the beneficiary villages, was beyond the scope of the IA.

3.1.8 Social Impact of Irrigation Water Schemes

Irrigation schemes have little direct social impact. However, indirect impact is evident from the household survey data. Approximately 75% of the surveyed respondents were of the view that their household incomes had increased due to an improved irrigation system, which had an effect on their overall socioeconomic conditions.

In Punjab and KP an overwhelming majority of 95% and 100%, respectively, stated that their household incomes had increased due to the PPAF funded irrigation schemes. In Balochistan, more than 50% opined that there had been a positive change in their incomes, while in Sindh a comparatively lower 29% credited increases in their incomes due to project funded irrigation schemes.

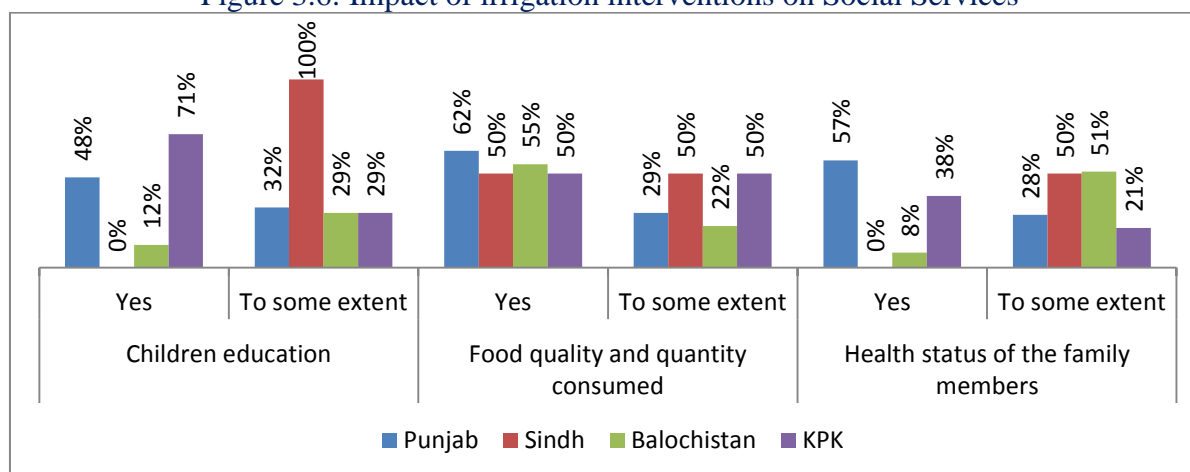
3.1.8.1 Social Inclusion

It needs to be reiterated that irrigation is mostly a male dominated intervention and women's participation in the process was little during the project intervention. Similarly, marginalized and very poor households without any land holdings were also not included in the water/irrigation specific interventions. Data from the FGDs confirms these observations as most of the participants, both men and women, stated that even though irrigation schemes were not a priority for most CO members, a significant number of households depended on agriculture as their primary source of livelihood.

3.1.8.2 Impact on Social Services: Education and Health

As discussed above, while there was no direct social impact associated with the irrigation schemes, there is evidence of an indirect impact on the communities' well-being status due to an increase in income levels, especially in Punjab and KP where benefits with regards to an increase in incomes were more pronounced due to this intervention. The data indicate improvement in the education of children, improvement in the intake of food quantity and quality, and improvement in the health status of beneficiary families. These results are in line with the results of an earlier study conducted by PPAF in 2010; *Assessment of Outcomes, Small Scale Physical Infrastructure*. SEBCON survey data indicates positive changes in children's education; mentioned by 40% respondents, with another 32 % stating 'to some extent'; improved food intake and quality were mentioned by 58 % while 30% felt 'to an extent'. Similarly, 39 % respondents opined that their family's health status had improved and another 34 % felt 'to an extent'. During FGDs in Punjab, men said that improved irrigation had an impact on household incomes, because now their crop yield was higher as compared to before, and in some instances farmers had started to focus more on cash crops, which earlier was not a practice. Annex-3(table 3)shows that 72% beneficiary respondents stated positive impact on children education, 88% responded improvement in quantity and quality of food and 73% opined better family health status.

Figure 3.6: Impact of irrigation interventions on Social Services



3.1.8.3 Impact on Social Interaction

Table 3.7 shows household level impact of irrigation schemes on the beneficiaries' social interaction as a result of the intervention. In Punjab and Sindh, respondents felt that their social interaction had improved significantly (84%) as compared to KP (33%) and a smaller percentage in Balochistan (6%). However, in both Balochistan and KP, a significant

percentage expressed that their social activities had increased ‘to some extent’. In FGDs with irrigation scheme beneficiaries, participants were of the opinion that an increase in social activities was related to their increased income levels as they could now afford to spend more cash on clothes and other recreational activities in addition to giving gifts at weddings, etc.

Table 3.7: Increase in Social Interaction

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	83	84	1	50	3	6	8	33	95	54
To some extent	8	8	1	50	21	41	10	42	40	23
No	1	1	0	0	27	53	2	8	30	17
Don't know	7	7	0	0	0	0	4	17	11	6
Total	99	100	2	100	51	100	24	100	176	100

Source: Field Survey

3.1.8.4 Networking and Linkages

The survey respondents were asked if any linkages were created as a result of irrigation-related schemes or if the project had facilitated them in building relations with specific organizations or individuals to improve their agricultural activities. Data shows that while in Punjab (48%) and KP (75%) a significant percentage of beneficiaries responded in positive, there were none in Sindh and only 2 % in Balochistan. In Balochistan and Sindh COshad concerns about the performance of POs regarding creation and strengthening of linkages with relevant agencies or organizations, which has implications for expanding additional development work and capacity building of COs.

Table 3.8 shows the type of benefits provided to beneficiaries for facilitation and strengthening of the agricultural sector in Punjab, Sindh, Balochistan and KP.

Table 3.8: Benefits Through Irrigation Interventions

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
New seed variety	41	84%	1	50%	17	94%	59	86%	41	84%
New techniques	37	76%	0	0%	11	61%	48	70%	37	76%
Market information	7	14%	0	0%	10	56%	17	25%	7	14%
New Projects	7	14%	0	0%	1	6%	8	12%	7	14%
Training	22	45%	1	50%	7	39%	30	43%	22	45%

Source: Field Survey

New seed varieties and new production techniques were derived by 84% and 76% beneficiary households respectively while training was imparted to 45% beneficiaries. Provision of market information and new projects were limited to 14% beneficiaries. In Sindh benefits were realized only for seed procurement and training.

3.1.8.5 Beneficiaries' Assessment of Irrigation Schemes

Respondents were asked about benefits or improvements attributed to the irrigation-related schemes in their communities and the extent to which they agreed or disagreed with them. In KP and Punjab 100% and 95% respondents, respectively, agreed that improved irrigation had contributed significantly in improving their crop yields, whereas in Sindh and Balochistan 71% and 54% respondents respectively said that they were indifferent or did not notice any difference in their crop production after the schemes. However, in all four provinces around

72% agreed that less time was now required to water the crops due to a more efficient and accessible irrigation system, with the highest percentage in Sindh i.e. 100%, followed by Punjab (99%), KP (75%) and finally Balochistan (41%). In communities of Punjab and Sindh, where women participate in agricultural activities, respondents agreed that women's workload in farming had reduced after the intervention, in comparison to KP and Balochistan where female mobility is more restricted and women work less outside their homes. Annex-1 (Table 4) shows that beneficiaries had significant benefits in terms of improving yield, less time to irrigate fields, increased cropping intensity, introduction of new cropping pattern, etc.

3.2 Drinking Water Supply Schemes (DWSS)

Provision of safe drinking water is one of the important aspects of sustainable good health conditions and reducing the incidence of water-related diseases including malaria, diarrhea, trachoma and hepatitis. Therefore, economic and social opportunities have a direct link to access of drinking water⁹. The PPAF investment in DWSS in the poor and neglected areas is of utmost value. The findings of the team about this sector are presented below.

3.2.1 Relevance

The DWS schemes were included in the program to address the PPAF objective of investing in vulnerable segments of the society for building social and human capital. Better human capital results in improved human productivity and helps build sustainable livelihoods of the poor communities¹⁰. The schemes are relevant to the beneficiary communities who were facing drinking water problems and in certain cases drinking water was collected by travelling long distances, sometimes miles. The data from the field presented in Table 3.9 reveals that prior to the execution of DWSS only 9% of the overall beneficiaries had access to tap water inside the house, with zero percent for Sindh, KP and Balochistan, thus making a strong relevancy case for provision of drinking water to the poor and neglected communities of the program area.

Table 3.9: Sources of Drinking Water Pre- Scheme

Response	Punjab		Sindh		Balochistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Piped into House	17	55	0	0	0	0	0	0	17	9
Public Tap	3	10	1	1	0	0	2	5	6	3
Tube Well/Bore Hole With Pump	7	23	0	0	22	45	0	0	29	15
Protected Dug Well	0	0	11	14	0	0	5	13	16	8
Protected Spring	0	0	0	0	0	0	8	21	8	4
Rain Water Collection	0	0	0	0	0	0	27	71	27	14
Unprotected Dug Well	4	13	36	47	1	2	16	42	57	29
Unprotected Spring	0	0	2	3	0	0	0	0	2	1
Pond, River Or Stream	0	0	27	35	21	43	15	39	63	32
Tanker, Vendor	0	0	1	1	0	0	0	0	1	1
Water of Nullah	0	0	0	0	5	10	0	0	5	3

Source: Field Survey

The data in the above table shows that most of the beneficiaries (32%) were earlier using pond, river or stream water, followed by 29% using unprotected dug wells. Another 14%

⁹WHO (2012).

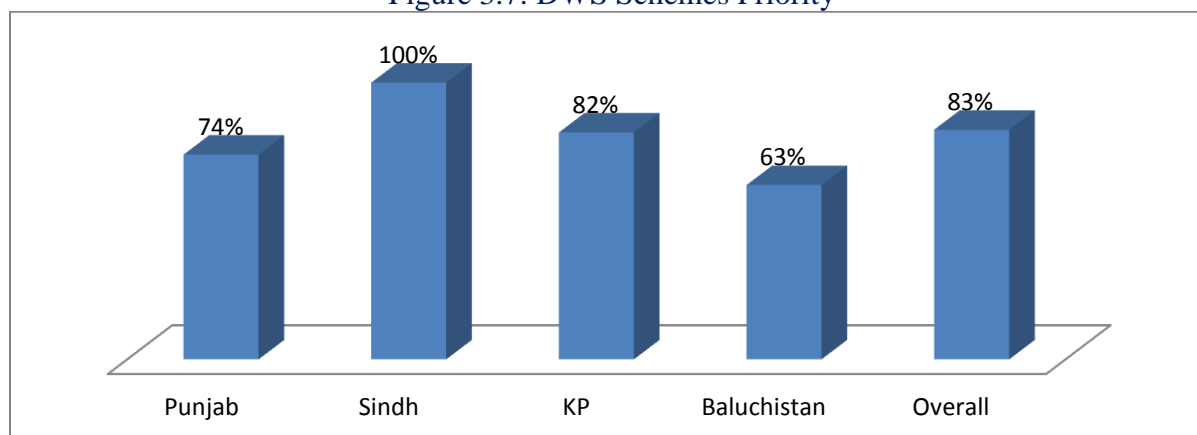
¹⁰<http://hubpages.com/education/>

beneficiaries used rain water. Thus a majority of beneficiaries, i.e. more than 75%, were prone to water-related health hazards.

3.2.2 Demand or Supply Driven

The PPAF criteria for award of development schemes are essentially based on demands initiated by the beneficiaries. To authenticate the demand element of PPAF criteria, a question on the priority aspect of the schemes was asked from the CO members interviewed. According to the data collected for this question, 100% respondents from Sindh stated that the DWSS was their priority whereas 82% from KP, 74% from Punjab and 63% from Balochistan responded that DWSSs were on their priority lists with an overall average of 83% as reflected in Figure 3.7.

Figure 3.7: DWS Schemes Priority



Source: Field Survey

The above responses, where 83% beneficiaries stated that the schemes were a priority, suggest that the schemes were demand-driven in all the four provinces.

3.2.3 Deepening, Saturation, Integration and Holistic

Most of the DWSSs were executed singly in the beneficiary villages. However, in some of the villages deepening and saturation was also observed from the schemes' data¹¹. Integration and holistic approach of PPAF has been observed to some extent in the DWSS beneficiary villages¹².

3.2.4 Execution of the Schemes, Quality and O&M Coverage

During the FGDs, it was reported by the respondent beneficiaries that the design of the schemes was developed by the engineers of POs after physical visits to the sites and consultations with the intended beneficiaries. As per agreement reached with the POs,

¹¹ In one village, Darragai of district Loralai 11 DWSS were executed while 10 DWSS were implemented in each of the Bhubhar village of Sangar, Killi Oryani of district Kohlu and Rarasham village of district Musakhel. 7 DWSS were executed each in village Kingri of district Musakhel and village Koheban-I of district Panjgur and 6 schemes were implemented each in village Dargai of Loralai and village Lodar of D. G. Khan. Around 35 villages were awarded 3 to 5 DWSS.

¹² In Darragai village of Loralai, flood protection and irrigations schemes were accompanied with DWSS. In village Bhubhar of district Sangar and village Kingri of Musakhel, Drainage and sanitation and roads and bridges schemes were implemented. Similar trends of combination of different sector schemes in many of other DWSS beneficiary villages were observed.

execution of schemes was carried out by the communities themselves and they had the guidance of the engineers from POs during the execution process. Technical manpower was hired by the community to undertake the construction work. The quality of the schemes was reported as being good by those interviewed in the field. Team visits to some of the sites validated the responses of the communities, since the schemes visited were functional. The schemes saved the water collecting time of men, women and children by providing drinking water at the household level or nearby. This had an attraction for keeping the schemes in working condition; O&M coverage was therefore well maintained. The following table 3.10 reflects the responses of the beneficiaries on O&M related financial contribution.

Table 3.10: Financial Contribution for O&M

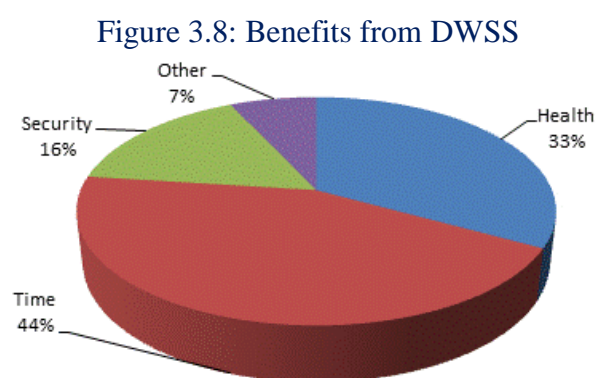
Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	7	23	58	75	1	2	17	45	83	43
No	24	77	19	25	48	98	21	55	112	57
Total	31	100	77	100	49	100	38	100	195	100

Source: Field Survey

The above table shows that overall 43% respondent beneficiaries make financial contributions for O&M with the highest rate in Sindh (75%) and lowest in Balochistan (2%). The figure for KP is 45% and for Punjab 23%. However, during FGDs, most of the beneficiaries informed that they maintain the DWSS through collective efforts of all beneficiaries and they collaborate for labor and cash requirement on a need-basis. This is a common feature of collective works in rural areas of the country. Therefore, the low percentage showing regular financial contribution does not mean the maintenance of the schemes is lacking. The traditional system is employed in maintaining the DWSS, as was earlier observed for irrigation schemes.

3.2.5 Financial and Economic Impact of the Interventions

Drinking water supply schemes having implications for health and time, particularly for women, are considered a valuable contribution from PPAF by the communities as observed during FGDs. During the survey, respondents reported that they have significantly benefited from DWSSs in terms of time saving, travel security and health improvement. Out of the responses, 95% from KP, 90% from Sindh, 77% from Balochistan and 45% from Punjab stated time saving. Also, 26% from KP, 58% from Sindh, and 2% from Balochistan opined that they felt safe from security risks while fetching water from distant places. Further, 45% from KP, 65% from Sindh, 54% from Balochistan and 84% from Punjab responded that the schemes earned them health related benefits. The overall responses at country level are reflected in Figure 3.8.



Source: Field Survey

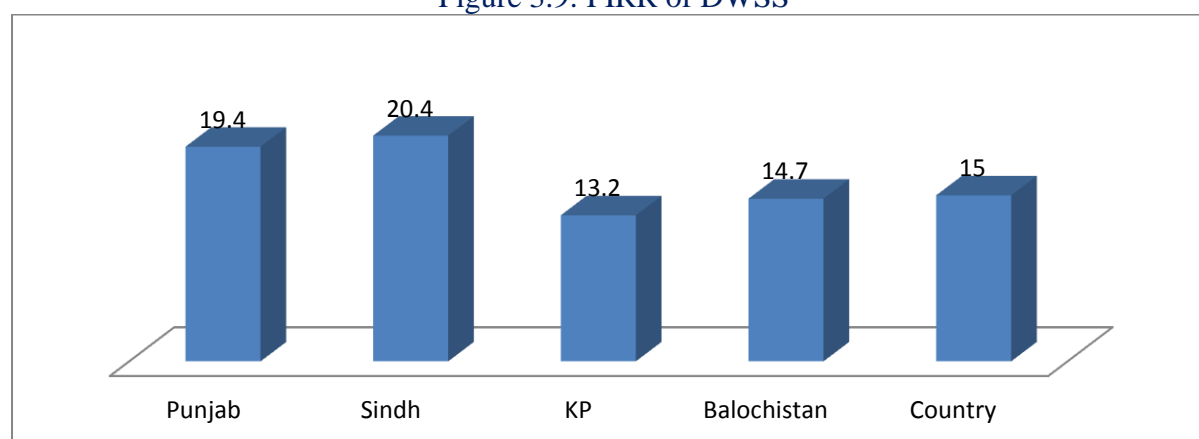
Overall, 44% beneficiaries viewed time saving, 33% respondents identified health benefits and 16% stated security related benefits. Additionally, based on the information collected during FGDs and KIIs, impact of DWSSs on the local economy and livelihood has been

significant besides social benefits. The financial and economic benefits estimated are provided in Section 2.2.5.1

3.2.5.1 Financial Internal Rate of Return (FIRR)

FIRR of drinking water supply schemes was calculated using direct cost of the schemes and direct/indirect incremental benefits derived by the beneficiary communities over a period of 10 years. The basis and assumptions used in estimation are explained in the methodology section of the report. The FIRR of drinking water supply schemes was first calculated at scheme level, then aggregated at the provincial level and finally aggregated at the country level. The calculations show 19.4% FIRR for drinking water supply schemes in Punjab, 20.4% in Sindh, 13.2% in KP and 14.4% in Balochistan, with an overall 15.0% FIRR at the country level as reflected in Figure 3.9.

Figure 3.9: FIRR of DWSS



Source: Field Survey

3.2.5.2 Economic Internal Rate of Return (EIRR)

The EIRR of DWSSs was calculated as discussed above in the methodology section. The EIRR of the drinking water supply schemes was calculated province-wise and then at country level shown in Table 3.11.

Table 3.11: EIRR DWSS

Province	EIRR	Country Level EIRR
Punjab	19.70%	15.20%
Sindh	21.20%	
Khyber Pakhtunkhwa	13.30%	
Balochistan	14.90%	

Source: Field Survey

The data shows that beneficiaries from Sindh had a greater economic benefit from the schemes with 21.20% IRR followed by Punjab at 19.70%, Balochistan at 14.90% and KP with the economic benefit at 13.30% IRR. The aggregate EIRR at country level is 15.2%. Both at provincial and aggregate level, calculations show that DWSSs are contributing to the economic benefits of the beneficiary households.

3.2.6 Local Economy

Drinking water supply schemes were found contributing to local economy but comparatively less than the irrigation water schemes executed under PPAF. This could be due to the fact

that incomes derived from irrigation schemes are "visible" or direct whereas the benefits accruing from DWSS are "invisible". It may be noted that the imputed value of the reduced sufferings of females and children, who no longer have to fetch water from long distances, and the health related benefits, particularly for children, perhaps far outweigh the IRRs of any intervention, including irrigation schemes.

In all the four provinces, the economic return to the local economy is from the use of time saved leading to productive activities such as agriculture, livestock, etc. Besides economic benefits, it also contributes to the well-being of the beneficiary households through better health of men, women and children and reduction in households' health related expenditures.

During FGDs, beneficiaries frequently narrated that DWSS have helped ease their worries about safety of women and children when earlier they used to fetch water from distant sources.

3.2.7 Livelihood

DWSSs contribute significantly to the economy of the beneficiary households that contain opportunities for the local economy. Without having baseline information and assessing contribution of other socio-economic factors, contribution of DWSS to the livelihood of the beneficiary households is difficult to measure. However, field visits and discussions during FGDs, as well as results of the EIRRs calculated, point to contribution of DWSS in the improvement of livelihood of the beneficiaries.

The poverty scenario depicted in the table 3.12 below, based on the information collected during the field surveys, shows 49% beneficiaries in the categories of Non-poor (28%) and transitory Non-poor (21%)

Table 3.12 Poverty Scenario: DWSSs

Poverty Band	Punjab	Sindh	KP	Balochistan	Overall
Extremely Poor	3%	12%	3%	0%	6%
Chronically Poor	10%	19%	5%	0%	10%
Transitory Poor	0%	31%	18%	0%	16%
Transitory Vulnerable	39%	21%	29%	4%	21%
Transitory Non- Poor	26%	13%	34%	20%	21%
Non-Poor	23%	4%	11%	76%	28%

Source: Field Survey

The above data reveal that the economic condition of the Balochistan beneficiaries of PPAF interventions is satisfactory with 96% beneficiaries in the Non-poor or transitory Non-poor category. The poverty prevalence in the beneficiary communities of the rest of the three provinces is comparatively higher compared to Balochistan. The situation in Sindh is worst amongst the four provinces where only 4% are in the category of Non-poor compared to 11% in KP, 23% in Punjab and 76% in Balochistan.

The field survey results shown in above table and calculation of IRRs revealed that as a result of the implementation of DWSSs, the livelihood of the beneficiary communities improved but economic vulnerability is still of concern amongst the beneficiary households except in case of Balochistan.

3.2.8 Social Impact of the Drinking Water Supply Schemes

3.2.8.1 Need of DWSS 85% Sindh

Annex-1 (Table 5) shows that overall 70% of the project beneficiaries relied on unprotected dug wells or natural water bodies for daily provision of water before the DWSSs' execution. Province wise KP responses were on top with 97% followed by Sindh (85%), Balochistan (55%) and Punjab (22%). This is a reflection of the overall lack of development in the rural areas of Pakistan in terms of provision of drinking water at the household level. It also indicates the importance of the PPAF's interventions aiming at improving drinking water quality for the project beneficiaries belonging to some of the most underdeveloped communities in the remote rural areas of Pakistan.

Table 3.13 presents the post-intervention picture. Introduction of DWSS at both community and household levels resulted in an increase in the number of beneficiaries with access to piped water in their homes. In this regard, there is a significant increase in the number of beneficiaries who have started using piped water. Similarly, the overall number of respondents who used water pumps has also increased from 14% in the pre-intervention scenario to 45% after the project. Overall the number of respondents using a public tap also increased from 2% to 19%. A major positive impact of the drinking water scheme can be observed from the fact that it benefitted households who were completely deprived of household level piped water supply (especially in the target areas of Sindh, Balochistan and KP). Furthermore, the overall reduction in the number of households using natural water bodies indicates a gradual shift towards more hygienic sources of water which is a significant contribution of PPAF.

Table 3.13: Water Sources after the Scheme

Response	Punjab		Sindh		Balochistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Piped Into House	8	26%	2	3%	27	56%	18	47%	55	28%
Piped Into Yard Or Plot	1	3%	0	0%	0	0%	4	11%	5	3%
Public Tap	22	71%	11	14%	0	0%	3	8%	36	19%
Tube Well/Bore Hole With Pump	0	0%	54	71%	16	33%	16	42%	86	45%
Protected Dug Well	0	0%	5	7%	0	0%	7	18%	12	6%
Rain Water Collection	0	0%	0	0%	0	0%	19	50%	19	10%
Unprotected Dug Well	0	0%	3	4%	0	0%	11	29%	14	7%
Unprotected Spring	0	0%	2	3%	0	0%	1	3%	3	2%
Pond, River Or Stream	0	0%	1	1%	0	0%	1	3%	2	1%
Water of Nullah	0	0%	0	0%	5	10%	0	0%	5	3%

Source: Field Survey

The table 3.14 below provides information on the various uses of water (supplied by the drinking water infrastructure installed by PPAF). The data reveals that in majority of the cases (88%) the respondents were getting a steady supply of water throughout the year which they were using for drinking, washing and bathing. This had a positive impact on the overall hygiene and quality of life of the respondents, especially in water scarce areas like Sindh and Balochistan, where in the past lack of a consistent water supply created immense problems for the residents, especially in terms of maintaining hygiene.

Table 3.14: Satisfaction Level**a. Does the Current Source of Water Satisfy Your Water Needs for Drinking?**

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes, All year	30	97%	57	74%	49	100%	26	68%	162	83%
Yes, Only in winter	0	0%	4	5%	0	0%	0	0%	4	2%
Yes, Only in the summer	0	0%	0	0%	0	0%	7	18%	7	4%
No	1	3%	16	21%	0	0%	5	13%	22	11%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

b. Does the current source of water satisfy your water needs for Washing hands, bathing, washing clothes, etc.?

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes, All year	31	100%	64	83%	49	100%	27	71%	171	88%
Yes, Only in winter	0	0%	4	5%	0	0%	0	0%	4	2%
Yes, Only in the summer	0	0%	0	0%	0	0%	3	8%	3	2%
No	0	0%	9	12%	0	0%	8	21%	17	9%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

Source: Field Survey

3.2.8.2 Health Impact

Annex-1 (Table 6) sheds light on the positive impact of PPAF funded DWSSs. The overall positive impact of the scheme on the health of men, women and children can be seen in the data. The schemes had a positive impact on the overall health of women and children who form two of the most vulnerable segments of population, especially in remote rural areas. In this regard, the overall positive impact on health is not just related to better hygienic water. In fact, there is a positive impact of the schemes in terms of reducing the workload of women and children who were often tasked with collecting water from distant points. Earlier, apart from being physically taxing, the activity often had a negative health impact.

The Annex-1 (Table 6) shows that a reduction in expenditure on illnesses and an overall improvement in the health of beneficiaries due to DWSS interventions had positive economic impact for the entire household. More than half of the respondents were of the view that incidence of disease had reduced amongst their family members, with a larger percentage of respondents in Punjab (83%) and Sindh (79%). On the other hand, the percentages were noticeably low in KP (18%) and Balochistan (20%). However, when prompted the percentage increased to 100% in Balochistan and 79% in KP. Similarly, a significantly higher percentage of respondents agreed after being prompted that after the provision of DWSSs, there were less illnesses, therefore less loss of productive time (32% unprompted and 57% prompted).

3.1.8.6 Gender Perceptions about Water availability and Gender Empowerment

As women are the main custodians of household water supply, it was important to assess their feedback on water availability after the interventions. In Punjab districts, all water scheme respondents were females and 100 % when prompted said that water was available throughout the year. In Sindh, 100 % women reported water availability throughout the year compared to 82 % males, while in KP, all males reported throughout the year water availability compared to 58 % women, 33 % who said that water availability was not satisfactory and they were short of water especially during summer months. Data from KP reinforces the observation that women had more information about domestic water supply availability

The household survey data shows an overview of persons responsible for collecting water in the pre- and post-intervention periods. In this regard, 85% of the respondents (overall) stated that women were responsible for collecting water from the collection points before the introduction of the PPAF drinking water scheme in their villages. There is a clear majority of respondents who have identified women as solely responsible for the task in KP, Sindh and Balochistan.

The data reveal that after the intervention, the number of women who were collecting water increased. This is because of the ease of access (to drinking water) provided by the PPAF intervention whereby more women were allowed by their family heads to collect water from a safer and more reliable collection point installed by PPAF. The greater responsibility accorded to women in this regard can also be seen in the overall reduction in the number of men who collected water before the scheme was introduced by PPAF in the target areas. The increase in the number of children collecting water after the intervention can be explained in similar terms. However, in spite of increased involvement in water collection, the intervention had a positive impact in terms of saving beneficiaries' time which was then expended in other socio-economically beneficial activities. Detailed household responsibility, pre- and post-intervention, for water collection is given in Annex-1 (Table 7).

3.1.8.7 *General Impact: Division of Labour and Community Participation*

The survey probed to find out the overall satisfaction levels of the beneficiaries regarding various aspects/impact of the PPAF funded DWSS interventions. The data provides a brief overview of the various aspects of the scheme which are discussed in detail above. Overall, more than 85% of the respondents stated that the scheme had contributed significantly in terms of addressing the water requirements of the beneficiary households. While the data indicates that more women collected water after the scheme due to easier access to water points, and this has reduced a significant burden off women and children who were previously responsible for collecting water from distant and unsafe locations. More importantly, more than 60% of the respondents confirmed the impact of the project in terms of institutionalizing a positive behavioral change towards using safe and hygienic water for consumption. Finally, more than 80% of the respondents agreed that the scheme was in line with PPAF's policy of zero discrimination in terms of caste, creed, gender or religion while implementing a project as detailed in Annex-1 (Table 7).

3.2.8.3 *Findings from Qualitative Data*

The box below shows key findings from FGDs conducted with community men and women in the four provinces.

Key findings DWSS
Due to this scheme, diseases have been reduced in children as well as adults
Health of children and women has improved
Positive impact on children's education because they attend school more regularly because of lesser disease incidence
Women's work load has reduced after the scheme because they don't have to walk to far-flung areas to fetch water
Living standard has improved in terms of better health status and saved time for both men

and women

More time for socialization for women

Better food is available to people as health costs have reduced and more money can be spent on food items. In addition, because women have more time now, they prepare better food

Community is willing to take responsibility of care/maintenance of the DWSS

Nalka Scheme (hand pump) is beneficial for women to collect water for domestic usage as hand pumps are accessible and water is available as required throughout the year

There is a greater awareness regarding water borne diseases as people have become conscious of illnesses which occurred due to contaminated or poor quality water

Incidents of skin allergies and diseases, malaria and typhoid have reduced due to cleaner and safer drinking water

There are less flies and mosquitoes in the area where DWSS has been initiated

3.3 Roads and Bridges

The important role of rural roads and bridges in the context of rural development includes: accelerated delivery of farm inputs, transportation of farm output at reduced transportation costs, easier access to health and education opportunities, and linkages with the outside world. Since majority of the economic activities in rural areas depend in one way or the other on road infrastructure, therefore investments in such schemes are in line with PPAF objectives.

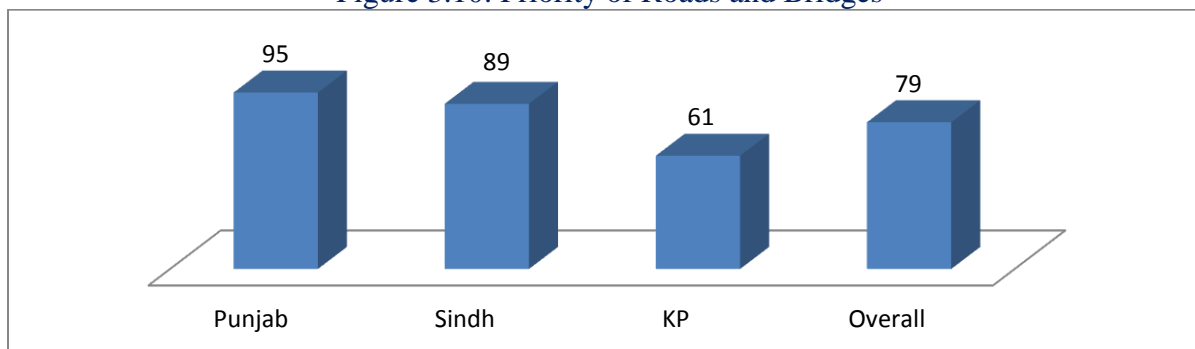
3.3.1 Relevance

The roads and bridges schemes were included in the program to address the PPAF objective of increasing the income of the rural poor and poverty reduction from neglected areas of the country through economical means of travelling and transportation as well as creation of economic opportunities. Transportation of farm input and output and linkages with urban markets are the key to benefits envisioned from roads and bridges schemes which benefit the entire community. Thus the roads and bridges schemes have relevance for execution. To obtain the view point of the beneficiaries for assessing relevancy of the schemes, questions on difficulty in accessing markets, and reaching education and health services were asked from the stakeholders in field. The province-wise responses are at Annex-1 (Table 8). The country-wise responses indicate that 77% beneficiaries reported difficulty in accessing health services, followed by 72% for marketing and 64% for education due to non-existence of roads. The IA team validates that the investment in roads and bridges was relevant.

3.3.2 Demand or Supply Driven

The prioritization of needs by the communities is an indicator reflecting demand emanating from the field. Therefore, in order to ascertain if the roads and bridges schemes were imposed or if these were actual needs of the communities, a question on the priority aspect of the schemes was asked from CO members in the field. Their responses are shown in figure 3.10.

Figure 3.10: Priority of Roads and Bridges



Source: Field Survey

According to the responses, 95% respondents from Punjab replied that roads and bridges were their priority, responses from Sindh and KP were, respectively, 89% and 61%, with an overall country level response at 79%. The data, therefore, reflects that the schemes were demand-driven.

3.3.3 Deepening, Saturation, Integration and Holistic

In case of roads and bridges schemes, the data pertaining to PPAF-III project shows that deepening and saturation was targeted while executing the schemes¹³. The schemes data also provide evidence that the PPAF-III project did focus on integration and holistic approach¹⁴. In addition, some other villages also benefitted from the PPAF funded schemes in other sectors in conjunction with roads and bridges sector, leading to "holistic and integrated" development.

3.3.4 Execution of the Schemes, Quality and O&M Coverage

The IA team visited some of the roads and bridges schemes executed with PPAF funding. The team also held FGDs and KIIs with the stakeholders. The objective of these visits was to observe design, construction quality and maintenance condition of the schemes¹⁵. It was reported by the beneficiaries that the design of the schemes was developed by the engineers of POs in consultation with the beneficiary communities. COs were guided by the engineers while construction work was executed through contractors experienced in road construction. The CO members were involved in the monitoring of quality and quantity of the works. It was also reported by the community members that they were generally satisfied with the construction quality of roads and bridges. Their argument was validated during the visits as


¹³ The schemes data reflects that 9 roads and bridges schemes were implemented in village Naranj Pora of district Swat. Six roads and bridges schemes were undertaken in village Muhammad Pur-2 of Rajanpur district. Five roads and bridges schemes were executed each in village Abadi Chak district Layyah, village Hussain Khan Wala of district Kasur and Kot Tahir of district Rajanpur. Ten villages including Basti Bagri of Layyah, Bhag Pur of Rawalpindi, Ch. S. W. of Kasur, Cherah of Islamabad, Goth Lal of Bahawalpur, Kot Jandan and Kotli Nehr of Haripur, Marjanai and Shagai of Swat. Rare Bun of Poonch district had 4 roads and bridges schemes each. Three schemes were executed in each of 28 villages located in various districts including; Rawalpindi, Attock, Layyah, Sangar, Bahawalnagar, Haripur, Swat, Ghotki, Kasur and Khairpur. A number of villages benefited from 2 schemes each while majority of villages had one roads and bridges scheme.

¹⁴ Villages Muhammad Pur 2 and Kot Tahir were awarded irrigation schemes along with roads and bridges schemes. Village Hussain Khan Wala had also executed drainage and sanitation schemes. Village Cherah was provided DWSS and drainage and sanitation schemes with roads and bridges schemes. Villages Rair Bun and Kotli Nehr had also implemented DWSS

¹⁵ The team composition, as envisaged by PPAF did not provide for engineering expertise. Therefore findings of the IA team are a generalized overview.

roads are still in working condition. Some glimpses of the roads from Upper Dir are given below.

3.2: Glimpse of Roads

	
A view of metaled Road	A view of un-metaled Road

During discussions with the CO members in Upper Dir, it was observed that maintenance of roads and bridges was a difficult task for them due to required technical inputs not available with the COs and the financial outlays required for repairing the damaged retaining walls. However, some modest maintenance work is carried out by the CO members. For this purpose they utilize the maintenance funds from their accounts and replenish it through contributions of CO members. On a question of regular contribution for O&M, the responses are in Table 3.15.

Table 3.15: Cash Contribution for O&M

Q: Do You Pay Any Amount For Operation and Maintenance of the Scheme?

Response	Punjab		Sindh		KP		Total	
	#	%	#	%	#	%	#	%
Yes	0	0	5	7	18	25	23	13
No	42	100	65	93	54	75	161	88
Total	42	100	70	100	72	100	184	100

Source: Field Survey

The above table reveals that overall 13% respondents have been contributing in cash. The province-wise contribution was zero for Punjab, 7% for Sindh and 25% for KP. However, as noted earlier, traditionally the communities contribute on a need-basis.

3.3.5 Financial and Economic Impact of Roads and Bridges

Roads and bridges related infrastructure development was viewed important by all beneficiary communities but was considered more so by the beneficiary communities of the mountainous/hilly regions such as Dir and Kohistan districts. The survey reported in table 3.16 shows that 50% respondents in Punjab, 44% respondents in Sindh and 78% respondents in KP reported an increase in their household income due to implementation of the roads and bridges schemes funded by PPAF. The increase in household incomes was mainly due to opening up of opportunity of transportation of agricultural inputs and outputs, reduced cost of

bringing household items and on account of ease in travel. Similar trends were observed in an earlier PPAF assessment conducted in 2011, *User/Beneficiary Assessment Survey*.

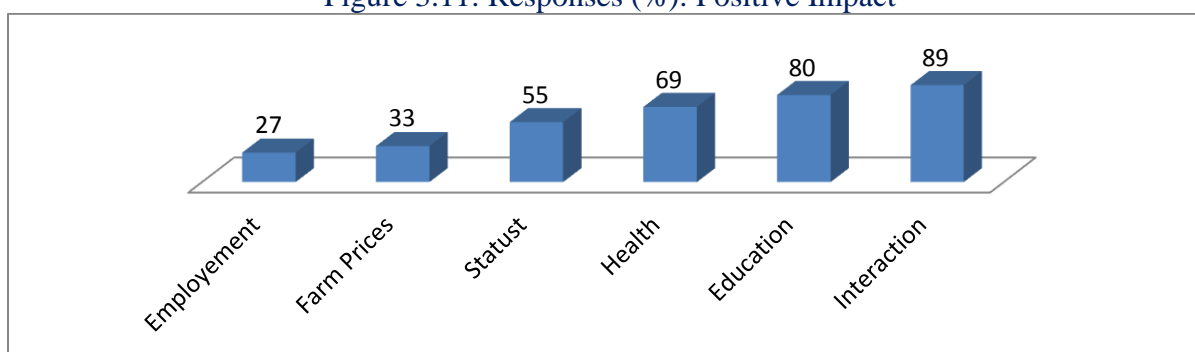
Table 3.16: Income Increase Responses

Response	Punjab		Sindh		KP		Total	
	#	%	#	%	#	%	#	%
Yes	7	17%	17	24%	10	14%	34	18%
To some extent	14	33%	14	20%	46	64%	74	40%
No	20	48%	39	56%	9	13%	68	37%
Don't know	1	2%	0	0%	7	10%	8	4%
Total	42	100%	70	100%	72	100%	184	100%

Source: Field Survey

Annex-1 (Table 9) further reflects the positive impact of the roads and bridges schemes at the provincial level. The overall responses at the country level are given in figure 3.11.

Figure 3.11: Responses (%): Positive Impact



Source: Field Survey

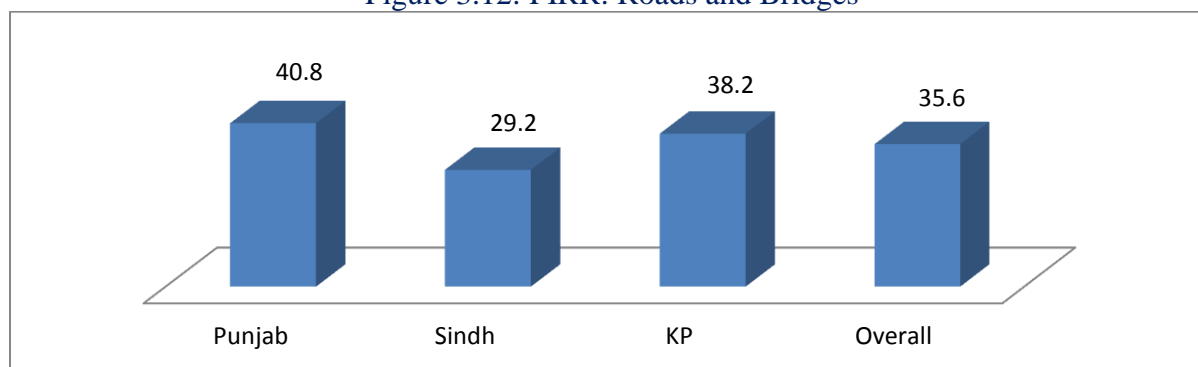
The above figure shows respondents reported improvement in: social interaction by 89%, education opportunities by 80%, health opportunities by 69%, social status by 55%, farm output returns by 23%, and employment opportunities by 27%

One of the CO's members at Battagram opined that earlier they mostly treated the patients at home with local medication resulting in prolonged illness but now they take the patients to hospitals and

3.3.5.1 Financial Internal Rate of Return

FIRR of roads and bridges schemes was calculated using direct cost of the schemes, O&M expenses and incremental direct/indirect benefits derived by the beneficiary communities over a period of 10 years. The basis and assumptions of calculations are detailed in the methodology section. The calculations show 40.8% FIRR for roads and bridge schemes in Punjab, 29.2% in Sindh and 38.2% in KP, with an overall FIRR of 35.6% at country level as reflected in Figure 3.12.

Figure 3.12: FIRR: Roads and Bridges



3.3.5.2 Economic Internal Rate of Return

EIRR of roads and bridge schemes was calculated using conversion factors as explained in the methodology section. The EIRR was calculated province-wise and then at country level as given in Table 3.17.

A fruit growing respondent stated that before the road scheme they sold the produce to middlemen on their terms but now they have the edge of bargaining due to the option of taking their produce to the market in pickups.

Table 3.17 EIRR: Roads and Bridges

Province	EIRR	Country Level EIRR
Punjab	42.20%	36.80%
Sindh	30.20%	
Khyber Pakhtunkhwa	39.40%	

Source: Field Survey

EIRR analysis shows that beneficiaries from Punjab had greater economic benefit from the schemes with 42.20% EIRR followed by KP at 39.40% and Sindh with 30.20% EIRR. The aggregate EIRR at country level is 36.80%. Overall, both at provincial and aggregate level, the roads and bridges schemes are contributing significantly to the economic benefits of the beneficiary households.

3.3.6 Local Economy

The road and bridge schemes were found contributing to the households and local economy significantly as is evident from IRRs. PPAF funded roads and bridges are important as these schemes open up remote and cut-off regions to the outside world and create additional opportunities in almost all sectors of the economy. As stated above, in all the four provinces, economic benefits were derived from the opening up of marketing opportunities of agricultural produce, employment, education and health-related benefits. In addition to economic benefits, these schemes created greater social interaction opportunities for the communities. The responses of the beneficiaries in the following table 3.18 reflect that the local economy had a positive impact due to the undertaking of roads and bridges schemes.

Table 3.18: Benefits Post Schemes

Response	Punjab		Sindh		KP		Total	
	#	%	#	%	#	%	#	%
Access to markets	22	54	34	54	58	81	114	65
Access to health services	24	59	38	60	53	74	115	65
Improved social mobility	20	49	20	32	46	64	86	49

Access to education service	21	51	22	35	35	49	78	44
Convenience in female mobility	7	17	25	40	26	36	58	33
Reduction in the transportation cost	4	10	7	11	11	15	22	13
Access of vehicles to homes	0	0	1	2	0	0	1	1
Access to drinking water sources	0	0	1	2	0	0	1	1

Source: Field Survey

The above table shows that beneficiary communities derived benefits in a number of economic and social aspects including transportation, female mobility, access to markets, access to health and education services, etc. The opening up of the local economy through impact on the marketing of agricultural produce is depicted in the following glimpse captured from Upper Dir.

Glimpse 3.4 Roads and Bridges Open Up Local Economy

	
Produce assembled and bagged near road.	Truck picking bags from different sites.

3.3.7 Livelihood

Analysis of data collected during the field survey shows that the livelihood of the beneficiary communities has improved. No baseline data is available to determine the actual reduction in poverty bands since initiation of the roads and bridges schemes. Similarly, information relating to other factors that might have played a role in improving the livelihood of the communities is non-existent. Table 3.19, however, shows that extreme poverty is quite low amongst the communities benefiting from the roads and bridges schemes.

Table 3.19 Poverty Scenario: Post Roads and Bridges Schemes

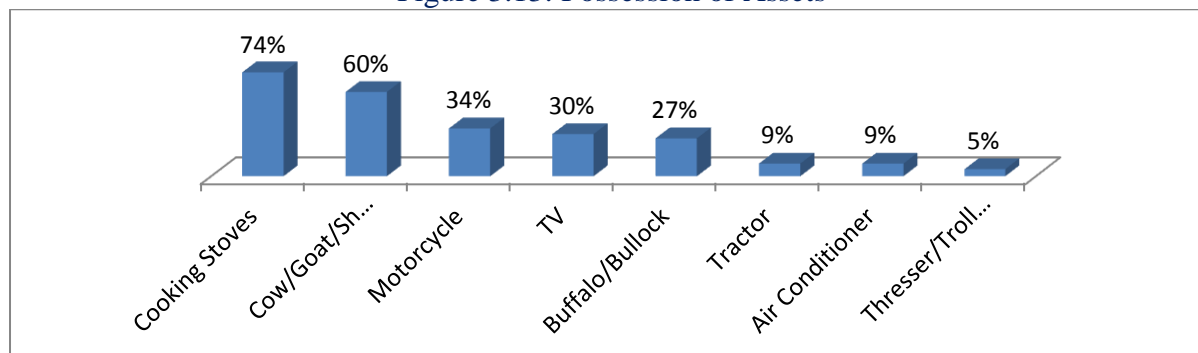
Poverty Band	Punjab (%)	Sindh(%)	KP(%)	Overall(%)
Extremely Poor	0	16	1	7
Chronically Poor	7	13	7	9
Transitory Poor	10	13	15	13
Transitory Vulnerable	12	19	26	20
Transitory Non- Poor	21	20	29	24
Non Poor	50	20	21	27

Source: Field Survey

The 'transitory non-poor' and 'non-poor' categories overall constitute 51% of the beneficiary population. Province-wise, Punjab is on top with 71% non-poor and transitory non-poor, followed by KP with 50% and Sindh with 40%. Extreme and chronically poor are more amongst the beneficiary communities in Sindh with 29% followed by 8% in KP and 7% in Punjab. The survey further reflected that all beneficiaries have shelter. Majority have 1 to 3

rooms. Province-wise possession of other assets was also satisfactory as shown in Annex-1 (Table 10) with the overall scenario reflected in figure 3.13.

Figure 3.13: Possession of Assets



Source: Field Survey

3.3.8 Social Impact of Roads and Bridges Schemes

3.3.8.1 Inclusiveness

Roads and bridges are amongst those schemes which benefited all households in the targeted communities regardless of gender, caste, creed, interest grouping, or income levels. In the FGDs for roads and bridges in the three provinces, all participants agreed about the positive impact of roads and bridges due to easier access to education institutes, health care facilities and workplaces.

79% respondents reported that they were consulted during the planning and implementation phases of the scheme, with 86 % responses in the affirmative in Punjab, followed by 80 percent in Sindh and 75 % in KP. This indicates a fairly high level of community participation during the project implementation process.

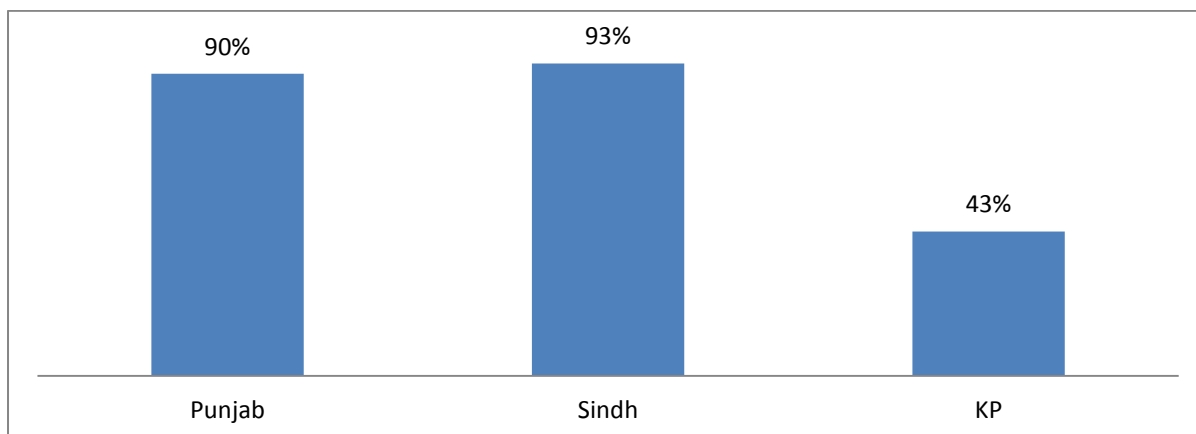
3.3.8.2 Gender Empowerment

Due to easier access to schools, health facilities and market places, one of the significant effects of roads and bridges undertaking was indicated by higher mobility and improved decision making status of women amongst the beneficiary communities. However, it should be realized that gender relations evolve over a considerable period of time and any changes in the set roles and responsibilities of males and females (like increased female mobility) in the target areas (due to infrastructural development) will become visible only over time.

Figure 3.14 shows the positive impact of the scheme on local population's access in the village. In Sindh and Punjab, majority respondents agreed that the scheme had been beneficial in improving their access within their villages. Almost 64 % respondents felt that improved access also had an impact on female mobility, with a higher number of women stepping out of their homes to visit health centres, market places and attend social events.

A number of men and women in the FGDs said that they were able to save time and resources due to improved access and transport. Also, transport was now less costly and easier to find. FGDs with both community men and women indicate that women's mobility had also improved and they felt more secure in travelling even without male companions.

Figure 3.14: Improvement in Accessibility in Village after the Scheme



Source: Field Survey

The IA data also indicates that after the schemes, women in Punjab and Sindh had greater access to employment opportunities as compared to women in KP where female participation in economic activities remained dismally low, with only 28% of the women in the latter case having access to employment opportunities according to the data.

It is interesting to note that in spite of considerable economic activity among women in Sindh, these women were hampered in terms of access to markets as compared to women in KP and Punjab where more than 80% of the women had access to nearby markets. Data from FGDs in Sindh shows that while the community was quite permissive in terms of females' mobility, there was a lack of adequate access to health services, schools, and markets and people had to travel considerable distances for these services.

3.3.8.3 Improved Health and Education Services

The construction of roads and bridges had an immensely positive impact in improving access to the villages. More than 90% of the respondents from Sindh and Punjab attested to the positive impact of the newly constructed roads and bridges in improving access to their villages. Furthermore, a comparatively smaller number of respondents from the three target provinces stated that the intervention had a positive impact in improving access to health and educational facilities. For instance, 50% of the respondents from Punjab and 61% from Sindh stated that the construction of roads and bridges improved access to health facilities. Considering that a total of 49% of the respondents from the three target provinces stated that the intervention improved access to health facilities and almost 45% of them stated that the project had improved their access to these facilities 'to some extent', the project's substantial impact in improving the overall access to health facilities can be established with certainty.

Almost the same percentages of respondents from all three provinces attested to the positive impact of roads and bridges in improving access to educational facilities. A major positive impact of the intervention is related to female mobility trends in the three target provinces. The data reveals that 64% of the respondents from Sindh and 82% of the respondents from KP stated that construction of roads and bridges had increased female mobility in their areas. This is because men were more likely to travel with their wives and female members of the family due to the safety and comfort afforded by the construction of roads and bridges. Further details are shown in Annex-1 (Table 11).

The construction of roads and bridges in the target areas was a timely intervention as a large number of respondents identified problems in accessing health services, schools and markets prior to the scheme. Only a small number of respondents actually stated that they were not

facing problems in accessing basic facilities. This reflects the poor state of infrastructural development in the rural areas of the target provinces and the need for investing in the same.

At a provincial level, consistent with the overall lack of infrastructural development in Sindh, respondents from the province were facing considerable problems in accessing basic services. For instance, 94% of the respondents in the province stated that they were facing considerable problems in accessing markets before the intervention. This is in line with the findings highlighted in the previous section showing the lowest percentage of women who had access to markets belonged to Sindh. After Sindh, respondents from KP indicated that they faced considerable problems in accessing health and education facilities and markets as is evident from the Annex-1 (Table 12). For instance, 79% of the respondents from KP stated that they faced problems in accessing health facilities as compared to 60% of the respondents in Punjab. Similarly, 67% of the respondents in KP were facing problems in accessing markets as opposed 43% in Punjab.

It is interesting to note that there have been negligible changes in the average expenditure on travelling to or accessing health facilities among project beneficiaries. This is because these bridges and roads have been mostly constructed on old walking paths and have mostly eased beneficiaries' access to their own villages and settlements – none of the interventions in this case have provided shortcuts to schools, health facilities or markets. Furthermore, ease of access provided by the construction of roads and bridges has encouraged project beneficiaries to travel more frequently to schools, hospitals and markets. This may have contributed to the minimal impact of these interventions in reducing travelling or transportation expenditure for the project beneficiaries.

A more detailed impact of the intervention in reducing or increasing transportation costs in the three provinces is given in the Annex-1 (Table 13). The findings of the table are consistent with the statement above whereby majority of the respondents have attested to the minimal impact of intervention in reducing expenditure on travelling. Furthermore, 37% of the respondents have stated that the intervention had reduced their travelling expenditure and only 5% stated that their travelling expenses had increased after the intervention, this may be because the beneficiaries had started travelling more frequently after the construction of roads and bridges.

3.3.8.4 Impact on Social Interaction

The impact of the interventions with regard to improving access to health and educational facilities has been discussed in a separate section of the report. In addition, a large segment of the beneficiaries attested to the positive impact of the schemes in increasing social interaction among families. This was especially stressed by the respondents from Sindh (49%) and KP (85%). Moreover, the impact of the schemes in enhancing social interaction between families in Punjab cannot be overlooked as 71% of the respondents from the province indicated that family social interaction had to some extent improved after completion of the scheme.

The data at Annex-1 (Table 14) further shows an overall assessment of the project by the beneficiaries from the three target provinces. Generally, more than 80% of the respondents from Punjab, Sindh and KP agreed that the construction of roads and bridges had a positive impact in improving accessibility conditions in the village, reducing the time required in reaching the workplace, and improving female mobility in the target areas. Furthermore, on a more subtle level, 76% of the respondents from Sindh and 56% from KP revealed that the construction of roads and bridges had provided the women in their villages with a safer and more comfortable access to their destinations which was slowly changing attitudes towards

female mobility in their villages. A major positive factor behind PPAF's work pertaining to the construction of roads and villages was the overall positive impact of the intervention for all the residents (of the target villages), irrespective of their caste, creed or gender.

The respondents also thought that the scheme will help in connecting the villages to PPAF and other donors and contribute to bringing more development schemes in their respective villages. It is important to mention that 49% of the respondents from all provinces did not know how the interventions would bring more donors or development schemes to their villages. As a future course of action, PPAF can increase awareness on how infrastructure development projects can bring underdeveloped villages or settlements on the donor radar and pave the way for future collaborations between development organizations and communities.

3.4 Drainage and Sanitation

Drainage and sanitation remains a neglected sector in Pakistan. Most of the households in rural areas do not have access to drainage and lack adequate sanitation systems. Resultantly the dwellers of such areas have been experiencing a negative impact on their basic needs such as health, education, drinking water and environment¹⁶. PPAF investment in the drainage and sanitation sector has implications for health, education, environment and socio-economic issues in rural areas.

3.4.1 Relevance

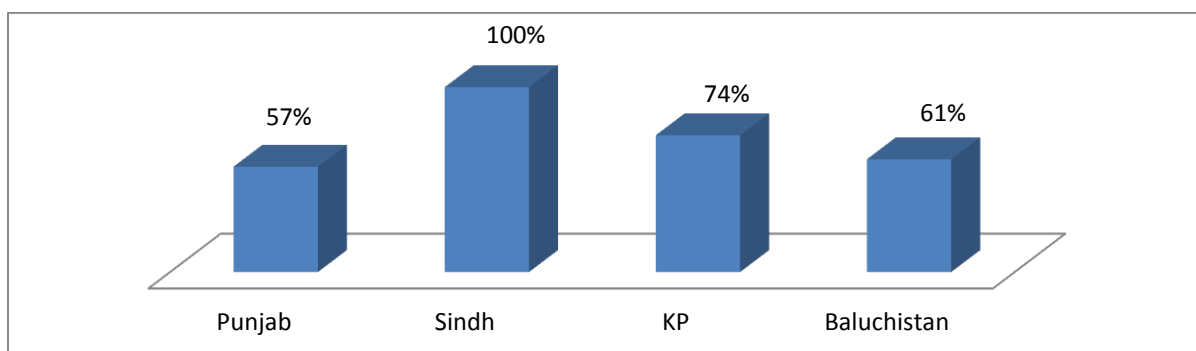
The drainage and sanitation schemes were included in the program to realize the PPAF objective of improving the livelihoods of the rural poor through providing social amenities to neglected segments of the society and ensuring an enabling environment for the formation of human capital. Provision of improved drainage and sanitation has significant bearing on the formation of human capital that further creates better economic opportunities for beneficiary households. This makes a strong case of relevancy for the execution of drainage and sanitation schemes in the poverty ridden areas of the country. To support the above scenario, Annex-1 (Table 15) provides data supporting the relevancy of the schemes based on province-wise responses of beneficiaries. The data reveals that 50% beneficiaries had no drainage facility inside the house and 74% beneficiary respondents had no drainage system outside their houses prior to the undertaking of PPAF-funded schemes. This scenario shows the relevancy of the drainage and sanitation schemes in the target areas to benefit intended communities. The IA team, therefore, considers the investment in drainage and sanitation schemes relevant.

3.4.2 Demand or Supply Driven

The field data collected on non-availability of drainage and sanitation facilities suggests the need for the schemes, but to further strengthen the argument, responses of beneficiaries were collected on the priority attached to drainage and sanitation schemes. On the question pertaining to the priority aspect of the scheme, 100% respondents from Sindh stated that drainage and sanitation was on their priority, whereas 74% from KP, 61% from Balochistan and 57% from Punjab responded that drainage and sanitation were on their priority lists, with an overall country level average of 70% as reflected in Figure 3.15.

Figure 3.15: Priority of Drainage and Sanitation

¹⁶ <https://washjournalists.wordpress.com>



Source: Field Survey

The above data reflects that the schemes had a high priority in all the four provinces leading to the conclusion that these were demand-driven.

3.4.3 Deepening, Saturation, Integration and Holistic

The data made available regarding drainage and sanitation schemes executed under PPAF-III project reveals deepening and saturation related efforts in the field¹⁷. As far as integration and holistic approach of the project is concerned, in many villages which were awarded drainage and sanitation schemes, other sector schemes were also undertaken. These included roads and bridges, DWSS, and irrigation. The objective was to strengthen integration and being holistic. Some examples are: village Kokar had implemented roads and bridges schemes, village Shadi had DWSS, village Talli had flood protection and irrigation, and village Bandi Serian implemented DWSS scheme.

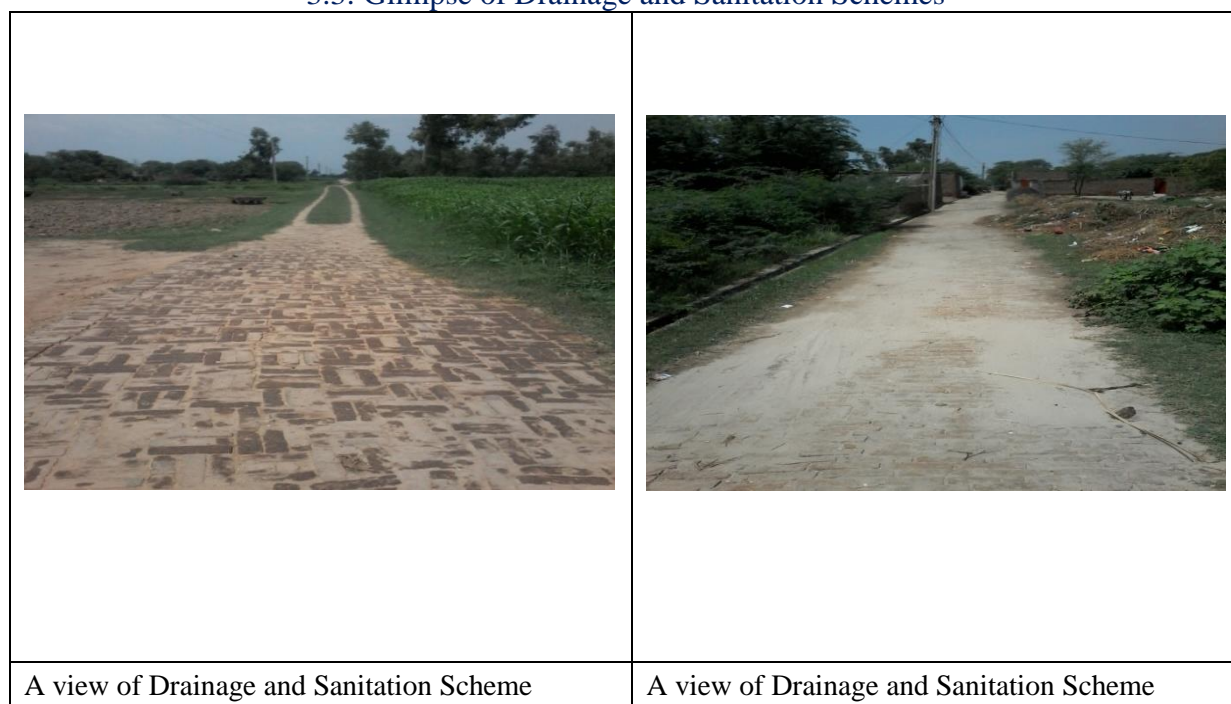
3.4.4 Execution of the Schemes: Quality and O&M Coverage

The team during field visits observed various drainage and sanitation schemes implemented under PPAF funding. The drainage and sanitation schemes completed during the last few years were visited to observe design, construction and maintenance conditions¹⁸. It was reported by beneficiary communities that engineers from the POs designed the schemes after their visits to the sites and in consultation with the beneficiary communities. CO members were trained by POs in executing construction through contractors. The CO members monitored the execution work particularly keeping in view the quality aspects and ensuring quantity of the work. It was noticed during the field visits that the construction quality of the drainage and sanitation schemes was a mix of good and average. However, these drainage and sanitation schemes were in working condition as reflected in Glimpse 3.3 captured from Mitha Tiwana.

¹⁷ The data shows that in a single village of Mandi Faizabad 14 drainage and sanitation schemes were executed. Nine schemes were implemented in village Kokar D. I. Khan. Six drainage and sanitation schemes were awarded in each of village Ehsan Pur of district Muzafarghar, Dhok Ganganwali district Attock and village Shadi of Haripur. Villages Bandi serian of Haripur, Kuzabandi of Swat and Talli of district Sibi had 5 schemes each of drainage and sanitation. In 8 villages of various districts namely Haripur, Bahawalnagar, Ghotki, Shekhupura, Jhelum, Nankana and Khushab 4 drainage and sanitation schemes were implemented each village. A total of 25 villages from various districts had benefited from 3 drainage and sanitation schemes each. A number of villages had executed 2 schemes and majority had one drainage and sanitation scheme.

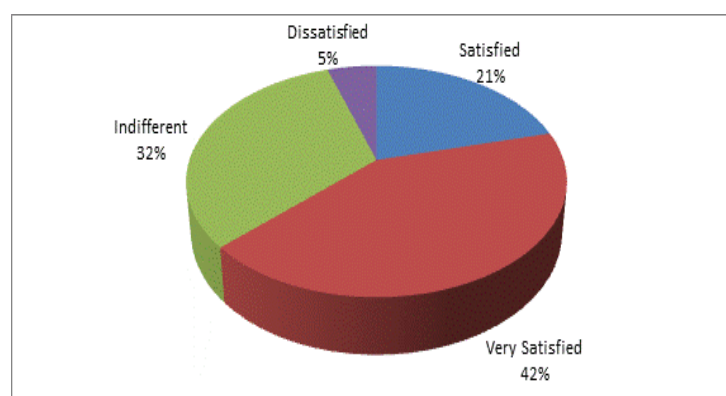
¹⁸ As noted earlier, the Team did not have any engineering related expertise.

3.3: Glimpse of Drainage and Sanitation Schemes



The field observations also captured beneficiaries' responses regarding their satisfaction level regarding drainage conditions. The overall responses at the country level are reported in the Figure 3.16 while the province-wise scenario is in Annex-1 (Table 16).

Figure 3.16: Satisfaction Level with Overall Condition of Drainage



Source: Field Survey

The above figure shows that 63% beneficiary respondents were satisfied or very satisfied whereas 5% respondents were dissatisfied. Another 32% respondents were indifferent/neutral. The Annex-1 (Table 16) reflects that within the provinces, KP was on top with 100% responses for satisfaction, followed by Sindh with 87%, Balochistan 38%, and Punjab 24%.

While discussing the maintenance of the schemes during FGDs in some of the cases in Punjab and KP, it was reported that maintenance of drainage and sanitation schemes is undertaken on need-basis. COs clean and maintain the schemes collectively and contribute in labor or cash on a requirement basis. Although this is not in consonance with the PPAF requirements, the time-tested approach of collecting funds for undertaking repairs on need-basis fulfills the requirements of O&M costs. This is supported by field data presented in Table 3.20.

Table 3.20: Cash Contribution: O&M

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	2	10	6	40	35	71	15	35	58	45
No	19	90	9	60	14	29	28	65	70	55
Total	21	100	15	100	49	100	43	100	128	100

Source: Field Survey

The household data, as reflected in the above table, shows that overall 45% of the respondents contribute in the O&M of the schemes. Province-wise, responses from Balochistan were 71%, followed by 40% in Sindh, 35% in KP and 10% in Punjab.

3.4.5 Financial and Economic Impact of the Drainage and Sanitation Schemes

Drainage and sanitation related infrastructure development schemes were considered vital by the communities due to their direct impact on the health of the communities, particularly children and women. During the survey, 98% respondents in Balochistan, 60% respondents in KP, 53% respondents in Sindh and 29% respondents in Punjab (with an overall average of 69%) reported reduction in water-borne diseases after implementation of drainage and sanitation schemes..

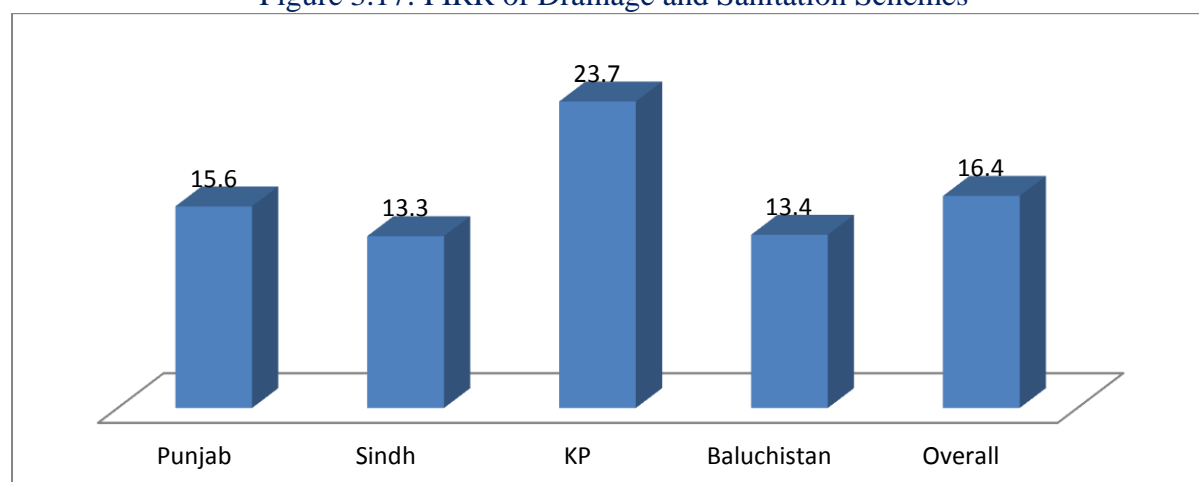
Based on the information collected during FGDs and KIIs, impact of drainage and sanitation schemes on the local economy and livelihood has been estimated as below.

3.4.5.1 Financial Internal Rate of Return

The FIRR of the drainage and sanitation schemes was calculated mainly using savings on health expenditure pertaining to women, children, other members of households and hygienic environment.

One of the CO members in the FGD at Mitha Tiwana stated that in their area consisting of the poorest people, nobody paid attention to their problems. It used to be very difficult to stand outside due to the smell and mosquitos. PPAF has helped them live a comparatively better life

The FIRR calculations revealed 15.6% returns for drainage and sanitation schemes in Punjab, 23.7% in KP, 13.3% in Sindh and 13.4% in Balochistan, with an overall FIRR of 16.4% at the country level as reflected in Figure 3.17.

Figure 3.17: FIRR of Drainage and Sanitation Schemes

The data shows that drainage and sanitation schemes contributed to the livelihood of the beneficiary communities through savings in their health and hygiene-related expenditure.

3.4.5.2 Economic Internal Rate of Return

As discussed in methodology section, the EIRR of the drainage and sanitation schemes was calculated province-wise and then at the country level as given in Table 3.21.

Table 3.21 EIRR: Drainage and Sanitation

Province	EIRR	Country Level EIRR
Punjab	15.10%	16.20%
Sindh	12.60%	
Khyber Pakhtunkhwa	23.50%	
Balochistan	13.30%	

Source: Field Survey

The EIRR both at provincial and aggregate level reveals that the drainage and sanitation schemes are contributing to the beneficiaries' household economies thereby reducing poverty.

3.4.6 Local Economy

Drainage and sanitation schemes were found contributing to the households and local economy through reduced spending on health-related expenditure and consequently improved quality of social and human capital in the beneficiary communities. The drainage and sanitation schemes also contributed to reduced environmental pollution in the areas benefiting from the schemes.

3.4.7 Livelihood

Data collected on poverty bands for the PPAF supported COs during the field survey and reflected in Table 3.22 suggests that currently poverty prevails amongst about 21% beneficiaries at the country level. Within the provinces, KP is much better with 6% poverty followed by 14% in Sindh, 24% in Punjab and 36% in Balochistan. Due to absence of baseline data on poverty bands pertaining to beneficiary communities, it is not possible to distinguish between pre- and post-intervention situations. Similarly, impact of other socio-economic and political factors is not known.

Table 3.22 Poverty: Beneficiaries of Drainage and Sanitation Schemes (%)

Poverty Band	Punjab	Sindh	KP	Balochistan	Overall
Extremely Poor	0	7	2	10	5
Chronically Poor	19	0	2	8	7
Transitory Poor	5	7	2	18	9
Transitory Vulnerable	29	20	21	6	16
Transitory Non- Poor	5	33	30	27	25
Non Poor	43	33	42	31	37

Source: Field Survey

3.4.8 Social Impact of Drainage and Sanitation Schemes

3.4.8.1 Inclusion

The construction of drainage systems in the target villages of Punjab, Sindh and Khyber Pakhtunkhwa was an important intervention, especially seen in the context of the pre-intervention scenario when almost half of the target households did not possess proper drainage inside the homes and more than 70% of the households did not have exterior drainage systems. On a provincial level, PPAF funded households in Punjab appeared to be the least equipped in terms of possessing both interior and exterior systems of drainage. Furthermore, more than 70% of the respondents from Sindh and KP stated that they did not possess a drainage system outside their homes. This was especially problematic, especially in terms of village hygiene, as drainage and sewage water was spilled in the streets outside villagers' homes because of the absence of a proper outside drainage system. Moreover, absence of drainage inside homes meant that sewage or drainage water had no proper outlet and was likely to remain inside the living spaces of the villagers resulting in poor hygiene which contributed to diseases. According to the field data, only 4% of the respondents from all four provinces stated that they did not need drainage systems in their villages on a priority basis, which means 96% of the residents desired the schemes. Table 3.23 shows that a significant percentage of respondents agreed that the scheme was implemented without any discrimination in terms of gender, caste, creed or income levels. Majority of households in Sindh and Balochistan communities were of the view that almost all households benefited from the scheme. In Punjab, a noticeable 14 %stated that they disagreed that the scheme was implemented objectively and some households remained uncovered. In KP, more than half of the respondents were unaware of the process and how the scheme was implemented. The data in Table 3.23 shows that most respondents in the three provinces (Punjab, Sindh and Balochistan) agreed with the the statement that the schemes were implemented without discrimination. In KP the response was not negative since the overwhelming majority were either in agreement (37%) or "did not know". Only 3 % of the overall respondents did not agree with the statement.

Table 3.23 Inclusiveness

Statement: The Scheme Is Benefiting All the Intended Beneficiaries without Any Discrimination

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	14	67%	14	93%	48	98%	16	37%	92	72%
Indifferent	3	14%	1	7%	0	0%	2	5%	6	5%
Disagree	3	14%	0	0%	0	0%	1	2%	4	3%
Don't know	1	5%	0	0%	1	2%	24	56%	26	20%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Source: Field Survey

3.4.8.2 Gender Empowerment

Annex-1 (Table 17) presents the gender dimension of the benefits of the drainage scheme. Before proceeding with a detailed analysis, it is imperative to state that the drainage scheme had an overall positive impact in improving the lives of all residents in the target villages/settlements. Construction of a proper drainage system inside the house allowed women to undertake their domestic chores in a more hygienic environment. This had a positive impact on children's health – children were vulnerable to a host of dangerous ailments because of unhygienic conditions inside their homes. Moreover, males benefitted

from the scheme because of a clean domestic environment and an overall improvement in their living through the construction of a drainage system outside their homes. Annex-1 (Table 17) presents the overall ranking of who benefitted the most from the construction of the drainage systems. The overall largest number of respondents (54% from all four provinces) highlighted that men greatly benefitted from the construction of a proper drainage system, both inside and outside the households. This was followed by children (55%) and women (45%). Interestingly, in spite of a high number of respondents who identified males as the primary beneficiaries of the scheme, the largest number of respondents also identified men as least benefitting from the scheme. Overall, there is a fairly even distribution of respondents who have identified men, women and children as the first or primary beneficiaries of the scheme.

A major positive impact of the intervention in terms of gender can be seen in the reduction of the workload of women in terms of performing cleaning and sanitation tasks. Table 3.24 shows that 98% of the respondents from KP and 87% of the beneficiaries from Sindh attested to this positive aspect of the scheme. Women are traditionally responsible for keeping the household clean whereas earlier they spent a considerable time in disposing of the drain and sewage water from inside their homes. The construction of indoor drains had considerably reduced their workload in this regard.

Table 3.24: Impact on Women's Workload

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	5	24%	13	87%	36	73%	42	98%	96	75%
Indifferent	5	24%	2	13%	12	24%	0	0%	19	15%
Disagree	10	48%	0	0%	1	2%	0	0%	11	9%
Don't know	1	5%	0	0%	0	0%	1	2%	2	2%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Source: Field Survey

3.4.8.3 Functioning and Management of the Drainage System

As is evident from the Table 3.25, the PPAF-assisted drainage interventions in the target villages work satisfactorily. In this regard, 18% of the respondents stated that drain overflow had been a major problem in the past with the highest number of such cases reported from Sindh (27%) and KP (37%). For instance, in the post-intervention scenario, 28% of the respondents from all four provinces stated that there was no overflow of drains in their villages. During rainy season, however, the drains were likely to get filled up and overflow and this was commonly reported from Sindh, Balochistan and KP; none of the respondents from Punjab mentioned facing the same problem during rainy season. In case of the control group, 38% of the respondents stated that drain overflow had been a frequent problem while 6% of the respondents informed that there was no overflow of drains in their villages. This is quite in contrast with the PPAF beneficiaries who, as not earlier, had only 2% mentioning "overflow".

Table 3.25: Overflow of Drains

Treatment Group										
	Punjab		Sindh		Balochistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes, very often	1	5%	1	7%	0	0%	0	0%	2	2%
Yes, occasionally	3	14%	2	13%	11	22%	4	9%	20	16%
Yes, in rainy season	0	0%	4	27%	17	35%	10	23%	31	24%
No	2	10%	4	27%	17	35%	13	30%	36	28%
This was a problem in past but not now	0	0%	4	27%	3	6%	16	37%	23	18%
No drains	15	71%	0	0%	0	0%	0	0%	15	12%
Don't know	0	0%	0	0%	1	2%	0	0%	1	1%
Total	21	100	15	100	49	100	43	100	128	100
Control Group										
	Punjab		Sindh		Balochistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes, very often	14	22%	9	14%	49	79%	25	41%	97	38%
Yes, occasionally	3	5%	1	2%	0	0%	15	25%	19	8%
Yes, in rainy season	7	11%	1	2%	0	0%	12	20%	20	8%
No	10	16%	4	6%	2	3%	0	0%	16	6%
No drains	27	43%	39	59%	6	10%	9	15%	81	32%
Don't know	1	2%	0	0%	5	8%	0	0%	6	2%
Not applicable	1	2%	12	18%	0	0%	0	0%	13	5%
Total	63	100	66	100	62	100	61	100	252	100

Source: Field Survey

3.4.8.4 Solid Waste Management

Annex-1 (Table 18) reflects the state of solid waste management in the target villages before and after the intervention. It is important to mention that more than 90% of the respondents stated that they had a solid waste disposal mechanism in their villages before the construction of drainage systems by PPAF. These mechanisms, however, cannot be regarded as environmentally friendly as most of the villages deposited their solid waste in the streets or in open areas (away from the residential area). A very small percentage of respondents actually indicated that there was a proper management system in their village. For instance, only 1% of the respondents stated that they deposited their solid waste in a disposal bin or that a sweeper was responsible for collecting the waste and depositing it in a proper way. The lack of a proper waste disposal system in the target villages created immense problems for the scheme beneficiaries as they were forced to deposit their solid waste inside the village or in nearby areas designated for waste disposal. The worst state of waste management in this regard was reported from Balochistan and Sindh, respectively. In the former case, 71% of the respondents revealed that they were disposing their waste in the village streets while 40% of the respondents in the latter case highlighted that they were throwing their solid waste in an open space, specifically designated for the purpose.

Open waste disposal, especially inside the villages was likely to have negative impact on the functioning of village drains as solid waste like shopping bags was likely to clog up the drains and result in the overflow of sewage water. In this regard, slight changes in behavior were observed at the village level as beneficiaries started using proper waste disposal mechanisms like refuse bins in the post-intervention scenario. Annex-1 (Table 19) shows the number of respondents using these bins increased from 1% to 7%. Furthermore, the number of respondents who threw their solid waste in the streets decreased from 52% to 43% in the post-intervention scenario with the most dramatic reduction being witnessed from KP (the

number of people who deposited their solid waste in the streets decreased from 40% to 21% in KP).

Lack of a proper disposal mechanism for solid waste remains a major concern behind the poor state of hygiene in the target villages. For instance, majority of the villages included in the assessment did not have a community waste disposal bin. In addition, the communal refuse pit in the villages was not emptied on a regular basis whereby overflowing of these pits was a common occurrence.

3.4.8.5 Impact on Community Well-Being

Annex-1 (Table 20) presents the major benefits of the drainage and sanitation schemes as reported by the beneficiaries from the four provinces. More than 40% of the respondents from all four provinces stated that the drainage and sanitation interventions had been instrumental in reducing the prevalence of illnesses in the target households. Mosquitoes control and prevention of water stagnation, both inside and outside the domestic space was also reported. The highest number of beneficiary respondents (77%) each from Sindh and Balochistan indicated that the schemes had reduced the prevalence of mosquitoes and diseases in their areas. Furthermore, overall 70% of the respondents with highest percentage from KP (88%) stated that the drainage and sanitation schemes had played an important role in making the villages environment clean and hygienic.

Further evidence of the positive impact of the drainage scheme in improving sanitary conditions in the target villages is evident from the Annex-1 (Table 21). For instance, 67% of the respondents from the target communities in the four provinces stated that the scheme had been instrumental in improving sanitation conditions within their households while 69% of the respondents revealed a positive impact of the schemes in improving hygiene at the village/community level. In the former case, more than 60% of the respondents from Sindh, Balochistan and KP (86%) stressed on the positive role of the intervention at the household level while more than 70% of the same exhorted the positive role of the intervention at the community level.

3.4.8.6 Health Impact

The intervention had a positive impact in bringing about positive changes in the beneficiaries' behavior with regards to better standards of hygiene and cleanliness, both at community and household levels. In this context, as presented in Annex-1 (Table 22), more than 70% of the respondents from the target villages (overall) stated that there had been changes in their family members' behavior with regards to better hygiene and sanitary practices. The most positive impact in this regard was reported from Sindh and KP where 67% and 84% of the respondents respectively stated that the intervention played a major role in changing the hygiene-related behaviors of the beneficiaries.

The drainage and sanitation interventions had a positive impact on improving the overall health status of the respondents. For instance, Table 3.26 shows that 46% of the respondents from all the provinces stated that the scheme had a major impact in improving the health status of their families while 38% of the respondents attested to the project's positive role in contributing to the improved health status of the respondents' families. The overall positive impact of the project is evident from the fact that only 13% of the respondents stated that there was no health impact of the drainage and sanitation schemes in the target villages. In this regard, the most positive impact was reported by respondents from Sindh and Khyber Pakhtunkhwa, followed by Balochistan and Punjab.

Table 3.26: Health Status Post Intervention
Has The Intervention Brought A Change In The Health Status Of Your Family?

Response	Punjab		Sindh		Balochistan		KP		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	5	24%	8	53%	20	41%	26	60%	59	46%
To some extent	0	0%	7	47%	27	55%	14	33%	48	38%
No	15	71%	0	0%	0	0%	2	5%	17	13%
Don't know	1	5%	0	0%	2	4%	1	2%	4	3%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Source: Field Survey

A more specific health related impact of the project can be seen in terms of reduction in the prevalence of water-borne diseases in the target areas. The Annex-1 (Table 23) presents an overview of the responses of the beneficiaries with regards to the impact of the project in reducing water-borne diseases.

In this regard, the greatest reduction was reported by respondents from Balochistan where 98% of the beneficiaries attested to the positive impact of the interventions in reducing water-borne diseases in their villages. This was followed by an overall reduction of these diseases in KP where 60% of the respondents reported the same. An overall provincial overview of the impact of the schemes in reducing water-borne diseases is in the Annex-1 (Table 23).

All of the respondents from Sindh and 98% of the respondents from Balochistan informed that the schemes had helped reduced the prevalence of Malaria and Typhoid in their villages. This is a major development as these diseases are a serious health concern in the rural areas of the two provinces, especially in far-flung villages which lacked proper health facilities. This can be further confirmed from the fact that more than 90% of the respondents from the two provinces have stated about the positive impact of the intervention in reducing their household expenditure on medical expenses.

Further positive impact of the intervention is reflected in the fact that respondents from all provinces stated that they were saving some money every month because of the decrease in expenditure on medical treatment. A positive intended outcome of the drainage and sanitation schemes was the overall improvement in the state of hygiene in the domestic and community spaces. The Annex-1 (Table 24) provides beneficiary feedback on the state of the same in the target households and villages in the aftermath of the intervention. Most of the responses with regard to the overall satisfaction with the state of hygiene after the project was undertaken expressed various levels of beneficiary satisfaction ('very satisfied' to 'satisfied'). Respondents from Sindh and KP reported high levels of satisfaction (consistent with the previous table), while respondents from Punjab appeared indifferent to the overall condition of hygiene inside their homes. At the community level, more than 50% of the respondents (overall) stated that they were satisfied with the overall hygiene condition in their villages after the introduction of the drainage and sanitation whereas the highest satisfaction levels were reported from Sindh (67%), Balochistan (55%) and KP (67%), respectively. In both cases, the dissatisfaction levels of the project beneficiaries are quite low (4% for the household drains and 5% for the community drains).

Annex-1 (Table 25) provides an overview of the beneficiaries' responses with regards to the various aspects/benefits of the drainage and sanitation schemes. As is evident, an overwhelming majority of the beneficiaries attested to the positive impact of the drainage and sanitation schemes in improving the state of drainage and sanitation conditions in their villages (83% of the respondents overall agree with the positive impact of the drainage and

sanitation project in this regard). Respondents from KP agreed in majority while most of the beneficiaries from Punjab remained indifferent to these project benefits. This can be linked to the overall state of development in Punjab where villages were more likely to have a developed or some rudimentary drainage system as compared to their counterparts in Sindh, Balochistan or KP. Hence, the beneficiaries in Punjab were more likely to be used to the benefits of a drainage and sanitation system as compared to respondents in the other provinces.

Construction/repair of streets had a positive impact in improving mobility inside the villages. Furthermore, due to an efficient drainage system, these streets were likely to remain functional in the long run as rain and sewage water contributed to the dilapidated state of village streets in the pre-intervention scenario. The significant uplift of the streets, especially in Sindh (100%) and KP (86%) can be seen in the information provided in Annex-1 (Table 26).

3.5 Renewable Energy¹⁹

PPAF investment in renewable energy schemes is in line with its objectives outlined in PAD-III. Under the renewable energy schemes, two types of interventions were observed, one for lighting and the other for energy efficient cooking stoves.

3.5.1 Relevance

The renewable energy schemes were included in the program to realize PPAF's objective of improving living conditions of the rural poor. Due to socio-economic importance of the schemes, the beneficiary communities identified these schemes of high priority on their need assessment question. Almost 100% of the beneficiary respondents stated that the schemes were addressing their need and are a priority. Therefore, investments in renewable energy schemes are relevant.

3.5.2 Demand or Supply Driven

The data collected during the field survey reveals that 38 % of the beneficiary population had electricity in the target area while 62% were utilizing energy sources other than electricity. Taking into consideration the non-availability of electricity for the majority of the client population, the responses on the "need" question noted earlier shows that the PPAF funded schemes were demand-driven and beneficiaries considered renewable energy schemes as of high priority.

3.5.3 Deepening, Saturation and Holistic

The data of renewable energy schemes under PPAF III shows that in most cases one scheme per village was awarded. However, in a few cases deepening and saturation process was also observed²⁰. There are instances where in some villages 2 schemes were awarded. Some signs

¹⁹ The energy related schemes portfolio of PPAF assessed by the IA team is small in size 21 (3 %) compared to the total (762) for all five sectors. The IA coverage for the energy sector is only for the Sindh province.

²⁰ For instance, 11 schemes have been awarded in Ranaho village of Sanghar, 5 schemes in village Mehmoodabad of Rahimyar Khan, 4 schemes in Ehsan Pur village of Kot Addu and 3 schemes in Jalal Pur of Rahimyar Khan

of holistic approach were also observed.²¹ Execution of the Schemes, Quality and O&M coverage

The energy efficient cooking stoves under the PPAF funding were household based interventions, therefore maintaining these facilities is the responsibility of each beneficiary household. The households reported satisfactory maintenance of these facilities.

The schemes funded under the PPAF assistance pertaining to lighting are community based and were observed to be in working condition. This reflects that the quality of the infrastructure and its maintenance was satisfactory. The respondents also commented positively on the installation of solar systems provided under PPAF funding.

On the question of financial contribution for O&M of the schemes, 71% of respondents stated that they were contributing in cash and that the schemes were well maintained.

3.5.4 Financial and Economic Impact of Renewable Energy Schemes

Renewable Energy related infrastructure schemes aimed at lighting homes and surroundings were considered important by the beneficiary communities as through these schemes they have managed to provide light inside and surroundings of their houses. The local businessmen, mostly shopkeepers in the vicinity of houses, also benefitted by the extended timing of business due to availability of light during the evening hours. Based on the assumptions spelled out in the methodology section, FIRR and EIRR are 22.3% and 21.0%, respectively.

Renewable energy schemes were observed substantially contributing to the local economy. The schemes have multiple effects on the local economy due to saving in energy related costs and extended business opportunity for local shopkeepers in the evening. Facilitation of children who are acquiring education, provision of electronic communication, establishment of new businesses opportunities for technicians, etc. are also depending upon solar lights

One elderly man of Jumo Sathiyo Thatta opined that after having facility of solar light, their lives have changed. Now they have not to rush for finishing all activities before sun set. Thanks to PPAF.

The IRR on the solar energy related investment shows contribution of the schemes towards the beneficiary households. Without having baseline information and assessing contribution of other socio-economic factors, precise contribution of energy schemes to the livelihood of the beneficiary households is not possible to measure. However, field survey as well as results of the economic return indicate contribution of energy schemes towards livelihood improvement of the beneficiaries. The poverty scenario based on the data collected during field survey reflects that currently non-poor and transitory non-poor constitute 53% of the beneficiary population while extreme and chronically poor are 24%. The remaining are in the category of transitory and vulnerable poor. Thus looking at overall perspective, the team is of the view that the PPAF funded renewable energy schemes have a positive impact on the livelihood of the beneficiary communities.

²¹ Six drainage and sanitation schemes were awarded in village Ehssan Pur while one irrigation schemes was awarded to Jalal Pur and Mehmoodabad villages.

3.5.5 Social Impact of Energy Schemes

3.5.5.1 Inclusiveness

The PPAF energy project was based on the provision of solar energy lighting devices and energy efficient cooking stoves to the target population in selected communities of Sindh. The scale of this intervention is quite small, therefore most PPAF targeted communities have not benefited from this intervention. However, the household survey data presented in Table 3.27 indicates that wherever the scheme has been initiated, majority households were of the view that there were no biases or discrimination in the selection of beneficiary households.

Table 3.27: Perceptions: Selection of Beneficiaries

HH Response	Sindh		Total	
	#	%	#	%
Fair selection	19	90%	19	90%
Unfair selection	2	10%	2	10%
Total	21	100%	21	100%

Source: Field Survey

3.5.5.2 Pre and Post-Scheme Usage of Energy and Fuel Sources

The Table 3.28 presents an overview of the energy and fuel sources used by the PPAF energy project beneficiaries in the pre-intervention scenario. Majority of the respondents relied on wood as a source of fuel. Battery chargers were also used for charging mobile phones and charging lights. The latter were especially important as only 38% of the respondents indicated that they had access to electricity. The next table presents the impact of the solar lighting systems and energy efficient stoves, especially in terms of reducing the use of conventional fuels, which has a long term impact of decreasing fuel related expenditure, reducing female workload and contributing to general improvement in the health of the beneficiaries.

Table 3.28: Energy and Fuel Sources: Pre Scheme

Response	Sindh		Total	
	#	%	#	%
Electricity	8	38%	8	38%
Cylinder Gas	3	14%	3	14%
Wood	13	62%	13	62%
Bio-gas	2	10%	2	10%
Battery charger	6	29%	6	29%
Charging Light	4	19%	4	19%
Silent Light	1	5%	1	5%

Source: Field Survey

The provision of fuel efficient cooking stoves resulted in significant reduction in the use of wood as fuel, especially for cooking purposes. A comparison of tables 3.28 and 3.29 indicates that the use of wood decreased from 62% in the pre-intervention scenario to 19% in the post-intervention stage. Furthermore, solar lighting system replaced batteries and related rechargeable devices completely in all of the beneficiary households.

Table 3.29: Energy and Fuel Sources: Post Scheme

	#	%	#	%
Electricity	8	38%	8	38%
Cylinder Gas	2	10%	2	10%
Wood	4	19%	4	19%
Bio-gas	3	14%	3	14%
Solar panel	15	71%	15	71%

Source: Field Survey

3.5.6 Impact on Education and Household Members' Workload

The scheme had a positive impact on improving children's education. According to 43% of the respondents, the solar lighting scheme had a positive impact in terms of providing village children with a steady source of light after dark. Another impact of solar street light highlighted during FGDs related to security. Participants stated that they felt safer after the undertaking of the schemes as there was light in their compounds and streets which made them feel more secure.

The fuel efficient cooking stoves played a positive role in reducing women's workload, especially with regard to cooking. Previously, women were used to cook food on traditional hearths using wood as fuel. This required considerable work to keep the fire going. The provision of fuel efficient cooking stoves helped in reducing women's workload considerably as is evident from the table 3.30.

Table 3.30: Impact: Cooking
(Has the scheme been effective in saving women's time during cooking)

Response	Sindh		Total	
	#	%	#	%
Yes	16	76%	16	76%
To some extent	1	5%	1	5%
No	4	19%	4	19%
Total	21	100%	21	100%

Source: Field Survey

Another positive impact of the energy efficient fuel stoves was in terms of reducing women's work on cleaning utensils. Women who were using wood as fuel were more likely to spend a considerable period of time on cleaning soot-covered dishes. This problem was resolved with the introduction of fuel efficient cooking stoves that didn't leave a thick layer of soot on the dishes after use. More than 70% of the respondents attested to this positive aspect of the scheme in terms of reducing women's workload. The data are provided in table 3.31

Table 3.31: Impact: Kitchen Activities
(Has the scheme been effective in less time spent on cleaning of utensils and the kitchen area)

Response	Sindh		Total	
	#	%	#	%
Yes	15	71%	15	71%
No	6	29%	6	29%
Total	21	100%	21	100%

Source: Field Survey

Apart from women beneficiaries, the project also benefitted men who were largely responsible for buying/collecting and transporting firewood. As indicated in table 3.32, more

than 50% of the respondents stated that the intervention had a significant impact in reducing men's work. Moreover, the respondents who indicated that the intervention did not benefit men in terms of reduced time in collecting and transporting firewood referred to the use of wood as a major source of fuel for heating purposes during winters.

Table 3.32: Fuel Collection

(Has the scheme been beneficial in saving men's time in buying or collecting fuel wood?)

Response	Sindh		Total	
	#	%	#	%
Yes	12	57%	12	57%
To some extent	1	5%	1	5%
No	8	38%	8	38%
Total	21	100%	21	100%

Source: Field Survey

3.5.7 Environmental/Health Impacts

The fuel efficient stoves provided by PPAF played a positive role in reducing pollution inside the kitchen and the domestic space which had a beneficial impact on the general well-being of all household members, especially women. Table 3.33 presents responses of the beneficiaries with regard to the impact of the intervention in reducing pollution levels inside the house. Most of the respondents stated that the provision of fuel efficient stoves either reduced pollution to a significant extent (52%) or to some extent (29%).

Table 3.33: Impact: Pollution

(Has the scheme had an effect on pollution level in the house?)

Response	Sindh		Total	
	#	%	#	%
Yes	11	52%	11	52%
To some extent	6	29%	6	29%
No	4	19%	4	19%
Total	21	100%	21	100%

Source: Field Survey

Apart from the environmental impact, the respondents reported that their average monthly cost of fuels and energy sources had also reduced.

3.5.8 Overall Beneficiary Assessment

The project was instrumental in addressing the pressing energy requirements of poor households in rural Sindh. Data in Annex-1 (Table 27) shows that more than 80% of the respondents agreed to this positive impact of the project. The project also reduced excessive workload on women and female children who were tasked with collecting firewood, cooking food and cleaning utensils. In this regard, 67% of the respondents highlighted this positive aspect of the intervention. The project was instrumental in reducing the overall expenditure on fuel in some of the poorest areas of the province. In this regard, 71% of the respondents attested to this positive impact of the project.

4 Environmental and Social Management Framework (ESMF)

ESMF was developed as part of PPAF-III Project. ESMF focuses on environmental and social assessment procedures as these have to be followed by POs to assess environmental and social effects of schemes financed by PPAF. The aim is to prevent or minimize negative environmental and social impact of the PPAF sponsored schemes. Mitigating measures are incorporated when the schemes are designed and possible mitigating measures are applied during implementation of schemes.

To obtain information on compliance status of the ESMF pertaining to PPAF interventions, the Team contacted relevant officials at Environmental and Social Management Unit of PPAF and Focal Persons for Environmental & Social Impact Assessment positioned at five POs²².

A questionnaire was provided to POs and PPAF to collect the relevant information on ESMF compliance. The POs responded that as the ESMF is a donor driven criterion and a condition attached with the PPAF's funding of CPI schemes, therefore its compliance is mandatory. The POs particularly mentioned Form A and Form B incorporated in the ESMF document relating to physical assessment of environmental and social impact of each scheme. If any scheme possesses potential negative environmental or social impact, mitigation measures are proposed at the scheme design stage. About 4% of cost is allocated for mitigation measures. Mitigation measures are adopted during the project implementation stage. It was also stated that regular trainings and awareness sessions are held with beneficiary communities to keep them updated about ESMF as part of "inclusive" development. Regarding grievances' redressal, the POs informed that there are informal grievance redressal mechanisms available at community level. However, POs stated that they did not receive any formal complaint for redressing grievances from any community.

The PPAF Environmental and Social Management Unit monitors schemes and conducts environment and social audit of the schemes. According to the record made available to the Team, PPAF's Environmental and Social Management Unit held 15 environment and social audit visits from January to December 2015 to various POs in all four provinces²³. During audit visits, the team identifies short comings of POs, if any, and then prepares action plan in consultation with the POs for compliance. The POs take necessary actions to comply the agreed actions and report to the PPAF's Environmental and Social Management Unit.

The audits mostly observed POs' noncompliance in submission of properly filled Form A and Form B, training and awareness requirements of the communities particularly for: environmental and social impact/ESMF compliance, drinking water assessment for possible contamination, placement of schemes' sign boards, involvement of women in decision making, etc.

The IA Team during FGDs and KIIs did not come across any complaint from communities regarding noncompliance of ESMF. The Team therefore is of the view that the ESMF

²²These included: Taraqee Foundation Quetta Balochistan, *Thardeep Rural Development Program Mithi* Sindh, Human Resource Development Society Rawalpindi and National Rural Support Program Chakwal Punjab and Social Action Bureau for Assistance in Welfare & Organizational Network Peshawar Khyber Pakhtunkhwa.

²³This included: South Asia Partnership Pakistan (SAP- PK), National Rural Support Programme (NRSP), BRDS, AKPBS, Community Uplifting Program (CUP), Community Motivation & Development (CMDO), MIED (KP), Sungi Development Foundation, Bahn Beli, Thardeep Rural Development Programme (TRDP), Aga Khan Rural Support Programme (AKRSP), Taraqee Foundation (TF), FFO, WSO, and FDO.

compliance is adhered to by the POs during the schemes development process from initiation to completion.

5 PRINCIPLES OF PPAF III

The field findings about observance of PPAF-III principles of holistic, integration, deepening and saturation are given below.

5.1 Holistic

PPAF has been successful in observing a holistic approach in addressing poverty and gender issues as the schemes with different scopes (addressing various development needs) within an area. PPAF provided integrated set of interventions which mutually re-enforced each other's strengths and benefited the communities as substantiated by the data collected from the field. The irrigation water projects increased the productivity of land and diversified production, while roads and bridges enabled the producers to link with markets and the private sector thereby opening up the local economy. The DWSS and drainage and sanitation schemes had a positive impact in terms of health benefits and time saving, particularly for women.. Better health and time saving of women would help in other productive activities that lead to increases in household incomes. The creation of market opportunities and additional job potential has income generation potential for the landless and laborers who may not be direct beneficiaries of the schemes. Thus, cumulative economic and social benefits spread over the whole of the community irrespective of whether one is a direct beneficiary or an indirect beneficiary, have implications for poverty reduction from the area as a whole. The data presented in Section 3 regarding schemes executed under PPAF III project supports the above argument as in many cases beneficiary communities had more than one schemes with different scopes of work leading to possible holistic development.

5.2 Integration

In the context of PPAF aiming at poverty reduction and the creation of a social and economic environment for poor rural communities, integration means an approach that combines aspects that are relevant to bringing poor people out of poverty. In light of the FGDs and KIIs as well as information gathered from households; irrigation water schemes, DWSSs, roads and bridges, drainage and sanitation, and renewable energy schemes are the core areas which have a direct impact on poverty reduction and social betterment of the poor rural masses. PPAF is successful in bringing about a combination of these schemes in the same vicinity in some cases, though on a small scale, as per the requirement and demand of the communities. The data obtained regarding implementation of various schemes under PPAF III project as discussed in Section 3 reveals that in a number of cases more than one schemes has been implemented in various villages which reinforce each other's outcomes. For instance a village having irrigation scheme and road scheme has an integration impact as roads facilitates transportation of increased produce and so on.

5.3 Deepening and saturation

Deepening and saturation in the context of PPAF means more investment in the same beneficiary village or for the same beneficiary community for substantial and sustainable poverty elimination. The deepening and saturation approach increases a community's resilience and boosts economic growth and social development. It facilitates diversification in production, value addition of produce, and diversification of marketing – all aimed at better returns and economic growth of households and the local economy. Its allied impact is social

development through better health and education. During the field visits and interaction with the beneficiary communities, the team observed that in many instances, deepening and saturation efforts have been made. In the villages where more than one schemes had been executed, people were benefiting more compared to single scheme areas. Conclusions based on field observations were strengthened while analysing the schemes data received from PPAF. As discussed under various sub sections of Section 3, deepening has been materialized in a number of villages of various districts where more than one schemes were executed. In a number of cases even 10 or more schemes have been implemented in one village that tended to result in deepening and saturation impact.

6 STRENGTHS AND WEAKNESSES OF THE PROGRAM

The IA team, during its field visits and interaction with beneficiaries, observed the following strengths and weaknesses of PPAF's services and infrastructure program.

6.1 Strengths

- (i) **Holistic approach:** The PPAF adopted a holistic approach in addressing development issues of the poor rural communities. Investing in schemes with different scopes within an area, as stated in Section 3, re-enforced strengths of an intervention with strengths of one or more interventions in other sectors.. Increases in household incomes and improved social status were brought about through a combination of schemes most relevant to the respective villages. The team considered this approach as a strength of PPAF's interventions.
- (ii) **Inclusive community participation:** Inclusive participation has been a singular success. Beneficiaries are part of all stages of schemes' planning –from prioritizing development investment, designing schemes, and to their execution. They include men and women regardless of their economic and social status. As elaborated in Section 3, there was no evidence of discrimination based on religion, caste or economic/social status when awarding a scheme.
- (iii) **Women participation:** Women have been a major focus of PPAF interventions. Women mostly remain neglected in all respects within poor and ignored communities. The plight of poor women can well be imagined in such a scenario. However, as discussed under social impact in Section 3, PPAF put a strong emphasis on the participation of women and their empowerment in its investment schemes. This is supported by the fact that 39.5% of the overall PPAF portfolio assessed by the team was women related (see Section 2). This, in many instances, has created opportunities for the poor women enabling them to improve their social standing and economic wellbeing. The team considers this a strength of PPAF.
- (iv) **Focus on critical infrastructure:** PPAF, with the participation of beneficiaries, has invested in critical infrastructure with immediate social and economic implications for the villages of the target districts. The number of beneficiaries and scope of investment was small but focused, and that helped realize PPAF objectives. The IRRs and social impact of PPAF funded schemes discussed in Section 3 supports this argument.
- (v) **Working through Partner Organizations:** Successful implementation of a large number of schemes spread over a huge geographic area including all provinces of the country has been possible due to PPAF's strategy of engaging POs who are mostly local NGOs. The execution of activities is undertaken by the communities through facilitation provided by local NGOs/POs. Partnerships have been established between COs and POs.
- (vi) **Deepening and saturation:** PPAF's deepening and saturation efforts are important for poverty eradication from the targeted villages. Although the results are based on continuous investment over an extended period of time, the way PPAF is pursuing this approach discussed in Section 3 is noteworthy.
- (vii) **ESMF:** ESMF is an important aspect of PPAF's development agenda that keeps track of environmental and social impacts and designs mitigations for any adverse impact.

6.2 Weaknesses

- (i) **Capacity of COs²⁴:** In most of the cases during FGDs it was observed that COs' capacity building has not been conducted to the required level. Their understanding of PPAF's objectives and activities was not adequate. Usually one or two members of the COs were vocal and looking after the affairs of the organizations.
- (ii) **Value Addition and Marketing Linkages:** In case of irrigation water schemes, it was observed that adequate capacity building of farmers in value addition and marketing has not been carried out by the POs. Thus potential benefits of increased productivity and diversification have not been adequately harnessed by the farmers.
- (iii) **Geographic Coverage:** the schemes data shows a large geographic coverage that thinly spreads the available funds. Also, poverty alleviation impact is localized and does not cover entire villages in many cases.
- (iv) **Women Empowerment:** Despite all efforts, limited evidence exists on ground of impact in terms of female empowerment. Although some female COs have been formed, in many cases they were driven by their male counterparts. However, behavioral change has been observed in many cases but for real empowerment, much more needs to be done.

²⁴ IA team's TORs did not include covering the performance of COs. Notwithstanding this observation, it is difficult to completely ignore the performance of COs in undertaking PPAF funded schemes.

7 RECOMMENDATIONS

The IA team, after extensive field visits, interaction with the beneficiaries, and review of relevant literature, has the following recommendations.

- (i) The study has shown that the PPAF efforts have increased social and economic activities in the beneficiary areas. Agricultural production has increased. Consumption goods and agricultural produce can now be transported easily to and from these areas to the urban areas/markets. The study also observed that provision of rural roads and bridges facilitated in reducing the costs of transportation. *It is therefore recommended that the PPAF should continue its investment with increased allocations for irrigation water and road and bridge schemes.*
- (ii) The O&M coverage by the beneficiary communities is "need based". In case of any natural disaster such as floods, earthquakes or land sliding in hilly areas, the beneficiary communities may not be in a position to recover the affected infrastructure to their normal position. *Therefore it is recommended that beneficiaries are linked with relevant government/local government departments from an early stage of implementation of schemes.* In case of irrigation schemes, On-Farm Water Management Department, while for DWSS and drainage and sanitation and local road schemes Public Health Engineering/Local Government Departments are the relevant organizations for the creation of linkages. The communities could benefit from such linkages when major repairs are required after natural disasters
- (iii) DWSS and drainage and sanitation remain the two neglected sectors in most parts of the rural areas in the country. This has adversely affected the health and environmental status in rural areas. The investment in water supply and drainage and sanitation schemes is therefore not only a development intervention alone but also possesses other socio-economic benefits such as an improved health status and good quality of labor force which is important for sustainable livelihoods. *Therefore, it is recommended that investment in DWSS and Drainage and Sanitation should be up-scaled.*
- (iv) *Alternate energy schemes may be extended to irrigation water and DWSS after due investigations.*
- (v) *Irrigation water schemes may be accompanied by value addition and marketing-related capacity building of COs' members.*
- (vi) Promoting equality and empowerment of women is not only a development priority but also a human rights issue. However, it should be realized that gender relations evolve over a considerable period of time and any changes in the set roles and responsibilities of males and females in the target area will become visible over time. *Therefore, it is recommended that investment in women-related infrastructure and service schemes, including capacity building, should continue and even increased.*

Table 1 : Provinces, Districts & Union Councils Covered

Treatment Group		
Province	District	Union Councils
Punjab	BAHAWALPUR	CHAK NO 079/FATEH
		JHADANI (ZAFARABAD SH.WHAN)
		MARI SHEIKH SHIJRA
	D. G. KHAN	HAIRO SHARQI
		JHOK UTRA
		VEHO WA
		Pero Sharyi
	KHUSHAB	GIROT
		JHARKAL
		MITHA TIWANA
Sindh	GHOTKI	BANDH
		Qadirpur
		Yaro Lund
	THARPARKAR	BHAKUO
		BOOLHARI
		KUZABANDA
		Manjithi
		Darora
		Bakhun
	THATTA	DHABEJI
		GHARO
		GHULAMULLAH
Balochistan	LORALAI	CHINA ALIZAI
		LAHORE
		TOOR THANA
	MUSAKHEL	GHULAMULLAH
		KINGRI
	SIBI	KURAK
		TALLI
KPK	BATAGRAM	BATAGRAM
		KUZABANDA
		SHAMLAI
		Kalai
	D.I.Khan	MUSAZAI SHARIF
		SHOR KOT
		Yaro Lund
		Chodhan
	UPPER DIR	SWANAI
		Darora
		Kawari

Control Group		
Province	District	Union Councils
Punjab	BAHAWALPUR	CHAK NO 079/FATEH
		JHADANI (ZAFARABAD SH.WHAN)
		MARI SHEIKH SHIJRA
	D. G. KHAN	JHOK UTRA
		VEHO WA
		Pero Sharyi
	KHUSHAB	GIROT
		JHARKAL
		Bajar
Sindh	GHOTKI	BANDH
		Qadirpur
		Yaro Lund
		Ries Mubarak
	THARPARKAR	BATAGRAM*
		BOOLHARI*
		Manjithi
		SHAMLAI*
		SEHRI
	THATTA	DHABEJI*
		GHARO*
		GHULAMULLAH*
Baluchistan	LORALAI	CHINA ALIZAI
		LAHORE
		TOOR THANA
	MUSAKHEL	KINGRI
	SIBI	TALLI
KPK	BATAGRAM	SHAMLAI*
		Kozy Banda
		Bata Gram
	D.I.Khan	Manjithi
		MUSAZAI SHARIF
		SHOR KOT
		Chodhan
		Bata Gram
	UPPER DIR	SHOR KOT
		Darora
		Kenori

Table 2: Mode of Irrigation Water Transportation**a. Before Scheme**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Unlined watercourse	102	98%	7	100%	88	89%	22	92%	219	94%
Lined watercourse	2	2%	0	0%	1	1%	0	0%	3	1%
Other	0	0%	0	0%	10	10%	2	8%	12	5%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

b. After Scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Unlined watercourse	1	1%	3	43%	53	54%	0	0%	57	24%
Lined watercourse	86	83%	4	57%	34	34%	18	75%	142	61%
Pipes	15	14%	0	0%	0	0%	6	25%	21	9%
Other	2	2%	0	0%	12	12%	0	0%	14	6%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

Table 3: Impact Of Irrigation Interventions On Social Services Status Of Beneficiary Households**a. Children's Education**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	48	48%	0	0%	6	12%	17	71%	71	40%
To some extent	32	32%	2	100%	15	29%	7	29%	56	32%
No	12	12%	0	0%	30	59%	0	0%	42	24%
Don't know	5	5%	0	0%	0	0%	0	0%	5	3%
Missing	2	2%	0	0%	0	0%	0	0%	2	1%
Total	99	100%	2	100%	51	100%	24	100%	176	100%

b. Food Quality and Quantity Consumed

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	61	62%	1	50%	28	55%	12	50%	102	58%
To some extent	29	29%	1	50%	11	22%	12	50%	53	30%
No	7	7%	0	0%	11	22%	0	0%	18	10%
Don't know	2	2%	0	0%	1	2%	0	0%	3	2%
Total	99	100%	2	100%	51	100%	24	100%	176	100%

c. Health Status of the Family Members

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	56	57%	0	0%	4	8%	9	38%	69	39%
To some extent	28	28%	1	50%	26	51%	5	21%	60	34%
No	7	7%	1	50%	21	41%	4	17%	33	19%
Don't know	8	8%	0	0%	0	0%	6	25%	14	8%
Total	99	100%	2	100%	51	100%	24	100%	176	100%

Table 4: To What Extent Do You Agree Or Disagree With The Following Statements.**a. Significantly Contributed In Improving Your Crop Yield**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	99	95%	2	29%	38	38%	24	100%	163	70%
Indifferent	3	3%	5	71%	53	54%	0	0%	61	26%
Disagree	1	1%	0	0%	1	1%	0	0%	2	1%
Don't know	1	1%	0	0%	7	7%	0	0%	8	3%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

b. Due To the Irrigation Significant Less Time Is Required To Irrigate Crops

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	103	99%	7	100%	41	41%	18	75%	169	72%
Indifferent	0	0%	0	0%	55	56%	2	8%	57	24%
Disagree	0	0%	0	0%	1	1%	2	8%	3	1%
Don't know	1	1%	0	0%	2	2%	2	8%	5	2%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

c. Before The Irrigation Channel Women Were Spending More Time In Agricultural Activities

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	71	68%	0	0%	0	0%	9	38%	80	34%
Indifferent	11	11%	6	86%	21	21%	2	8%	40	17%
Disagree	13	13%	1	14%	77	78%	3	13%	94	40%
Don't know	9	9%	0	0%	1	1%	10	42%	20	9%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

d. Enabled To Change Crops with High Value Crops

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	92	88%	4	57%	26	26%	22	92%	144	62%
Indifferent	6	6%	3	43%	66	67%	0	0%	75	32%
Disagree	3	3%	0	0%	6	6%	0	0%	9	4%
Don't know	3	3%	0	0%	1	1%	2	8%	6	3%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

e. The Irrigation Scheme Has Increased Crop Intensity

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	93	89%	6	86%	17	17%	23	96%	139	59%
Indifferent	6	6%	1	14%	70	71%	0	0%	77	33%
Disagree	3	3%	0	0%	9	9%	0	0%	12	5%
Don't know	2	2%	0	0%	3	3%	1	4%	6	3%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

f. Scheme Is Benefiting All the Intended Beneficiaries without Any Discrimination

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	93	89%	5	71%	26	26%	19	79%	143	61%
Indifferent	0	0%	0	0%	3	3%	0	0%	3	1%
Disagree	0	0%	2	29%	68	69%	0	0%	70	30%
Don't know	11	11%	0	0%	2	2%	5	21%	18	8%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

g. Household Income Has Significantly Increased

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	89	86%	2	29%	31	31%	20	83%	142	61%
Indifferent	6	6%	4	57%	59	60%	0	0%	69	29%
Disagree	2	2%	1	14%	2	2%	0	0%	5	2%
Don't know	7	7%	0	0%	7	7%	4	17%	18	8%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

h. Scheme Helped Create Further Linkages with Service Delivery Department

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	40	38%	0	0%	2	2%	15	63%	57	24%
Indifferent	13	13%	4	57%	5	5%	0	0%	22	9%
Disagree	30	29%	1	14%	89	90%	1	4%	121	52%
Don't know	21	20%	2	29%	3	3%	8	33%	34	15%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

i. Scheme Helped Create Further Linkages with PPA For Other Donors

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	25	24%	1	14%	3	3%	14	58%	43	18%
Indifferent	12	12%	4	57%	4	4%	7	29%	27	12%
Disagree	45	43%	1	14%	88	89%	0	0%	134	57%
Don't know	22	21%	1	14%	4	4%	3	13%	30	13%
Total	104	100%	7	100%	99	100%	24	100%	234	100%

**Table 5: What Are The Sources Of Other Use Water For Your Household Before Scheme?
(Multiple)**

Household Sources of Water before the Scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Piped Into House	17	55%	0	0%	0	0%	0	0%	17	9%
Public Tap	1	3%	1	1%	0	0%	2	5%	4	2%
Tube Well/Bore Hole With Pump	6	19%	0	0%	22	45%	0	0%	28	14%
Protected Dug Well	0	0%	11	14%	0	0%	5	13%	16	8%
Protected Spring	0	0%	0	0%	0	0%	1	3%	1	1%
Rain Water Collection	0	0%	0	0%	0	0%	28	74%	28	14%
Unprotected Dug Well	1	3%	36	47%	1	2%	16	42%	54	28%
Unprotected Spring	0	0%	2	3%	0	0%	2	5%	4	2%
Pond, River Or Stream	6	19%	27	35%	21	43%	19	50%	73	37%
Tanker, Vendor	0	0%	1	1%	0	0%	0	0%	1	1%
Water of Nullah	0	0%	0	0%	5	10%	0	0%	5	3%

Table 6: Type Of Impact Of Scheme On Family Health**a. Impact of Scheme on Family Health (Unprompted)**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Less disease in children and family members	25	83%	52	79%	9	20%	7	18%	93	52%
Less loss of productive time due to illnesses	5	17%	16	24%	28	62%	8	21%	57	32%
Income enhanced due to increase in productivity	0	0%	10	15%	45	100%	2	5%	57	32%
Income enhanced due to less expenditure on treating illnesses	0	0%	4	6%	36	80%	6	16%	46	26%
Negative Affects (specify)	0	0%	9	14%	0	0%	5	13%	14	8%
Other	2	7%	3	5%	0	0%	10	26%	15	8%

b. Impact of Scheme on Family Health (Prompted)

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Less disease in children and family members	5	23%	13	21%	40	100%	30	79%	88	55%
Less loss of productive time due to illnesses	17	77%	31	51%	22	55%	21	55%	91	57%
Income enhanced due to increase in productivity	1	5%	40	66%	4	10%	25	66%	70	43%
Income enhanced due to less expenditure on treating illnesses	2	9%	34	56%	0	0%	19	50%	55	34%
Negative Affects (specify)	0	0%	0	0%	0	0%	2	5%	2	1%

Table 7: To What Extent Do You Agree Or Disagree With The Following Statements?**a. Scheme Significantly Contributed In Addressing Water Requirements Household**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	30	97%	69	90%	36	73%	36	95%	171	88%
Indifferent	1	3%	7	9%	4	8%	1	3%	13	7%
Disagree	0	0%	1	1%	9	18%	1	3%	11	6%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

b. Before the Scheme Female/Children Spent Significant Amount of Time in Fetching Water

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	11	35%	66	86%	36	73%	36	95%	149	76%
Indifferent	16	52%	10	13%	13	27%	2	5%	41	21%
Disagree	4	13%	1	1%	0	0%	0	0%	5	3%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

c. The Scheme Has Change Household Behavior Related To Use Of Safe Drinking Water

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	15	48%	62	81%	22	45%	20	53%	119	61%
Indifferent	13	42%	13	17%	20	41%	4	11%	50	26%
Disagree	2	6%	2	3%	0	0%	4	11%	8	4%
Don't know	1	3%	0	0%	7	14%	10	26%	18	9%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

d. The Scheme Has Reduced Water Cost

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	0	0%	43	56%	0	0%	27	71%	70	36%
Indifferent	24	77%	32	42%	49	100%	3	8%	108	55%
Disagree	6	19%	1	1%	0	0%	2	5%	9	5%
Don't know	1	3%	1	1%	0	0%	6	16%	8	4%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

e. The Scheme Is Benefiting All the Intended Beneficiaries without Any Discrimination

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	31	100%	74	96%	29	59%	27	71%	161	83%
Indifferent	0	0%	3	4%	4	8%	0	0%	7	4%
Disagree	0	0%	0	0%	16	33%	2	5%	18	9%
Don't know	0	0%	0	0%	0	0%	9	24%	9	5%
Total	31	100%	77	100%	49	100%	38	100%	195	100%

Table 8: Difficulties In Accessing Markets, Education & Health Services Prior To Scheme**a. Did You Have Difficulties in Accessing Markets Prior to the Scheme?**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	18	43%	66	94%	48	67%	132	72%
To some extent	18	43%	3	4%	24	33%	45	24%
No	5	12%	1	1%	0	0%	6	3%
Don't know	1	2%	0	0%	0	0%	1	1%
Total	42	100%	70	100%	72	100%	184	100%

b. Did You Have Difficulties in Accessing Education Prior to the Scheme?

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	30	71%	40	57%	48	67%	118	64%
To some extent	10	24%	13	19%	24	33%	47	26%
No	0	0%	10	14%	0	0%	10	5%
Don't know	2	5%	0	0%	0	0%	2	1%
Missing	0	0%	7	10%	0	0%	7	4%
Total	42	100%	70	100%	72	100%	184	100%

c. Did You Have Difficulties in Accessing Health Services Prior to the Scheme?

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	25	60%	60	86%	57	79%	142	77%
To some extent	13	31%	9	13%	15	21%	37	20%
No	1	2%	1	1%	0	0%	2	1%
Don't know	3	7%	0	0%	0	0%	3	2%
Missing	42	100%	70	100%	72	100%	184	100%
Total	25	60%	60	86%	57	79%	142	77%

Table 9: Positive Impact Of The Schemes**b. Better Employment Opportunity**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	8	19%	6	9%	3	4%	17	9%
To some extent	12	29%	9	13%	13	18%	34	18%
No	21	50%	51	73%	48	67%	120	65%
Don't know	1	2%	4	6%	8	11%	13	7%
Total	42	100%	70	100%	72	100%	184	100%

c. Improvement in Farm Commodities Selling Price

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	1	2%	9	13%	10	14%	20	11%
To some extent	4	10%	11	16%	7	10%	22	12%
No	20	48%	36	51%	50	69%	106	58%
Don't know	17	40%	14	20%	5	7%	36	20%
Total	42	100%	70	100%	72	100%	184	100%

d. Social Status, etc.

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	2	5%	34	49%	23	32%	59	32%
To some extent	2	5%	23	33%	17	24%	42	23%
No	19	45%	12	17%	29	40%	60	33%
Don't know	19	45%	1	1%	3	4%	23	13%
Total	42	100%	70	100%	72	100%	184	100%

e. Children's Education

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	23	55%	23	33%	26	36%	72	39%
To some extent	12	29%	23	33%	41	57%	76	41%
No	4	10%	15	21%	1	1%	20	11%
Don't know	3	7%	9	13%	4	6%	16	9%
Total	42	100%	70	100%	72	100%	184	100%

f. Health of Your Family

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	7	17%	16	23%	24	33%	47	26%
To some extent	17	40%	29	41%	33	46%	79	43%
No	13	31%	21	30%	2	3%	36	20%
Don't know	5	12%	4	6%	13	18%	22	12%
Total	42	100%	70	100%	72	100%	184	100%

g. Family Social Interaction

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	8	19%	34	49%	61	85%	103	56%
To some extent	30	71%	20	29%	10	14%	60	33%
No	1	2%	7	10%	1	1%	9	5%
Don't know	3	7%	9	13%	0	0%	12	7%
Total	42	100%	70	100%	72	100%	184	100%

Table 10 Assets Possession By The Beneficiaries Of The Road & Bridge Schemes

Asset	Punjab	Sindh	KP	Overall
Tractor	24%	7%	1%	9%
Thresher /trolley	17%	4%	0%	5%
Motorcycle	62%	34%	18%	34%
TV	60%	6%	36%	30%
Cooking stoves	90%	60%	78%	74%
Air conditioner, geysers, washing machine, etc.	7%	1%	18%	9%
Cow/goat/sheep	86%	53%	53%	60%
Buffalo/bullock	31%	31%	21%	27%

Table 11: Was The Scheme Effective In Improving The Following**a. Accessibility Issue in the Village**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	38	90%	65	93%	29	40%	132	72%
To some extent	3	7%	4	6%	39	54%	46	25%
No	1	2%	1	1%	0	0%	2	1%
Don't know	0	0%	0	0%	4	6%	4	2%
Total	42	100%	70	100%	72	100%	184	100%

b. Access to Better Health Services

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	21	50%	43	61%	26	36%	90	49%
To some extent	17	40%	21	30%	45	63%	83	45%
No	2	5%	5	7%	0	0%	7	4%
Don't know	2	5%	1	1%	1	1%	4	2%
Total	42	100%	70	100%	72	100%	184	100%

c. Children Access to Better Education Services

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	25	60%	29	41%	30	42%	84	46%
To some extent	15	36%	18	26%	38	53%	71	39%
No	0	0%	22	31%	2	3%	24	13%
Don't know	2	5%	1	1%	2	3%	5	3%
Total	42	100%	70	100%	72	100%	184	100%

d. Created Livelihood Opportunities

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	4	10%	12	17%	6	8%	22	12%
To some extent	14	33%	11	16%	12	17%	37	20%
No	15	36%	46	66%	17	24%	78	42%
Don't know	9	21%	1	1%	37	51%	47	26%
Total	42	100%	70	100%	72	100%	184	100%

e. Changes In Women's Mobility Trends

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	14	33%	45	64%	59	82%	118	64%
To some extent	24	57%	15	21%	12	17%	51	28%
No	1	2%	8	11%	1	1%	10	5%
Don't know	3	7%	2	3%	0	0%	5	3%
Total	42	100%	70	100%	72	100%	184	100%

Table 12: Access To Markets, Health And Education Services**a. Did You Have Difficulties In Accessing Markets Prior To The Scheme?**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	18	43%	66	94%	48	67%	132	72%
To some extent	18	43%	3	4%	24	33%	45	24%
No	5	12%	1	1%	0	0%	6	3%
Don't know	1	2%	0	0%	0	0%	1	1%
Total	42	100%	70	100%	72	100%	184	100%

b. Did You Have Difficulties In Accessing Education Prior To The Scheme?

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	30	71%	40	57%	48	67%	118	64%
To some extent	10	24%	13	19%	24	33%	47	26%
No	0	0%	10	14%	0	0%	10	5%
Don't know	2	5%	0	0%	0	0%	2	1%
Missing	0	0%	7	10%	0	0%	7	4%
Total	42	100%	70	100%	72	100%	184	100%

c. Did You Have Difficulties In Accessing Health Services Prior To The Scheme?

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Yes	25	60%	60	86%	57	79%	142	77%
To some extent	13	31%	9	13%	15	21%	37	20%
No	1	2%	1	1%	0	0%	2	1%
Don't know	3	7%	0	0%	0	0%	3	2%
Total	42	100%	70	100%	72	100%	184	100%

Table 13: Impact On Your/Your Household Monthly Traveling Expense**Has The Scheme Made Any Impact On Your/Your Household Monthly Traveling Expense?**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
No change in travel expense	31	74%	34	49%	41	57%	106	58%
Yes (travel expense has increased)	3	7%	1	1%	6	8%	10	5%
Yes (travel expense has decreased)	8	19%	35	50%	25	35%	68	37%
Total	42	100%	70	100%	72	100%	184	100%

Table 14: Beneficiary Assessment**a. The Scheme Significantly Contributed In Improving Accessibility Condition in the Village**

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	42	100%	67	96%	60	83%	169	92%
Indifferent	0	0%	3	4%	1	1%	4	2%
Disagree	0	0%	0	0%	1	1%	1	1%
Don't know	0	0%	0	0%	10	14%	10	5%
Total	42	100%	70	100%	72	100%	184	100%

b. Due To the Scheme Less Time Is Required To Reach To the Work Place/Market/Services

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	36	86%	61	87%	68	94%	165	90%
Indifferent	2	5%	9	13%	1	1%	12	7%
Don't know	4	10%	0	0%	3	4%	7	4%
Total	42	100%	70	100%	72	100%	184	100%

c. Before the Schemes Female Mobility Was Difficult

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	40	95%	60	86%	68	94%	168	91%
Indifferent	1	2%	9	13%	2	3%	12	7%
Disagree	0	0%	1	1%	1	1%	2	1%
Don't know	1	2%	0	0%	1	1%	2	1%
Total	42	100%	70	100%	72	100%	184	100%

d. The Scheme Has Changed Household Behavior Related To Female Mobility

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	7	17%	53	76%	40	56%	100	54%
Indifferent	24	57%	16	23%	17	24%	57	31%
Disagree	3	7%	1	1%	2	3%	6	3%
Don't know	8	19%	0	0%	13	18%	21	11%
Total	42	100%	70	100%	72	100%	184	100%

e. The Scheme Has Significantly Reduced Traveling Cost

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	10	24%	38	54%	36	50%	84	46%
Indifferent	9	21%	24	34%	13	18%	46	25%
Disagree	22	52%	7	10%	15	21%	44	24%
Don't know	1	2%	1	1%	8	11%	10	5%
Total	42	100%	70	100%	72	100%	184	100%

f. The Scheme Is Benefiting All the Intended Beneficiaries without Any Discrimination

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	38	90%	70	100%	30	42%	138	75%
Indifferent	1	2%	0	0%	3	4%	4	2%
Disagree	1	2%	0	0%	4	6%	5	3%
Don't know	2	5%	0	0%	35	49%	37	20%
Total	42	100%	70	100%	72	100%	184	100%

g. Scheme Help Create Further Linkages with Service Delivery Department

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	7	17%	17	24%	12	17%	36	20%
Indifferent	10	24%	24	34%	7	10%	41	22%
Disagree	2	5%	4	6%	2	3%	8	4%
Don't know	23	55%	25	36%	51	71%	99	54%
Total	42	100%	70	100%	72	100%	184	100%

h. Scheme Helped Create Further Linkages with PPAF or Other Donors for Development Works in the Villages

Response	Punjab		Sindh		KPK		Total	
	#	%	#	%	#	%	#	%
Agree	3	7%	23	33%	31	43%	57	31%
Indifferent	11	26%	12	17%	3	4%	26	14%
Disagree	2	5%	5	7%	4	6%	11	6%
Don't know	26	62%	30	43%	34	47%	90	49%
Total	42	100%	70	100%	72	100%	184	100%

Table 15: Presence of Drainage Systems**a. Drainage system in the house prior to the scheme**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	6	29%	5	33%	22	45%	31	72%	64	50%
No	15	71%	10	67%	27	55%	12	28%	64	50%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Drainage system outside the house prior to the scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	1	5%	4	27%	13	27%	15	35%	33	26%
No	20	95%	11	73%	36	73%	28	65%	95	74%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 16: Level of satisfaction with overall condition of drainage**a. Level of satisfaction at household level**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Very satisfied	1	5%	7	47%	10	20%	35	81%	53	41%
Satisfied	4	19%	6	40%	9	18%	8	19%	27	21%
Indifferent	12	57%	2	13%	27	55%	0	0%	41	32%
Dissatisfied	4	19%	0	0%	3	6%	0	0%	7	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Level of satisfaction at community level

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Very satisfied	1	5%	9	60%	22	45%	18	42%	50	39%
Satisfied	5	24%	4	27%	24	49%	23	53%	56	44%
Indifferent	9	43%	2	13%	3	6%	1	2%	15	12%
Dissatisfied	6	29%	0	0%	0	0%	1	2%	7	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 17: Benefits of the Scheme according to Respondent Ranking**a. Male benefitted most from the scheme**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
1st	6	29%	4	27%	39	80%	20	47%	69	54%
2nd	8	38%	3	20%	5	10%	10	23%	26	20%
3rd	7	33%	8	53%	5	10%	13	30%	33	26%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Female benefitted most from the scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
1st	4	19%	6	40%	36	73%	11	26%	57	45%
2nd	10	48%	6	40%	8	16%	15	35%	39	30%
3rd	7	33%	3	20%	5	10%	17	40%	32	25%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

c. Children benefitted most from the scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
1st	14	67%	5	33%	35	71%	12	28%	66	55%
2nd	2	10%	6	40%	8	16%	18	42%	34	27%
3rd	4	19%	2	13%	6	12%	13	30%	25	20%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 18: Household solid waste disposal**a. How did you dispose your household solid waste Before?**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Throw outside the house in the street	9	43%	5	33%	35	71%	17	40%	66	52%
Throw in the community bin	1	5%	0	0%	0	0%	0	0%	1	1%
Throw in open area away from Residential Area	4	19%	6	40%	12	24%	19	44%	41	32%
Sweeper takes it away	0	0%	0	0%	0	0%	1	2%	1	1%
Outside in fields	6	29%	0	0%	0	0%	0	0%	6	5%
Not applicable	1	5%	4	27%	2	4%	6	14%	13	10%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. How do you dispose your household solid waste After?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Throw outside the house in the street	9	43%	2	13%	35	71%	9	21%	55	43%
Throw in the community bin	1	5%	1	7%	0	0%	7	16%	9	7%
Throw in open area away from Residential Area	4	19%	10	67%	12	24%	25	58%	51	40%
Sweeper takes it away	0	0%	0	0%	0	0%	1	2%	1	1%
Outside in fields	6	29%	0	0%	0	0%	0	0%	6	5%
Not applicable	1	5%	2	13%	2	4%	1	2%	6	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 19: Household solid waste disposal**a. How did you dispose your household solid waste Before?**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Throw outside the house in the street	9	43%	5	33%	35	71%	17	40%	66	52%
Throw in the community bin	1	5%	0	0%	0	0%	0	0%	1	1%
Throw in open area away from Residential Area	4	19%	6	40%	12	24%	19	44%	41	32%
Sweeper takes it away	0	0%	0	0%	0	0%	1	2%	1	1%
Outside in fields	6	29%	0	0%	0	0%	0	0%	6	5%
Not applicable	1	5%	4	27%	2	4%	6	14%	13	10%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. How do you dispose your household solid waste After?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Throw outside the house in the street	9	43%	2	13%	35	71%	9	21%	55	43%
Throw in the community bin	1	5%	1	7%	0	0%	7	16%	9	7%
Throw in open area away from Residential Area	4	19%	10	67%	12	24%	25	58%	51	40%
Sweeper takes it away	0	0%	0	0%	0	0%	1	2%	1	1%
Outside in fields	6	29%	0	0%	0	0%	0	0%	6	5%
Not applicable	1	5%	2	13%	2	4%	1	2%	6	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 20: Type of benefits after the scheme according to respondents**a. Type of benefits after the scheme (unprompted)**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
No illness in the HH	2	10%	4	31%	4	8%	0	0%	10	8%
Lesser illness in the HH	3	14%	6	46%	41	85%	5	12%	55	44%
Mosquito control	4	19%	10	77%	37	77%	7	16%	58	46%
No stagnation of water	6	29%	5	38%	16	33%	25	58%	52	42%
Clean environment	5	24%	6	46%	7	15%	6	14%	24	19%
Transportation Facility	12	57%	0	0%	0	0%	1	2%	13	10%
Marriage	0	0%	0	0%	0	0%	1	2%	1	1%

b. Type of benefits after the scheme (Prompted)

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
No illness in the HH	1	8%	5	33%	13	33%	2	5%	21	19%
Lesser illness in the HH	4	33%	8	53%	4	10%	28	65%	44	40%
Mosquito control	5	42%	5	33%	10	25%	23	53%	43	39%
No stagnation of water	4	33%	7	47%	4	10%	31	72%	46	42%
Clean environment	6	50%	7	47%	26	65%	38	88%	77	70%
Transportation Facility	0	0%	0	0%	1	3%	0	0%	1	1%

Table 21: Was the scheme effective in improving the drainage sanitation conditions in your household and/or community (street?)

a. Was the scheme effective in improving the drainage sanitation conditions in your household?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	6	29%	10	67%	33	67%	37	86%	86	67%
To some extent	3	14%	5	33%	12	24%	6	14%	26	20%
No	11	52%	0	0%	2	4%	0	0%	13	10%
Don't know	1	5%	0	0%	2	4%	0	0%	3	2%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Was the scheme effective in improving the drainage sanitation conditions in your community?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	8	38%	11	73%	36	73%	33	77%	88	69%
To some extent	4	19%	3	20%	11	22%	10	23%	28	22%
No	6	29%	1	7%	0	0%	0	0%	7	5%
Don't know	3	14%	0	0%	2	4%	0	0%	5	4%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 22: Was the scheme effective in bringing change in the attitudes and behaviour of your household members? (Latrines, garbage disposal)

Was the scheme effective in bringing change in the attitudes and behaviour of your household members?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	5	24%	10	67%	21	43%	36	84%	72	56%
To some extent	1	5%	5	33%	16	33%	7	16%	29	23%
No	12	57%	0	0%	11	22%	0	0%	23	18%
Don't know	3	14%	0	0%	1	2%	0	0%	4	3%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 23: Has the scheme reduced water borne diseases in your house?

Has the scheme reduced water borne diseases in your house?

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	6	29%	8	53%	48	98%	26	60%	88	69%
To some extent	3	14%	7	47%	1	2%	17	40%	28	22%
No	10	48%	0	0%	0	0%	0	0%	10	8%
Don't know	2	10%	0	0%	0	0%	0	0%	2	2%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 24: Level of satisfaction with overall condition of hygiene**a. Satisfaction level at household level**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Very satisfied	1	5%	5	33%	2	4%	28	65%	36	28%
Satisfied	4	19%	10	67%	25	51%	15	35%	54	42%
Indifferent	12	57%	0	0%	21	43%	0	0%	33	26%
Dissatisfied	4	19%	0	0%	1	2%	0	0%	5	4%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Level of satisfaction at community level

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Very satisfied	1	5%	5	33%	12	24%	12	28%	30	23%
Satisfied	5	24%	10	67%	27	55%	29	67%	71	55%
Indifferent	10	48%	0	0%	9	18%	1	2%	20	16%
Dissatisfied	5	24%	0	0%	1	2%	1	2%	7	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 25: To what extent do you agree or disagree with the following statements**a. PPAF drainage and sanitation scheme significantly contributed in improving drainage and sanitation condition**

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	4	19%	15	100%	49	100%	38	88%	106	83%
Indifferent	11	52%	0	0%	0	0%	0	0%	11	9%
Disagree	6	29%	0	0%	0	0%	1	2%	7	5%
Don't know	0	0%	0	0%	0	0%	4	9%	4	3%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Due to the PPAF scheme less time is required to dispose household waste

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	5	24%	13	87%	0	0%	38	88%	56	44%
Indifferent	6	29%	2	13%	37	76%	0	0%	45	35%
Disagree	9	43%	0	0%	11	22%	1	2%	21	16%
Don't know	1	5%	0	0%	1	2%	4	9%	6	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Before the irrigation channel women were spending more time on drainage and sanitation tasks

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	5	24%	13	87%	36	73%	42	98%	96	75%
Indifferent	5	24%	2	13%	12	24%	0	0%	19	15%
Disagree	10	48%	0	0%	1	2%	0	0%	11	9%
Don't know	1	5%	0	0%	0	0%	1	2%	2	2%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

d. The drainage scheme has change household behavior related to drainage and sanitation issues

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	5	24%	15	100%	39	80%	30	70%	89	70%
Indifferent	6	29%	0	0%	9	18%	4	9%	19	15%
Disagree	8	38%	0	0%	0	0%	5	12%	13	10%
Don't know	2	10%	0	0%	1	2%	4	9%	7	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

e. The scheme has significantly reduced malaria and typhoid incidences in the village

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	7	33%	15	100%	48	98%	30	70%	100	78%
Indifferent	3	14%	0	0%	0	0%	1	2%	4	3%
Disagree	8	38%	0	0%	0	0%	0	0%	8	6%
Don't know	3	14%	0	0%	1	2%	12	28%	16	13%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

f. The scheme is benefiting all the intended beneficiaries without any discrimination

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	14	67%	14	93%	48	98%	16	37%	92	72%
Indifferent	3	14%	1	7%	0	0%	2	5%	6	5%
Disagree	3	14%	0	0%	0	0%	1	2%	4	3%
Don't know	1	5%	0	0%	1	2%	24	56%	26	20%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

g. Due to the drainage and sanitation scheme my household expenditures on health has significantly

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Agree	5	24%	14	93%	47	96%	34	79%	100	78%
Indifferent	2	10%	1	7%	1	2%	0	0%	4	3%
Disagree	13	62%	0	0%	0	0%	5	12%	18	14%
Don't know	1	5%	0	0%	1	2%	4	9%	6	5%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 26: Level of satisfaction with the condition of the street before and after the scheme

a. Level of satisfaction with the condition of the street before the scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Fair	9	43%	9	60%	8	16%	7	16%	33	26%
Bad	12	57%	6	40%	41	84%	33	77%	92	72%
Don't know	0	0%	0	0%	0	0%	3	7%	3	2%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

b. Level of satisfaction with the condition of the street after the scheme

Response	Punjab		Sindh		Baluchistan		KPK		Total	
	#	%	#	%	#	%	#	%	#	%
Good	11	52%	15	100%	22	45%	37	86%	85	66%
Fair	6	29%	0	0%	25	51%	5	12%	36	28%
Bad	4	19%	0	0%	2	4%	0	0%	6	5%
Don't know	0	0%	0	0%	0	0%	1	2%	1	1%
Total	21	100%	15	100%	49	100%	43	100%	128	100%

Table 3.27: Respondents perception regarding scheme benefits**a. The scheme significantly contributed in addressing energy water requirements of my household**

Response	Sindh		Total	
	#	%	#	%
Agree	18	86%	18	86%
Indifferent	2	10%	2	10%
Disagree	1	5%	1	5%
Total	21	100%	21	100%

b. Before the schemes female/children has to spent significant amount of time in collecting fuel wood

Response	Sindh		Total	
	#	%	#	%
Agree	14	67%	14	67%
Indifferent	4	19%	4	19%
Disagree	3	14%	3	14%
Total	21	100%	21	100%

c. The scheme has change household behavior related to efficient use of the energy resources

Response	Sindh		Total	
	#	%	#	%
Agree	16	76%	16	76%
Indifferent	4	19%	4	19%
Disagree	1	5%	1	5%
Total	21	100%	21	100%

d. The scheme has reduced fuel cost

Response	Sindh		Total	
	#	%	#	%
Agree	15	71%	15	71%
Indifferent	4	19%	4	19%
Disagree	2	10%	2	10%
Total	21	100%	21	100%

e. The scheme is benefiting all the intended beneficiaries without any discrimination

Response	Sindh		Total	
	#	%	#	%
Agree	19	90%	19	90%
Disagree	2	10%	2	10%
Total	21	100%	21	100%

The financial and economic analysis of 87 schemes from all the four provinces was conducted using Internal Rates of Return (IRR) analytical tool. Out of the 87 schemes; 28 were irrigation, 21 Drinking Water Supply (DWSS), 23 Roads and Bridges, 13 Drainage and Sanitation and 2 Renewable Energy.

The data for deriving IRRs was collected during FGDs conducted by the consultants and the field team supervisors. The schemes chosen for IRRs were those that were completed prior to 30 June 2014. Further, IRRs were calculated with the assumption that benefits and cost streams taper off after 10 years. The data relating to FIRR and EIRR included: development costs, O&M costs, and incremental benefits derived by the communities on completion of the schemes. Assumptions included: schemes continue to remain productive during the calculation period, benefits and recurring cost remain constant over 10 years and prices of input/output also remain constant. Also, that the completed schemes would continue to have streams of benefits and costs over a period of ten years.

During analysis, the field team supervisors were referred back the data for re-verification and/or for obtaining any additional information/data required for analysis.

At the sector level, the schemes specific basis/assumptions are presented below:

1. Irrigation Water Schemes

- i. Increase in yield per acre
- ii. Area increased under cultivation
- iii. Increase/decrease in cost of production per acre
- iv. Output prices per kg at farm gate
- v. Well maintained schemes
- vi. Input and output prices remain constant over the calculation period
- vii. FIRR calculated through FGDs undertaken for individual schemes
- viii. Province level EIRR calculated based on respective FIRR in conjunction with conversion factors provided in ADB and World Bank Guidelines.

2. Roads and Bridges Schemes

Costs savings per year for:

- i. Education related travelling
- ii. Health related travelling
- iii. Job related travelling
- iv. Social activities related travelling
- v. Bringing household item
- vi. Bringing agricultural inputs
- vii. Transportation of Agricultural output
- viii. Calculations incorporate direct costs and direct/indirect benefits.
- ix. Province level EIRR calculated based on respective FIRR in conjunction with conversion factors provided in ADB and World Bank Guidelines.

3. Drinking Water Supply Schemes

- i. Monetized value of time saving of men/women per year using Rs.62.5 per hour (wage rate Rs.13000/pm working 8 hours for 26 days)
- ii. Money value of time saving of children or other means such as animals per year using Rs.50 per hours.
- iii. Saving due to reduction in health expenditure per year.

- iv. Time saving calculated above would have been utilized for some other productive activities but values have been used for time saving only to avoid double counting.
- v. Used direct costs and direct/indirect benefits.
- vi. FIRR calculated on FGDs based individual schemes
- vii. Province level EIRRs calculated based on respective FIRRs in conjunction with conversion factors provided in ADB and World Bank Guidelines.

4. Drainage and Sanitation Schemes

- i. Saving in health expenditure of women per year (imputed value in rupees provided by interviewees.
- ii. Saving in health expenditure of children per year
- iii. Saving in health expenditure of other household members per year
- iv. Saving in expenditure pertaining to hygiene/mosquito control expenditure per year
- v. Used direct costs and direct/indirect benefits.
- vi. FIRR calculated on FGDs conducted for individual schemes
- vii. Province level EIRRs calculated based on respective FIRRs in conjunction with conversion factors provided in ADB and World Bank Guidelines.

5. Renewable Energy Schemes

- i. Saving in replacing old light system (non-electric sources) to energy savers/lights per year
- ii. Income generation from extended shops opening time per year
- iii. Income generation from technician service provision per year
- iv. Used direct costs and direct/indirect benefits
- v. FIRR calculated on FGDs undertaken for individual schemes
- vi. EIRRs calculated based on respective FIRRs in conjunction with conversion factors provided in ADB and World Bank Guidelines.

FIRRs were calculated based on individual schemes which were then aggregated at provincial level and finally at the country level. All Sector schemes were also aggregated at country level to obtain overall IRR of schemes pertaining to all the five sectors covered in the impact evaluation.

Benefits and cost streams detail calculation, survey/data collection tools are available in separate annexes.

Irrigation Projects

- 1. Irrigation Projects in KP**
- 2. Irrigation Projects in Punjab**
- 3. Irrigation Projects in Sind**
- 4. Irrigation Projects in Baluchistan**
- 5. Roads and Bridge Projects in KP**
- 6. Roads and Bridge Projects in Punjab**
- 7. Roads and Bridge Projects in Sindh**
- 8. Renewable Energy Projects in Sindh**
- 9. Drainage and Sanitation Projects in KP**
- 10. Drainage and Sanitation Projects in Punjab**
- 11. Drainage and Sanitation Projects in Sindh**
- 12. Drainage and Sanitation Projects in Baluchistan**
- 13. Drinking Water Supply Scheme KP**
- 14. Drinking Water Supply Scheme Punjab**
- 15. Drinking Water Supply Scheme Sindh**
- 16. Drinking Water Supply Scheme Baluchistan**
- 17. Average of All Projects**

1. Irrigation Projects in KP

Irrigation Projects in KP

Jandi Baber Musazai DIKhan

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	Land cost	Net Benefit Rs.
	Before Proj	After Proj	Before Proj	After Proj	Incremental				Before Proj	After Proj	Incremental			
Wheat	2.5	2.5	500	800	300	750	29	21750	7600	5200	-2400	-6000	0	27750
Mize	10	10	450	700	250	2500	35	87500	8000	5500	-2500	-25000	0	112500
Vegetable	0.5	0.5	400	750	350	175	25	4375	8600	7000	-1600	-800	0	5175
Fodder	0.5	0.5	450	650	200	100	9	900	8000	6200	-1800	-900	0	1800
Addl area														0
wheat		11.5		800	800	9200	29	266800		5200	5200	59800		207000
Maize		2		700	700	1400	35	49000		5500	5500	11000		38000
														392225

Irrigation Projects in KP

Jandi Baber Musazai

DIKhan

Crop	Acre		Yield kg		
	Before Proj	After Proj	Before Proj	After Proj	Incremental
Wheat	2.5	2.5	500	800	300
Mize	10	10	450	700	250
Vegetable	0.5	0.5	400	750	350
Fodder	0.5	0.5	450	650	200
Addl area					
wheat		11.5		800	800
Maize		2		700	700

Irrigation Projects in KP

Gandi Gar-1 Darora

Dir Upper

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	Land cost	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	25	25	900	1000	100	2500	28	70000	11000	12000	1000	25000	0	45000
Mize	20	20	900	1100	200	4000	22	88000	16000	18000	2000	40000	0	48000
Onion	8	8	22000	23000	1000	8000	15	120000	25000	28000	3000	24000	0	96000
Tomato	2	2	23000	24000	1000	2000	12	24000	24000	26000	2000	4000	0	20000
Addl area														0
Onion	0	2	0	8000	8000	16000	15	240000	0	35000	35000	70000	0	170000
Tomato		0.5		6000	6000	3000	12	36000		32000	32000	16000		20000
Land developmnet cost one time								0				200000		-200000
														199000

FIRR of Irrigation Projects in KP

Gandi Gar-1 Darora Dir Upper

with Land Rent

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.601	0.000	0.601	0	-0.601
2		0.040	0.040	0.199	0.159
3		0.040	0.040	0.399	0.359
4		0.040	0.040	0.399	0.359
5		0.040	0.040	0.399	0.359
6		0.040	0.040	0.399	0.359
7		0.040	0.040	0.399	0.359
8		0.040	0.040	0.399	0.359
9		0.040	0.040	0.399	0.359
10		0.040	0.040	0.399	0.359
	FIRR				47.2%

Irrigation Projects in KP

Gandi Gar-2 Darora

Dir Upper

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	20	20	600	800	200	4000	24	96000	20000	28000	8000	160000	100000	36000
Mize	15	15	800	900	100	1500	20	30000	8000	10000	2000	30000	30000	30000
Rice	1	1	800	1000	200	200	100	20000	10000	15000	5000	5000	0	15000
Vegetable	4	4	5100	6500	1400	5600	15	84000	21000	32000	11000	44000	0	40000
Addl area														0
Wheat		10		800	800	8000	24	192000	0	28000	28000	280000	100000	12000
Vegetable		2		6500	6500	13000	15	195000		32000	32000	64000		131000
Land developmnet cost one time								0						-150000
														114000

FIRR of Irrigation Projects in KP

Gandi Gar-2 Darora Dir Upper

with Land Rent

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.217	0.000	0.217	0	-0.217
2		0.013	0.013	0.114	0.101
3		0.013	0.013	0.264	0.251
4		0.013	0.013	0.264	0.251
5		0.013	0.013	0.264	0.251
6		0.013	0.013	0.264	0.251
7		0.013	0.013	0.264	0.251
8		0.013	0.013	0.264	0.251
9		0.013	0.013	0.264	0.251
10		0.013	0.013	0.264	0.251
				FIRR	83.7%

Aggregate

FIRR of Irrigation Projects in KP

	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
Year	Development	O&M	Total		
	1.693	0	1.693	0	-1.693
1	0	0.093	0.093	0.705	0.612
2		0.093	0.093	1.055	0.962
3		0.093	0.093	1.055	0.962
4		0.093	0.093	1.055	0.962
5		0.093	0.093	1.055	0.962
6		0.093	0.093	1.055	0.962
7		0.093	0.093	1.055	0.962
8		0.093	0.093	1.055	0.962
9		0.093	0.093	1.055	0.962
10				FIRR	48.5%

Aggregate

EIRR of Irrigation Projects in KP

	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
Year	Development	O&M	Total		
	1.6253	0	1.625	0	-1.625
1	0	0.093	0.093	0.7473	0.654
2		0.093	0.093	1.1183	1.025
3		0.093	0.093	1.1183	1.025
4		0.093	0.093	1.1183	1.025
5		0.093	0.093	1.1183	1.025
6		0.093	0.093	1.1183	1.025
7		0.093	0.093	1.1183	1.025
8		0.093	0.093	1.1183	1.025
9		0.093	0.093	1.1183	1.025
10				EIRR	53.8%

2. Irrigation Projects in Punjab

Irrigation Projects in Punjab

Dera Muhammad Amin

Girrot Khushab

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	13	13	1300	1700	400	5200	32	166400	18000	20000	2000	26000	45000	185400
Rice	10	10	1400	1600	200	2000	50	100000	35000	30000	-5000	-50000	0	150000
Fodder	4	4	40000	50000	10000	40000	2	80000	40000	32000	-8000	-32000	0	112000
														447400

FIRR of Irrigation Projects in Punjab

Dera Muhammad Amin Girrot

Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.567	0.050	0.617	0	-0.617
2		0.050	0.050	0.4474	0.397
3		0.050	0.050	0.4474	0.397
4		0.050	0.050	0.4474	0.397
5		0.050	0.050	0.4474	0.397
6		0.050	0.050	0.4474	0.397
7		0.050	0.050	0.4474	0.397
8		0.050	0.050	0.4474	0.397
9		0.050	0.050	0.4474	0.397
10		0.050	0.050	0.4474	0.397
				FIRR	63.6%

Irrigation Projects in Punjab
Dera Tassawar Hussain Shah
Girrot Khushab

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	10	10	1200	1600	400	4000	32	128000	19000	21000	2000	20000	35000	143000
Rice	2	2	1400	1700	300	600	50	30000	34000	31000	-3000	-6000	0	36000
Fodder	4	4	40000	50000	10000	40000	2	80000	40000	36000	-4000	-16000	0	96000
Addl area														0
Rice		2		1700	1700	3400	50	170000		31000	31000	62000		108000
Fodder		2		50000	50000	100000	2	200000		36000	36000	72000		128000
														511000

FIRR of Irrigation Projects in Punjab
Dera Tassawar Hussain Shah
Girrot Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.571	0.030	0.601	0	-0.601
2		0.030	0.030	0.511	0.481
3		0.030	0.030	0.511	0.481
4		0.030	0.030	0.511	0.481
5		0.030	0.030	0.511	0.481
6		0.030	0.030	0.511	0.481
7		0.030	0.030	0.511	0.481
8		0.030	0.030	0.511	0.481
9		0.030	0.030	0.511	0.481
10		0.030	0.030	0.511	0.481
				FIRR	79.6%

Irrigation Projects in Punjab
Dera Najmul Hussain Girrot
Khushab

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	10	10	1400	1700	300	3000	32	96000	28000	24000	-4000	-40000	20000	156000
Rice	6	6	1300	1600	300	1800	50	90000	35000	30000	-5000	-30000	0	120000
Fodder	10	10	50000	50000	0	0	2	0	35000	30000	-5000	-50000	0	50000
														326000

FIRR of Irrigation Projects in Punjab
Dera Najmul Hussain Girrot
Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.532	0.060	0.592	0	-0.592
2		0.060	0.060	0.326	0.266
3		0.060	0.060	0.326	0.266
4		0.060	0.060	0.326	0.266
5		0.060	0.060	0.326	0.266
6		0.060	0.060	0.326	0.266
7		0.060	0.060	0.326	0.266
8		0.060	0.060	0.326	0.266
9		0.060	0.060	0.326	0.266
10		0.060	0.060	0.326	0.266
				FIRR	43.2%

Irrigation Projects in Punjab
Mohallah Jaraywallah Jharkal
Khushab

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	8	8	800	1200	400	3200	30	96000	10000	14000	4000	32000	20000	84000
Onion	0	1	0	6000	6000	6000	20	120000	0	40000	40000	40000	0	80000
Orchards	2	2	3000	5000	2000	4000	10	40000	13000	15000	2000	4000	0	36000
Fodder	2	2	25000	25000	0	0	2	0	18000	18000	0	0	0	0
Pulses	3	3	800	1000	200	600	80	48000	6000	8000	2000	6000	0	42000
														242000

FIRR of Irrigation Projects in Punjab
Mohallah Jaraywallah Jharkal
Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.495	0.000	0.495	0	-0.495
2		0.060	0.060	0.242	0.182
3		0.060	0.060	0.242	0.182
4		0.060	0.060	0.242	0.182
5		0.060	0.060	0.242	0.182
6		0.060	0.060	0.242	0.182
7		0.060	0.060	0.242	0.182
8		0.060	0.060	0.242	0.182
9		0.060	0.060	0.242	0.182
10		0.060	0.060	0.242	0.182
				FIRR	34.2%

Irrigation Projects in Punjab
Jharkal Khushab

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	5	5	700	800	100	500	30	15000	14000	17000	3000	15000	5000	5000
Cotton	3	3	0		0	0	20	15000	15000	15000	0	0	0	15000
Pulses	2	2	800	1000	200	400	80	32000	8000	10000	2000	4000	0	28000
Orchards	1	1	0	0	0	25000	1	25000	8000	8000	0	0	0	25000
Fpdder	2	2				20000	1	20000	10000	12000	2000	4000	0	16000
Addl Area					0						0	0	0	0
Cotton		1			0			35000		15000	15000	15000	0	20000
Pulses		3		1000	1000	3000	80	240000		10000	10000	30000	0	210000
						0								319000

FIRR of Irrigation Projects in Punjab
Jharkal Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.42	0.000	0.420	0	-0.420
2		0.030	0.030	0.319	0.289
3		0.030	0.030	0.319	0.289
4		0.030	0.030	0.319	0.289
5		0.030	0.030	0.319	0.289
6		0.030	0.030	0.319	0.289
7		0.030	0.030	0.319	0.289
8		0.030	0.030	0.319	0.289
9		0.030	0.030	0.319	0.289
10		0.030	0.030	0.319	0.289
				FIRR	68.2%

Irrigation Projects in Punjab
Chack 85 Fateh
Bahawalpur

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	15	15	1000	1150	150	2250	26	58500	35000	32000	-3000	-45000	20000	123500
cotton	15	15	1000	1100	100	1500	35	52500	38000	35000	-3000	-45000	0	97500
Orchards	0.5	0.5	5000	5000	0	0	15	0	8000	1000	-7000	-3500	0	3500
Fodder	3	3	8600	10000	1400	3780	2	7560	18000	16000	-2000	-5400	0	12960
														0
														237460

FIRR of Irrigation Projects in Punjab
Chack 85 Fateh
Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.5	0.000	0.500	0	-0.500
2		0.040	0.040	0.2375	0.198
3		0.040	0.040	0.2375	0.198
4		0.040	0.040	0.2375	0.198
5		0.040	0.040	0.2375	0.198
6		0.040	0.040	0.2375	0.198
7		0.040	0.040	0.2375	0.198
8		0.040	0.040	0.2375	0.198
9		0.040	0.040	0.2375	0.198
10		0.040	0.040	0.2375	0.198
				FIRR	37.2%

Irrigation Projects in Punjab
Murad Pur Jhandani
Bahawalpur

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	16	16	1400	1600	200	3200	30	96000	25000	22000	-3000	-48000	25000	169000
cotton	16	16	800	1000	200	3200	15	48000	28000	25000	-3000	-48000	0	96000
Sugarcane	2	2	24000	27000	3000	6000	3	18000	40000	35000	-5000	-10000	0	28000
Fodder	4	4	8000	10000	2000	8000	2	16000	15000	12000	-3000	-12000	0	28000
														0
														321000

FIRR of Irrigation Projects in Punjab
Murad Pur Jhandani
Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.5	0.000	0.500	0	-0.500
2		0.040	0.040	0.321	0.281
3		0.040	0.040	0.321	0.281
4		0.040	0.040	0.321	0.281
5		0.040	0.040	0.321	0.281
6		0.040	0.040	0.321	0.281
7		0.040	0.040	0.321	0.281
8		0.040	0.040	0.321	0.281
9		0.040	0.040	0.321	0.281
10		0.040	0.040	0.321	0.281
				FIRR	55.1%

Irrigation Projects in Punjab
Wahi Gosain Mari Sheikh
Shijra Bahawalpur

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	20	20	1200	1600	400	8000	31	248000	26000	23000	-3000	-60000	9600	317600
cotton	10	10	840	1080	240	2400	20	48000	30000	28000	-2000	-20000	0	68000
Fodder	8	8	8000	10000	2000	16000	3	48000	15000	12000	-3000	-24000	0	72000
														0
														457600

FIRR of Irrigation Projects in Punjab
Wahi Gosain Mari Sheikh Shijra
Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.56	0.000	0.560	0	-0.560
2		0.040	0.040	0.457	0.417
3		0.040	0.040	0.457	0.417
4		0.040	0.040	0.457	0.417
5		0.040	0.040	0.457	0.417
6		0.040	0.040	0.457	0.417
7		0.040	0.040	0.457	0.417
8		0.040	0.040	0.457	0.417
9		0.040	0.040	0.457	0.417
10		0.040	0.040	0.457	0.417
				FIRR	74.0%

Irrigation Projects in Punjab
Hero Gharbi Hero Sharqi
DGKhan

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	19	19	1200	1350	150	2850	28	79800	25000	21000	-4000	-76000	25000	180800
cotton	19	19	800	1000	200	3800	27	102600	28000	25000	-3000	-57000	0	159600
	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Fodder	1	1	25000	25000	0	0	2	0	10000	9000	-1000	-1200	0	1200
														0
														341600

FIRR of Irrigation Projects in Punjab
Hero Gharbi Hero
Sharqi DGKhan

with Land Rent

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.7	0.000	0.700	0	-0.700
2		0.040	0.040	0.342	0.302
3		0.040	0.040	0.342	0.302
4		0.040	0.040	0.342	0.302
5		0.040	0.040	0.342	0.302
6		0.040	0.040	0.342	0.302
7		0.040	0.040	0.342	0.302
8		0.040	0.040	0.342	0.302
9		0.040	0.040	0.342	0.302
10		0.040	0.040	0.342	0.302
				FIRR	41.2%

Irrigation Projects in Punjab
Hazara DGKhan

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	12	12	1400	1550	150	1800	30	54000	28000	24000	-4000	-48000	20000	122000
cotton	10	10	400	500	100	1000	27	27000	30000	25000	-5000	-50000	0	77000
	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Fodder	6	6	6000	6500	500	3000	2	6000	15000	12000	-3000	-18000	0	24000
														0
														223000

FIRR of Irrigation Projects in Punjab
Hazara DGKhan

with Land Rent

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.268	0.000	0.268	0	-0.268
2		0.040	0.040	0.223	0.183
3		0.040	0.040	0.223	0.183
4		0.040	0.040	0.223	0.183
5		0.040	0.040	0.223	0.183
6		0.040	0.040	0.223	0.183
7		0.040	0.040	0.223	0.183
8		0.040	0.040	0.223	0.183
9		0.040	0.040	0.223	0.183
10		0.040	0.040	0.223	0.183
				FIRR	67.6%

Irrigation Projects in Punjab
Litra Wakowa
DGKhan

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	30	30	1200	1400	200	6000	30	180000	25000	22000	-3000	-90000	9600	279600
cotton	20	20	800	900	100	2000	65	130000	28000	25000	-3000	-60000	0	190000
Pulses	5	5	400	600	200	1000	45	45000	15000	12000	-3000	-15000	0	60000
Fodder	10	10	4800	6400	1600	16000	2	32000	15000	12000	-3000	-30000	0	62000
														0
														591600

FIRR of Irrigation Projects in Punjab
Litra Wakowa DGKhan

with Land Rent

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.62	0.000	0.620	0	-0.620
2		0.040	0.040	0.592	0.552
3		0.040	0.040	0.592	0.552
4		0.040	0.040	0.592	0.552
5		0.040	0.040	0.592	0.552
6		0.040	0.040	0.592	0.552
7		0.040	0.040	0.592	0.552
8		0.040	0.040	0.592	0.552
9		0.040	0.040	0.592	0.552
10		0.040	0.040	0.592	0.552
				FIRR	88.7%

3. Irrigation Projects in Sind

Irrigation Projects in Sindh
Rasheed Ahmad Arain Bandh
Ghotki

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	Land cost	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	35	35	1300	1500	200	7000	27	189000	15000	16000	1000	35000	0	154000
Rice	15	15	750	900	150	2250	35	78750	18000	18000	0	0	0	78750
Maize	10	10	400	550	150	1500	22	33000	12000	12000	0	0	0	33000
Gram	5	5	350	450	100	500	40	20000	7000	7000	0	0	0	20000
Sugarcane	3	3	20000	22000	2000	6000	3	18000	25000	27000	2000	6000	0	12000
Jowar	5	5	300	400	100	500	18	9000	12000	11000	-1000	-5000	0	14000
Addl Area														0
Wheat		5		1200	1200	6000	27	162000		18000	18000	90000	0	72000
Rice		5		850	850	4250	35	148750		20000	20000	100000		48750
Maize		5		550	550	2750	22	60500		12000	12000	60000		500
Sugarcane		2		22000	22000	44000	3	132000		30000	30000	60000		72000
														505000

FIRR of Irrigation Projects in Sindh
Rasheed Ahmad Arain Bandh Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.974	0.000	0.974	0	-0.974
2	0	0.050	0.050	0.505	0.455
3		0.050	0.050	0.505	0.455
4		0.050	0.050	0.505	0.455
5		0.050	0.050	0.505	0.455
6		0.050	0.050	0.505	0.455
7		0.050	0.050	0.505	0.455
8		0.050	0.050	0.505	0.455
9		0.050	0.050	0.505	0.455
10		0.050	0.050	0.505	0.455
				FIRR	45.1%

Aggregate
FIRR of Irrigation Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.974	0.000	0.974	0	-0.974
2	0	0.050	0.050	0.505	0.455
3		0.050	0.050	0.505	0.455
4		0.050	0.050	0.505	0.455
5		0.050	0.050	0.505	0.455
6		0.050	0.050	0.505	0.455
7		0.050	0.050	0.505	0.455
8		0.050	0.050	0.505	0.455
9		0.050	0.050	0.505	0.455
10		0.050	0.050	0.505	0.455
				FIRR	45.1%

Aggregate

EIRR of Irrigation Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.93504	0.000	0.935	0	-0.935
2	0	0.050	0.050	0.5353	0.485
3		0.050	0.050	0.5353	0.485
4		0.050	0.050	0.5353	0.485
5		0.050	0.050	0.5353	0.485
6		0.050	0.050	0.5353	0.485
7		0.050	0.050	0.5353	0.485
8		0.050	0.050	0.5353	0.485
9		0.050	0.050	0.5353	0.485
10		0.050	0.050	0.5353	0.485
				EIRR	50.6%

4. Irrigation Projects in Baluchistan

Irrigation Projects in Baluchistan

Dargai

Loralai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	50	50	550	750	200	10000	30	300000	5500	7200	1700	85000	50000	265000
Vegetable	30	30	400	600	200	6000	35	210000	15500	17500	2000	60000	0	150000
Addl Area					0	0		0			0	0	0	0
Vegetable		20		650	650	13000	35	455000		17500	17500	350000	0	105000
														520000

FIRR of Irrigation Projects in Baluchistan
Dargai Loralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.19	0.000	1.190	0	-1.190
2		0.030	0.030	0.52	0.490
3		0.030	0.030	0.52	0.490
4		0.030	0.030	0.52	0.490
5		0.030	0.030	0.52	0.490
6		0.030	0.030	0.52	0.490
7		0.030	0.030	0.52	0.490
8		0.030	0.030	0.52	0.490
9		0.030	0.030	0.52	0.490
10		0.030	0.030	0.52	0.490
				FIRR	39.1%

Irrigation Projects in Baluchistan
Barmim Aliza Loralai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.		Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	50	50	500	700	200	10000	29	290000	5600	7500	1900	95000	70000	265000
Vegetable	30	30	450	600	150	4500	40	180000	15500	17500	2000	60000	0	120000
Addl Area					0	0		0			0	0	0	0
Vegetable		20		700	700	14000	40	560000		17500	17500	350000	0	210000
														595000

FIRR of Irrigation Projects in Baluchistan
Barmim Aliza Loralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.25	0.000	1.250	0	-1.250
2		0.050	0.050	0.595	0.545
3		0.050	0.050	0.595	0.545
4		0.050	0.050	0.595	0.545
5		0.050	0.050	0.595	0.545
6		0.050	0.050	0.595	0.545
7		0.050	0.050	0.595	0.545
8		0.050	0.050	0.595	0.545
9		0.050	0.050	0.595	0.545
10		0.050	0.050	0.595	0.545
				FIRR	41.7%

Irrigation Projects in Baluchistan
Chamaza Toor Shah
Loralai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	500	750	250	10000	29	290000	5000	7000	2000	80000	50000	260000
Vegetable	30	30	450	600	150	4500	27	121500	5500	7500	2000	60000	0	61500
Addl Area					0	0		0			0	0	0	0
Wheat		20		750	750	15000	29	435000	0	7000	7000	140000	75000	370000
Vegetable		10		600	600	6000	27	162000	0	7500	7500	75000		
														691500

FIRR of Irrigation Projects in Baluchistan
Chamaza Toor Shah
Loralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.3	0.000	1.300	0	-1.300
2		0.032	0.032	0.692	0.660
3		0.032	0.032	0.692	0.660
4		0.032	0.032	0.692	0.660
5		0.032	0.032	0.692	0.660
6		0.032	0.032	0.692	0.660
7		0.032	0.032	0.692	0.660
8		0.032	0.032	0.692	0.660
9		0.032	0.032	0.692	0.660
10		0.032	0.032	0.692	0.660
				FIRR	49.4%

Irrigation Projects in Baluchistan
Chamaza Toor Khan
Loralai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	400	800	400	16000	30	480000	12000	14000	2000	80000	50000	450000
Vegetable	10	10	300	500	200	2000	40	80000	15000	17000	2000	20000	0	60000
Addl Area					0	0		0			0	0	0	0
Wheat		20		800	800	16000	30	480000	0	14000	14000	280000	30000	230000
Vegetable		10		500	500	5000	40	200000	0	17000	17000	170000		30000
														770000

FIRR of Irrigation Projects in Baluchistan
Chamaza Toor Khan
Loralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.2	0.000	1.200	0	-1.200
2		0.025	0.025	0.77	0.745
3		0.025	0.025	0.77	0.745
4		0.025	0.025	0.77	0.745
5		0.025	0.025	0.77	0.745
6		0.025	0.025	0.77	0.745
7		0.025	0.025	0.77	0.745
8		0.025	0.025	0.77	0.745
9		0.025	0.025	0.77	0.745
10		0.025	0.025	0.77	0.745
				FIRR	61.2%

Irrigation Projects in Baluchistan
Bermina China Alizai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	500	700	200	8000	30	240000	5500	7500	2000	80000	20000	180000
Vegetable	35	35	450	600	150	5250	40	210000	5600	7000	1400	49000	0	161000
Addl Area					0	0		0			0	0	0	0
Wheat		20		725	725	14500	30	435000	0	7500	7500	150000	30000	315000
Vegetable		10		600	600	6000	40	240000	0	7000	7000	70000		170000
														826000

FIRR of Irrigation Projects in Baluchistan
Bermina China Alizai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.3	0.000	1.300	0	-1.300
2		0.027	0.027	0.826	0.799
3		0.027	0.027	0.826	0.799
4		0.027	0.027	0.826	0.799
5		0.027	0.027	0.826	0.799
6		0.027	0.027	0.826	0.799
7		0.027	0.027	0.826	0.799
8		0.027	0.027	0.826	0.799
9		0.027	0.027	0.826	0.799
10		0.027	0.027	0.826	0.799
				FIRR	60.6%

Irrigation Projects in Baluchistan
Barmina
Alizai

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	400	550	150	6000	30	180000	5700	7500	1800	72000	50000	158000
Vegetable	40	40	400	650	250	10000	35	350000	5800	7800	2000	80000	0	270000
Addl Area					0	0		0			0	0	0	0
Wheat		15		550	550	8250	30	247500	0	7800	7800	117000	20000	150500
Vegetable		5		650	650	3250	35	113750	0	7800	7800	39000		74750
														653250

FIRR of Irrigation Projects in Baluchistan
Barmina Alizai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.28	0.000	1.280	0	-1.280
2		0.025	0.025	0.653	0.628
3		0.025	0.025	0.653	0.628
4		0.025	0.025	0.653	0.628
5		0.025	0.025	0.653	0.628
6		0.025	0.025	0.653	0.628
7		0.025	0.025	0.653	0.628
8		0.025	0.025	0.653	0.628
9		0.025	0.025	0.653	0.628
10		0.025	0.025	0.653	0.628
				FIRR	47.6%

Irrigation Projects in Baluchistan
Shan Kingi Musakhel

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	45	45	450	600	150	6750	29	195750	10000	12000	2000	90000	30000	135750
Vegetable	20	20	2000	2300	300	6000	30	180000	3000	3500	500	10000	0	170000
Addl Area					0	0		0			0	0	0	0
Vegetable		10		1800	1800	18000	30	540000		6000	6000	60000	0	480000
														785750
														0.78575

FIRR of Irrigation Projects in Baluchistan
Shan Kingi Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.1	0.000	1.100	0	-1.100
2		0.050	0.050	0.785	0.735
3		0.050	0.050	0.785	0.735
4		0.050	0.050	0.785	0.735
5		0.050	0.050	0.785	0.735
6		0.050	0.050	0.785	0.735
7		0.050	0.050	0.785	0.735
8		0.050	0.050	0.785	0.735
9		0.050	0.050	0.785	0.735
10		0.050	0.050	0.785	0.735
				FIRR	66.1%

Irrigation Projects in Baluchistan
Raza Sham-1
Musakhel

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	50	50	450	650	200	10000	28	280000	6000	7000	1000	50000	75000	305000
Vegetable	20	20	1400	1600	200	4000	30	120000	6000	7500	1500	30000	0	90000
Addl Area					0	0		0			0	0	0	0
Vegetable		15		1200	1200	18000	30	540000		9000	9000	135000	0	405000
														800000
														0.8

FIRR of Irrigation Projects in Baluchistan
Raza Sham-1 Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.21	0.000	1.210	0	-1.210
2		0.050	0.050	0.8	0.750
3		0.050	0.050	0.8	0.750
4		0.050	0.050	0.8	0.750
5		0.050	0.050	0.8	0.750
6		0.050	0.050	0.8	0.750
7		0.050	0.050	0.8	0.750
8		0.050	0.050	0.8	0.750
9		0.050	0.050	0.8	0.750
10		0.050	0.050	0.8	0.750
				FIRR	61.1%

Irrigation Projects in Baluchistan
Raza Sham-2 Kingri
Musakhel

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.		Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	450	700	250	10000	30	300000	6500	7000	500	20000	70000	350000
Vegetable	20	20	400	650	250	5000	32	160000	6500	7000	500	10000	0	150000
Addl Area					0	0		0			0	0	0	0
Wheat		10		700	700	7000	30	210000		7000	7000	70000	80000	220000
Vegetable		5		650	650	3250	32	104000		7000	7000	35000		69000
														789000
														0.789

FIRR of Irrigation Projects in Baluchistan
Raza Sham-2 Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.5	0.000	1.500	0	-1.500
2		0.032	0.032	0.789	0.757
3		0.032	0.032	0.789	0.757
4		0.032	0.032	0.789	0.757
5		0.032	0.032	0.789	0.757
6		0.032	0.032	0.789	0.757
7		0.032	0.032	0.789	0.757
8		0.032	0.032	0.789	0.757
9		0.032	0.032	0.789	0.757
10		0.032	0.032	0.789	0.757
				FIRR	49.1%

Irrigation Projects in Baluchistan
Sham Kingri-1
Musakhel

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.		Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	45	45	425	630	205	9225	32	295200	10000	12000	2000	90000	80000	285200
Vegetable	5	5	750	1000	250	1250	40	50000	3500	7000	3500	17500	0	32500
Addl Area					0	0		0			0	0	0	0
Wheat		10		630	630	6300	32	201600		12000	12000	120000	50000	131600
Vegetable		5		1000	1000	5000	40	200000		7000	7000	35000		165000
														614300
														0.6143

FIRR of Irrigation Projects in Baluchistan
Sham Kingri-1 Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.895	0.000	0.895	0	-0.895
2		0.025	0.025	0.614	0.589
3		0.025	0.025	0.614	0.589
4		0.025	0.025	0.614	0.589
5		0.025	0.025	0.614	0.589
6		0.025	0.025	0.614	0.589
7		0.025	0.025	0.614	0.589
8		0.025	0.025	0.614	0.589
9		0.025	0.025	0.614	0.589
10		0.025	0.025	0.614	0.589
				FIRR	65.1%

Irrigation Projects in Baluchistan
Sham Kingri-2
Musakhel

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.		Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	40	40	330	500	170	6800	30	204000	5000	6000	1000	40000	60000	224000
Vegetable	15	15	700	900	200	3000	30	90000	5000	6000	1000	15000	0	75000
Addl Area					0	0		0			0	0	0	0
Wheat		10		500	500	5000	30	150000		6000	6000	60000	40000	130000
Vegetable		5		900	900	4500	30	135000		6000	6000	30000		105000
														534000
														0.534

FIRR of Irrigation Projects in Baluchistan
Sham Kingri-2 Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.99	0.000	0.990	0	-0.990
2		0.027	0.027	0.534	0.507
3		0.027	0.027	0.534	0.507
4		0.027	0.027	0.534	0.507
5		0.027	0.027	0.534	0.507
6		0.027	0.027	0.534	0.507
7		0.027	0.027	0.534	0.507
8		0.027	0.027	0.534	0.507
9		0.027	0.027	0.534	0.507
10		0.027	0.027	0.534	0.507
				FIRR	49.9%

Irrigation Projects in Baluchistan
Kuran Sibi

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.	BP	Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	30	30	160	320	160	4800	30	144000	12000	12000	0	0	50000	94000
Cotton	30	30	100	300	200	6000	20	120000	15000	15000	0	0	0	120000
Addl Area					0	0		0			0	0	0	0
Wheat		20		400	400	8000	30	240000		10000	10000	200000	50000	-10000
Cotton		10		500	500	5000	20	100000		10000	10000	100000		0
														204000
														0.204

FIRR of Irrigation Projects in Baluchistan
Kuran Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.778	0.000	0.778	0	-0.778
2		0.040	0.040	0.34	0.300
3		0.040	0.040	0.34	0.300
4		0.040	0.040	0.34	0.300
5		0.040	0.040	0.34	0.300
6		0.040	0.040	0.34	0.300
7		0.040	0.040	0.34	0.300
8		0.040	0.040	0.34	0.300
9		0.040	0.040	0.34	0.300
10		0.040	0.040	0.34	0.300
				FIRR	36.2%

Irrigation Projects in Baluchistan
Kujak Sibi

Crop	Acre		Yield kg			Incr Prod kg	Price/kg	Amount Rs.	Cost/acre Rs.			total cost Rs.		Net Benefit Rs.
	Before Prj	After Proj	Before Prj	After Proj	Incremental				Before Prj	After Proj	Incremental			
Wheat	50	50	300	450	150	7500	30	225000	6000	6000	0	0	0	225000
Cotton	30	30	300	500	200	6000	20	120000	5000	5000	0	0	0	120000
Addl Area					0	0		0			0	0	0	0
Cotton		10		450	450	4500	20	90000		5000	5000	50000	0	40000
														385000
														0.385

FIRR of Irrigation Projects in Baluchistan
Kujak Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.7	0.000	0.700	0	-0.700
2		0.040	0.040	0.385	0.345
3		0.040	0.040	0.385	0.345
4		0.040	0.040	0.385	0.345
5		0.040	0.040	0.385	0.345
6		0.040	0.040	0.385	0.345
7		0.040	0.040	0.385	0.345
8		0.040	0.040	0.385	0.345
9		0.040	0.040	0.385	0.345
10		0.040	0.040	0.385	0.345
				FIRR	47.8%

Aggregate
FIRR of Irrigation Projects in
Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	14.693	0	14.693	0	-14.693
2	0	0.453	0.453	8.303	7.850
3	0	0.453	0.453	8.303	7.850
4		0.453	0.453	8.303	7.850
5		0.453	0.453	8.303	7.850
6		0.453	0.453	8.303	7.850
7		0.453	0.453	8.303	7.850
8		0.453	0.453	8.303	7.850
9		0.453	0.453	8.303	7.850
10		0.453	0.453	8.303	7.850
				FIRR	52.2%

EIRR of Irrigation Projects in Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	14.1053	0	14.105	0	-14.105
2	0	0.453	0.453	8.80118	8.348
3	0	0.453	0.453	8.80118	8.348
4		0.453	0.453	8.80118	8.348
5		0.453	0.453	8.80118	8.348
6		0.453	0.453	8.80118	8.348
7		0.453	0.453	8.80118	8.348
8		0.453	0.453	8.80118	8.348
9		0.453	0.453	8.80118	8.348
10		0.453	0.453	8.80118	8.348
				EIRR	58.2%

5. Roads and Bridge Projects in KP

Roads & Bridges Projects in KP

Gandigar Bala Darora Dir

Upper

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	20	15	5	55	48400
Health Travel	100	80	20	20	79200
Jobs travel	30	20	10	15	39600
Social Travel	30	20	10	20	44000
HH Items	700	600	100	1	1200
marketing/input	10	8	2	200	400
					212800

FIRR of Roads & Bridges Projects in KP

Gandigar Bala Darora Dir Upper

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.45	0.000	0.450	0	-0.450
2		0.018	0.018	0.213	0.195
3		0.018	0.018	0.213	0.195
4		0.018	0.018	0.213	0.195
5		0.018	0.018	0.213	0.195
6		0.018	0.018	0.213	0.195
7		0.018	0.018	0.213	0.195
8		0.018	0.018	0.213	0.195
9		0.018	0.018	0.213	0.195
10		0.018	0.018	0.213	0.195
				FIRR	41.4%

Roads & Bridges Projects in KP

Serati Swani Dir

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	30	25	5	110	96800
Health Travel	120	100	20	20	79200
Jobs travel	30	25	5	70	92400
Social Travel	40	30	10	15	33000
HH Items	1000	900	100	1	1200
marketing/input	40	30	10	140	1400
					304000

FIRR of Roads & Bridges Projects in KP

Serati Swani Dir

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.1	0.000	1.100	0	-1.100
2		0.012	0.012	0.304	0.292
3		0.012	0.012	0.304	0.292
4		0.012	0.012	0.304	0.292
5		0.012	0.012	0.304	0.292
6		0.012	0.012	0.304	0.292
7		0.012	0.012	0.304	0.292
8		0.012	0.012	0.304	0.292
9		0.012	0.012	0.304	0.292
10		0.012	0.012	0.304	0.292
				FIRR	22.2%

Roads & Bridges Projects in KP

Ganorai Dir

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	30	20	10	45	79200
Health Travel	40	30	10	20	39600
Jobs travel	40	30	10	10	26400
Social Travel	40	30	10	20	44000
HH Items	1000	800	200	1	2400
marketing/input	20	15	5	600	3000
					194600

FIRR of Roads & Bridges Projects in KP

Ganorai Dir

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.398	0.000	0.398	0	-0.398
2		0.010	0.010	0.195	0.185
3		0.015	0.015	0.195	0.180
4		0.015	0.015	0.195	0.180
5		0.015	0.015	0.195	0.180
6		0.015	0.015	0.195	0.180
7		0.015	0.015	0.195	0.180
8		0.015	0.015	0.195	0.180
9		0.015	0.015	0.195	0.180
10		0.015	0.015	0.195	0.180
			FIRR		43.9%

Roads & Bridges Projects in KP

Serai Swanai Dir

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	100	80	20	25	88000
Health Travel	500	400	100	25	120000
Jobs travel	100	80	20	10	52800
Social Travel	100	80	20	10	44000
HH Items	1200	800	400	1	4800
marketing/input	60	40	20	100	2000
					311600

FIRR of Roads & Bridges Projects in KP

Serai Swanai Dir

1	0.45	0.000	0.450	0	-0.450
2		0.060	0.060	0.312	0.252
3		0.060	0.060	0.312	0.252
4		0.060	0.060	0.312	0.252
5		0.060	0.060	0.312	0.252
6		0.060	0.060	0.312	0.252
7		0.060	0.060	0.312	0.252
8		0.060	0.060	0.312	0.252
9		0.060	0.060	0.312	0.252
10		0.060	0.060	0.312	0.252
			FIRR		54.9%

Roads & Bridges Projects in KP

Taraqipasand Swani

Dir Upper

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	250	150	100	25	80000
Health Travel	200	150	50	25	60000
Jobs travel	200	100	100	10	48000
Social Travel	200	150	50	15	198000
HH Items	1000	500	500	25	12500
					398500

FIRR of Roads & Bridges Projects in KP

Taraqipasand Swani Dir Upper

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.462	0.000	0.462	0	-0.462
2		0.100	0.100	0.398	0.298
3		0.100	0.100	0.398	0.298
4		0.100	0.100	0.398	0.298
5		0.100	0.100	0.398	0.298
6		0.100	0.100	0.398	0.298
7		0.100	0.100	0.398	0.298
8		0.100	0.100	0.398	0.298
9		0.100	0.100	0.398	0.298
10		0.100	0.100	0.398	0.298
			FIRR		63.7%

Roads & Bridges Projects in KP
Saeedabad Gannori
Dir Upper

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	100	60	40	70	89600
Health Travel	400	300	100	30	144000
Jobs travel	250	200	50	25	60000
HH Items	5000	3000	2000	15	30000
Marketing Agri	100	75	25	150	3750
input	100	75	25	80	2000
					329350

FIRR of Roads & Bridges Projects in KP
Saeedabad Gannori Dir Upper

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.57	0.000	0.570	0	-0.570
2		0.100	0.100	0.329	0.229
3		0.100	0.100	0.329	0.229
4		0.100	0.100	0.329	0.229
5		0.100	0.100	0.329	0.229
6		0.100	0.100	0.329	0.229
7		0.100	0.100	0.329	0.229
8		0.100	0.100	0.329	0.229
9		0.100	0.100	0.329	0.229
10		0.100	0.100	0.329	0.229
			FIRR		38.0%

Roads & Bridges Projects in KP
Mullah Dehri Kuzabanda
Batagram

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	15	10	5	100	88000
Health Travel	15	10	5	14	18480
Jobs travel	15	10	5	25	33000
Social	15	10	5	70	92400
HH Items	300	210	90	15	16200
Marketing Agri	50	30	20	600	12000
input	50	30	20	200	4000
					264080

FIRR of Roads & Bridges Projects in KP
Mullah Dehri Kuzabanda Batagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.63	0.000	0.630	0	-0.630
2	0.07	0.027	0.097	0.264	0.167
3		0.027	0.027	0.264	0.237
4		0.027	0.027	0.264	0.237
5		0.027	0.027	0.264	0.237
6		0.027	0.027	0.264	0.237
7		0.027	0.027	0.264	0.237
8		0.027	0.027	0.264	0.237
9		0.027	0.027	0.264	0.237
10		0.027	0.027	0.264	0.237
			FIRR		31.8%

Roads & Bridges Projects in KP
Pora Kuzabanda Battagram

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	10	0	10	30	52800
Health Travel	10	0	10	20	39600
Jobs travel	10	0	10	20	52800
Social Travel	10	0	10	25	55000
HH Items	400	200	200	1	2400
marketing/input	35	20	15	500	7500
					210100

FIRR of Roads & Bridges Projects in KP

Pora Kuzabanda Battagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.220	0.000	0.220	0	-0.220
2	0.277	0.019	0.296	0.21	-0.086
3		0.019	0.019	0.21	0.191
4		0.019	0.019	0.21	0.191
5		0.019	0.019	0.21	0.191
6		0.019	0.019	0.21	0.191
7		0.019	0.019	0.21	0.191
8		0.019	0.019	0.21	0.191
9		0.019	0.019	0.21	0.191
10		0.019	0.019	0.21	0.191
				FIRR	44.8%

Roads & Bridges Projects in KP

Pora Kuzabanda

Battagram

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	0	0	0	0	0
Health Travel	15	0	15	30	89100
Jobs travel	15	0	15	18	71280
Social Travel	15	0	15	15	49500
HH Items	0	0	0	0	0
marketing/input	20	10	10	250	2500
					212380

FIRR of Roads & Bridges Projects in KP

Pora Kuzabanda Battagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.448	0.000	0.448	0	-0.448
2	0	0.030	0.030	0.212	0.182
3		0.030	0.030	0.212	0.182
4		0.030	0.030	0.212	0.182
5		0.030	0.030	0.212	0.182
6		0.030	0.030	0.212	0.182
7		0.030	0.030	0.212	0.182
8		0.030	0.030	0.212	0.182
9		0.030	0.030	0.212	0.182
10		0.030	0.030	0.212	0.182
			FIRR		38.5%

Roads & Bridges Projects in KP

Hill Shamlai

Battagram

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	0	0	0	0	0
Health Travel	10	0	10	25	49500
Jobs travel	10	0	10	25	66000
Social Travel	10	0	10	30	66000
HH Items	350	300	50	1	600
marketing/input	100	70	30	400	12000
					194100

FIRR of Roads & Bridges Projects in KP
Hill Shamlai Battagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.549	0.000	0.549	0	-0.549
2	0	0.020	0.020	0.194	0.174
3		0.020	0.020	0.194	0.174
4		0.020	0.020	0.194	0.174
5		0.020	0.020	0.194	0.174
6		0.020	0.020	0.194	0.174
7		0.020	0.020	0.194	0.174
8		0.020	0.020	0.194	0.174
9		0.020	0.020	0.194	0.174
10		0.020	0.020	0.194	0.174
				FIRR	28.3%

Aggregate

FIRR of Roads & Bridges Projects in KP

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	5.277	0.000	5.277	0.000	-5.277
2	0.347	0.396	0.743	2.631	1.888
3	0.000	0.401	0.401	2.631	2.230
4		0.401	0.401	2.631	2.230
5		0.401	0.401	2.631	2.230
6		0.401	0.401	2.631	2.230
7		0.401	0.401	2.631	2.230
8		0.401	0.401	2.631	2.230
9		0.401	0.401	2.631	2.230
10		0.401	0.401	2.631	2.230
				FIRR	38.2%

Aggregate

EIRR of Roads & Bridges Projects in KP

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	5.38254	0.000	5.383	0	-5.383
2	0.35394	0.396	0.750	2.73624	1.986
3	0	0.401	0.401	2.73624	2.335
4		0.401	0.401	2.73624	2.335
5		0.401	0.401	2.73624	2.335
6		0.401	0.401	2.73624	2.335
7		0.401	0.401	2.73624	2.335
8		0.401	0.401	2.73624	2.335
9		0.401	0.401	2.73624	2.335
10		0.401	0.401	2.73624	2.335
				EIRR	39.4%

6. Roads and Bridge Projects in Punjab

Roads & Bridges Projects in Punjab

Hazara Jhokutra DG Khan

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr
	Before Prj	After Proj			Rs.
Education Travel	50	40	10	30	52800
Health Travel	50	40	10	25	66000
Jobs travel	50	40	10	40	105600
Social	50	40	10	15	39600
HH Material	50	40	10	15	1800
Marketing Agri/input	40	20	20	1200	24000
					289800

FIRR Roads & Bridges Projects in Punjab

Hazara Jhokutra DG Khan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.7	0.000	0.700	0	-0.700
2		0.040	0.040	0.289	0.249
3		0.040	0.040	0.289	0.249
4		0.040	0.040	0.289	0.249
5		0.040	0.040	0.289	0.249
6		0.040	0.040	0.289	0.249
7		0.040	0.040	0.289	0.249
8		0.040	0.040	0.289	0.249
9		0.040	0.040	0.289	0.249
10		0.040	0.040	0.289	0.249
				FIRR	32.8%

Roads & Bridges Projects in Punjab

Hazara Jhokutra DG Khan

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	100	80	30	40	211200
Health Travel	100	80	15	20	79200
Jobs travel	100	80	8	22	46464
Social	100	80	15	5	19800
HH Material	100	50	50	20	12000
Marketing Agri/input	25	15	10	1200	12000
					380664

FIRR Roads & Bridges Projects in Punjab

Hazara Jhokutra DG Khan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.85	0.000	0.850	0	-0.850
2		0.060	0.060	0.38	0.320
3		0.060	0.060	0.38	0.320
4		0.060	0.060	0.38	0.320
5		0.060	0.060	0.38	0.320
6		0.060	0.060	0.38	0.320
7		0.060	0.060	0.38	0.320
8		0.060	0.060	0.38	0.320
9		0.060	0.060	0.38	0.320
10		0.060	0.060	0.38	0.320
				FIRR	35.1%

Roads & Bridges Projects in Punjab

Murad Pur Shandani

Bahawalpur

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	50	40	10	22	38720
Health Travel	50	40	10	15	39600
Jobs travel	50	40	10	20	52800
Social	50	40	10	20	52800
HH Articles	50	30	20	25	6000
Marketing Agri/input	30	20	10	1000	10000
					199920

FIRR Roads & Bridges Projects in Punjab

Murad Pur Shandani Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.23	0.000	0.230	0	-0.230
2		0.050	0.050	0.199	0.149
3		0.050	0.050	0.199	0.149
4		0.050	0.050	0.199	0.149
5		0.050	0.050	0.199	0.149
6		0.050	0.050	0.199	0.149
7		0.050	0.050	0.199	0.149
8		0.050	0.050	0.199	0.149
9		0.050	0.050	0.199	0.149
10		0.050	0.050	0.199	0.149
				FIRR	64.0%

Roads & Bridges Projects in Punjab

Murad Pur Shandani

Bahawalpur

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	50	40	10	30	52800
Health Travel	50	40	10	20	52800
Jobs travel	50	40	10	25	66000
Social	50	40	10	15	39600
HH Articles	50	30	20	25	6000
Marketing Agri/input	30	20	10	1000	10000
					227200

FIRR Roads & Bridges Projects in Punjab
Murad Pur Shandani Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.47	0.000	0.470	0	-0.470
2		0.050	0.050	0.227	0.177
3		0.050	0.050	0.227	0.177
4		0.050	0.050	0.227	0.177
5		0.050	0.050	0.227	0.177
6		0.050	0.050	0.227	0.177
7		0.050	0.050	0.227	0.177
8		0.050	0.050	0.227	0.177
9		0.050	0.050	0.227	0.177
10		0.050	0.050	0.227	0.177
				FIRR	35.2%

Roads & Bridges Projects in Punjab
Wahi Tosan Bahawalpur

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	20	10	10	50	88000
Health Travel	50	40	10	30	79200
Jobs travel	20	10	10	30	79200
Social	20	10	10	15	39600
HH Articles	20	10	10	25	3000
Marketing Agri/input	20	10	10	1000	10000
					299000

FIRR Roads & Bridges Projects in Punjab

Wahi Tosan Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.525	0.000	0.525	0	-0.525
2		0.050	0.050	0.229	0.179
3		0.050	0.050	0.229	0.179
4		0.050	0.050	0.229	0.179
5		0.050	0.050	0.229	0.179
6		0.050	0.050	0.229	0.179
7		0.050	0.050	0.229	0.179
8		0.050	0.050	0.229	0.179
9		0.050	0.050	0.229	0.179
10		0.050	0.050	0.229	0.179
				FIRR	31.1%

Aggregate

FIRR Roads & Bridges Projects in Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.93	0	0.930	0	-0.930
2	0	0.09	0.090	0.488	0.398
3	0	0.09	0.090	0.488	0.398
4		0.09	0.090	0.488	0.398
5		0.09	0.090	0.488	0.398
6		0.09	0.090	0.488	0.398
7		0.09	0.090	0.488	0.398
8		0.09	0.090	0.488	0.398
9		0.09	0.090	0.488	0.398
10		0.09	0.090	0.488	0.398
				FIRR	40.8%

Aggregate

EIRR Roads & Bridges Projects in Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.9486	0.000	0.949	0	-0.949
2	0	0.090	0.090	0.50752	0.418
3	0	0.090	0.090	0.50752	0.418
4		0.090	0.090	0.50752	0.418
5		0.090	0.090	0.50752	0.418
6		0.090	0.090	0.50752	0.418
7		0.090	0.090	0.50752	0.418
8		0.090	0.090	0.50752	0.418
9		0.090	0.090	0.50752	0.418
10		0.090	0.090	0.50752	0.418
				EIRR	42.2%

7. Roads and Bridge Projects in Sindh

Roads & Bridges Projects in Sindh

Kamal Lakhani Qader Pur

Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	40	20	20	20	70400
Health Travel	500	400	100	40	192000
Jobs travel	50	30	20	15	79200
Social	50	30	20	10	52800
HH Articles	40	20	20	30	7200
Marketing Agri/inout	50	30	20	500	10000
	40	25	15	10	411600

FIRR Roads & Bridges Projects in Sindh

Kamal Lakhani Qaderpur Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.677	0.000	0.677	0	-0.677
2		0.040	0.040	0.411	0.371
3		0.040	0.040	0.411	0.371
4		0.040	0.040	0.411	0.371
5		0.040	0.040	0.411	0.371
6		0.040	0.040	0.411	0.371
7		0.040	0.040	0.411	0.371
8		0.040	0.040	0.411	0.371
9		0.040	0.040	0.411	0.371
10		0.040	0.040	0.411	0.371
			FIRR		53.7%

Roads & Bridges Projects in Sindh

Maqsood Lund Yaro Lund

Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	0	0	0	0	0
Health Travel	100	50	50	10	24000
Jobs travel	50	20	30	5	39600
Social	50	20	30	25	198000
HH Articles	60	40	20	30	7200
Marketing Agri/inout	50	30	20	500	10000
					278800

FIRR Roads & Bridges Projects in Sindh
Maqsood Lund Yaro Lund Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.643	0.000	0.643	0	-0.643
2		0.040	0.040	0.279	0.239
3		0.040	0.040	0.279	0.239
4		0.040	0.040	0.279	0.239
5		0.040	0.040	0.279	0.239
6		0.040	0.040	0.279	0.239
7		0.040	0.040	0.279	0.239
8		0.040	0.040	0.279	0.239
9		0.040	0.040	0.279	0.239
10		0.040	0.040	0.279	0.239
				FIRR	34.6%

Roads & Bridges Projects in Sindh
Rasheed Ahmad Arian Bandh Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	2000	1500	500	30	120000
Health Travel	10	5	5	20	26400
Jobs travel	0	0	0	0	0
Social	10	5	5	5	6600
HH Articles	100	50	50	25	15000
Marketing Agri/inout	50	30	20	800	16000
					184000

FIRR Roads & Bridges Projects in Sindh

Rasheed Ahmad Arian Bandh Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.6	0.000	0.600	0	-0.600
2		0.040	0.040	0.184	0.144
3		0.040	0.040	0.184	0.144
4		0.040	0.040	0.184	0.144
5		0.040	0.040	0.184	0.144
6		0.040	0.040	0.184	0.144
7		0.040	0.040	0.184	0.144
8		0.040	0.040	0.184	0.144
9		0.040	0.040	0.184	0.144
10		0.040	0.040	0.184	0.144
				FIRR	19.0%

Roads & Bridges Projects in Sindh

Rab DinoKhashkheeli Mirpur Sakro Thatta

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel			0		0
Health Travel	1000	800	200	15	144000
Jobs travel			0		0
Social			0	0	0
HH Articles	0	0	0	0	0
Marketing Agri	700	500	200	200	40000
					184000

FIRR Roads & Bridges Projects in Sindh
Rab DinoKhashkheeli Mirpur Sakro Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.587	0.000	0.587	0	-0.587
2		0.030	0.030	0.184	0.154
3		0.030	0.030	0.184	0.154
4		0.030	0.030	0.184	0.154
5		0.030	0.030	0.184	0.154
6		0.030	0.030	0.184	0.154
7		0.030	0.030	0.184	0.154
8		0.030	0.030	0.184	0.154
9		0.030	0.030	0.184	0.154
10		0.030	0.030	0.184	0.154
				FIRR	21.8%

Roads & Bridges Projects in Sindh
Boolhari Tharparkar

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	20	10	10	20	35200
Health Travel	200	150	50	20	264000
Jobs travel	200	150	50	10	132000
Social	200	150	50	5	66000
HH Articles	50	30	20	30	7200
Marketing Agri/input	50	30	20	400	8000
					512400

FIRR Roads & Bridges Projects in Sindh
 Boolhari Tharparkar

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.687	0.000	1.687	0	-1.687
2		0.080	0.080	0.512	0.432
3		0.080	0.080	0.512	0.432
4		0.080	0.080	0.512	0.432
5		0.080	0.080	0.512	0.432
6		0.080	0.080	0.512	0.432
7		0.080	0.080	0.512	0.432
8		0.080	0.080	0.512	0.432
9		0.080	0.080	0.512	0.432
10		0.080	0.080	0.512	0.432
				FIRR	21.0%

Roads & Bridges Projects in Sindh
 Kamal Khan Lakhan Qadirpur Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	20	10	10	5	8800
Health Travel	500	400	100	10	48000
Jobs travel	20	10	10	5	13200
Social	20	10	10	5	13200
HH Articles	20	10	10	35	4200
Marketing Agri/inout	50	30	20	150	3000
					90400

FIRR Roads & Bridges Projects in Sindh
Kamal Khan Lakhan Qadirpur Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.282	0.000	0.282	0	-0.282
2		0.040	0.040	0.09	0.050
3		0.040	0.040	0.09	0.050
4		0.040	0.040	0.09	0.050
5		0.040	0.040	0.09	0.050
6		0.040	0.040	0.09	0.050
7		0.040	0.040	0.09	0.050
8		0.040	0.040	0.09	0.050
9		0.040	0.040	0.09	0.050
10		0.040	0.040	0.09	0.050
			FIRR		10.5%

Roads & Bridges Projects in Sindh
Maqsood Lund Yaroo Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Prj	After Proj			
Education Travel	50	20	30	10	52800
Health Travel	200	100	100	20	96000
Jobs travel	20	20	0	10	0
Social	50	20	30	5	39600
HH Articles	50	20	30	20	7200
Marketing Agri/inout	50	30	20	200	4000
					199600

FIRR Roads & Bridges Projects in Sindh
Maqsood Lund Yaroo Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.62	0.000	0.620	0	-0.620
2		0.040	0.040	0.2	0.160
3		0.040	0.040	0.2	0.160
4		0.040	0.040	0.2	0.160
5		0.040	0.040	0.2	0.160
6		0.040	0.040	0.2	0.160
7		0.040	0.040	0.2	0.160
8		0.040	0.040	0.2	0.160
9		0.040	0.040	0.2	0.160
10		0.040	0.040	0.2	0.160
				FIRR	21.3%

Roads & Bridges Projects in Sindh
Maqsood Lund Yaroo Ghotki

Item	Rs./Person		Saving Rs.	Nos.	Amount/Yr Rs.
	Before Proj	After Proj			
Education Travel	50	20	30	10	52800
Health Travel	200	100	100	20	96000
Jobs travel	0	0	0	0	0
Social	50	20	30	5	39600
HH Articles	50	20	30	25	9000
Marketing Agri/inout	50	30	20	160	3200
					200600

FIRR Roads & Bridges Projects in Sindh
Maqsood Lund Yaroo Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.475	0.000	0.475	0	-0.475
2		0.040	0.040	0.2	0.160
3		0.040	0.040	0.2	0.160
4		0.040	0.040	0.2	0.160
5		0.040	0.040	0.2	0.160
6		0.040	0.040	0.2	0.160
7		0.040	0.040	0.2	0.160
8		0.040	0.040	0.2	0.160
9		0.040	0.040	0.2	0.160
10		0.040	0.040	0.2	0.160
				FIRR	30.6%

Aggregate
FIRR Roads & Bridges Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	2.951	0	2.951	0	-2.951
2	0	0.15	0.150	1.107	0.957
3	0	0.15	0.150	1.107	0.957
4		0.15	0.150	1.107	0.957
5		0.15	0.150	1.107	0.957
6		0.15	0.150	1.107	0.957
7		0.15	0.150	1.107	0.957
8		0.15	0.150	1.107	0.957
9		0.15	0.150	1.107	0.957
10		0.15	0.150	1.107	0.957
				FIRR	29.2%

Aggregate

EIRR Roads & Bridges Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	3.01002	0.000	3.010	0	-3.010
2	0	0.150	0.150	1.15128	1.001
3	0	0.150	0.150	1.15128	1.001
4		0.150	0.150	1.15128	1.001
5		0.150	0.150	1.15128	1.001
6		0.150	0.150	1.15128	1.001
7		0.150	0.150	1.15128	1.001
8		0.150	0.150	1.15128	1.001
9		0.150	0.150	1.15128	1.001
10		0.150	0.150	1.15128	1.001
				EIRR	30.2%

8. Renewable Energy Projects in Sindh

FIRR of Renewable Energy Projects in Sindh

Shafi Muhallah Broi Ghara Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.09	0.000	1.090	0	-1.090
2		0.008	0.008	0.278	0.271
3		0.008	0.008	0.278	0.271
4		0.008	0.008	0.278	0.271
5		0.008	0.008	0.278	0.271
6		0.008	0.008	0.278	0.271
7		0.008	0.008	0.278	0.271
8		0.008	0.008	0.278	0.271
9		0.008	0.008	0.278	0.271
10		0.008	0.008	0.278	0.271
				FIRR	20.01%

EIRR of Renewable Energy Projects in Sindh
Shafi Muhallah Broi Gharo Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.1336	0.000	1.134	0	-1.134
2	0	0.008	0.008	0.278	0.271
3		0.008	0.008	0.278	0.271
4		0.008	0.008	0.278	0.271
5		0.008	0.008	0.278	0.271
6		0.008	0.008	0.278	0.271
7		0.008	0.008	0.278	0.271
8		0.008	0.008	0.278	0.271
9		0.008	0.008	0.278	0.271
10		0.008	0.008	0.278	0.271
				EIRR	18.80%

FIRR of Renewable Energy Projects in Sindh
Jumo Sathiyo Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.252	0.000	0.252	0	-0.252
2		0.050	0.050	0.137	0.087
3		0.050	0.050	0.137	0.087
4		0.050	0.050	0.137	0.087
5		0.050	0.050	0.137	0.087
6		0.050	0.050	0.137	0.087
7		0.050	0.050	0.137	0.087
8		0.050	0.050	0.137	0.087
9		0.050	0.050	0.137	0.087
10		0.050	0.050	0.137	0.087
				FIRR	31.6%

EIRR of Renewable Energy Projects in Sindh

Jumo Sathiyo Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.26208	0.000	0.262	0	-0.262
2		0.050	0.050	0.137	0.087
3		0.050	0.050	0.137	0.087
4		0.050	0.050	0.137	0.087
5		0.050	0.050	0.137	0.087
6		0.050	0.050	0.137	0.087
7		0.050	0.050	0.137	0.087
8		0.050	0.050	0.137	0.087
9		0.050	0.050	0.137	0.087
10		0.050	0.050	0.137	0.087
				FIRR	30.1%

Aggregate

FIRR of Renewable Energy Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.342	0	1.342	0	-1.342
2	0	0.0575	0.058	0.415	0.358
3	0	0.0575	0.058	0.415	0.358
4	0	0.0575	0.058	0.415	0.358
5	0	0.0575	0.058	0.415	0.358
6	0	0.0575	0.058	0.415	0.358
7	0	0.0575	0.058	0.415	0.358
8	0	0.0575	0.058	0.415	0.358
9	0	0.0575	0.058	0.415	0.358
10	0	0.0575	0.058	0.415	0.358
				FIRR	22.3%

Aggregate

EIRR of Renewable Energy Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.39568	0.000	1.396	0	-1.396
2	0	0.058	0.058	0.415	0.358
3	0	0.058	0.058	0.415	0.358
4	0	0.058	0.058	0.415	0.358
5	0	0.058	0.058	0.415	0.358
6	0	0.058	0.058	0.415	0.358
7	0	0.058	0.058	0.415	0.358
8	0	0.058	0.058	0.415	0.358
9	0	0.058	0.058	0.415	0.358
10	0	0.058	0.058	0.415	0.358
				EIRR	21.0%

9. Drainage and Sanitation Projects in KP

Drainage & Sanitation Projects in KP

Sher Kot-1 DIKhan

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	80000	45000	35000	35000
Women Health	65000	20500	44500	44500
Others Health	30000	18000	12000	12000
Hygiene/Mosquito Control	50000	35000	15000	60000
travelling	170100	102060	68040	68040
(1/3rd pop 1 visit in 2 months)				219540

FIRR of Drainage & Sanitation Projects in KP
Sher Kot-1 DIKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.825	0.000	0.825	0	-0.825
2		0.025	0.025	0.2195	0.195
3		0.025	0.025	0.2195	0.195
4		0.025	0.025	0.2195	0.195
5		0.025	0.025	0.2195	0.195
6		0.025	0.025	0.2195	0.195
7		0.025	0.025	0.2195	0.195
8		0.025	0.025	0.2195	0.195
9		0.025	0.025	0.2195	0.195
10		0.025	0.025	0.2195	0.195
				FIRR	18.4%

Drainage & Sanitation Projects in KP
Sher Kot-2 DIKhan

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Proj	After Proj		
Children Health	30000	15000	15000	90000
Women Health	20000	12000	8000	48000
Others Health	35000	18000	17000	102000
Hygiene/Mosquito Control	15000	12000	3000	3000
travelling	60000	36000	24000	24000
(1/2 pop 1 visit in 2 months)				267000

FIRR of Drainage & Sanitation Projects in KP

Sher Kot-2 DIKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.781	0.000	0.781	0	-0.781
2		0.023	0.023	0.267	0.244
3		0.023	0.023	0.267	0.244
4		0.023	0.023	0.267	0.244
5		0.023	0.023	0.267	0.244
6		0.023	0.023	0.267	0.244
7		0.023	0.023	0.267	0.244
8		0.023	0.023	0.267	0.244
9		0.023	0.023	0.267	0.244
10		0.023	0.023	0.267	0.244
				FIRR	27.8%

Drainage & Sanitation Projects in KP

Tikri Kuzabanda Battagram

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Proj	After Proj		
Children Health	30000	16000	14000	84000
Women Health	25000	20000	5000	30000
Others Health	25000	8000	17000	102000
Hygiene/Mosquito Control	200	100	100	600
				216600

FIRR of Drainage & Sanitation Projects in KP

Tikri Kuzabanda Battagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.223	0.000	0.223	0	-0.223
2	0.255	0.000	0.255	0	-0.255
3	0	0.030	0.030	0.217	0.187
4		0.030	0.030	0.217	0.187
5		0.030	0.030	0.217	0.187
6		0.030	0.030	0.217	0.187
7		0.030	0.030	0.217	0.187
8		0.030	0.030	0.217	0.187
9		0.030	0.030	0.217	0.187
10		0.030	0.030	0.217	0.187
				FIRR	30.1%

Drainage & Sanitation Projects in KP
Khandar Battagram

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	20000	11000	9000	54000
Women Health	27000	19000	8000	48000
Others Health	25000	8000	17000	17000
Hygiene/Mosquito Control	150	100	50	300
				119300

FIRR of Drainage & Sanitation Projects in KP
Khandar Battagram

Khandar Dam					
Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.1	0.000	0.100	0	-0.100
2	0.29	0.000	0.290	0	-0.290
3	0.043	0.013	0.056	0.119	0.063
4		0.013	0.013	0.119	0.106
5		0.013	0.013	0.119	0.106
6		0.013	0.013	0.119	0.106
7		0.013	0.013	0.119	0.106
8		0.013	0.013	0.119	0.106
9		0.013	0.013	0.119	0.106
10		0.013	0.013	0.119	0.106
				FIRR	17.1%

Aggregate

FIRR of Drainage & Sanitation Projects in KP

FIRR of Drainage & Sanitation Projects in Kt					
Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.929	0	1.929	0	-1.929
2	0.545	0.048	0.593	0.4865	-0.107
3	0.043	0.091	0.134	0.8225	0.689
4		0.091	0.091	0.8225	0.732
5		0.091	0.091	0.8225	0.732
6		0.091	0.091	0.8225	0.732
7		0.091	0.091	0.8225	0.732
8		0.091	0.091	0.8225	0.732
9		0.091	0.091	0.8225	0.732
10		0.091	0.091	0.8225	0.732
				FIRR	23.7%

Aggregate
EIRR of Drainage & Sanitation Projects
in KP

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.85184	0.000	1.852	0	-1.852
2	0.5232	0.048	0.571	0.46704	-0.104
3	0.04128	0.091	0.132	0.7896	0.657
4	0	0.091	0.091	0.7896	0.699
5	0	0.091	0.091	0.7896	0.699
6	0	0.091	0.091	0.7896	0.699
7	0	0.091	0.091	0.7896	0.699
8	0	0.091	0.091	0.7896	0.699
9	0	0.091	0.091	0.7896	0.699
10	0	0.091	0.091	0.7896	0.699
				EIRR	23.5%

10. Drainage and Sanitation Projects in Punjab

Drainage & Sanitation Projects in Punjab
Al-Fajar Mitha Tiwana Khushab

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr
	Before Proj	After Proj		Rs.
Children Health	15000	4000	11000	132000
Women Health	18000	15000	3000	36000
Others Health	3000	2000	1000	12000
Hygiene/Mosquito Control	5000	3000	2000	24000
				204000

FIRR of Drainage & Sanitation Projects in Punjab
Al-Fajar Mitha Tiwana Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.6	0.050	0.650	0	-0.650
2		0.050	0.050	0.204	0.154
3		0.050	0.050	0.204	0.154
4		0.050	0.050	0.204	0.154
5		0.050	0.050	0.204	0.154
6		0.050	0.050	0.204	0.154
7		0.050	0.050	0.204	0.154
8		0.050	0.050	0.204	0.154
9		0.050	0.050	0.204	0.154
10		0.050	0.050	0.204	0.154
				FIRR	18.6%

Drainage & Sanitation Projects in Punjab

Al-Madena Mitha Tiwana Khushab

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	15000	8000	7000	84000
Women Health	10000	6000	4000	48000
Others Health	5000	3000	2000	24000
Hygiene/Mosquito Control	2100	1050	1050	12600
				168600

FIRR of Drainage & Sanitation Projects in Punjab

Al-Madena Mitha Tiwana Khushab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.6	0.045	0.645	0	-0.645
2		0.045	0.045	0.168	0.123
3		0.045	0.045	0.168	0.123
4		0.045	0.045	0.168	0.123
5		0.045	0.045	0.168	0.123
6		0.045	0.045	0.168	0.123
7		0.045	0.045	0.168	0.123
8		0.045	0.045	0.168	0.123
9		0.045	0.045	0.168	0.123
10		0.045	0.045	0.168	0.123
				FIRR	12.4%

Aggregate

FIRR of Drainage & Sanitation Projects in Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.2	0.095	1.295	0	-1.295
2	0	0.095	0.095	0.372	0.277
3		0.095	0.095	0.372	0.277
4		0.095	0.095	0.372	0.277
5		0.095	0.095	0.372	0.277
6		0.095	0.095	0.372	0.277
7		0.095	0.095	0.372	0.277
8		0.095	0.095	0.372	0.277
9		0.095	0.095	0.372	0.277
10		0.095	0.095	0.372	0.277
				FIRR	15.6%

Aggregate

EIRR of Drainage & Sanitation Projects in Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.152	0.095	1.247	0	-1.247
2	0	0.095	0.095	0.35712	0.262
3		0.095	0.095	0.35712	0.262
4		0.095	0.095	0.35712	0.262
5		0.095	0.095	0.35712	0.262
6		0.095	0.095	0.35712	0.262
7		0.095	0.095	0.35712	0.262
8		0.095	0.095	0.35712	0.262
9		0.095	0.095	0.35712	0.262
10		0.095	0.095	0.35712	0.262
				EIRR	15.1%

11. Drainage and Sanitation Projects in Sindh

Drainage & Sanitation Projects in Sindh

Ali Mohallah Kehriyo Ghulamullah Thatta

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr
	Before Prj	After Proj		Rs.
Children Health	300	100	200	45600
Women Health	200	50	150	34200
Others Health	100	50	50	11400
Hygiene/Mosquito Control			0	0
				91200

FIRR of Drainage & Sanitation Projects in Sindh
 Ali Mohallah Kehriyo Ghulamullah Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.25	0.000	0.250	0	-0.250
2		0.030	0.030	0.091	0.061
3		0.030	0.030	0.091	0.061
4		0.030	0.030	0.091	0.061
5		0.030	0.030	0.091	0.061
6		0.030	0.030	0.091	0.061
7		0.030	0.030	0.091	0.061
8		0.030	0.030	0.091	0.061
9		0.030	0.030	0.091	0.061
10		0.030	0.030	0.091	0.061
				FIRR	19.5%

Drainage & Sanitation Projects in Sindh
 Rasheed Ahmad Arian Band Ghotki

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Proj	After Proj		
Children Health	5000	2000	3000	36000
Women Health	1500	1000	500	6000
Others Health	5000	2000	3000	36000
Hygiene/Mosquito Control			0	0
				78000

FIRR of Drainage & Sanitation Projects in Sindh
Rasheed Ahmad Arian Band Ghotki

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.304	0.000	0.304	0	-0.304
2		0.030	0.030	0.078	0.048
3		0.030	0.030	0.078	0.048
4		0.030	0.030	0.078	0.048
5		0.030	0.030	0.078	0.048
6		0.030	0.030	0.078	0.048
7		0.030	0.030	0.078	0.048
8		0.030	0.030	0.078	0.048
9		0.030	0.030	0.078	0.048
10		0.030	0.030	0.078	0.048
				FIRR	7.7%

Aggregate

FIRR of Drainage & Sanitation Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.554	0	0.554	0	-0.554
2	0	0.06	0.060	0.169	0.109
3	0	0.06	0.060	0.169	0.109
4		0.06	0.060	0.169	0.109
5		0.06	0.060	0.169	0.109
6		0.06	0.060	0.169	0.109
7		0.06	0.060	0.169	0.109
8		0.06	0.060	0.169	0.109
9		0.06	0.060	0.169	0.109
10		0.06	0.060	0.169	0.109
				FIRR	13.3%

Aggregate

EIRR of Drainage & Sanitation Projects in Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.53184	0.000	0.532	0	-0.532
2	0	0.060	0.060	0.16224	0.102
3	0	0.060	0.060	0.16224	0.102
4	0	0.060	0.060	0.16224	0.102
5	0	0.060	0.060	0.16224	0.102
6	0	0.060	0.060	0.16224	0.102
7	0	0.060	0.060	0.16224	0.102
8	0	0.060	0.060	0.16224	0.102
9	0	0.060	0.060	0.16224	0.102
10	0	0.060	0.060	0.16224	0.102
				EIRR	12.6%

12. Drainage and Sanitation Projects in Baluchistan

Drainage & Sanitation Projects in Baluchistan

Telli Kurdli Sibi

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Proj	After Proj		
Children Health	3500	1500	2000	24000
Women Health	3000	1000	2000	24000
Others Health	2000	1000	1000	12000
Hygiene/Mosquito Control	3000	1200	1800	10800
Travelling	1500	1000	500	18000
				250800

FIRR of Drainage & Sanitation Projects in Baluchistan

Telli Kurdl Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.733	0.000	0.733	0	-0.733
2		0.025	0.025	0.251	0.226
3		0.025	0.025	0.251	0.226
4		0.025	0.025	0.251	0.226
5		0.025	0.025	0.251	0.226
6		0.025	0.025	0.251	0.226
7		0.025	0.025	0.251	0.226
8		0.025	0.025	0.251	0.226
9		0.025	0.025	0.251	0.226
10		0.025	0.025	0.251	0.226
				FIRR	27.3%

Drainage & Sanitation Projects in Baluchistan

Kurak kurak Sibi

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	4500	1500	3000	36000
Women Health	100000	50000	50000	50000
Others Health	2000	700	1300	15600
Hygine/Mosquito Control	7500	3000	4500	54000
travelling	200	100	100	36000
				191600

FIRR of Drainage & Sanitation Projects in Baluchistan

Kurak kurak Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.87	0.000	0.870	0	-0.870
2		0.030	0.030	0.192	0.162
3		0.030	0.030	0.192	0.162
4		0.030	0.030	0.192	0.162
5		0.030	0.030	0.192	0.162
6		0.030	0.030	0.192	0.162
7		0.030	0.030	0.192	0.162
8		0.030	0.030	0.192	0.162
9		0.030	0.030	0.192	0.162
10		0.030	0.030	0.192	0.162
				FIRR	11.8%

Drainage & Sanitation Projects in Baluchistan

Kurak Telli-1 Sibi

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	1000	200	800	9600
Women Health	1200	350	850	10200
Others Health	7000	200	6800	81600
Hygiene/Mosquito Control	2400	800	1600	19200
travelling	100	60	40	76800
				197400

FIRR of Drainage & Sanitation Projects in Baluchistan
Kurak Telli-1 Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.495	0.000	1.495	0	-1.495
2	0	0.015	0.015	0.197	0.182
3		0.015	0.015	0.197	0.182
4		0.015	0.015	0.197	0.182
5		0.015	0.015	0.197	0.182
6		0.015	0.015	0.197	0.182
7		0.015	0.015	0.197	0.182
8		0.015	0.015	0.197	0.182
9		0.015	0.015	0.197	0.182
10		0.015	0.015	0.197	0.182
				FIRR	1.9%

Drainage & Sanitation Projects in Baluchistan
Kurak Telli-2 Sibi

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	3000	1000	2000	24000
Women Health	2000	700	1300	15600
Others Health	2000	700	1300	15600
Hygiene/Mosquito Control	6000	4000	2000	24000
travelling	1000	500	500	30000
HH travel in 3 months each				379200

FIRR of Drainage & Sanitation Projects in Baluchistan
Kurak Telli-2 Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	1.376	0.000	1.376	0	-1.376
2	0	0.030	0.030	0.379	0.349
3		0.030	0.030	0.379	0.349
4		0.030	0.030	0.379	0.349
5		0.030	0.030	0.379	0.349
6		0.030	0.030	0.379	0.349
7		0.030	0.030	0.379	0.349
8		0.030	0.030	0.379	0.349
9		0.030	0.030	0.379	0.349
10		0.030	0.030	0.379	0.349
				FIRR	20.7%

Drainage & Sanitation Projects in Baluchistan
Kurak Telli-3 Sibi

Item	Expenditure/month Rs.		Saving Rs.	Amount/Yr Rs.
	Before Prj	After Proj		
Children Health	5000	2000	3000	36000
Women Health	6000	3500	2500	30000
Others Health	3000	2000	1000	12000
Hygiene/Mosquito Control	8000	4000	4000	48000
travelling	4000	1000	3000	36000
HH travel in 3 months each				162000

FIRR of Drainage & Sanitation Projects in Baluchistan
Kurak Telli-3 Sibi

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.883	0.000	0.883	0	-0.883
2	0	0.020	0.020	0.162	0.142
3		0.020	0.020	0.162	0.142
4		0.020	0.020	0.162	0.142
5		0.020	0.020	0.162	0.142
6		0.020	0.020	0.162	0.142
7		0.020	0.020	0.162	0.142
8		0.020	0.020	0.162	0.142
9		0.020	0.020	0.162	0.142
10		0.020	0.020	0.162	0.142
				FIRR	8.1%

Aggregate

FIRR of Drainage & Sanitation Projects in Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	5.357	0	5.357	0	-5.357
2		0.12	0.120	1.181	1.061
3		0.12	0.120	1.181	1.061
4		0.12	0.120	1.181	1.061
5		0.12	0.120	1.181	1.061
6		0.12	0.120	1.181	1.061
7		0.12	0.120	1.181	1.061
8		0.12	0.120	1.181	1.061
9		0.12	0.120	1.181	1.061
10		0.12	0.120	1.181	1.061
				FIRR	13.4%

Aggregate

EIRR of Drainage & Sanitation Projects in Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	5.14272	0.000	5.143	0	-5.143
2	0	0.120	0.120	1.13376	1.014
3	0	0.120	0.120	1.13376	1.014
4	0	0.120	0.120	1.13376	1.014
5	0	0.120	0.120	1.13376	1.014
6	0	0.120	0.120	1.13376	1.014
7	0	0.120	0.120	1.13376	1.014
8	0	0.120	0.120	1.13376	1.014
9	0	0.120	0.120	1.13376	1.014
10	0	0.120	0.120	1.13376	1.014
				EIRR	13.3%

13. Drinking Water Supply Scheme KP

Drinking Water Supply Scheme KP

Gara Azak Chaudwan DIKhan

Item	Time Spent monthly			Valu	Amount	Total
		Aft Project	Saving	Rs./hour		Amount/yr
Women	250	50	200	62.5	12500	150000
Men	0	0	0	62.5	0	0
Other	0	0	0	50	0	10000
Health						40000
						200000

FIRR of Drinking Water Supply Scheme KP

Gara Azak Chaudwan DIKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.901	0.000	0.901	0	-0.901
2		0.028	0.028	0.2	0.172
3		0.028	0.028	0.2	0.172
4		0.028	0.028	0.2	0.172
5		0.028	0.028	0.2	0.172
6		0.028	0.028	0.2	0.172
7		0.028	0.028	0.2	0.172
8		0.028	0.028	0.2	0.172
9		0.028	0.028	0.2	0.172
10		0.028	0.028	0.2	0.172
				FIRR	12.4%

Drinking Water Supply Scheme KP

Jandi Baber Musazai Sharif

DIKhan

Item	Time Spent monthly			Value Rs./hour	Amount	Total Amount/yr
		Aft Project	Saving			
Women	180	90	90	62.5	5625	67500
Men	0	0	0	62.5	0	0
Other health	90	22.5	67.5	50	3375	40500
						40000
						148000

FIRR of Drinking Water Supply Scheme KP

Jandi Baber Musazai Sharif DIKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.684	0.000	0.684	0	-0.684
2		0.021	0.021	0.148	0.127
3		0.021	0.021	0.148	0.127
4		0.021	0.021	0.148	0.127
5		0.021	0.021	0.148	0.127
6		0.021	0.021	0.148	0.127
7		0.021	0.021	0.148	0.127
8		0.021	0.021	0.148	0.127
9		0.021	0.021	0.148	0.127
10		0.021	0.021	0.148	0.127
				FIRR	11.7%

Drinking Water Supply Scheme KP
Hill Shamlai
Battagram

Item	Time Spent monthly			Valu Rs./hour	Amount	Total Amount/yr
		Aft Project	Saving			
Women	225	150	75	62.5	4687.5	56250
Men	75	50	25	62.5	1562.5	18750
Other	75	75	0	50	0	0
health						35000
						110000

FIRR of Drinking Water Supply Scheme KP
Hill Shamlai Battagram

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.42	0.000	0.420	0	-0.420
2		0.016	0.016	0.11	0.094
3		0.016	0.016	0.11	0.094
4		0.016	0.016	0.11	0.094
5		0.016	0.016	0.11	0.094
6		0.016	0.016	0.11	0.094
7		0.016	0.016	0.11	0.094
8		0.016	0.016	0.11	0.094
9		0.016	0.016	0.11	0.094
10		0.016	0.016	0.11	0.094
				FIRR	16.9%

Aggregate

FIRR of Drinking Water Supply Scheme KP

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	2.005	0.000	2.005	0	-2.005
2	0	0.065	0.065	0.458	0.393
3	0	0.065	0.065	0.458	0.393
4		0.065	0.065	0.458	0.393
5		0.065	0.065	0.458	0.393
6		0.065	0.065	0.458	0.393
7		0.065	0.065	0.458	0.393
8		0.065	0.065	0.458	0.393
9		0.065	0.065	0.458	0.393
10		0.065	0.065	0.458	0.393
				FIRR	13.2%

Aggregate

EIRR of Drinking Water Supply Scheme KP

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	2.0852	0	2.085	0	-2.085
2	0	0.065	0.065	0.47632	0.411
3	0	0.065	0.065	0.47632	0.411
4	0	0.065	0.065	0.47632	0.411
5	0	0.065	0.065	0.47632	0.411
6	0	0.065	0.065	0.47632	0.411
7	0	0.065	0.065	0.47632	0.411
8	0	0.065	0.065	0.47632	0.411
9	0	0.065	0.065	0.47632	0.411
10	0	0.065	0.065	0.47632	0.411
				EIRR	13.3%

14. Drinking Water Supply Scheme Punjab

Drinking Water Supply Scheme Punjab

Hero Garbi DGKhan

Item	Time Spent monthly			Valu		total
		Aft Project	Saving	Rs./hour	Amount	amount/y r
Women	50	40	10	62.5	625	7500
Men	90	60	30	62.5	1875	22500
Other	60	40	20	50	1000	12000
Saving in Helth exp yearly	50000	35000				15000
						57000

FIRR of Drinking Water Supply Scheme Punjab
Hero Garbi DGKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.13	0.000	0.130	0	-0.130
2		0.025	0.025	0.057	0.032
3		0.025	0.025	0.057	0.032
4		0.025	0.025	0.057	0.032
5		0.025	0.025	0.057	0.032
6		0.025	0.025	0.057	0.032
7		0.025	0.025	0.057	0.032
8		0.025	0.025	0.057	0.032
9		0.025	0.025	0.057	0.032
10		0.025	0.025	0.057	0.032
				FIRR	19.8%

Drinking Water Supply Scheme Punjab
Litra Wakowa DGKhan

Item	Time Spent monthly			Valu		total
		Aft Project	Saving	Rs./hour	Amount	amount/y r
Women	100	50	50	62.5	3125	37500
Men	50	30	20	62.5	1250	15000
Other	0	0	0	50	0	0
Saving in Helth exp yearly	40000	30000				10000
						62500

FIRR of Drinking Water Supply Scheme Punjab
Litra Wakowa DGKhan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.13	0.000	0.130	0	-0.130
2		0.010	0.010	0.063	0.053
3		0.010	0.010	0.063	0.053
4		0.010	0.010	0.063	0.053
5		0.010	0.010	0.063	0.053
6		0.010	0.010	0.063	0.053
7		0.010	0.010	0.063	0.053
8		0.010	0.010	0.063	0.053
9		0.010	0.010	0.063	0.053
10		0.010	0.010	0.063	0.053
				FIRR	38.6%

Drinking Water Supply Scheme Punjab
85 Fayeh Bahawalpur

Item	Time Spent monthly			Valu		total
		Aft Project	Saving	Rs./hour	Amount	amount/y r
Women	100	25	75	62.5	4687.5	56250
Men	50	12.5	37.5	62.5	2343.75	28125
Other	0	0	0	50	0	0
Sav health exp						30000
						114375

FIRR of Drinking Water Supply Scheme Punjab
85 Fayeh Bahawalpur

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.5	0.000	0.500	0	-0.500
2		0.015	0.015	0.115	0.100
3		0.015	0.015	0.115	0.100
4		0.015	0.015	0.115	0.100
5		0.015	0.015	0.115	0.100
6		0.015	0.015	0.115	0.100
7		0.015	0.015	0.115	0.100
8		0.015	0.015	0.115	0.100
9		0.015	0.015	0.115	0.100
10		0.015	0.015	0.115	0.100
				FIRR	13.7%

Aggregate

FIRR of Drinking Water Supply Scheme Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.76	0	0.760	0	-0.760
2	0	0.05	0.050	0.235	0.185
3	0	0.05	0.050	0.235	0.185
4	0	0.05	0.050	0.235	0.185
5		0.05	0.050	0.235	0.185
6		0.05	0.050	0.235	0.185
7		0.05	0.050	0.235	0.185
8		0.05	0.050	0.235	0.185
9		0.05	0.050	0.235	0.185
10		0.05	0.050	0.235	0.185
				FIRR	19.4%

Aggregate

EIRR of Drinking Water Supply Scheme Punjab

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.7904	0	0.790	0	-0.790
2	0	0.05	0.050	0.2444	0.194
3	0	0.05	0.050	0.2444	0.194
4	0	0.05	0.050	0.2444	0.194
5		0.05	0.050	0.2444	0.194
6		0.05	0.050	0.2444	0.194
7		0.05	0.050	0.2444	0.194
8		0.05	0.050	0.2444	0.194
9		0.05	0.050	0.2444	0.194
10		0.05	0.050	0.2444	0.194
				EIRR	19.7%

15. Drinking Water Supply Scheme Sindh

Drinking Water Supply Scheme Sindh

Bapoohar Bakhu Therparkar

Item	Time Spent monthly			Valu		total
		Aft Project	Saving	Rs./hour	Amount	amount/yr
Women	120	60	60	62.5	3750	45000
Men	0	0	0	62.5	0	0
Other	100	45	55	50	2750	33000
sav helth exp						30000
						108000

FIRR of Drinking Water Supply Scheme Sindh
Bapoohar Bakhu Therparkar

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.277	0.000	0.277	0	-0.277
2		0.040	0.040	0.108	0.068
3	0	0.040	0.040	0.108	0.068
4		0.040	0.040	0.108	0.068
5		0.040	0.040	0.108	0.068
6		0.040	0.040	0.108	0.068
7		0.040	0.040	0.108	0.068
8		0.040	0.040	0.108	0.068
9		0.040	0.040	0.108	0.068
10		0.040	0.040	0.108	0.068
				FIRR	19.7%

Drinking Water Supply Scheme Sindh
Chorail Manjthi
Tharparkar

Item	Time Spent monthly			Value Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	140	70	70	62.5	4375	52500
Men	0	0	0	62.5	0	0
Other	0	0	0	50	0	0
health						30000
						82500

FIRR of Drinking Water Supply Scheme Sindh
Chorail Manjthi Tharparkar

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.244	0.000	0.244	0	-0.244
2		0.020	0.020	0.083	0.063
3	0	0.020	0.020	0.083	0.063
4		0.020	0.020	0.083	0.063
5		0.020	0.020	0.083	0.063
6		0.020	0.020	0.083	0.063
7		0.020	0.020	0.083	0.063
8		0.020	0.020	0.083	0.063
9		0.020	0.020	0.083	0.063
10		0.020	0.020	0.083	0.063
				FIRR	21.3%

Drinking Water Supply Scheme Sindh

Jumo Sathiyo Dabegi Thatta

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	120	50	70	62.5	4375	52500
Men	0	0	0	62.5	0	0
Other	0	0	0	50	0	0
health						10000
						62500

FIRR of Drinking Water Supply Scheme Sindh

Jumo Sathiyo Dabegi Thatta

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.088	0.000	0.088	0	-0.088
2		0.040	0.040	0.062	0.022
3	0	0.040	0.040	0.062	0.022
4		0.040	0.040	0.062	0.022
5		0.040	0.040	0.062	0.022
6		0.040	0.040	0.062	0.022
7		0.040	0.040	0.062	0.022
8		0.040	0.040	0.062	0.022
9		0.040	0.040	0.062	0.022
10		0.040	0.040	0.062	0.022
				FIRR	20.2%

Aggregate

FIRR of Drinking Water Supply Scheme Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.609	0	0.609	0	-0.609
2	0	0.1	0.100	0.253	0.153
3	0	0.1	0.100	0.253	0.153
4	0	0.1	0.100	0.253	0.153
5		0.1	0.100	0.253	0.153
6		0.1	0.100	0.253	0.153
7		0.1	0.100	0.253	0.153
8		0.1	0.100	0.253	0.153
9		0.1	0.100	0.253	0.153
10		0.1	0.100	0.253	0.153
				FIRR	20.4%

Aggregate

EIRR of Drinking Water Supply Scheme Sindh

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.63336	0	0.633	0	-0.633
2	0	0.1	0.100	0.26312	0.163
3	0	0.1	0.100	0.26312	0.163
4	0	0.1	0.100	0.26312	0.163
5	0	0.1	0.100	0.26312	0.163
6	0	0.1	0.100	0.26312	0.163
7	0	0.1	0.100	0.26312	0.163
8	0	0.1	0.100	0.26312	0.163
9	0	0.1	0.100	0.26312	0.163
10	0	0.1	0.100	0.26312	0.163
				EIRR	21.2%

16. Drinking Water Supply Scheme Baluchistan

Drinking Water Supply Scheme Baluchistan

Kili Chamazo Toorkhan Laralai

Item	Time Spent monthly			Value Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	200	50	150	62.5	9375	112500
Men	0	0	0	62.5	0	0
Other	150	50	100	50	5000	60000
health						40000
						212500

FIRR of Drinking Water Supply Scheme Baluchistan

Kili Chamazo Toorkhan Laralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.895	0.000	0.895	0	-0.895
2		0.025	0.025	0.212	0.187
3	0	0.025	0.025	0.212	0.187
4		0.025	0.025	0.212	0.187
5		0.025	0.025	0.212	0.187
6		0.025	0.025	0.212	0.187
7		0.025	0.025	0.212	0.187
8		0.025	0.025	0.212	0.187
9		0.025	0.025	0.212	0.187
10		0.025	0.025	0.212	0.187
				FIRR	14.9%

Drinking Water Supply Scheme Baluchistan

Chamazai Toorkhan

Laralai

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	120	40	80	62.5	5000	60000
	0	0	0	62.5	0	0
Other	90	30	60	50	3000	36000
health						50000
						146000

FIRR of Drinking Water Supply Scheme Baluchistan

Chamazai Toorkhan Laralai

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.8	0.000	0.800	0	-0.800
2		0.021	0.021	0.146	0.125
3	0	0.021	0.021	0.146	0.125
4		0.021	0.021	0.146	0.125
5		0.021	0.021	0.146	0.125
6		0.021	0.021	0.146	0.125
7		0.021	0.021	0.146	0.125
8		0.021	0.021	0.146	0.125
9		0.021	0.021	0.146	0.125
10		0.021	0.021	0.146	0.125
				FIRR	7.4%

Drinking Water Supply Scheme Baluchistan

Kingri Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	180	90	90	62.5	5625	67500
Men	0	0	0	62.5	0	0
Other	180	90	90	50	4500	54000
health						70000
						191500

FIRR of Drinking Water Supply Scheme Baluchistan
Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.88	0.000	0.880	0	-0.880
2		0.022	0.022	0.192	0.170
3	0	0.022	0.022	0.192	0.170
4		0.022	0.022	0.192	0.170
5		0.022	0.022	0.192	0.170
6		0.022	0.022	0.192	0.170
7		0.022	0.022	0.192	0.170
8		0.022	0.022	0.192	0.170
9		0.022	0.022	0.192	0.170
10		0.022	0.022	0.192	0.170
				FIRR	12.8%

Drinking Water Supply Scheme Baluchistan

Rarasham
KingriMusakhel

Item	Time Spent monthly			Value Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	180	60	120	62.5	7500	90000
Men	0	0	0	62.5	0	0
Other	120	60	60	50	3000	36000
health						90000
						216000

FIRR of Drinking Water Supply Scheme Baluchistan
Rarasham KingriMusakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.895	0.000	0.895	0	-0.895
2		0.025	0.025	0.216	0.191
3	0	0.025	0.025	0.216	0.191
4		0.025	0.025	0.216	0.191
5		0.025	0.025	0.216	0.191
6		0.025	0.025	0.216	0.191
7		0.025	0.025	0.216	0.191
8		0.025	0.025	0.216	0.191
9		0.025	0.025	0.216	0.191
10		0.025	0.025	0.216	0.191
				FIRR	15.5%

Drinking Water Supply Scheme Baluchistan

Kingri Kingri

Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	150	30	120	62.5	7500	90000
Men	0	0	0	62.5	0	0
Other	100	25	75	50	3750	45000
health						50000
						185000

FIRR of Drinking Water Supply Scheme Baluchistan

Kingri Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.83	0.000	0.830	0	-0.830
2		0.025	0.025	0.185	0.160
3	0	0.025	0.025	0.185	0.160
4		0.025	0.025	0.185	0.160
5		0.025	0.025	0.185	0.160
6		0.025	0.025	0.185	0.160
7		0.025	0.025	0.185	0.160
8		0.025	0.025	0.185	0.160
9		0.025	0.025	0.185	0.160
10		0.025	0.025	0.185	0.160
				FIRR	12.7%

Drinking Water Supply Scheme Baluchistan

Kingri Kingri

Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	180	50	130	62.5	8125	97500
Men	0	0	0	62.5	0	0
Other	120	40	80	50	4000	48000
health						50000
						195500

FIRR of Drinking Water Supply Scheme Baluchistan

Kingri Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.825	0.000	0.825	0	-0.825
2		0.023	0.023	0.196	0.173
3	0	0.023	0.023	0.196	0.173
4		0.023	0.023	0.196	0.173
5		0.023	0.023	0.196	0.173
6		0.023	0.023	0.196	0.173
7		0.023	0.023	0.196	0.173
8		0.023	0.023	0.196	0.173
9		0.023	0.023	0.196	0.173
10		0.023	0.023	0.196	0.173
				FIRR	15.0%

Drinking Water Supply Scheme Baluchistan

Kingri Kingri

Musakhel

Item	Time Spent monthly			Value Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	150	50	100	62.5	6250	75000
Men	50	0	50	62.5	3125	37500
Other	120	40	80	50	4000	48000
health						50000
						210500

FIRR of Drinking Water Supply Scheme Baluchistan

Kingri Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.81	0.000	0.810	0	-0.810
2		0.020	0.020	0.211	0.191
3	0	0.020	0.020	0.211	0.191
4		0.020	0.020	0.211	0.191
5		0.020	0.020	0.211	0.191
6		0.020	0.020	0.211	0.191
7		0.020	0.020	0.211	0.191
8		0.020	0.020	0.211	0.191
9		0.020	0.020	0.211	0.191
10		0.020	0.020	0.211	0.191
				FIRR	18.4%

Drinking Water Supply Scheme Baluchistan

Kingri Kingri

Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	140	35	105	62.5	6562.5	78750
Men	0	0	0	62.5	0	0
children	90	35	55	50	2750	33000
health						70000
						181750

FIRR of Drinking Water Supply Scheme Baluchistan

Kingri Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.785	0.000	0.785	0	-0.785
2		0.020	0.020	0.182	0.162
3	0	0.020	0.020	0.182	0.162
4		0.020	0.020	0.182	0.162
5		0.020	0.020	0.182	0.162
6		0.020	0.020	0.182	0.162
7		0.020	0.020	0.182	0.162
8		0.020	0.020	0.182	0.162
9		0.020	0.020	0.182	0.162
10		0.020	0.020	0.182	0.162
				FIRR	14.6%

Drinking Water Supply Scheme Baluchistan

Razasham Kingri

Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	200	75	125	62.5	7812.5	93750
Men	0	0	0	62.5	0	0
children	100	50	50	50	2500	30000
health						70000
						193750

FIRR of Drinking Water Supply Scheme Baluchistan
Razasham Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.8	0.000	0.800	0	-0.800
2		0.020	0.020	0.194	0.174
3	0	0.020	0.020	0.194	0.174
4		0.020	0.020	0.194	0.174
5		0.020	0.020	0.194	0.174
6		0.020	0.020	0.194	0.174
7		0.020	0.020	0.194	0.174
8		0.020	0.020	0.194	0.174
9		0.020	0.020	0.194	0.174
10		0.020	0.020	0.194	0.174
				FIRR	16.1%

Drinking Water Supply Scheme Baluchistan
Razasham Kingri
Musakhel

Item	Time Spent monthly			Value Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	180	75	105	62.5	6562.5	78750
Men	0	0	0	62.5	0	0
children	135	90	45	50	2250	27000
health						90000
						195750

FIRR of Drinking Water Supply Scheme Baluchistan
Razasham Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.83	0.000	0.830	0	-0.830
2		0.022	0.022	0.196	0.174
3	0	0.022	0.022	0.196	0.174
4		0.022	0.022	0.196	0.174
5		0.022	0.022	0.196	0.174
6		0.022	0.022	0.196	0.174
7		0.022	0.022	0.196	0.174
8		0.022	0.022	0.196	0.174
9		0.022	0.022	0.196	0.174
10		0.022	0.022	0.196	0.174
				FIRR	15.0%

Drinking Water Supply Scheme Baluchistan

Razasham Kingri

Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	150	45	105	62.5	6562.5	78750
Men	0	0	0	62.5	0	0
children	120	30	90	50	4500	54000
health						75000
						207750

FIRR of Drinking Water Supply Scheme Baluchistan

Razasham Kingri Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Developme nt	O&M	Total		
1	0.895	0.000	0.895	0	-0.895
2		0.025	0.025	0.208	0.183
3	0	0.025	0.025	0.208	0.183
4		0.025	0.025	0.208	0.183
5		0.025	0.025	0.208	0.183
6		0.025	0.025	0.208	0.183
7		0.025	0.025	0.208	0.183
8		0.025	0.025	0.208	0.183
9		0.025	0.025	0.208	0.183
10		0.025	0.025	0.208	0.183
				FIRR	14.3%

Drinking Water Supply Scheme Baluchistan

Razasham Shutuar Musakhel

Item	Time Spent monthly			Valu Rs./hour	Amount	total amount/yr
		Aft Project	Saving			
Women	240	120	120	62.5	7500	90000
Men	0	0	0	62.5	0	0
children	160	80	80	50	4000	48000
health						80000
						218000

FIRR of Drinking Water Supply Scheme Baluchistan
Razasham Shutuar Musakhel

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	0.815	0.000	0.815	0	-0.815
2		0.020	0.020	0.218	0.198
3	0	0.020	0.020	0.218	0.198
4		0.020	0.020	0.218	0.198
5		0.020	0.020	0.218	0.198
6		0.020	0.020	0.218	0.198
7		0.020	0.020	0.218	0.198
8		0.020	0.020	0.218	0.198
9		0.020	0.020	0.218	0.198
10		0.020	0.020	0.218	0.198
				FIRR	19.4%

Aggregate
FIRR of Drinking Water Supply Scheme Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	10.06	0	10.060	0	-10.060
2	0	0.268	0.268	2.356	2.088
3	0	0.268	0.268	2.356	2.088
4		0.268	0.268	2.356	2.088
5		0.268	0.268	2.356	2.088
6		0.268	0.268	2.356	2.088
7		0.268	0.268	2.356	2.088
8		0.268	0.268	2.356	2.088
9		0.268	0.268	2.356	2.088
10		0.268	0.268	2.356	2.088
				FIRR	14.7%

Aggregate

EIRR of Drinking Water Supply Scheme Baluchistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	10.4624	0	10.462	0	-10.462
2	0	0.268	0.268	2.45024	2.182
3	0	0.268	0.268	2.45024	2.182
4	0	0.268	0.268	2.45024	2.182
5	0	0.268	0.268	2.45024	2.182
6	0	0.268	0.268	2.45024	2.182
7	0	0.268	0.268	2.45024	2.182
8	0	0.268	0.268	2.45024	2.182
9	0	0.268	0.268	2.45024	2.182
10	0	0.268	0.268	2.45024	2.182
				EIRR	14.9%

17. Average of All Projects

Aggregate

FIRR of Irrigation Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	21.493	0	21.493	0	-21.493
2	0	0.956	0.956	12.0014	11.0454
3	0	0.956	0.956	12.3514	11.3954
4	0	0.956	0.956	12.3514	11.3954
5	0	0.956	0.956	12.3514	11.3954
6	0	0.956	0.956	12.3514	11.3954
7	0	0.956	0.956	12.3514	11.3954
8	0	0.956	0.956	12.3514	11.3954
9	0	0.956	0.956	12.3514	11.3954
10	0	0.956	0.956	12.3514	11.3954

Aggregate

EIRR of Irrigation Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	20.63328	0	20.6333	0	-20.6333
2	0	0.9416	0.9416	12.7215	11.7799
3	0	0.9416	0.9416	13.0925	12.1509
4		0.9416	0.9416	13.0925	12.1509
5		0.9416	0.9416	13.0925	12.1509
6		0.9416	0.9416	13.0925	12.1509
7		0.9416	0.9416	13.0925	12.1509
8		0.9416	0.9416	13.0925	12.1509
9		0.9416	0.9416	13.0925	12.1509
10		0.9416	0.9416	13.0925	12.1509

Aggregate

FIRR Roads & Bridges Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	9.158	0	9.158	0	-9.158
2	0.347	0.636	0.983	4.226	3.243
3	0	0.641	0.641	4.226	3.585
4		0.641	0.641	4.226	3.585
5		0.641	0.641	4.226	3.585
6		0.641	0.641	4.226	3.585
7		0.641	0.641	4.226	3.585
8		0.641	0.641	4.226	3.585
9		0.641	0.641	4.226	3.585
10		0.641	0.641	4.226	3.585

Aggregate

EIRR Roads & Bridges Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	9.34116	0	9.34116	0	-9.34116
2	0.35394	0.636	0.98994	4.39504	3.4051
3	0	0.641	0.641	4.39504	3.75404
4		0.641	0.641	4.39504	3.75404
5		0.641	0.641	4.39504	3.75404
6		0.641	0.641	4.39504	3.75404
7		0.641	0.641	4.39504	3.75404
8		0.641	0.641	4.39504	3.75404
9		0.641	0.641	4.39504	3.75404
10		0.641	0.641	4.39504	3.75404

Aggregate

FIRR of Drainage & Sanitation Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	9.04	0.095	9.135	0	-9.135
2	0.545	0.323	0.868	2.2085	1.3405
3	0.043	0.366	0.409	2.5445	2.1355
4		0.366	0.366	2.5445	2.1785
5		0.366	0.366	2.5445	2.1785
6		0.366	0.366	2.5445	2.1785
7		0.366	0.366	2.5445	2.1785
8		0.366	0.366	2.5445	2.1785
9		0.366	0.366	2.5445	2.1785
10		0.366	0.366	2.5445	2.1785

Aggregate

EIRR of Drainage & Sanitation Projects in Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	8.6784	0.095	8.7734	0	-8.7734
2	0.5232	0.323	0.8462	2.12016	1.27396
3	0.04128	0.366	0.40728	2.44272	2.03544
4	0	0.366	0.366	2.44272	2.07672
5	0	0.366	0.366	2.44272	2.07672
6	0	0.366	0.366	2.44272	2.07672
7	0	0.366	0.366	2.44272	2.07672
8	0	0.366	0.366	2.44272	2.07672
9	0	0.366	0.366	2.44272	2.07672
10	0	0.366	0.366	2.44272	2.07672

Aggregate

FIRR of Drinking Water Supply Scheme Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	13.434	0	13.434	0	-13.434
2	0	0.483	0.483	3.302	2.819
3	0	0.483	0.483	3.302	2.819
4		0.483	0.483	3.302	2.819
5		0.483	0.483	3.302	2.819
6		0.483	0.483	3.302	2.819
7		0.483	0.483	3.302	2.819
8		0.483	0.483	3.302	2.819
9		0.483	0.483	3.302	2.819
10		0.483	0.483	3.302	2.819

Aggregate

EIRR of Drinking Water Supply Scheme Pakistan

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	13.97136	0	13.9714	0	-13.9714
2	0	0.483	0.483	3.43408	2.95108
3	0	0.483	0.483	3.43408	2.95108
4	0	0.483	0.483	3.43408	2.95108
5	0	0.483	0.483	3.43408	2.95108
6	0	0.483	0.483	3.43408	2.95108
7	0	0.483	0.483	3.43408	2.95108
8	0	0.483	0.483	3.43408	2.95108
9	0	0.483	0.483	3.43408	2.95108
10	0	0.483	0.483	3.43408	2.95108

Aggregate

FIRR of all Schemes

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	54.467	0.095	54.562	0.000	-54.562
2	0.892	2.456	3.348	22.153	18.805
3	0.043	2.504	2.547	22.839	20.292
4	0.000	2.504	2.504	22.839	20.335
5	0.000	2.504	2.504	22.839	20.335
6	0.000	2.504	2.504	22.839	20.335
7	0.000	2.504	2.504	22.839	20.335
8	0.000	2.504	2.504	22.839	20.335
9	0.000	2.504	2.504	22.839	20.335
10	0.000	2.504	2.504	22.839	20.335
FIRR					33.8%

Aggregate
EIRR of all Schemes

Year	Incremental Cost (Rs. Million)			Incremental Benefits (Rs. Million)	Cash Flow
	Development	O&M	Total		
1	54.020	0.095	54.115	0.000	-54.115
2	0.877	2.441	3.318	23.086	19.768
3	0.041	2.489	2.530	23.779	21.249
4	0.000	2.489	2.489	23.779	21.290
5	0.000	2.489	2.489	23.779	21.290
6	0.000	2.489	2.489	23.779	21.290
7	0.000	2.489	2.489	23.779	21.290
8	0.000	2.489	2.489	23.779	21.290
9	0.000	2.489	2.489	23.779	21.290
10	0.000	2.489	2.489	23.779	21.290
				EIRR	36.1%

Treatment Group

Irrigation Scheme

S. No. _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component PPAF 2015 Household Survey

Date of Interview (dd/mm/yy) ____/____/____

- 1 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code _____
- 2 Sample Information Code _____
- 2.1 Name Community Organization: گاؤں کی تنظیم کا نام _____
- 2.2 Village: گاؤں _____
- 2.3 UC: یونین کونسل _____
- 2.4 Tehsil: تحصیل _____
- 2.5 District: ضلع _____ Code _____
- 2.6 Province: صوبہ _____ Code _____

Name and signature of supervisor سپروائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

3 Respondent Information انٹرویو دینے والی کی معلومات

3.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

3.2 Gender (Circle) جنس _____

1. Male	2. Female
---------	-----------

3.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ _____

3.4 Respondent Age (Years): (سالوں میں) عمر کا جوابدہ _____

3.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ _____

Code Column-5: 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild;
8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt;
12=Grandfather/grandmother; 13=Nephew/niece; 14=other

3.6 Respondent Education: (completed level): حاصل کردہ تعلیم _____

3.7 If respondent not Head of HH then education level of head of HH. _____

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے ؟

Codes: کوڈز 1. Illiterate ان پڑھ 2. Under Primary پرائمری سے نیچے 3. Primary پرائمری تک 4. Middle مڈل 5. Matric میٹرک 6. FA/FSc ایف ایس سی 7. BA/BSc or above بی اے یا اس سے آگے 8. Madrassa مدرسہ 9. Technical ٹیکنیکل

4 How many People in the household live together (don't include guests)

آپکے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			
Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

5 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

6 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور، باورچی خانہ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

7 **Assets owned by household** . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
7.1 Tractor/ Car ٹریکٹر / کار		
7.2 Thrasher/ Trolley (تھریشر، ٹرالی)		
7.3 Motorcycle/scooter موٹر سائیکل/سکوٹر		
7.4 TV ٹی وی		
7.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
7.6 Air conditioner/air cooler/geyser/heater اینر کنڈیشنر، اینر کولر، گیزر، ہیٹر		
7.7 Refrigerator, freezer or washing machine Refrigerator فریجر یا واشنگ مشین		
7.8 At least one cow/goat/sheep کم از کم ایک گائے/بکری/بھیڑ		
7.9 At least one buffalo/ bullock کم از کم ایک بھینس/بھینسا		

8 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں؟

s.#	Activities	Before the Scheme (Hours) اسکیم سے پہلے (گھنٹوں میں)	Now (Hours) آجکل (گھنٹوں میں)
1	Cleaning house گھر کی صفائی/ستھرائی		
2	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر		
3	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)		
4	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)		
5	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/بمسابیوں کے ملنے ملانے پر)		
6	Water fetching پانی بھرنے میں		
7	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)		
8	Job/earning activities ملازمت/کمائی کی سرگرمیاں		

9 How much did your family consume the following food items in the last seven days?

آپ کے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس /خوراک کو کتنا استعمال کیا؟

Item	Quantity	Item	Quantity
1) Wheat (Kg) گندم		2) Rice (Kg) چاول	
3) Pulses (Kg) دالیں		4) Eggs (number) انڈے	
5) Milk (liters) دودھ		6) Sugar (Kg) چینی	

10 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے ؟

	Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household	
Decision Making	Before Scheme	After Scheme
10.1 Children Education بچوں کی تعلیم		
10.2 Employment روزگار		
10.3 Daily Food روزانہ کھانا / پکانا		
10.4 Marriage of Children بچوں کی شادی		
10.5 Social Events سماجی تقریبات		
10.6 Family Size بچوں کی تعداد		
10.7 Other (Specify دیگر -----)		

11 Does the Women Member of HH have Control over HH Resources? کیا گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	11.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	11.2 Income آمدنی	1	2
c.	11.3 Assets اثاثات	1	2
d.	11.4 Budget بجٹ	1	2

12 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	12.1 Access to employment روزگار تک رسائی	1	2
b.	12.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	12.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	12.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

13 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	13.1 Rights حقوق	1	2
b.	13.2 Nikah Nama نکاح نامہ	1	2
c.	13.3 Law of inheritance وارثت کافانون	1	2

IRRIGATION SCHEME BENEFICIARIES

14 Does your household work on any cultivable agricultural land?

کیا آپکا گھرانہ کسی قابل کاشت رقبے پر کوئی فصل کاشت کرتا ہے؟

Yes ہاں	1
No نہیں	2

14.1 If yes, land cultivated by tanurial status اگر ہاں تو اس رقبے میں سے کتنی زمین آپکی اپنی ملکیت ہے ، کتنی پٹے پر لی ہوئی ہے، کتنی کرائے پر ہے؟

Status	Acre (ایکڑ)
14.2 Owners مالکانہ	
14.3 Leased based لیز کی بنیاد پر	
14.4 Tenants کرائے پر	
14.5 Others (specify) دیگر (وضاحت کریں)	

15 Irrigation of land by type of irrigation? سکیم سے پہلے اور اس وقت آپکا آبپاشی کا ذریعہ کیا ہے

Status	Before پہلے	After بعد میں
	Acre (ایکڑ)	Acre (ایکڑ)
1) Water channel واٹر چینل		
2) Tube well ٹیوب ویل		
3) Dug well کنواں		
4) Solar pump (سولر پمپ)		
5) Rain fed بارش کا پانی		
6) Other (specify) دیگر (وضاحت کریں)		

Relevancy

16 Do you think the irrigation project was on your priority list of required development projects in the village?

آپکے خیال میں کیا آبپاشی کا یہ منصوبہ گاؤں میں درکار ترقی کے منصوبوں میں آپ کی ترجیحات کی فہرست میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

17 Were you/any other member of your household consulted before initiation of the scheme (planning stage) or during implementation of the scheme ?

کیا آپ یا آپکے گھرانے کے کسی فرد سے اس اسکیم کی ابتدائی مراحل (منصوبہ بندی یا اس اسکیم کے عمل درآمد (تعمیر) کے دوران کوئی مشورہ کیا گیا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

Effectiveness

18 Availability of water for crops. سکیم سے پہلے اور بعد میں فصلوں کے لئے دستیاب پانی آپکی ضرورت کو کتنا پورا کرتا تھا؟

Percentage of need met	Before	After
76% - 100%	1	1
51% - 75%	2	2
26% - 50%	3	3
Less than 25%	4	4

19 What was/is the mode of water transportation? سکیم سے پہلے اور بعد میں پانی درج ذیل کس ذریعے سے کھیتوں تک پہنچایا جاتا تھا / ہے؟

	Before	After
Unlined watercourse کچا کھالا	1	1
Lined water course پکا کھالا	2	2
Pipes پائپ	3	3
Other دیگر وضاحت کریں	4	4

- 20 How much has your current land benefited from the irrigation scheme? آبپاشی کی اسکیم سے آپ کی موجودہ کتنی زمین کو فائدہ ہوا؟

Acre (ایکڑ)

- 21 Is there any land uncultivable converted to cultivable land due to the irrigation scheme?

کیا اس اسکیم کی وجہ سے کوئی ناقابل کاشت زمین قابل کاشت زمین میں تبدیل ہوئی؟

Yes ہاں	1
No نہیں	2

- 21.1 If yes, how much? اگر ہاں تو کتنی؟

Acre (ایکڑ)

- 22 Do you receive the irrigation water as per your water turn? کیا آپ کو آبپاشی کا پانی آپکی باری کے مطابق ملتا ہے؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

Efficiency

- 23 Is there any change in the cropping pattern due to the irrigation scheme?

کیا آبپاشی کی اسکیم کی وجہ سے آپ جو فصلیں پہلے اگاتے تھے انکو چھوڑ کر نئی فصلیں اگانا شروع کیں؟

Yes ہاں	1
No نہیں	2

- 23.1 If yes, اگر ہاں

Earlier crops (Original crops) پہلے فصل		Current crops (Replaced crop) (موجودہ فصل)	
Crop	Crop code	Crop	Crop code
1)			
2)			
3)			
4)			

Codes: 1. Wheat گندم 2. Maize مکئی 3. Cotton روئی 4. Rice چاول 5. Sugarcane گنا 6. Tobacco تمباکو
7. Pulses دالیں 8. Vegetables سبزییاں 9. Orchards باغات 10. Fodder چارہ 11. Grazing چرنے کے
fodder لیے چارہ 12. Forest Plants درخت 13. Other (specify) دیگر وضاحت کریں

24 Please tell me the current average yield, input cost and sale price of your crops before and after the current irrigation Scheme ?

برائے مہربانی مجھے اپنی فصلوں کے متعلق سکیم سے پہلے اور سکیم کے بعد درج ذیل معلومات دیں .

Crop	a. Area (acre) رقبہ کاشت (ایکڑ)		b. Production (Kg/acre) فی ایکڑ پیداوار (کلو گرام)		c. Farm Gate Price (Rs./Kg) کھیت پر پیداوار کی قیمت (فی کلو)		d. Production Cost (Rs./acre) فی ایکڑ پیداواری اخراجات		e. Land Rent (Rs./acre) فی ایکڑ زمین کا کرایا		f. Sale Price if marketed (Rs./Kg) فی کلو قیمت فروخت		g. Marketing Cost (Rs./Kg) فی کلو مارکیٹنگ اخراجات		h. By Product (Rs./acre) ضمنی پیداوار کی فی ایکڑ آمدن	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
24.1 Wheat گندم																
24.2 Maize مکئی																
24.3 Cotton روئی																
24.4 Rice چاول																
24.5 Sugarcane گنا																
24.6 Tobacco تمباکو																
24.7 Pulses دالیں																
24.8 Vegetables سبزییاں																
24.9 Orchards باغات																
24.10 Fodder چارہ																
24.11 Grazing چراگاہ																
24.12 Forest Plants جنگلی درخت (وضاحت کریں) --																

Impact

25 Did you experience any increase in the household income due to the scheme?

آپ کے خیال میں کیا اس اسکیم کی وجہ سے آپ کے گھرانے کی آمدنی میں اضافہ ہوا؟

Yes ہاں	1
No نہیں	2
Don't know معلوم نہیں	3

25.1 If yes, how much income has increased? اگر ہاں، تو آمدنی میں کتنا فیصد اضافہ ہوا؟

_____%

26 If yes, did it positively affect the following اگر ہاں تو کیا اس نے مندرجہ ذیل پر مثبت اثر ڈالا؟

	Yes ہاں	To some extent کچھ حد تک	No نہیں	Don't know معلوم نہیں
26.1 Children education بچوں کی تعلیم پر	1	2	3	4
26.2 Food quality and quantity consumed خوراک کی مقدار یا معیار پر	1	2	3	4
26.3 health status of the family members گھرانے کے افراد کی صحت پر	1	2	3	4
26.4 family social interaction گھرانے کا لوگوں کے ساتھ باہمی تعلقات (اپس میں میل جول)	1	2	3	4

Sustainability

27 Did you/your household make any contribution in cash in the construction of the irrigation scheme?

کیا آپ یا آپ کے گھرانے سے کسی نے آبپاشی کی اسکیم کی تعمیر میں مالی معاونت کی؟

Yes ہاں	1
No نہیں	2

27.1 If yes, how much did you contribute? اگر ہاں تو اسکیم کی تعمیر کے لئے کتنی رقم آپ نے دی؟ Rs.

28 Did you/your household make any contribution in kind in the construction of the irrigation scheme?

کیا آپ یا آپ کے گھرانے نے آبپاشی کی اسکیم کی تعمیر میں کسی اور صورت (جگہ، وقت، مزدوری) میں معاونت کی؟

Yes ہاں	1
No نہیں	2

29 What is the responsibility of your HH in the maintenance/operation of the irrigation facility?

آبپاشی کی اس اسکیم کو چلانے اور دیکھ بھال کے حوالے سے آپ کے گھرانے کی کوئی ذمہ داری ہے؟

None کوئی نہیں	1
Cleaning of channels چینلز کی صفائی	2
Operation of facility سہولت کو فعال رکھنا	3
Other (specify) دیگر (وضاحت کریں)	4

30 Do you pay water charges (Abyana) کیا آپ آبپانہ ادا کرتے ہیں؟

Yes ہاں	1
No نہیں	2

30.1 If yes , Rs. per acre/year in Rs. فی ایکڑ سالانہ رقم | | | | |

31 Any other charges are paid for the facility? اس سکیم سے حاصل کردہ پانی کے لئے آپ رقم ادا کرتے ہیں ؟

Yes ہاں	1
No نہیں	2

31.1 If yes , Rs. per acre/year in Rs. فی ایکڑ سالانہ رقم | | | | |

32 Do you pay any amount for operation and maintenance of the scheme?

کیا آپ اس اسکیم کی دیکھ بھال اور مرمت کی صورت میں کوئی رقم ادا کرتے ہیں ؟؟

Yes ہاں	1
No نہیں	2

32.1 If yes, a) For operations per year چلانے کے لیے سالانہ رقم Rs. | | | | |

b) For maintenance per year دیکھ بھال کے لیے سالانہ رقم Rs. | | | | |

33 Have you been introduced to any agriculture service delivery department scheme or programme during and after the scheme implementation? اسکیم کے بنانے کے دوران یا مکمل ہونے کے بعد آپ کو کسی زرعی خدمات فراہم کرنے والے ادارے یا پروگرام سے متعارف کروایا گیا؟

Yes ہاں	1
No نہیں	2
Don't know معلوم نہیں	3

33.1 If yes what type of benefits are you deriving?(Multiple) اگر ہاں تو آپ کس قسم کے فوائد حاصل کر رہے ہیں؟ (ایک سے زائد جواب ممکن)

1) New variety نئی قسم	2) New techniques نئی تکنیک
3) Market information مارکیٹ کی معلومات	4) Projects پراجیکٹ
5) Training تربیت	6) Any other (specify) دیگر وضاحت کریں

Beneficiary satisfaction

34 To what extent do you agree or disagree with the following statements.

آپ مندرجہ ذیل میں دیے ہوئے بیانات سے کس حد تک مطمئن یا غیر مطمئن ہیں
Scale 1. Agree متفق 2. Indifferent کوئی فرق نہیں دیکھتا 3. Disagree 4. Don't know معلوم نہیں

Perceived Benefits فوائد متوقع	Scale
34.1 The irrigation scheme has significantly contributed in improving your crop yield آبیاشی کے منصوبے نے نمایاں طور پر آپ کی فصل کی پیداوار میں اضافہ کیا	
34.2 Due to the irrigation significant less time is required to irrigate crops آبیاشی کی سکیم کی وجہ سے فصل کو پانی لگانے میں نمایاں طور پر کم وقت لگتا ہے	
34.3 Before the irrigation channel women were spending more time with their male members on the farm management than now آبیاشی کی سکیم سے پہلے خواتین گھرانے کے مردوں کے ساتھ کھیتی باری کے کاموں میں آجکل کی نسبت زیادہ وقت لگاتی تھی	
34.4 The irrigation scheme enabled me to change crops with high value crops آبیاشی کی سکیم نے مجھے بہتر منافع دینے والی فصلیں اگانے میں مدد کی	
34.5 The irrigation scheme has increase crop intensity (now I take more crops in a year as compared to the situation before the scheme) سکیم کی بدولت اب میں ایک سال میں زیادہ فصلیں اگا سکتا ہوں	
34.6 The irrigation scheme is benefiting all the intended beneficiaries without any discrimination آبیاشی کی سکیم سے سب متعلقہ لوگ بغیر کسی تفریق کے مستفید ہو رہے ہیں	
34.7 Due to the irrigation scheme your household income has significantly increased ? آبیاشی کی سکیم کی وجہ سے آپ کے گھرانے کی آمدنی میں نمایاں اضافہ ہوا ہے؟	
34.8 Scheme help create further linkages with service delivery department (agriculture, on farm water management, livestock, markets) سکیم کی وجہ سے سروس مہیا کرنے والے اداروں سے رابطہ قائم ہوا (زراعت، واٹر مینجمنٹ، محکمہ حیوانات اور منڈی)	
34.9 Scheme help create further linkages with PPAF or other donors for development works in the villages. سکیم کی وجہ سے بی بی ایف یا دوسرے ڈونر سے مزید ترقیاتی رابطے قائم ہوئے	

Drinking Water Supply Scheme

S. No _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component

PPAF 2015

Household Survey

Date of Interview (dd/mm/yy) ____/____/____

35 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code _____

36 Sample Information Code _____

36.1 Name Community Organization: گاؤں کی تنظیم کا نام _____

36.2 Village: گاؤں _____

36.3 UC: یونین کونسل _____

36.4 Tehsil: تحصیل _____

36.5 District: ضلع _____ Code _____

36.6 Province: صوبہ _____ Code _____

Name and signature of supervisor سپر وائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

37 Respondent Information انٹرویو دینے والی کی معلومات

37.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

37.2 Gender (Circle) جنس _____

3. Male	4. Female
---------	-----------

37.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ _____

37.4 Respondent Age (Years): (سالوں میں) عمر کی جوابدہ _____

37.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ _____

Code Column-5: 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild; 8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt; 12=Grandfather/grandmother; 13=Nephew/niece; 14=other

37.6 Respondent Education: (completed level): حاصل کردہ تعلیم _____

37.7 If respondent not Head of HH then education level of head of HH. _____

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے ؟

Codes: کوڈز 1. Illiterate ان پڑھ 2. Under Primary پرائمری سے نیچے 3. Primary پرائمری تک 4. Middle مڈل 5. Matric میٹرک 6. FA/FSc ایف ایس سی 7. BA/BSc or above آگے سے 8. Madrassa مدرسہ 9. Technical ٹیکنیکل

38 How many People in the household live together (don't include guests)

آپ کے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			

Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

39 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

40 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور، باورچی خانہ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

41 **Assets owned by household** . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
41.1 Tractor/ Car ٹریکٹر / کار		
41.2 Thrasher/ Trolley (ٹرائلی، تھریشر)		
41.3 Motorcycle/scoter موٹر سائیکل/سکوٹر		
41.4 TV ٹی وی		
41.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
41.6 Air conditioner/air cooler/geyser/heater ایئر کنڈیشنر، ایئر کولر، گیزر، ہیٹر		
41.7 Refrigerator, freezer or washing machine فریجر یا واشنگ مشین		
41.8 At least one cow/goat/sheep کم از کم ایک گائے/بکری/بھیڑ		
41.9 At least one buffalo/ bullock کم از کم ایک بھینس/بھینسا		

42 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں؟

s.#	Activities	Before the Scheme (Hours) اسکیم سے پہلے (گھنٹوں میں)	Now (Hours) آجکل (گھنٹوں میں)
1	Cleaning house گھر کی صفائی/ستھرائی		
2	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر		
3	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)		
4	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)		
5	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/بمسابیوں کے ملنے ملانے پر)		
6	Water fetching پانی بھرنے میں		
7	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)		
8	Job/earning activities ملازمت/کمائی کی سرگرمیاں		

43 How much did your family consume the following food items in the last seven days?

آپکے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس/خوراک کو کتنا استعمال کیا؟

Item	Quantity	Item	Quantity
1) Wheat (Kg) گندم		2) Rice (Kg) چاول	
3) Pulses (Kg) دالیں		4) Eggs (number) انڈے	
5) Milk (liters) دودھ		6) Sugar (Kg) چینی	

44 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے؟

Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household	
Decision Making	Vests in فیصلہ سازی
Before Scheme	After Scheme
44.1 Children Education بچوں کی تعلیم	
44.2 Employment روزگار	
44.3 Daily Food پکانا کھانا / روزانہ	
44.4 Marriage of Children بچوں کی شادی	
44.5 Social Events سماجی تقریبات	
44.6 Family Size بچوں کی تعداد	
44.7 Other (Specify دیگر ----- --)	

45 Does the Women Member of HH have Control over HH Resources? کیا گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	45.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	45.2 Income آمدنی	1	2
c.	45.3 Assets اثاثات	1	2
d.	45.4 Budget بجٹ	1	2

46 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	46.1 Access to employment روزگار تک رسائی	1	2
b.	46.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	46.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	46.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

47 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	47.1 Rights حقوق	1	2
b.	47.2 Nikah Nama نکاح نامہ	1	2
c.	47.3 Law of inheritance وارثت کا قانون	1	2

Drinking Water Supply Scheme Relevance

48 What are the sources of water for your household? (Multiple)

آپ کے گھرانے کے پانی کے ذرائع کیا ہیں (آپ کا گھرانہ پینے اور دیگر مقاصد مثلاً کھانا پکانے، کپڑے دھونے، نہانے وغیرہ کے لیے پانی کس ذریعے سے حاصل کرتا ہے)

Note: Use code 1 for primary source and code 2 for secondary and code 3 for third source

بنیادی ذریعے (جہاں سے زیادہ پانی استعمال کرتے ہیں) کے لیے کوڈ ایک استعمال کریں، دوسرے ذریعے کے لیے کوڈ دو اور تیسرے کے لیے کوڈ تین۔

	Before پہلے		After بعد	
	Drinking پینے کے لیے	Other use دیگر استعمال کے لیے	Drinking پینے کے لیے	Other use دیگر استعمال کے لیے
48.1 Piped Into House گھر کے اندر بذریعہ پائپ				
48.2 Piped Into Yard Or Plot صحن یا پلاٹ تک بذریعہ پائپ				
48.3 Public Tap عوامی نلکا				
48.4 Tube Well/Bore Hole With Pump ٹیوب ویل / بورنگ مشین کے ساتھ				
48.5 Protected Dug Well محفوظ کھودا گیا کنواں				
48.6 Protected Spring محفوظ چشمہ				
48.7 Rain Water Collection بارش کے پانی کو جمع کرنا				
48.8 Bottled Water بوتل کا پانی				
48.9 Unprotected Dug Well غیر محفوظ کھودا گیا کنواں				
48.10 Unprotected Spring غیر محفوظ چشمہ				
48.11 Pond, River Or Stream تالاب، دریا یا ندی				
48.12 Tanker, Vendor پانی کا ٹینکر / ماشکی				
48.13 Other (specify) دیگر (وضاحت کریں)				

49 Do you think the DWSS project was on your priority list of required development projects in the village?

آپ کے خیال میں کیا پینے کے پانی کا یہ منصوبہ گاؤں میں درکار ترقی کے منصوبوں میں آپ کی ترجیحات کی فہرست میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

49.1 If tap water available inside house or/ and communal water tap, hours water supplied ?

اگر نلکے کا پانی استعمال کرتے ہیں، تو دن میں کتنے گھنٹے گھر یا گھر سے باہر مشترکہ نل سے پانی کی سپلائی کی جاتی ہے؟

	گھنٹے فی دن Hours / day	
	Before	After
Communal گھر سے باہر (کمیونٹی)		
Inside house گھر کے اندر		

50 Do you store water at your home? کیا آپ پانی اپنے گھر میں ذخیرہ کرتے ہیں؟

Yes ہاں	1
No نہیں	2

51 For what purpose do you store water? آپ کس مقصد کے لیے پانی ذخیرہ کرتے ہیں؟

Only for drinking صرف پینے کے لیے	1
For drinking and cooking پینے اور کھانا پکانے کے لیے	2
Other (bathing, washing, etc) دیگر (نہانے، دھونے وغیرہ)	3
All of the above اوپر بیان کردہ تمام مقاصد کے لیے	4

52 Does the current source of water satisfy your water needs for drinking, Washing hands, bathing, washing clothes, etc.?

کیا پانی کا موجودہ ذریعہ آپکی پینے کا اور دیگر ضروریات مثلاً ہاتھ دھونے، نہانے، کپڑے دھونے کے لیے کافی ہے؟

	Drinking	Other use
Yes, All year پورا سال	1	1
Yes, Only in winter صرف سردیوں میں	2	2
Yes, Only in the summer صرف گرمیوں میں	3	3
No	4	4

53 In your opinion, who benefitted most from the scheme? Please rank.

آپکی نظر میں سکیم سے آپکے گھرانے میں، مرد، خواتین اور بچوں میں سے کس کو زیادہ فائدہ ہوا ہے؟ ترجیح کے لحاظ سے بتائیں

	a. Priority Rank (1,2,3)
53.1 Males	
53.2 Females	
53.3 Children	

Efficiency

54 Please provide following information براہ مہربانی مندرجہ ذیل معلومات مہیا کریں

Particular	Before پہلے	After بعد
54.1 Distance covered to fetch water (meters) پانی لانے کیلئے طے کیا گیا فاصلہ (میٹر)		
54.2 Who collects water پانی کون لاتا ہے		
20.2.1 Children بچے (Yes=1 No=2)		
20.2.2 Women عورتیں (Yes=1 No=2)		
20.2.2 Men مرد (Yes=1 No=2)		
20.2.3 Others دیگر (specify) (Yes=1 No=2)		
54.3 Time taken to fetch water پانی لانے میں کتنا وقت لگتا ہے (منٹوں میں)		
54.4 Was there any positive impact on health of following after the scheme کیا اسکیم کے بعد گھر کے درج ذیل افراد کی صحت پر کوئی مثبت اثر پڑا؟		
20.5.1 Children (Yes=1 No=2)		
20.5.2 Women (Yes=1 No=2)		
20.5.2 Men مرد (Yes=1 No=2)		
20.5.3 Others (Yes=1 No=2)		
54.5 Was there any positive impact on acquiring education of following after the scheme کیا اسکیم کے بعد گھرانے کے درج ذیل افراد کی تعلیم حاصل کرنے پر کوئی مثبت اثر ہوا؟		
20.6.1 Children (Yes=1 No=2)		
20.6.2 Women (Yes=1 No=2)		
20.6.3 Others (Yes=1 No=2)		
54.6 Conflicts on water collection (Yes=1 No=2) پانی پر تنازعات		
54.7 Cost of conflicts/resolution (Rs) (Jirga, court, compensation) تنازعات/حل پر خرچہ		

Effectiveness

55 Did the scheme help meet your need/priority? کیا یہ اسکیم آپکی ضرورت اور ترجیح کو پورا کرنے میں مددگار ثابت ہوئی؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

56 Benefits of water supply in/near your house (Multiple) آپ کے گھر میں / گھر کے قریب پانی کی فراہمی کے فوائد

Time saving وقت کی بچت	1
Security سیکورٹی	2
Health صحت	3
No benefits کوئی فوائد نہیں	4
Other benefits دیگر فوائد	5
Don't know معلوم نہیں	6

57 Daily how much time is saved due to this facility? اس سہولت کی وجہ سے گھر کے افراد کا روزانہ اوسط کتنا وقت بچتا ہے؟

57.1 Males مرد حضرات _____ Hours/day دن / گھنٹے

57.2 Females خواتین _____ Hours/day دن / گھنٹے

57.3 Children بچے _____ Hours/day دن / گھنٹے

Impact

58 Impact of scheme on family health?(Multiple) اس سکیم سے آپ کے گھرانے کے افراد کی صحت پر کیا اثرات پڑے؟

	Without Prompt	With Prompt
Less disease in children and family members گھرانے کے افراد میں کم بیماریاں	1	1
Less loss of productive time due to illnesses بیماریوں کی وجہ سے پیداواری وقت کے نقصان میں کمی	2	2
Income enhanced due to increase in productivity پیداواری وقت میں اضافہ کی وجہ سے آمدنی میں اضافہ	3	3
Income enhanced due to less expenditure on treating illnesses بیماریوں کے علاج پر کم اخراجات کی وجہ سے آمدنی میں اضافہ	4	4
Negative Affects (specify) منفی اثرات (وضاحت کریں)	5	5
Other (specify) دیگر (وضاحت کریں)	6	6

Sustainability

59 Did you/your household make any contribution in cash in the construction of the scheme?

کیا آپ یا آپ کے گھرانے سے کسی نے اسکیم کی تعمیر میں مالی معاونت کی؟

Yes ہاں	1
No نہیں	2

60 Did you/your household make any contribution in kind in the construction of the scheme?

کیا آپ یا آپ کے گھرانے نے اسکیم کی تعمیر میں کسی اور صورت (جگہ ، وقت ، مزدوری) میں معاونت کی؟

Yes ہاں	1
No نہیں	2

61 Do you pay any amount for operation and maintenance of the scheme?

کیا آپ اس اسکیم کی دیکھ بھال اور مرمت کی صورت میں کوئی رقم ادا کرتے ہیں؟

Yes ہاں	1
No نہیں	2

61.1 If yes, a) For operations per year چلانے کے لیے سالانہ رقم Rs. _____

b) For maintenance per year دیکھ بھال کے لیے سالانہ رقم Rs. _____

Beneficiary Satisfaction

62 To what extent do you agree or disagree with the following statements

آپ مندرجہ ذیل میں دیے ہوئے بیانات سے کس حد تک مطمئن یا غیر مطمئن ہیں

Scale 1. Agree متفق 2. Indifferent کوئی فرق نہیں دیکھتا 3. Disagree غیر متفق 4. Don't know معلوم نہیں

Perceived Benefits متوقع فوائد	Scale
--------------------------------	-------

The scheme significantly contributed in addressing water requirements of my household یہ اسکیم ، میرے گھرانے کی پانی کی ضروریات کو پورا کرنے میں نمایاں طور پہ مددگار ثابت ہوئی ہے	
Before the schemes female/children has to spent significant amount of time in fetching water اس اسکیم سے پہلے عورتوں / بچوں کو پانی لانے / بھرنے میں کافی وقت خرچ کرنا پڑتا تھا	
The scheme has changed household behavior related to use of safe drinking water اس اسکیم نے پینے کے صاف پانی کے استعمال کے حوالے سے گھرانے کے افراد کے رویے تبدیل کر دیے ہیں	
The scheme has reduced water cost اس اسکیم نے گھرانے کے پانی پر آنے والے اخراجات کو کم کر دیا ہے	
The scheme is benefiting all the intended beneficiaries without any discrimination اسکیم سے تمام متعلقہ افراد بغیر کسی تفریق کے مستفید ہو رہے ہیں	

Bridges and Roads Scheme

S. No _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component PPAF 2015 Household Survey

Date of Interview (dd/mm/yy) ____/____/____

63 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code
|_|_|

64 Sample Information Code |_|_|_|_|_|

64.1 Name Community Organization: گاؤں کی تنظیم کا نام _____

64.2 Village: گاؤں _____

64.3 UC: یونین کونسل _____

64.4 Tehsil: تحصیل _____

64.5 District: ضلع _____ Code |_|_|

64.6 Province: صوبہ _____ Code |_|_|

Name and signature of supervisor سپر وائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

65 Respondent Information انٹرویو دینے والی کی معلومات

65.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

65.2 Gender (Circle) جنس

5. Male	6. Female
---------	-----------

65.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ کا |_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|

65.4 Respondent Age (Years): (سالوں میں) عمر کی جوابدہ کی |_|_|

65.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ |_|

Code : 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild;
8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt;
12=Grandfather/grandmother; 13=Nephew/niece; 14=other

65.6 Respondent Education: (completed level): حاصل کردہ تعلیم |_|

65.7 If respondent not Head of HH then education level of head of HH. |_|

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے ؟

Codes: کوڈز 1. Illiterate ان پڑھ 2. Under Primary پرائمری سے نیچے 3. Primary تک پرائمری 4. Middle مڈل
5. Matric میٹرک 6. FA/FSc ایف ایس سی 7. BA/BSc or above بی اے یا اس سے آگے
8. Madrassa مدرسہ 9. Technical ٹیکنیکل

66 How many People in the household live together (don't include guests)

آپکے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			
Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

67 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

68 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور، باورچی خانہ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

69 Assets owned by household . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
69.1 Tractor/ Car ٹریکٹر / کار		
69.2 Thrasher/ Trolley (تھریشر، ٹرالی)		
69.3 Motorcycle/scooter موٹر سائیکل/سکوٹر		
69.4 TV ٹی وی		
69.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
69.6 Air conditioner/air cooler/geyser/heater اینر کنڈیشنر، اینر کولر، گیزر، ہیٹر		
69.7 Refrigerator, freezer or washing machine Refrigerator، فریزر یا واشنگ مشین		
69.8 At least one cow/goat/sheep کم از کم ایک گائے/بکری/بھیڑ		
69.9 At least one buffalo/ bullock کم از کم ایک بھینس/بھینسا		

70 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں؟

s.#	Activities	Before the Scheme (Hours) اسکیم سے پہلے (گھنٹوں میں)	Now (Hours) آجکل (گھنٹوں میں)
1	Cleaning house گھر کی صفائی/ستھرائی		
2.	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر		
3.	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)		
4.	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)		
5.	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/ہمسایوں کے ملنے ملانے پر)		
6.	Water fetching پانی بھرنے میں		
7.	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)		
8.	Job/earning activities ملازمت/کمائی کی سرگرمیاں		

71 How much did your family consume the following food items in the last seven days?

آپ کے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس /خوراک کو کتنا استعمال کیا؟

Item	Quantity	Item	Quantity
7) Wheat (Kg) گندم		8) Rice (Kg) چاول	
9) Pulses (Kg) دالیں		10) Eggs (number) انڈے	
11) Milk (liters) دودھ		12) Sugar (Kg) چینی	

72 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے ؟

Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household		
Decision Making	Before Scheme	After Scheme
72.1 Children Education بچوں کی تعلیم		
72.2 Employment روزگار		
72.3 Daily Food روزانہ کھانا / پکانا		
72.4 Marriage of Children بچوں کی شادی		
72.5 Social Events سماجی تقریبات		
72.6 Family Size بچوں کی تعداد		
72.7 Other (Specify دیگر -----)		

73 Does the Women Member of HH have Control over HH Resources? کیا گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	73.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	73.2 Income آمدنی	1	2
c.	73.3 Assets اثاثات	1	2
d.	73.4 Budget بجٹ	1	2

74 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	74.1 Access to employment روزگار تک رسائی	1	2
b.	74.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	74.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	74.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

75 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	75.1 Rights حقوق	1	2
b.	75.2 Nikah Nama نکاح نامہ	1	2
c.	75.3 Law of inheritance وارثت کاقانون	1	2

Bridges and Roads

Relevance

76 Do you think the bridges and roads project was on your priority list of required development projects in the village? آپکے خیال میں کیا یہ منصوبہ گاؤں میں درکار ترقی کے منصوبوں میں آپ کی ترجیحات کی فہرست میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

77 Did you have difficulties in accessing markets, education and health services prior to the scheme?

اس اسکیم سے پہلے کیا آپ کے لیے مارکیٹ، تعلیم اور صحت کی سہولت تک رسائی مشکل تھی؟

	77.1 Markets	77.2 Education Services	77.3 Health Services
Yes ہاں	1	1	1
To some extent کچھ حد تک	2	2	2
No نہیں	3	3	3
Don't know معلوم نہیں	4	4	4

78 Were you/any other member of your household consulted before initiation of the scheme (planning stage) or during implementation of the scheme ?

کیا آپ یا آپکے گھرانے کے کسی فرد سے اس اسکیم کی ابتدائی مراحل (منصوبہ بندی یا اس سکیم کے عمل درآمد (تعمیر) کے دوران کوئی مشورہ کیا گیا؟

Yes ہاں	1
To some extent کچھ حد تک	2

No نہیں	3
Don't know معلوم نہیں	4

Efficiency

79 براہ کرم مندرجہ ذیل میں دی گئی اپنے خاندان کے بارے میں معلومات فراہم کریں؟ Please provide following information about your family

Particulars	Before Road/bridge	After Road/bridge
1. Daily Education related travelling (No of Visits.) گھرانے کے اوسط کتنے افراد روزانہ تعلیم کے حوالے سے سفر کرتے ہیں / تھے؟		
2. Daily Education related travelling cost per person (Rs.) تعلیم کے لیے کیے گئے سفر پر اوسط فی فرد روزانہ کتنا خرچہ ہوتا ہے / تھا؟		
3. Monthly Health related travelling (No of Visits.) گھرانے کے اوسط کتنے افراد ہر مہینے صحت کے حوالے سے سفر کرتے ہیں / تھے؟		
4. Health related travelling cost per person per visit. صحت کے لیے کیے گئے سفر پر اوسط فی فرد کتنا خرچہ ہوتا ہے / تھا؟		
5. Daily Jobs related travelling (No.) گھرانے کے اوسط کتنے افراد روزانہ ملازمت کے حوالے سے سفر کرتے ہیں / تھے؟		
6. Daily Jobs related travelling cost per person (Rs.) ملازمت کے لیے کیے گئے سفر پر اوسط فی فرد روزانہ کتنا خرچہ ہوتا ہے / تھا؟		
7. Monthly Social activities related travelling (No of Visits.) گھرانے کے اوسط کتنے افراد ماہانہ معاشرتی سرگرمیوں کے حوالے سے سفر کرتے ہیں / تھے؟		
8. Monthly Social activities related travelling cost per person (Rs.) معاشرتی سرگرمیوں کے لیے کیے گئے سفر پر اوسط فی فرد ماہانہ کتنا خرچہ ہوتا ہے / تھا؟		
9. Cost of bringing households items Rs./pm گھرانے کے روزمرہ استعمال کا سامان لانے پر کرائے کی مد (صورت) میں اوسط ماہانہ اخراجات		
10. Cost of Marketing agri. Produce (Rs./50kg) زرعی پیداوار (فی ۵۰ کلو) کی فروخت پر اخراجات		
11. No. of Bags(50kg) marketed in Rabi فصل (گرمیوں کی فصل) کی فصل ربيع (گرمیوں کی فصل) کی فصل کی کل بوریوں کی تعداد		
12. No. of Bags(50kg) marketed in Kharif خریف (سردیوں کی فصل) کی فصل فصل کی کل بوریوں کی تعداد		
13. Transportation Cost of Input for agriculture (Rs./bag) کھاد وغیرہ لانے پر کرائے کے فی بوری اخراجات		
14. No. of inputs Bags transported in Rabi ربیع کی فصل کے لیے لائی جانے والی کھاد کی بوریوں کی تعداد		
15. No. of inputs Bags transported in Kharif خریف کی فصل کے لیے لائی جانے والی کھاد کی بوریوں کی تعداد		
16. No. of inputs Bags transported for livestock per month مال مویشی کی خوراک لانے پر ماہانہ کرائے کے اخراجات		
17. Transportation Cost of Livestock (Rs./vehicle) مال مویشی کی نقل و حمل پر آنے والے اخراجات (فی گاڑی)		
18. No. of Jobs created after scheme سکیم کی بدولت گھرانے میں کتنے لوگوں کو روزگار ملا؟		
19. Earning per job (Rs./month) اس روزگار سے ماہانہ آمدن		

Effectiveness

80 کیا سکیم نے مندرجہ ذیل پر مثبت اثر ڈالا ؟ . Was the scheme effective in improving the following .

	Yes ہاں	To some extent کچھ حد تک	No نہیں	Don't know معلوم نہیں
80.1 Accessibility issue in the village گاوں میں آمدورفت کے مسائل	1	2	3	4
80.2 Access to better health services صحت کی بہتر سہولیات تک رسائی	1	2	3	4
80.3 Children access to better education services بچوں کو تعلیم کی بہتر سہولیات تک رسائی	1	2	3	4
80.4 Created livelihood opportunities روزگار کے مواقع	1	2	3	4
80.5 Changes in women's mobility trends خواتین کی نقل و حرکت (گھر سے باہر آنے جانے) کے رجحان	1	2	3	4

81 What type of benefits you received after the scheme ? (Multiple)

اس اسکیم کے بعد آپ کو کس قسم کے فوائد حاصل ہوئے؟ (ایک سے زیادہ جوابات ممکن ہیں)

	Without prompt مندرجہ ذیل بتائے بغیر	With prompt مندرجہ ذیل بتاکر
81.1 Reduction in the transportation cost کرائے پر آنے والے اخراجات میں کمی ہوئی۔	1	1
81.2 Convenience in female mobility خواتین کی موہلی (گھر سے باہر آنے جانے) میں آسانی ہوئی	2	2
81.3 Access to market مارکیٹ تک رسائی	3	3
81.4 Access to education service تعلیم کی سہولیات تک رسائی	4	4
81.5 Access to health services صحت کی سہولیات تک رسائی	5	5
81.6 Social mobility لوگوں کا آپس میں میل جول بڑھا	6	6
81.7 Female mobility خواتین کا آپس میں رشتہ داروں اور گاوں والوں سے میل جول کا رجحان	7	7
81.8 Other (specify) دیگر _____	8	8

Impact

82 Has the scheme made any impact on your/your household monthly traveling expense?

کیا اس سکیم کی وجہ سے آپ کے گھرانے کے ماہانہ سفری اخراجات میں کوئی فرق آیا ہے ؟

No change in travel expense. سفری اخراجات میں کوئی تبدیلی نہیں آئی۔	1
Yes (travel expense has increased) سفری اخراجات بڑھ گئے	2
Yes (travel expense has decreased) سفری اخراجات کم ہو گئے ہیں	3

83 In your opinion, who benefitted most from the scheme of following? Please rank.

آپ کی نظر میں سکیم سے آپ کے گھرانے میں ، مرد ، خواتین اور بچوں میں سے کس کو زیادہ فائدہ ہوا ہے ؟ ترجیح کے لحاظ سے بتائیں

Priority Rank (1,2,3)

83.1 Males	
83.2 Females	
83.3 Children	

84 Has there been any positive impact in terms of the following after the scheme?

کیا اس اسکیم کی وجہ سے درج ذیل پر کوئی مثبت فرق آیا ہے ؟

	Yes ہاں	To some extent کچھ حد تک	No نہیں	Don't know معلوم نہیں
13) Increase in income گھر کی آمدنی میں اضافہ	1	2	3	4
14) Better employment opportunity روزگار کے بہتر مواقع	1	2	3	4
15) Improvement in farm commodities selling price زرعی پیداوار کی قیمت فروخت بہتر ہوئی	1	2	3	4
16) Social status, etc سماجی حیثیت	1	2	3	4
17) Children education بچوں کی تعلیم	1	2	3	4
18) Health of your family آپ کے گھرانے کے افراد کی صحت	1	2	3	4
19) Family social interaction گھرانے کا لوگوں کے ساتھ باہمی تعلقات (آپس میں میل جول) پر	1	2	3	4

Sustainability

85 Did you/your household make any contribution in cash in the construction of the scheme?

کیا آپ یا آپ کے گھرانے سے کسی نے اسکیم کی تعمیر میں مالی معاونت کی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

86 Did you/your household make any contribution in kind in the construction of the scheme?

کیا آپ یا آپ کے گھرانے نے اسکیم کی تعمیر میں کسی اور صورت (جگہ ، وقت ، مزدوری) میں معاونت کی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

87 Do you pay any toll tax.؟ کیا آپ ٹول ٹیکس ادا کرتے ہیں ؟

Yes ہاں	1
No نہیں	2

87.1 If yes, how much per visit ————— اگر ہاں تو ایک وزٹ پر کتنا ادا کرتے ہیں ؟

88 Do you pay any amount for operation and maintenance of the scheme?

کیا آپ اس اسکیم کی دیکھ بھال اور مرمت کی صورت میں کوئی رقم ادا کرتے ہیں ؟؟

Yes ہاں	1
No نہیں	2

88.1 If yes, a) For operations per year چلانے کے لیے سالانہ رقم Rs. _____

b) For maintenance per year دیکھ بھال کے لیے سالانہ رقم Rs. _____

Beneficiary Satisfaction

89 To what extent do you agree or disagree with the following statements

آپ مندرجہ ذیل میں دیے ہوئے بیانات سے کس حد تک مطمئن اور غیر مطمئن ہیں

Scale 1. Agree متفق 2. Indifferent کوئی فرق نہیں دیکھتا 3. Disagree 4. Don't know معلوم نہیں

Perceived Benefits	Scale
89.1 The scheme significantly contributed in improving accessibility condition in the village اس سکیم کی وجہ سے گاؤں میں آمدورفت کی سہولیات میں نمایاں بہتری آئی ہے	
89.2 Due to the scheme less time is required to reach to the work place/market/services اس سکیم کی بدولت دفتر / کام کرنے کی جگہ / مارکیٹ وغیرہ تک جانے میں کم وقت لگتا ہے	
89.3 Before the schemes female mobility was difficult اس سکیم سے پہلے خواتین کو آنے جانے میں دقت پیش آتی تھی	
89.4 The scheme has change household behavior related to female mobility اس سکیم سے خواتین کے گھر سے باہر آنے (رشتہ داروں سے ملنے، سودا سلف لینا وغیرہ) کے حوالے سے گھرانے کے افراد کے رویوں میں تبدیلی آئی ہے۔	
89.5 The scheme has significantly reduced traveling cost اس سکیم کی بدولت سفری اخراجات میں نمایاں کمی ہوئی ہے۔	
89.6 The scheme is benefiting all the intended beneficiaries without any discrimination اس سکیم سے تمام متعلقہ افراد یکساں طور پر مستفید ہوتے ہیں۔	
89.7 Scheme help create further linkages with service delivery department سکیم کی وجہ سے سروس مہیا کرنے والے اداروں سے رابطہ قائم	
89.8 Scheme help create further linkages with PPAF or other donors for development works in the villages. سکیم کی وجہ سے پی پی ایف یا دوسرے ڈونر سے مزید ترقیاتی رابطے قائم ہوئے	

Drainage and Sanitation Scheme

S. No _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component PPAF 2015 Household Survey

Date of Interview (dd/mm/yy) ____/____/____

90 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code _____

91 Sample Information Code _____

91.1 Name Community Organization: گاؤں کی تنظیم کا نام _____

91.2 Village: گاؤں _____

91.3 UC: یونین کونسل _____

91.4 Tehsil: تحصیل _____

91.5 District: ضلع _____ Code _____

91.6 Province: صوبہ _____ Code _____

Name and signature of supervisor سپر وائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

92 Respondent Information انٹرویو دینے والی کی معلومات

92.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

92.2 Gender (Circle) جنس

7. Male	8. Female
---------	-----------

92.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ _____

92.4 Respondent Age (Years): (سالوں میں) عمر کی جوابدہ _____

92.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ _____

Code Column-5: 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild; 8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt; 12=Grandfather/grandmother; 13=Nephew/niece; 14=other

92.6 Respondent Education: (completed level): حاصل کردہ تعلیم _____

92.7 If respondent not Head of HH then education level of head of HH. _____

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے؟

Codes: کوڈز 1. Illiterate ان پڑھ 2. Under Primary پرائمری سے نیچے 3. Primary پرائمری تک 4. Middle مڈل
5. Matric میٹرک 6. FA/FSc ایف ایس سی 7. BA/BSc or above بی اے یا اس سے آگے 8. Madrassa مدرسہ 9. Technical ٹیکنیکل

93 How many People in the household live together (don't include guests)

آپکے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			
Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

94 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

95 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور، باورچی خانہ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

96 Assets owned by household . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
96.1 Tractor/ Car ٹریکٹر / کار		
96.2 Thrasher/ Trolley (تھریشر، ٹرالی)		
96.3 Motorcycle/scooter موٹر سائیکل/سکوٹر		
96.4 TV ٹی وی		
96.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
96.6 Air conditioner/air cooler/geyser/heater اینر کنڈیشنر، اینر کولر، گیزر، ہیٹر		
96.7 Refrigerator, freezer or washing machine Refrigerator فریجر یا واشنگ مشین		
96.8 At least one cow/goat/sheep کم از کم ایک گائے/بکری/بھیڑ		
96.9 At least one buffalo/ bullock کم از کم ایک بھینس/بھینسا		

97 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں؟

s.#	Activities	Before the Scheme (Hours) اسکیم سے پہلے (گھنٹوں میں)	Now (Hours) آجکل (گھنٹوں میں)
1	Cleaning house گھر کی صفائی/ستھرائی		
2	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر		
3	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)		
4	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)		
5	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/بمسابیوں کے ملنے ملانے پر)		
6	Water fetching پانی بھرنے میں		
7	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)		
8	Job/earning activities ملازمت/کمائی کی سرگرمیاں		

98 How much did your family consume the following food items in the last seven days?

آپکے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس /خوراک کو کتنا استعمال کیا؟

Item	Quantity	Item	Quantity
20) Wheat (Kg) گندم		21) Rice (Kg) چاول	
22) Pulses (Kg) دالیں		23) Eggs (number) انڈے	
24) Milk (liters) دودھ		25) Sugar (Kg) چینی	

99 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے ؟

	Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household	
Decision Making	Before Scheme	After Scheme
99.1 Children Education بچوں کی تعلیم		
99.2 Employment روزگار		
99.3 Daily Food روزانہ کھانا / پکانا		
99.4 Marriage of Children بچوں کی شادی		
99.5 Social Events سماجی تقریبات		
99.6 Family Size بچوں کی تعداد		
99.7 Other (Specify دیگر -----)		

100 Does the Women Member of HH have Control over HH Resources? کیا گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	100.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	100.2 Income آمدنی	1	2
c.	100.3 Assets اثاثات	1	2
d.	100.4 Budget بجٹ	1	2

101 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	101.1 Access to employment روزگار تک رسائی	1	2
b.	101.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	101.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	101.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

102 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	102.1 Rights حقوق	1	2
b.	102.2 Nikah Nama نکاح نامہ	1	2
c.	102.3 Law of inheritance وارثت کقانون	1	2

DRAINAGE AND SANITATION SCHEMES

Relevance

103 Do you have a drainage system in the house and outside the house ?

کیا آپ کے گھر کے اندر اور گھر کے باہر پانی کی نکاسی کا انتظام ہے؟

	14.1 Inside house گھر کے اندر	14.2 Outside house گھر کے باہر
Yes ہاں	1	1
No نہیں	2	2

103.1 If yes, type of drainage system? اگر ہاں تو کس قسم کا نظام ہے؟

	14.1.1 Inside house گھر کے اندر	14.1.2 Outside house گھر کے باہر
Underground (پائپ) زمین کے اندر	1	1
Covered pucca ڈھکی ہوئی پکی نالی	2	2
Open katcha (کچی) کھلی نالی	3	3
Open pucca (پکی) کھلی نالی	4	4
Other (specify) دیگر _____	5	5

104 Did you have a drainage system in the house and outside the house prior to the scheme ?

کیا سکیم سے پہلے آپ کے گھر کے اندر اور گھر کے باہر پانی کی نکاسی کا انتظام تھا ؟

	104.1 Inside house گھر کے اندر	104.2 Outside house گھر کے باہر
Yes ہاں	1	1
No نہیں	2	2

105 Do you think the drainage and sanitation project was on your priority list of required development projects in the village? آپ کے خیال میں نکاسی آب اور صحت و صفائی کا یہ منصوبہ گاؤں میں درکار ترقی کے پراجیکٹس میں آپ کی ترجیحات کی لسٹ میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

106 In your opinion, who benefitted most from the scheme of following? Please rank.

آپکی نظر میں سکیم سے آپکے گھرانے میں ، مرد ، خواتین اور بچوں میں سے کس کو زیادہ فائدہ ہوا ہے ؟ ترجیح کے لحاظ سے بتائیں

	Priority Rank (1,2,3)
106.1 Males مروت	
106.2 Females خواتین	
106.3 Children بچوں	

107 Did you have a latrine in the house prior to scheme?

کیا اس اسکیم سے پہلے آپکے گھر میں لیٹرین تھی ؟

Yes ہاں	1
No نہیں	2

107.1 If yes, what type of toilet facility was available before the scheme?

اگر ہاں ، اس سکیم سے پہلے آپکے گھرانے کے افراد کس قسم کی لٹریں استعمال کرتے تھے ؟

Type of facility	Priority Rank (1,2,3)		
	Male	Female	Children
Flush connected to a sewerage, to a pit or to an open drain فلش سیوریج کے ساتھ، گھڑے یا کھلی ڈرین کے ساتھ منسلک	1	1	1
Dry raised latrine or dry pit latrine سطح زمین پر خشک ابھری بنوی یا زمین کے اندر بنی بنوئی لیٹرین	2	2	2
Other (specify) دیگر _____	3	3	3

107.2 If No, what type of toilet facility was available before the scheme?

اگر نہیں تو اس سکیم سے پہلے آپکے گھرانے کے افراد کس قسم کی لٹریں استعمال کرتے تھے ؟

Type of facility	Priority Rank (1,2,3)		
	Male	Female	Children
Open defecation کھلی جگہ ، فضلے کا اخراج	1	1	1
Communal latrine کمیونٹی لٹریں	2	2	2
Other (specify) دیگر _____	3	3	3

108 What kind of toilet facility is available after the scheme for your HH members? (Circle)

سکیم کے بعد آپ کے گھرانے کے افراد کس قسم کی لیٹرین استعمال کرتے ہیں؟ (دائرہ لگائیں)

Type of facility	108.1 Inside House			108.2 Outside house		
	Male	Female	Children	Male	Female	Children
Flush connected to a sewerage, to a pit or to an open drain فلش سیوریج کے ساتھ، گھڑے یا کھلی ڈرین کے ساتھ منسلک	1	1	1	1	1	1
Dry raised latrine or dry pit latrine یا سطح زمین پر خشک ابھری بنوی یا زمین کے اندر بنی بنوی لیٹرین	2	2	2	2	2	2
Open defecation کھلی جگہ، فضلے کا اخراج	3	3	3	3	3	3

109 What is the current sewerage system in your street?

آپ کی گلی کا موجودہ سیوریج سسٹم کیا ہے؟

Underground زمین کے اندر (پائپ)	1
Covered pucca ڈھکی ہوئی پکی نالی	2
Open katcha کھلی نالی (کچی)	3
Open pucca کھلی نالی (پکی)	4
Other (specify) دیگر _____	5

110 Do you experience overflow of drains in your area?

کیا آپ کے علاقے میں نالیوں سے پانی باہر آجاتا ہے؟

Yes, very often ہاں اکثر اوقات	1
Yes, occasionally ہاں کبھی کبھار	2
Yes, in rainy season ہاں برسات کے موسم میں	3
No نہیں	4
This was a problem in past but not now ماضی میں یہ مسئلہ تھا لیکن اب نہیں ہے	5
No drains	
گلی میں کوئی نالی نہیں ہے	
Don't know معلوم نہیں	6

111 Did you have a garbage disposal mechanism in the house before and after the scheme?

کیا اس اسکیم سے پہلے اور بعد میں آپ کے گھر میں کوڑا کرکٹ کو ضائع کرنے کا کوئی طریقہ کار تھا؟

	Before	After
Yes ہاں	1	1
No نہیں	2	2

111.1 If yes, How do you dispose your household solid waste?? اگر ہاں تو آپ اپنے گھر کا کوڑا کرکٹ کہاں پھینکتے ہیں؟؟

	Before	After
Throw outside the house in the street گھر سے باہر گلی میں	1	1
Throw in the community bin کمیونٹی بن میں	2	2
Throw in open area in the village away from the residential area گاؤں میں رہائشی علاقے سے دور کھلی جگہ پر	3	3

Sweeper takes it away جمعدار لے جاتا ہے	4	4
Other (specify) دیگر (وضاحت کریں)	5	5

112 Do you experience overflow of communal refuse pit in your area?

کیا کوڑا کرکٹ کے گڑھے سے باہر پھیلا ہوتا ہے

	Before	After
Yes, very often ہاں اکثر اوقات	1	1
Yes, occasionally ہاں کبھی کبھار	2	2
No نہیں	3	3
Don't know معلوم نہیں	4	4

Efficiency

113 Please provide information about the following particulars. براہ کرم مندرجہ ذیل معلومات فراہم کریں۔

Particular	Before scheme	After scheme
6 Monthly Health Expenditure on Children (Rs.) گھرانے کے بچوں کی صحت پر ہونے والے چھ ماہ کے اخراجات (روپے)		
6 Monthly Health Expenditure on Women (Rs.) گھرانے کی خواتین کی صحت پر ہونے والے چھ ماہ کے اخراجات (روپے)		
6 Monthly Health Expenditure on males (Rs.) گھرانے کے مردوں کی صحت پر چھ ماہ میں ہونے والے اخراجات (روپے)		
Distance of health facility (Km) صحت کی سہولت تک فاصلہ		
6 Monthly Travelling expenditure to health facility (Rs.) صحت کی سہولت تک جانے پر چھ ماہ کے سفری اخراجات		
6 Monthly Expenditure on control of flies/mosquitoes. مکھی، مچھروں سے بچاؤ کے لئے ماہانہ اخراجات		

114 What type of benefits did you receive after the scheme? (Multiple)

اس اسکیم کے بعد آپ کو کس قسم کی فوائد حاصل ہوئے؟ (ایک سے زیادہ جوابات ممکن ہیں)

	Without Prompt	With Prompt
No illness in the HH گھرانے میں کوئی بیماری نہیں ہوئی	1	1
Lesser illness in the HH گھرانے میں کم بیماریاں ہوئی	2	2
Mosquito control مچھروں کی روک تھام	3	3
No stagnation of water گلیوں میں پانی کا نہ جمع ہونا	4	4
Clean environment صاف ماحول	5	5
Other (specify) دیگر وضاحت کریں	6	6

Effectiveness

115 Was the scheme effective in improving the drainage sanitation conditions in your household and/or community (street?)
کیا یہ اسکیم آپ کے گھرانے اور کمیونٹی (گلی محلہ) کی صحت و صفائی اور نکاسی آب کی صورت حال کو بہتر بنانے میں موثر ثابت ہوئی؟

	115.1 Household گھر	115.2 Community محلہ
Yes ہاں	1	1
To some extent کچھ حد تک	2	2
No نہیں	3	3
Don't know معلوم نہیں	4	4

116 Was the scheme effective in bringing change in the attitudes and behaviour of your household members?
(Latrines, garbage disposal etc)

کیا یہ اسکیم آپکے گھرانے کے افراد کے رویے اور طرز عمل میں کوئی تبدیلی لانے میں موثر ثابت ہوئی (لیٹرین کا استعمال ، کوڑا کرکٹ ضائع کرنے کے عمل ، وغیرہ وغیرہ)

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

Impact

117 Has the intervention brought a change in the health status of your family?

کیا اس سکیم نے آپکے خاندان کی صحت کی حالت کو تبدیل کیا ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

118 Has the scheme had an positive impact on health cost of your family?

کیا اس اسکیم سے آپکے گھرانے کی صحت کے اخراجات پر مثبت اثر ہوا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

118.1 If yes, average monthly saving? اگر ہاں تو ماہانہ اوسط بچت Rs. |_|_|_|_|

119 Has the scheme reduced water borne diseases in your house?

کیا اس اسکیم سے آپکے گھر میں پانی اور گندگی کی وجہ سے پیدا ہونے والی بیماریوں (دست، ٹائفائیڈ ، ملیریا ، بیضہ ، ہاپیا تیتاس) میں کمی واقع ہوئی ہے؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

Sustainability

119.1 Did you further improve your latrine due to the latrines project?

کیا آپ نے لیٹرینز پراجیکٹ کے بعد اپنی لیٹرین کو مزید بہتر کیا ؟

Yes ہاں	1
No نہیں	2

120 What is the responsibility of your HH in the maintenance/operation of the facility?

اس سکیم کو چلانے اور دیکھ بھال کے حوالے سے آپکے گھرانے کی کوئی ذمہ داری ہے؟

None کوئی نہیں	1
Cleaning صفائی	2
Operation of facility سہولت کو فعال رکھنا	3
Other (specify) دیگر (وضاحت کریں)	4

121 Do you pay any amount for operation and maintenance of the scheme?

کیا آپ اس اسکیم کی دیکھ بھال اور مرمت کی صورت میں کوئی رقم ادا کرتے ہیں؟؟

Yes ہاں	1
No نہیں	2

- 121.1 If yes, a) For operations per year چلانے کے لیے سالانہ رقم Rs. |_|_|_|_|_|
b) For maintenance per year دیکھ بھال کے لیے سالانہ رقم Rs. |_|_|_|_|_|

Beneficiary Satisfaction

122 Degree of satisfaction with hygiene of the facility, if any provided by scheme?

سکیم کی صفائی کس حد تک اطمینان بخش ہے؟

Very satisfiedبے حد مطمئن	1
Satisfiedمطمئن	2
Indifferent کوئی فرق نہیں دیکھتا	3
Dissatisfiedغیر مطمئن	4

123 How much are you satisfied with overall condition of drainage?

نکاسی آب کی مجموعی حالت سے آپ کتنے مطمئن ہیں؟

	123.1 Household Level	123.2 Village Level
Very satisfiedبے حد مطمئن	1	1
Satisfiedمطمئن	2	2
Indifferent کوئی فرق نہیں دیکھتا	3	3
Dissatisfiedغیر مطمئن	4	4

124 How much are you satisfied with overall condition of hygiene?

آپ صحت و صفائی کی مجموعی حالت سے کتنے مطمئن ہیں؟

	124.1 Household Level	124.2 Village Level
Very satisfiedبے حد مطمئن	1	1
Satisfiedمطمئن	2	2
Indifferent کوئی فرق نہیں دیکھتا	3	3
Dissatisfiedغیر مطمئن	4	4

125 To what extent do you agree or disagree with the following statements

آپ مندرجہ ذیل میں دیے ہوئے بیانات سے کس حد تک مطمئن یا غیر مطمئن ہیں

Scale 1. Agree متفق 2. Indifferent کوئی فرق نہیں دیکھتا 3. Disagree غیر متفق 4. Don't know معلوم نہیں

Perceived Benefits سمجھے گئے فوائد	Scale
125.1 PPAF drainage and sanitation scheme significantly contributed in improving drainage and sanitation condition in the village نکاسی آب اور صحت و صفائی کی اسکیم نے گاؤں کی نکاسی آب اور صحت و صفائی کی حالت کو (بہتر بنانے میں) نمایاں کردار ادا کیا ہے	
125.2 Due to the PPAF scheme less time is required to dispose household waste اسکیم کی وجہ سے گھر کا کوڑا کرکٹ ٹھکانے لگانے (ضائع کرنے) میں کم وقت لگتا ہے	
125.3 Before the irrigation channel women were spending more time on drainage and sanitation tasks اس اسکیم سے پہلے خواتین نکاسی آب اور صحت و صفائی کے کاموں پر زیادہ وقت لگاتی تھیں	
125.4 The drainage scheme has change household behavior related to drainage and sanitation issues اس اسکیم سے گھر کے افراد کے صحت و صفائی اور نکاسی آب کے متعلق رویوں میں نمایاں تبدیلی آئی ہے	
125.5 The scheme has significantly reduced malaria and typhoid incidences in the village اس اسکیم سے گاؤں میں ٹائفائیڈ اور ملیریا کے واقعات میں نمایاں کمی ہوئی ہے؟	
125.6 The scheme is benefiting all the intended beneficiaries without any discrimination یہ اسکیم تمام متعلقہ افراد کے لیے یکساں فائدہ (بغیر کسی فرق کے) مہیا کرتی ہے؟	
125.7 Due to the drainage and sanitation scheme my household expenditures on health has significantly reduced اس اسکیم کی وجہ سے ہمارے گھر انے کے صحت پر آنے والے اخراجات میں نمایاں کمی ہوئی ہے	

Addendum

- 126 Do you think the Street pavement and drainage & sanitation project was on your priority list of required development projects in the village? آپکے خیال میں کیا گلی کو پکا کرنا اور نکاسی آب کا یہ منصوبہ گاؤں میں درکار ترقی کے منصوبوں میں آپ کی ترجیحات کی فہرست میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

- 127 What was the physical condition of the streets before the project? سکیم سے پہلے گلی کس قسم کی تھی؟

Paved پکی گلی	1
Paved but require major repair پکی لیکن کافی مرمت کی ضرورت	2
Unpaved but even level کچی لیکن ہموار	3
Unpaved uneven level کچی اور غیر ہموار	4

- 128 Level of satisfaction with the condition of the street before and after the scheme

آپکے خیال میں گلیوں کی حالت سکیم سے پہلے اور بعد میں کیسی ہے؟

	Before	After
Good اچھی	1	1
Fair مناسب	2	2
Bad بری	3	3
Don't know معلوم نہیں	4	4

- 129 Water drainage system in the street before and after the scheme? گلیوں میں نکاسی آب کا نظام سکیم سے پہلے اور بعد میں؟

	Before	After
Yes ہاں	1	
To some extent کچھ حد تک	2	
No نہیں	3	
Don't know معلوم نہیں	4	

- 130 Has your house value/price increased due to the scheme? کیا اس سکیم کی وجہ سے آپکے گھر کی قیمت میں کوئی اضافہ ہوا؟

Yes ہاں	1
No نہیں	2

- 130.1 If yes, how much _____% اگر ہاں تو کتنے فیصد

- 131 What other benefits did you receive due to the scheme? اس سکیم کی وجہ سے اور کون کون سے فائدے ہوئے؟

Less dust in the surrounding ارگرد میں مٹی گرد میں کمی ہوئی	1
Improvement in HH member's health due to less dust کم گرد کی وجہ سے گھر کے افراد کی صحت میں بہتری آئی	2
Decrease in transport maintenance costs ٹرانسپورٹ (موٹر سائیکل، سائیکل) کی مرمت پر آنے والے اخراجات میں کمی ہوئی	4
Effects on HH cleanliness گھر کی صفائی کی حالت بہتر ہوئی	5
Cleanliness in streets becomes better گلیوں میں صفائی کی حالت بہتر ہوئی	7
Other (specify) دیگر وضاحت کریں	8

- 132 What type of benefits you received after the scheme? (Multiple)

اس اسکیم کے بعد آپکو کس قسم کے فائدہ حاصل ہوئے؟ (ایک سے زیادہ جوابات ممکن ہیں)

Without prompt مندرجہ ذیل بتائے بغیر	With prompt مندرجہ ذیل بتا کر
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Reduction in the transportation cost کرایے پر آنے والے اخراجات میں کمی ہوئی۔	1	1
Convenience in female mobility خواتین کی موہلٹی (گھر سے باہر آنے جانے) میں آسانی ہوئی	2	2
Access to market مارکیٹ تک رسائی	3	3
Access to education service تعلیم کی سہولیات تک رسائی	4	4
Access to health services صحت کی سہولیات تک رسائی	5	5
Social mobility لوگوں کا آپس میں میل جول بڑھا	6	6
Female mobility خواتین کا آپس میں رشتہ داروں اور گاؤں والوں سے میل جول کا رجحان	7	7
Other (specify) دیگر _____	8	8

Energy Scheme

S. No _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component PPAF 2015 Household Survey

Date of Interview (dd/mm/yy) ____/____/____

133 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code _____

134 Sample Information Code _____

134.1 Name Community Organization: گاؤں کی تنظیم کا نام _____

134.2 Village: گاؤں _____

134.3 UC: یونین کونسل _____

134.4 Tehsil: تحصیل _____

134.5 District: ضلع _____ Code _____

134.6 Province: صوبہ _____ Code _____

Name and signature of supervisor سپر وائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

135 Respondent Information انٹرویو دینے والی کی معلومات

135.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

135.2 Gender (Circle) جنس

9. Male	10. Female
---------	------------

135.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ _____

135.4 Respondent Age (Years): (سالوں میں) عمر کی جوابدہ _____

135.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ _____

Code Column-5: 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild; 8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt; 12=Grandfather/grandmother; 13=Nephew/niece; 14=other

135.6 Respondent Education: (completed level): حاصل کردہ تعلیم _____

135.7 If respondent not Head of HH then education level of head of HH. _____

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے؟

Codes: کوڈز 1. Illiterate 1. ان پڑھ 2. Under Primary 2. پرائمری سے نیچے 3. Primary 3. پرائمری تک 4. Middle 4. میڈل
5. Matric 5. میٹرک 6. FA/FSc 6. ایف ایس سی 7. BA/BSc or above 7. بی اے یا اس سے آگے
8. Madrassa 8. مدرسہ 9. Technical 9. ٹیکنیکل

136 How many People in the household live together (don't include guests)

آپکے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			

Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

137 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

138 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور ، باورچی خانہ ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

139 Assets owned by household . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
139.1 Tractor/ Car ٹریکٹر / کار		
139.2 Thrasher/ Trolley (تھریشر ، ٹرالی)		
139.3 Motorcycle/scoter موٹر سائیکل/سکوٹر		
139.4 TV ٹی وی		
139.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
139.6 Air conditioner/air cooler/geyser/heater اینر کنڈیشنر، اینر کولر ، گیزر ، ہیٹر		
139.7 Refrigerator, freezer or washing machine Refrigerator فریجر یا واشنگ مشین		
139.8 At least one cow/goat/sheep کم از کم ایک گائے /بکری /بھیڑ		
139.9 At least one buffalo/ bullock کم از کم ایک بھینس /بھینسا		

140 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں؟

s.#	Activities	Before the Scheme (Hours) اسکیم سے پہلے (گھنٹوں میں)	Now (Hours) آجکل (گھنٹوں میں)
1	Cleaning house گھر کی صفائی/ستھرائی		
2.	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر		
3.	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)		
4.	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)		
5.	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/بمسابیوں کے ملنے ملانے پر)		
6.	Water fetching پانی بھرنے میں		
7.	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)		
8.	Job/earning activities ملازمت/کمائی کی سرگرمیاں		

141 How much did your family consume the following food items in the last seven days?

آپکے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس/خوراک کو کتنا استعمال کیا؟

Item	Quantity	Item	Quantity
26) Wheat (Kg) گندم		27) Rice (Kg) چاول	
28) Pulses (Kg) دالیں		29) Eggs (number) انڈے	
30) Milk (liters) دودھ		31) Sugar (Kg) چینی	

142 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے ؟

	Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household	
Decision Making	Before Scheme	After Scheme
142.1 Children Education بچوں کی تعلیم		
142.2 Employment روزگار		
142.3 Daily Food روزانہ کھانا / پکانا		
142.4 Marriage of Children بچوں کی شادی		
142.5 Social Events سماجی تقریبات		
142.6 Family Size بچوں کی تعداد		
142.7 Other (Specify دیگر -----)		

143 Does the Women Member of HH have Control over HH Resources? وسائل کے گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	143.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	143.2 Income آمدنی	1	2
c.	143.3 Assets اثاثات	1	2
d.	143.4 Budget بجٹ	1	2

144 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	144.1 Access to employment روزگار تک رسائی	1	2
b.	144.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	144.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	144.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

145 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	145.1 Rights حقوق	1	2
b.	145.2 Nikah Nama نکاح نامہ	1	2
c.	145.3 Law of inheritance وارثت کقانون	1	2

Renewable Energy Use استعمال کا استعمال

Relevance

146 Sources of Energy and Fuel used at your home (multiple) توانائی اور ایندھن کے ذرائع

	Before سکیم سے پہلے	After سکیم کے بعد
32) Electricity بجلی	1	1
33) Cylinder Gas سلنڈر گیس	2	2
34) Wood لکڑی	3	3
35) Bio-gas بانیو گیس	4	4
36) Solar panel شمشی پنل	5	5
37) UPS یو پی ایس	6	6
38) Dung تھاپی	7	7
39) Other Specify دیگر وضاحت کریں	8	8

147 Do you think the renewable energy project was on your priority list of required development projects in the village? کیا آپکے خیال میں توانائی کا منصوبہ گاؤں میں ضروری ترقیاتی منصوبوں کی ، آپکی ترجیح کی فہرست میں تھا؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

148 In your opinion, who benefitted most from the scheme of following? Please rank.

آپکی نظر میں سکیم سے آپکے گھرانے میں ، مرد ، خواتین اور بچوں میں سے کس کو زیادہ فائدہ ہوا ہے ؟ ترجیح کے لحاظ سے بتائیں

a. Priority Rank (1,2,3)

148.1 Males	
148.2 Females	
148.3 Children	

Effectiveness

149 Did the scheme addresses your need/priority? کیا یہ اسکیم آپکی ضرورت اور ترجیح کو پورا کرنے میں مددگار ثابت ہوئی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

150 Was the scheme beneficial in improving your children education?

کیا اسکیم آپکے بچوں کی تعلیم کو بہتر کرنے میں فائدہ مند ہوئی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4
Not Applicable (No Children) نا مناسب (بچے نہیں ہیں)	5

151 Has the scheme been effective in saving women's time during cooking?

کیا اسکیم کی بدولت خواتین کا کھانا پکانے پر کم وقت لگتا ہے ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

152 Has the scheme been beneficial in saving men's time in buying or collecting fuel wood and bringing it back? کیا یہ سکیم لکڑی (بطور ایندھن) کے جمع کرنے، خریدنے اور اسے گھر لانے میں مردوں کا وقت بچانے میں فائدہ مند ہے ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

153 Was the scheme effective in terms of saving fuel wood and transportation cost?

کیا یہ سکیم گھرانے کے ایندھن (جلانے کے لئے لکڑی) پر آنے والے اخراجات (بشمول قیمت اور کرایہ) میں بچت کرنے میں موثر ثابت ہوئی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

153.1 If yes, average monthly saving.؟ اگر ہاں تو ماہانہ اوسط بچت

Rs. | | | | |

154 Has the scheme had an effect on pollution level in the house? کیا اس سکیم سے گھر میں آلودگی (دھواں ، ڈھور ، مٹی کی صورتحال کم ہوئی ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

155 Has the scheme been effective in less time spent on cleaning of utensils and the kitchen area?

کیا سکیم کی وجہ سے باورچی خانہ اور برتنوں کی صفائی پر کم وقت لگتا ہے ؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

155.1 If yes, average daily time saving.؟ اگر ہاں تو روزانہ وقت کی اوسط بچت ؟

- a. Cleaning utensils | | | minutes / day
- b. Cleaning kitchen area | | | minutes / day

Impact

156 Average monthly cost on fuel (Rs) before and after the scheme?

اس سکیم سے پہلے اور بعد میں گھرانے کے ایندھن پر اوسط ماہانہ اخراجات ؟

Before intervention	After Intervention

157 How much time is saved due to this facility?؟ اس سکیم کی وجہ سے گھرانے کے افراد کا کتنا وقت بچتا ہے ؟

157.1 Males مردوں کا | | | Hours / day

157.2 Females خواتین کا | | | Hours / day

157.3 Children بچوں کا | | | Hours / day

158 Do you use this time in other productive activities? کیا آپ بچا ہوا وقت کسی پیداواری سرگرمیوں میں استعمال کرتے ہیں ؟

	Males	Females	Children
Yes ہاں	1	1	1
To some extent کچھ حد تک	2	2	2
No نہیں	3	3	3
Don't know معلوم نہیں	4	4	4

Efficiency

159 Please answer the following questions (برائے مہربانی مندرجہ ذیل کے جوابات دیں)

Particular	Before intervention	After Intervention
159.1 What was/is source for light سکیم سے پہلے اور اب آپ روشنی کس ذرائع سے حاصل کرتے ہیں / تھے؟		
159.2 What was/is the cost per day of lights روشنی کے لئے آپکے گھرانے ایک دن میں کتنے پیسے لگتے تھے / ہیں؟		
159.3 How many lights/ volts you are using آپکا گھرانہ کتنی لائٹس / وولٹس استعمال کرتا ہے / تھا؟		
159.4 What is the market value of lights/volts جو لائٹس / وولٹس آپکا گھرانہ استعمال کرتا ہے / تھا ، اسکی مارکیٹ ویلیو کتنی ہے؟		
159.5 Any other benefits (cost) کوئی اور فائدہ (قیمت)		

Sustainability

160 Did you/your household make any contribution **in cash** in the construction of the scheme?

کیا آپ یا آپکے گھرانے سے کسی نے اسکیم کی تعمیر میں مالی معاونت کی؟

Yes ہاں	1
To some extent کچھ حد تک	2
No نہیں	3
Don't know معلوم نہیں	4

161 Did you/your household make any contribution **in kind** in the construction of the scheme?

کیا آپ یا آپکے گھرانے نے اسکیم کی تعمیر میں کسی اور صورت (جگہ ، وقت ، مزدوری) میں معاونت کی؟

Yes ہاں	1
No نہیں	2

162 Do you pay any amount for operation and maintenance of the scheme?

کیا آپ اس اسکیم کی دیکھ بھال اور مرمت کی صورت میں کوئی رقم ادا کرتے ہیں؟؟

Yes ہاں	1
No نہیں	2

162.1 If yes, a) For operations per year چلانے کے لیے سالانہ رقم Rs. | | | | |

b) For maintenance per year دیکھ بھال کے لیے سالانہ رقم Rs. | | | | |

Beneficiary satisfaction

163 To what extent do you agree or disagree with the following statements

آپ مندرجہ ذیل میں دیے ہوئے بیانات سے کس حد تک مطمئن یا غیر مطمئن ہیں

Scale 1. Agree متفق 2. Indifferent لاتعلق 3. Disagree 4. Don't know معلوم نہیں غیر متفق

Perceived Benefits متوقع فوائد	Scale
The scheme significantly contributed in addressing energy water requirements of my household یہ سکیم میرے گھر کی توانائی اور پانی کی ضروریات کو نمایاں طور پر پورا کرنے میں مددگار ثابت ہوئی	
Before the schemes female/children has to spent significant amount of time in collecting fuel wood اس سکیم سے پہلے خواتین کو اور بچوں لکڑی (ایندھن) اکھٹا کرنے پر کافی وقت خرچ کرنا پڑتا تھا .	
The scheme has change household behavior related to efficient use of the energy resources اس سکیم کی بدولت ایندھن کے موثر استعمال کے متعلق گھرانے کے افراد کے رویوں میں تبدیلی آئی ہے .	
The scheme has reduced fuel cost . اس سکیم نے ایندھن پر آنے والے گھرانے کے اخراجات کو کم کیا ہے .	
The scheme is benefiting all the intended beneficiaries without any discrimination سکیم سے تمام متعلقہ افراد بغیر کسی تفریق کے مستفید ہو رہے ہیں	

Control Group

S. No. _____ (For Office Use)

Impact Assessment of Basic Services & Infrastructure Component PPAF 2015 Household Survey

Date of Interview (dd/mm/yy) ____/____/____

164 Name of Enumerator انٹرویو کرنے والے کا نام _____ Code _____

165 Sample Information Code _____

165.1 Name Community Organization: گاؤں کی تنظیم کا نام _____

165.2 Village: گاؤں _____

165.3 UC: یونین کونسل _____

165.4 Tehsil: تحصیل _____

165.5 District: ضلع _____ Code _____

165.6 Province: صوبہ _____ Code _____

Name and signature of supervisor سپروائزر کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____
Name and signature of data entry operator ڈیٹا انٹری کرنے والے کا نام اور دستخط		Date (dd/mm/yy) تاریخ ____/____/____

166 Respondent Information انٹرویو دینے والی کی معلومات

166.1 Name of Respondent (Beneficiary): جوابدہ کا نام _____

166.2 Gender (Circle) جنس

11. Male	12. Female
----------	------------

166.3 Contact Number: (Ph) رابطہ نمبر کا جوابدہ کا _____

166.4 Respondent Age (Years): (سالوں میں) عمر کا جوابدہ کی _____

166.5 Relationship with Head of Household گھرانے کے سربراہ سے رشتہ _____

Code Column-5: 1=Self; 2=Husband; 3=Wife; 4=Son/daughter/adopted; 5=Father/mother; 6=Brother/sister; 7=Grandchild; 8=Son/daughter-in-law; 9=Brother/sister-in-law; 10=Father/mother-in-law; 11=Uncle/aunt; 12=Grandfather/grandmother; 13=Nephew/niece; 14=other

166.6 Respondent Education: (completed level): حاصل کردہ تعلیم _____

166.7 If respondent not Head of HH then education level of head of HH. _____

اگر جوابدہ گھرانے کا سربراہ نہیں ہے تو سربراہ کی تعلیم کتنی ہے ؟

Codes: کوڈز 1. Illiterate ان پڑھ 2. Under Primary پرائمری سے نیچے 3. Primary تک 4. Middle مڈل
5. Matric میٹرک 6. FA/FSc ایف ایس سی 7. BA/BSc or above بی اے یا اس سے آگے
8. Madrasa مدرسہ 9. Technical ٹیکنیکل

167 How many People in the household live together (don't include guests)

آپکے گھرانے میں کتنے لوگ رہتے ہیں (مہمان کو شامل نہ کریں)

Age	Male	Female	Total
Under Age 18 years اٹھارہ سال سے کم عمر			
Age From 18-65 years اٹھارہ سال سے پینسٹھ سال			
Age over 65 years پینسٹھ سال سے زیادہ عمر			

168 How many children in the household between 5 and 16 years old are currently attending school?

آپکے گھرانے میں پانچ سال سے سولہ سال کی عمر کے کتنے بچے ہیں اور ان میں سے کتنے اسکول جاتے ہیں؟

Age 5 to 16 years	Boys	Girls	Total
Total Number of children بچوں کی کل تعداد			
Total number of children currently attending school کتنے بچے اسکول جاتے ہیں			

169 Total number of rooms including **bedroom and living rooms** (excluding store, kitchen, latrine and washroom)? _____ آپکے گھر میں کل کتنے کمرے ہیں (ایسے کمرے جو اسٹور، باورچی خانہ، لیٹرین اور غسل خانے کے طور پر استعمال ہوتے ہیں انکو شامل نہ کریں)

170 Assets owned by household . آپکے گھرانے کے پاس درج ذیل اشیا میں سے کون کون سی موجود ہیں .

Assets اثاثہ جات	1=Yes	2=No
170.1 Tractor/ Car ٹریکٹر / کار		
170.2 Thrasher/ Trolley (تھریشر، ٹرالی)		
170.3 Motorcycle/scooter موٹر سائیکل/سکوٹر		
170.4 TV ٹی وی		
170.5 Cooking stove/cooking range/microwave oven کوکنگ سٹوو/کوکنگ رینج/مائیکروویو اون		
170.6 Air conditioner/air cooler/geyser/heater اینر کنڈیشنر، اینر کولر، گیزر، ہیٹر		
170.7 Refrigerator, freezer or washing machine Refrigerator فریجر یا واشنگ مشین		
170.8 At least one cow/goat/sheep کم از کم ایک گائے/بکری/بھیڑ		
170.9 At least one buffalo/ bullock کم از کم ایک بھینس/بھینسا		

171 How much time of your family female members is spent time on the following activities?

آپ کے گھرانے کی خواتین درج ذیل سرگرمیوں میں کتنا وقت لگاتی ہیں ؟

s.#	Activities	
1	Cleaning house گھر کی صفائی/ستھرائی	
2.	Cooking (Preparation of food for household members) گھر کے افراد کے لیے کھانا تیار کرنے پر	
3.	Livestock management activities (چارہ ڈالنا، پانی پلانا وغیرہ)	
4.	Crop management activities (گھرانے کے افراد کا ہاتھ بٹانا)	
5.	Social interaction (visit relatives/neighbors) آپس میں میل جول (رشتہ داروں/بمسابیوں کے ملنے ملانے پر)	
6.	Water fetching پانی بھرنے میں	
7.	Children education activities (teaching, pick, drop) بچوں کی تعلیمی سرگرمیوں (سبق پڑھانا، اسکول چھوڑنا/لانا وغیرہ)	
8.	Job/earning activities ملازمت/کمائی کی سرگرمیاں	

172 How much did your family consume the following food items in the last seven days?

آپ کے خاندان نے گزشتہ سات دنوں میں مندرجہ ذیل اجناس /خوراک کو کتنا استعمال کیا ؟

Item	Quantity	Item	Quantity
40) Wheat (Kg) گندم		41) Rice (Kg) چاول	
42) Pulses (Kg) دالیں		43) Eggs (number) انڈے	
44) Milk (liters) دودھ		45) Sugar (Kg) چینی	

173 Who takes the decision about the following tasks. ؟ درج ذیل کاموں میں کون فیصلہ کرتا ہے ؟

Decision Making	Vests in فیصلہ سازی	Codes: 1=Male; 2=Female; 3=Joint 4 = Head of Household
173.1 Children Education	بچوں کی تعلیم	
173.2 Employment	روزگار	
173.3 Daily Food	روزانہ کھانا / پکانا	
173.4 Marriage of Children	بچوں کی شادی	
173.5 Social Events	سماجی تقریبات	
173.6 Family Size	بچوں کی تعداد	
173.7 Other (Specify دیگر -----)		

174 Does the Women Member of HH have Control over HH Resources? کیا گھرانے کی خواتین کا گھرانے کے وسائل پر اختیار ہے؟

	Options	1=Yes	2=No
a.	174.1 Access to control over cash نقدی کے استعمال پر اختیار	1	2
b.	174.2 Income آمدنی	1	2
c.	174.3 Assets اثاثات	1	2
d.	174.4 Budget بجٹ	1	2

175 Does the female HH have? کیا گھرانے کی خواتین کے پاس درج ذیل ہیں؟

	Options	1=Yes	2=No
a.	175.1 Access to employment روزگار تک رسائی	1	2
b.	175.2 Ownership of assets/land اثاثہ جات ، زمین کی ملکیت	1	2
c.	175.3 Access to market مارکیٹ یا بازار تک رسائی	1	2
d.	175.4 Visibility in and access to social spaces عورتوں کا سماجی سرگرمیوں میں حصہ لینا اور انکی رسائی	1	2

176 Does the women member of HH have adequate awareness on? کیا گھرانے کی خواتین کو درج ذیل کے بارے میں مناسب آگاہی ہے؟

	Options	1=Yes	2=No
a.	176.1 Rights حقوق	1	2
b.	176.2 Nikah Nama نکاح نامہ	1	2
c.	176.3 Law of inheritance وارثت کافانون	1	2

177 Does your household work on any cultivable agricultural land?

کیا آپکا گھرانہ کسی قابل کاشت رقبے پر کوئی فصل کاشت کرتا ہے؟

Yes ہاں	1
No نہیں	2

177.1 If yes, land cultivated by tanurial status اگر ہاں تو اس رقبے میں سے کتنی زمین آپکی اپنی ملکیت ہے ، کتنی پٹے پر لی ہوئی ہے، کتنی کرائے پر ہے؟

Status	Acre (ایکڑ)
177.2 Owners مالکانہ	
177.3 Leased based لیز کی بنیاد پر	
177.4 Tenants کرائے پر	
177.5 Others (specify) دیگر (وضاحت کریں)	

178 Irrigation of land by type of irrigation؟ اس وقت آپکا آبپاشی کا ذریعہ کیا ہے

Status	Acre (ایکڑ)
46) Water channel واٹر چینل	
47) Tube well ٹیوب ویل	
48) Dug well کنواں	
49) Solar pump (سولر پمپ)	
50) Rain fed بارش کا پانی	
51) Other (specify) _____ دیگر (وضاحت کریں) _____	

179 Availability of water for crops.؟ فصلوں کے لئے دستیاب پانی آپکی ضرورت کو کتنا پورا کرتا ہے

Percentage of need met	
76% - 100%	1
51% 75%	2
26%-50%	3
Less than 25%	4

180 What was/is the mode of water transportation؟ پانی درج ذیل کس ذریعے سے کھیتوں تک پہنچایا جاتا ہے ؟

Unlined watercourse کچا کھالا	1
Lined water course پکا کھالا	2
Pipes پائپ	3
Other دیگر وضاحت کریں	4

181 Please tell me the current average yield, input cost and sale price of your crops?

برائے مہربانی مجھے اپنی فصلوں کے متعلق درج ذیل معلومات دیں .

Crop	a. Area (acre) رقبہ کاشت (ایکر)	b. Production (Kg/acre) فی ایکڑ پیداوار (کلو گرام)	c. Farm Gate Price (Rs./Kg) کھیت پر پیداوار کی قیمت (فی کلو)	d. Production Cost (Rs./acre) ش فی ایکڑ پیداواری اخراجات	e. Land Rent (Rs./acre) فی ایکڑ زمین کا کرایا	f. Sale Price if markete d (Rs./Kg) (فی کلو قیمت فروخت	g. Marketin g Cost (Rs./Kg) فی کلو مارکیٹنگ اخراجات	h. By Product (Rs./acre) ضمنی پیداوار کی فی ایکڑ آمدن
181.1 Wheat گندم								
181.2 Maize مکئی								
181.3 Cotton روئی								
181.4 Rice چاول								
181.5 Sugarcane گنا								
181.6 Tobacco تمباکو								
181.7 Pulses دالیں								
181.8 Vegetables سبزییاں								
181.9 Orchards باغات								
181.10 Fodder چارہ								
181.11 Grazing چراگاہ								
181.12 Forest Plants جنگلی درخت) وضاحت کریں (---								

182 Do you pay water charges (Abyana)؟ کیا آپ آبیانہ ادا کرتے ہیں؟

Yes ہاں	1
No نہیں	2

182.1 If yes , Rs. per acre/year in Rs. فی ایکڑ سالانہ رقم

183 Do you have a drainage system in the house and outside the house ?

کیا آپ کے گھر کے اندر اور گھر کے باہر پانی کی نکاسی کا انتظام ہے؟

	14.1 Inside house گھر کے اندر	14.2 Outside house گھر کے باہر
Yes ہاں	1	1
No نہیں	2	2

183.1 If yes, type of drainage system؟ اگر ہاں تو کس قسم کا نظام ہے؟

	14.1.1 Inside house گھر کے اندر	14.1.2 Outside house گھر کے باہر
Underground زمین کے اندر (پائپ)	1	1
Covered pucca ڈھکی ہوئی پکی نالی	2	2
Open katcha کھلی نالی (کچی)	3	3
Open pucca کھلی نالی (پکی)	4	4
Other (specify) دیگر	5	5

184 Do you have a latrine in the house?

کیا آپ کے گھر میں لیٹرین ہے ؟

Yes ہاں	1
No نہیں	2

184.1 If yes, what type of toilet facility is available?

اگر ہاں ، آپ کے گھرانے کے افراد کس قسم کی لٹریں استعمال کرتے ہیں ؟

Type of facility			
	Male	Female	Children
Flush connected to a sewerage, to a pit or to an open drain فلش سیوریج کے ساتھ، گھڑے یا کھلی ڈرین کے ساتھ منسلک	1	1	1
Dry raised latrine or dry pit latrine سطح زمین پر خشک ابھری بنوی یا زمین کے اندر بنی بنوئی لیٹرین	2	2	2
Other (specify) دیگر	3	3	3

184.2 If No, what type of toilet facility is available?

اگر نہیں تو آپ کے گھرانے کے افراد کس قسم کی لٹریں استعمال کرتے ہیں ؟

Type of facility			
	Male	Female	Children
Open defecation کھلی جگہ ، فضلے کا اخراج	1	1	1
Communal latrine کمیونٹی لٹریں	2	2	2
Other (specify) دیگر	3	3	3

185 What is the current sewerage system in your street?

آپکی گلی کا موجودہ سیوریج سسٹم کیا ہے ؟

Underground (پائپ کے زمین کے اندر)	1
Covered pucca ڈھکی ہوئی پکی نالی	2
Open katcha (کچی) کھلی نالی	3
Open pucca (پکی) کھلی نالی	4
Other (specify) دیگر _____	5

186 Do you experience overflow of drains in your area?

کیا آپ کے علاقے میں نالیوں سے پانی باہر آجاتا ہے ؟

Yes, very often ہاں اکثر اوقات	1
Yes, occasionally ہاں کبھی کبھار	2
Yes, in rainy season ہاں برسات کے موسم میں	3
No نہیں	4
This was a problem in past but not now ماضی میں یہ مسئلہ تھا لیکن اب نہیں ہے	5
No drains گلی میں کوئی نالی نہیں ہے	6
Don't know معلوم نہیں	7

187 Do you have a garbage disposal mechanism in the house?

کیا اس میں آپکے گھر میں کوڑا کرکٹ کو ضائع کرنے کا کوئی طریقہ کار ہے ؟

Yes ہاں	1
No نہیں	2

187.1 If yes, How do you dispose your household solid waste? اگر ہاں تو آپ اپنے گھر کا کوڑا کرکٹ کہاں پھینکتے ہیں ؟؟

	Before	After
Throw outside the house in the street گھر سے باہر گلی میں	1	1
Throw in the community bin کمیونٹی بن میں	2	2
Throw in open area in the village away from the residential area گاؤں میں رہائشی علاقے سے دور کھلی جگہ پر	3	3
Sweeper takes it away جمعہ دار لے جاتا ہے	4	4
Other (specify) دیگر (وضاحت کریں)	5	5

188 Do you experience overflow of communal refuse pit in your area?

کیا کوڑا کرکٹ کے گڑھے سے باہر پھیلا ہوتا ہے

Yes, very often ہاں اکثر اوقات	1
Yes, occasionally ہاں کبھی کبھار	2
No نہیں	3
Don't know معلوم نہیں	4

189 Please provide information about the following particulars. براہ کرم مندرجہ ذیل معلومات فراہم کریں۔

Particular	
6 Monthly Health Expenditure on Children (Rs.) گھرانے کے بچوں کی صحت پر ہونے والے چھ ماہ کے اخراجات (روپے)	
6 Monthly Health Expenditure on Women (Rs.) گھرانے کی خواتین کی صحت پر ہونے والے چھ ماہ کے اخراجات (روپے)	
6 Monthly Health Expenditure on males (Rs.) گھرانے کے مردوں کی صحت پر چھ ماہ میں ہونے والے اخراجات (روپے)	
Distance of health facility (Km) صحت کی سہولت تک فاصلہ	
6 Monthly Travelling expenditure to health facility (Rs.) صحت کی سہولت تک جانے پر چھ ماہ کے سفری اخراجات	
6 Monthly Expenditure on control of flies/mosquitoes. مکھی، مچھروں سے بچاؤ کے لئے ماہانہ اخراجات	

190 Please provide following information about your family براہ کرم مندرجہ ذیل میں دی گئی اپنے خاندان کے بارے میں معلومات فراہم کریں؟

Particulars	
20. Daily Education related travelling (No of Visits.) گھرانے کے اوسط کتنے افراد روزانہ تعلیم کے حوالے سے سفر کرتے ہیں؟	
21. Daily Education related travelling cost per person (Rs.) تعلیم کے لیے کیے گئے سفر پر اوسط فی فرد روزانہ کتنا خرچہ ہوتا ہے؟	
22. Daily Jobs related travelling (No.) گھرانے کے اوسط کتنے افراد روزانہ ملازمت کے حوالے سے سفر کرتے ہیں؟	
23. Daily Jobs related travelling cost per person (Rs.) ملازمت کے لیے کیے گئے سفر پر اوسط فی فرد روزانہ کتنا خرچہ ہوتا ہے؟	
24. Monthly Social activities related travelling (No of Visits.) گھرانے کے اوسط کتنے افراد ماہانہ معاشرتی سرگرمیوں کے حوالے سے سفر کرتے ہیں؟	
25. Monthly Social activities related travelling cost per person (Rs.) معاشرتی سرگرمیوں کے لیے کیے گئے سفر پر اوسط فی فرد ماہانہ کتنا خرچہ ہوتا ہے؟	
26. Cost of bringing households items Rs./pm گھرانے کے روزمرہ استعمال کا سامان لانے پر کرائے کی مد (صورت) میں اوسط ماہانہ اخراجات	
27. Cost of Marketing agri. Produce (Rs./50kg)	

زرعی پیداوار (فی ۵۰ کلو) کی فروخت پر اخراجات	
28. No. of Bags(50kg) marketed in Rabi ربیع (گرمیوں کی فصل) کی فصل کی کل بوریوں کی تعداد	
29. No. of Bags(50kg) marketed in Kharif خریف (سردیوں کی فصل) کی فصل کی کل بوریوں کی تعداد	
30. Transportation Cost of Input for agriculture (Rs./bag) کھاد وغیرہ لانے پر کرائے کے فی بوری اخراجات	
31. No. of inputs Bags transported in Rabi ربیع کی فصل کے لیے لائی جانے والی کھاد کی بوریوں کی تعداد	
32. No. of inputs Bags transported in Kharif خریف کی فصل کے لیے لائی جانے والی کھاد کی بوریوں کی تعداد	
33. No. of inputs Bags transported for livestock per month مال مویشی کی خوراک لانے پر مابانہ کرائے کے اخراجات	
34. Transportation Cost of Livestock (Rs./vehicle) مال مویشی کی نقل و حمل پر آنے والے اخراجات (فی گاری)	

191 What are the sources of water for your household? (Multiple)

آپ کے گھرانے کے پانی کے ذرائع کیا ہیں (آپ کا گھرانہ پینے اور دیگر مقاصد مثلاً کھانا پکانے، کپڑے دھونے، نہانے وغیرہ کے لیے پانی کس ذریعے سے حاصل کرتا ہے)

Note: Use code 1 for primary source and code 2 for secondary and code 3 for third source

بنیادی ذریعے (جہاں سے زیادہ پانی استعمال کرتے ہیں) کے لیے کوڈ ایک استعمال کریں، دوسرے ذریعے کے لیے کوڈ دو اور تیسرے کے لیے کوڈ تین۔

	Drinking پینے کے لیے	Other use دیگر استعمال کے لے
191.1 Piped Into House گھر کے اندر بذریعہ پائپ		
191.2 Piped Into Yard Or Plot صحن یا پلاٹ تک بذریعہ پائپ		
191.3 Public Tap عوامی نلکا		
191.4 Tube Well/Bore Hole With Pump ٹیوب ویل / بورنگ مشین کے ساتھ		
191.5 Protected Dug Well محفوظ کھودا گیا کنواں		
191.6 Protected Spring محفوظ چشمہ		
191.7 Rain Water Collection بارش کے پانی کو جمع کرنا		
191.8 Bottled Water بوتل کا پانی		
191.9 Unprotected Dug Well غیر محفوظ کھودا گیا کنواں		
191.10 Unprotected Spring غیر محفوظ چشمہ		
191.11 Pond, River Or Stream تالاب، دریا یا ندی		
191.12 Tanker, Vendor پانی کا ٹینکر / ماشکی		
191.13 Other (specify) دیگر (وضاحت کریں)		

191.14 If tap water available inside house or/ and communal water tap, hours water supplied ?

اگر نلکے کا پانی استعمال کرتے ہیں ، تو دن میں کتنے گھنٹے گھر یا گھر سے باہر مشترکہ نل سے پانی کی سپلائی کی جاتی ہے؟

گھنٹے فی day / Hours دن	
Communal (کمیونٹی) سے باہر	
Inside house گھر کے اندر	

192 Do you store water at your home? کیا آپ پانی اپنے گھر میں ذخیرہ کرتے ہیں؟

Yes ہاں	1
No نہیں	2

193 For what purpose do you store water? آپ کس مقصد کے لیے پانی ذخیرہ کرتے ہیں؟

Only for drinking صرف پینے کے لیے	1
For drinking and cooking پینے اور کھانا پکانے کے لیے	2
Other (bathing, washing, etc) دیگر (نہانے، دھونے وغیرہ)	3
All of the above اوپر بیان کردہ تمام مقاصد کے لیے	4

194 Does the current source of water satisfy your water needs for drinking, Washing hands, bathing, washing clothes, etc.?

کیا پانی کا موجودہ ذریعہ آپکی پینے کا اور دیگر ضروریات مثلاً ہاتھ دھونے، نہانے، کپڑے دھونے کے لیے کافی ہے؟

	Drinking	Other use
Yes, All year پورا سال	1	1
Yes, Only in winter صرف سردیوں میں	2	2
Yes, Only in the summer صرف گرمیوں میں	3	3
No	4	4

195 Please provide following information براہ مہربانی مندرجہ ذیل معلومات مہیا کریں

Particular	
195.1 Distance covered to fetch water (meters) پانی لانے کیلئے طے کیا گیا فاصلہ (میٹر)	
195.2 Who collects water پانی کون لاتا ہے	
20.2.1 Children بچے (Yes=1 No=2)	
20.2.2 Women عورتیں (Yes=1 No=2)	
20.2.2 Men مرد (Yes=1 No=2)	
20.2.3 Others دیگر (specify) (Yes=1 No=2)	
195.3 Time taken to fetch water پانی لانے میں کتنا وقت لگتا ہے (منٹوں میں)	
195.4 Conflicts on water collection (Yes=1 No=2) پانی پر تنازعات	
195.5 Cost of conflicts/resolution (Rs) (Jirga, court, compensation) تنازعات/حل پر خرچہ	

196 Sources of Energy and Fuel used at your home (multiple) توانائی اور ایندھن کے ذرائع (multiple)

52) Electricity بجلی	1
53) Cylinder Gas سلنڈر گیس	2
54) Wood لکڑی	3
55) Bio-gas بائیو گیس	4
56) Solar panel شمشی پینل	5
57) UPS یو پی ایس	6
58) Dung تھاپی	7
59) Other Specify دیگر وضاحت کریں	8

197 Please answer the following questions (برائے مہربانی مندرجہ ذیل کے جوابات دیں)

Particular	
197.1 What was/is source for light آپ روشنی کس ذرائع سے حاصل کرتے ہیں؟	
197.2 What was/is the cost per day of lights روشنی کے لئے آپ کے گھرانے ایک دن میں کتنے پیسے لگتے ہیں؟	
197.3 How many lights/ volts you are using آپ کا گھرانہ کتنی لائٹس / وولٹس استعمال کرتا ہے؟	
197.4 What is the market value of lights/volts جو لائٹس / وولٹس آپ کا گھرانہ استعمال کرتا ہے ، اس کی مارکیٹ ویلیو کتنی ہے؟	
197.5 Any other benefits (cost) کوئی اور فائدہ (قیمت)	

Focus Group Discussioin

Data collection tool for Irrigation Projects

198 Province _____

199 District _____

200 Union Council _____

201 Village _____

202 FGD members _____

203 Project Cost

1st Year	2nd Year	3rd Year	Total

204 Annual Maintenance cost (Rs.).....

205 What financial share you contributed.....

206 Command area under irrigation (acres)

207 Crop wise information

Crop	a. Area (acre) رقبہ کاشت (ایکڑ) (b. Production (Kg/acre) فی ایکڑ پیداوار (کلو گرام)		c. Farm Gate Price (Rs./Kg) کھیت پر پیداوار کی قیمت (فی کلو)		d. Production Cost (Rs./acre) فی ایکڑ پیداواری اخراجات		e. Land Rent (Rs./acre) فی ایکڑ زمین کا کرایا		f. Sale Price if marketed (Rs./Kg) فی کلو قیمت فروخت		g. Marketing Cost (Rs./Kg) فی کلو مارکیٹنگ اخراجات		h. By Product (Rs./acre) ضمنی پیداوار کی فی ایکڑ آمدن	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
207.1 Wheat گندم																
207.2 Maize مکئی																
207.3 Cotton روئی																
207.4 Rice چاول																
207.5 Sugarcane گنا																
207.6 Tobacco تمباکو																
207.7 Pulses دالیں																
207.8 Vegetables سبزیوں																
207.9 Orchards باغات																
207.10 Fodder چارہ																
207.11 Grazing چراگاہ																
207.12 Forest Plants جنگلی درخت) وضاحت کریں)---																

Linkages

- 208 Is the project a stand-alone intervention or is the scheme linked to any other PPAF funded intervention?
- 209 Was the linkage created at the planning stage?
- 210 Is the project linked to a project funded by some other source?
- 211 What are the benefits of the linkage of this project with other PPAF/other funded projects?

Deepening

- 212 Is the project the first PPAF funded intervention in the village? If no then
- 213 What other PPAF funded interventions (CIPs) exist/funded in the area under present or previous PPAF funding?

Creation of productive linkages

- 214 Does the project help in supportinng activities of some other productive activity funded by PPAF or other donor?
- 215 Did the project lead to the undertaking of some other productioive intervention by other donors or Government line agencies

Data collection tool for DWSS

216 Province _____

217 District _____

218 Union Council _____

219 Village _____

220 FGD members _____

221 Project Cost

1st Year	2nd Year	3rd Year	Total

222 Annual Maintenance cost (Rs.).....

223 Population served Nos.....

224 Collect following information

Particular	Before intervention	After Intervention
Number/Beneficiary		
i. HH		
ii. Population		
Distance covered for bring drinking water		
Who collected water		
Children		
Women		
Men		
Others		
Time saved (hours) after the scheme		
What is use of saved time		
Children		

Women		
Men		
Others		
What financial benefit you are fetching of saved time		
Children		
Women		
Men		
Others		
Was there any impact on health after the scheme		
Children		
Women		
Men		
Others		
Was there any impact on acquiring education after the scheme		
Children		
Women		
Men		
Others		
Conflicts in village on water collection		
Cost of conflicts/resolution		

Linkages

225 Is the project a stand-alone intervention or is the scheme linked to any other PPAF funded intervention?

226 Was the linkage created at the planning stage?

227 Is the project linked to a project funded by some other source?

228 What are the benefits of the linkage of this project with other PPAF/other funded projects?

Deepening

229 Is the project the first PPAF funded intervention in the village? If no then

230 What other PPAF funded interventions (CIPs) exist/funded in the area under present or previous PPAF funding?

Creation of productive linkages

231 Does the project help in supportinng activities of some other productive activity funded by PPAF or other donor?

232 Did the project lead to the undertaking of some other productioive intervention by other donors or Government line agencies"

Data collection tool for Roads and Bridges Projects

233 Province _____

234 District _____

235 Union Council _____

236 Village _____

237 FGD members _____

238 Project Cost

1st Year	2nd Year	3rd Year	Total

239 Annual Maintenance cost (Rs.).....

240 Collect following information

Particulars	Before Road/bridge	After Road/bridge
Beneficiary Population (Nos.)	----	
Population travelling (Nos.)		
Purpose of travelling (Nos.) & Cost per person (Rs.)		
Daily Education related travelling (No.)		
Daily Education related travelling cost per person (Rs.)		
Daily Health related travelling (No.)		
Daily Health related travelling cost per person		
Daily Jobs related travelling (No.)		
Daily Jobs related travelling cost per person (Rs.)		
Daily Social activities related travelling (No.)		
Daily Social activities related travelling cost per person (Rs.)		
Cost of bringing households items Rs./pm		

Cost of Marketing agri. Produce (Rs./50kg)		
No. of Bags(50kg) marketed in Rabi		
No. of Bags(50kg) marketed in Kharif		
Transportation Cost of Input for agriculture (Rs./bag)		
No. of inputs Bags transported in Rabi		
No. of inputs Bags transported in Kharif		
No. of inputs Bags transported for livestock per month		
Transportation Cost of Livestock (Rs./vehicle)		
No. of vehicles transported per month		
No. of Jobs created		
Earning per job (Rs./month)		

Linkages

241 Is the project a stand-alone intervention or is the scheme linked to any other PPAF funded intervention?

242 Was the linkage created at the planning stage?

243 Is the project linked to a project funded by some other source?

244 What are the benefits of the linkage of this project with other PPAF/other funded projects?

Deepening

245 Is the project the first PPAF funded intervention in the village? If no then

246 What other PPAF funded interventions (CIPs) exist/funded in the area under present or previous PPAF funding?

Creation of productive linkages

247 Does the project help in supporting activities of some other productive activity funded by PPAF or other donor?

248 Did the project lead to the undertaking of some other productive intervention by other donors or Government line agencies?"

Data collection tool for Drainage and Sanitation Projects

249 Province _____

250 District _____

251 Union Council _____

252 Village _____

253 FGD members _____

254 Project Cost

1st Year	2nd Year	3rd Year	Total

255 Annual Maintenance cost (Rs.).....

256 Collect following information

Particular	Before intervention	After Intervention
Number/Beneficiary		
iii. HH		
iv. Population		
Drainage & sanitation possession		
i. HH		
ii. Population		
Diseases count		
Children		
Women		
Others		
Monthly Health Expenditure Children (Rs.)		
Monthly Health Expenditure Women (Rs.)		
Monthly Health Expenditure Others (Rs.)		
Distance of health facility (Km)		

Travelling expenditure to health facility (Rs.)		
Monthly Expenditure on control of flies/mosquitoes.		

Linkages

257 Is the project a stand-alone intervention or is the scheme linked to any other PPAF funded intervention?

258 Was the linkage created at the planning stage?

259 Is the project linked to a project funded by some other source?

260 What are the benefits of the linkage of this project with other PPAF/other funded projects?

Deepening

261 Is the project the first PPAF funded intervention in the village? If no then

262 What other PPAF funded interventions (CIPs) exist/funded in the area under present or previous PPAF funding?

Creation of productive linkages

263 Does the project help in supporting activities of some other productive activity funded by PPAF or other donor?

264 Did the project lead to the undertaking of some other productive intervention by other donors or Government line agencies?"

Data collection tool for Renewable Energy

265 Province _____

266 District _____

267 Union Council _____

268 Village _____

269 FGD members _____

270 Project Cost

1st Year	2nd Year	3rd Year	Total

271 Annual Maintenance cost (Rs.).....

272 Population served Nos.....

273 Energy production in Watts.....

274 Collect following information

Particular	Before intervention	After Intervention
274.1 What was/is source for light سکیم سے پہلے اور اب آپ روشنی کس ذرائع سے حاصل کرتے ہیں / تھے ؟		
274.2 What was/is the cost per day of lights روشنی کے لئے آپ کے گھرانے ایک دن میں کتنے پیسے لگتے تھے / ہیں ؟		
274.3 How many lights/ volts you are using آپ کا گھرانہ کتنی لائٹس / وولٹس استعمال کرتا ہے / تھا ؟		
274.4 What is the market value of lights/volts جو لائٹس / وولٹس آپ کا گھرانہ استعمال کرتا ہے / تھا ، اسکی مارکیٹ ویلیو کتنی ہے ؟		
274.5 Any other benefits (cost) کوئی اور فائدہ (قیمت)		

Linkages

275 Is the project a stand-alone intervention or is the scheme linked to any other PPAF funded intervention?

276 Was the linkage created at the planning stage?

277 Is the project linked to a project funded by some other source?

278 What are the benefits of the linkage of this project with other PPAF/other funded projects?

Deepening

279 Is the project the first PPAF funded intervention in the village? If no then

280 What other PPAF funded interventions (CIPs) exist/funded in the area under present or previous PPAF funding?

Creation of productive linkages

281 Does the project help in supportinng activities of some other productive activity funded by PPAF or other donor?

282 Did the project lead to the undertaking of some other productioive intervention by other donors or Government line agencies"

FGD Guidelines for Community Men and Women

282.1.1 1 Background Information

Province	
District	
Union Council and Community	
FGD participants gender	
Date	
Name of facilitator	
Name of note taker	

282.1.2 2 Participants Profile

Participants name	Occupation of participant	Main livelihood source of HH	Age	Member CO Y/N

282.1.3 3 Community Profile – Context

1. Please tell us briefly about the following in your community;
 - Approximate number of households including the marginalized and very poor households; Also briefly discuss as to who are considered poor and marginalized by the group;
 - State of social services like education, health, WASH, access (roads), transportation;
 - Mobility issues (emphasis on female mobility);

4 Relevance

1. According to the group, how relevant are PPAF schemes to the needs of the community? In what ways does the group think that the intervention is relevant? Ask about each scheme which has been implemented in the community and rank them according to priority of the community?
 - Irrigation scheme;
 - Safe drinking water;
 - WASH;
 - Roads, Pavements and bridges;
 - Energy efficient schemes;
 - Others;

5 Effectiveness

1. Please discuss, how effective each intervention has been in terms;
 - Improving people's livelihood conditions;
 - Improving men, women and children's access to social services including education, health services and work places;
 - Improving community infrastructure;
 - Has the scheme been effective in time saving of household men and women; Probe about effect of scheme on women's daily work load;
2. Does the group feel that the interventions or schemes were implemented equitably and inclusively;
 - Marginalized and vulnerable households were consulted;
 - Beneficiaries were selected according to a need based criteria;

6 Impact

1. Please find out from the group, the impact of interventions
 - Has the intervention affected household income levels? If yes, how and what is the difference?
 - Impact on children's education;
 - Impact on household members health status and changes in health seeking behavior;
 - Food security;
 - Savings and other coping strategies;
2. Ask the group if any scheme has made any changes in gender roles and responsibilities;
 - improved access to education, health, water, markets, mobility etc.

7 Community mobilization and participation

1. How consultative was the design and implementation process of each scheme;

Probe for:

- What was the level of women's participation;
- Participation of vulnerable and marginalized groups;
- Role of community in repair and maintenance;
- Sense of ownership by the people;
- Any trainings or other capacity building by the project;

2. Any conflicts or disputes due to the scheme; If yes, what is the status now?

Probe for;

- If yes, was the dispute/conflict resolved;

How was it resolved and who played key role in its resolution (probe about the role of COs in this).

8 Sustainability

1. Do group participants feel that their CO is now capable and autonomous enough to carry out work without external support? Discuss in detail and probe for;
 - Training needs and in which areas;
 - Village development plans (PPAF mandate or independent plans)
 - Funding;
 - Partnerships with other organizations or groups;
 - Future plans