



FEDERAL PROJECT MANAGEMENT UNIT
FEDERAL WATER MANAGEMENT CELL
MINISTRY OF NATIONAL
FOOD SECURITY & RESEARCH
ISLAMABAD - PAKISTAN

NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

MONITORING, EVALUATION
AND IMPACT EVALUATION
CONSULTANTS

MONTHLY MONITORING REPORT

MARCH 2023



A Joint Venture of
G3 Engineering Lead Firm
Consultants (Pvt.) Ltd.



In Association with S&S Associates





Federal Project Management Unit (FPMU)
Ministry of National Food Security & Research, Islamabad

Monitoring, Evaluation and Impact Evaluation (ME&IE) Consultants
For
National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)

MONTHLY MONITORING REPORT
MARCH 2023

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ACRONYMS

ADA	Assistant Director Agriculture
AES	Agriculture Extension Services
AF	Acre-Feet
AJK	Azad Jammu & Kashmir
AOSM	Adjustable Orifice Semi-Module
AWPB	Annual Work Plan and Budget
AWPs	Annual Work Plans
BCR	Benefit Cost Ratio
CFT	Cubic Feet
CMS	Content Management System
CSRD	Center for Social Research and Development
DAES	Director Agriculture Extension Services
DDA	Deputy Director Agriculture
DGA	Director General Agriculture
DTL	Deputy Team Leader
EAs	Executing Agencies
EIRR	Economic Internal Rate of Return
FCR	Financial Completion Report
FCRs	Final Completion Reports
FMFSR	Framework for Federal Financial Management System
FOs	Farmers Organizations
FFMU	Federal Project Management Unit
FTI	Field Team Incharge
FWMC	Federal Water Management Cell
GAP	Gender Action Plan
GB	Gilgit Baltistan
G3EC	G3 Engineering Consultants
GIS	Geographic Information System
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Interim Completion Report
ICT	Islamabad Capital Territory
IRR	Internal Rate of Return
ICT	Information & Communication Technology
JV	Joint Venture
KP	Khyber Pakhtunkhwa
LLL	Laser Land Leveler
LPS	Liter per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring Evaluation and Impact Evaluation
MIS	Management Information System
MNFSR	Ministry of National Food Security and Research
MMR	Monthly Monitoring Report
MT	Monitoring Template
MTE	Mid-Term Evaluation

NESPAK	National Engineering Services Pakistan
NPC	National Project Coordinator
NPIWC	National Program for Improvement of Watercourses
NPV	Net Present Value
NWMC	National Water Management Consultants
ODK	Open Data Kit
OFWM	On-Farm Water Management
PC-1	Planning Commission-(Form-One)
PDO	Project Development Objectives
PIC	Project Implementation Committee
PIES	Project Impact Evaluation Study
PQC	Pre-Qualification Committee
QM&ER	Quarterly Monitoring and Evaluation Report
RBM	Results-Based Management
RFT	Running Feet
RWD	Responsive Web Design
SFT	Square Feet
SOPs	Standardized Operating Procedures
SPSS	Statistical Package for Social Sciences (Software)
SSCs	Supply and Service Companies
TABs	Tablets
TL	Team Leader
TOR	Terms of Reference
TPV	Third Party Validation
TWRD	Tail-Water Recovery Ditch
WG	Women Group
WST	Water Storage Tank
WUAs	Water Users Associations

EXECUTIVE SUMMARY

The “Monitoring Report for the month of March 2023” comprises of five chapters:

Chapter-1 describes the detailed introduction and description of the project. The Government of Pakistan is implementing a project entitled “National Program for Improvement of Watercourses in Pakistan Phase-II” (NPIWC-II) at a total cost of PKR 154,542.355 million (Umbrella PC-I including Sindh) over a period of 05 years. This project will cover Punjab, Khyber Pakhtunkhwa (KP), Balochistan and Gilgit Baltistan (GB), Azad Jammu & Kashmir (AJ&K) as well as Islamabad Capital Territory (ICT). The present project is beneficial for the country.

The NPIWC-II comprises four components to be implemented in Punjab, KP, Baluchistan, GB, AJ&K, and ICT:

- i) C1: Organization of Water Users Associations
- ii) C2: Watercourse Improvements: 47,278 Nos.
- iii) C3: Construction of Water Storage Tanks: 14,932 Nos.
- iv) C4: Provision of Laser Land Leveling Units: 11,610 Nos.

Chapter-2 elaborates the objectives and scope of work of the ME&IE Consultants for the project. Since the ME&IE Consultants are going to monitor implementation of all criteria set, procedures defined, and timeline agreed for implementation of various components. All these are reproduced in this report as ready reference to devise / design M&E strategy, methodology, procedures for monitoring and impact assessments of the project interventions.

The monitoring strategy followed by ME&IE Consultants is briefly described in Table-2.1. The strategy has been finalized and implemented in close coordination with the client and active participation of the beneficiaries as well as the project stakeholders.

Chapter-3 explains purpose of Monthly Monitoring Report (MMR). This current MMR covers the period from 1st March 2023 to 31st March 2023.

This chapter also covers the activities of ME&IE Consultants, carried out during the reporting period which are summarized below:

- Submission of MMR for the previous Month (February 2023)
- Mid-Line Monitoring & Impact Evaluation Report (Draft)
- Regular Monitoring of Interventions in the Field
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Data entry, cleaning, validation and reporting

Chapter-4 highlights the quarterly work plan for the period of 1st January 2023, to 31st March 2023. The work plan consisting of following activities:

- Pre-field Activities
- Field Activities
- ICT Assignment
- Coordination Meetings
- Deliverables

The detail time span for 1st Quarter of year 2023 is provided in the Tentative Work Plan **Annex-A**.

Chapter-5: Issues / problems faced by the consultants during the reporting period of the assignment are described in this Chapter.

Table ES-1: Compliance Status of Tentative Work Plan during Reporting Period

No.	Activities Planned for the Reporting Quarter		Status
1	Pre-Field Activities		
1.1	Preparation for 3 rd -Phase Baseline Survey (Finalization of MTs)		Will be initiated in March 2023
1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey		Will be initiated in March 2023
1.3	Training of Field Staff for 3rd-Phase Baseline Survey		Will be initiated in March 2023
2	Field Activities:		
2.1	Regular Monitoring of Interventions in the Field		Complied
2.2	Data collection of the interventions in the field		Complied
2.3	Baseline Survey Phase-II		Complied
2.4	Online data entry in android-based application		Complied
3	ICT Assignment:		
3.1	Development / Improvement of website of NPIWC-II		Complied
3.2	Monitoring online data collection and Data entry		Complied
3.3	Monitoring Android based Mobile Application under implementation by field staff.		Complied
3.4	Data collection of interventions in MIS/GIS database		Complied
3.5	Capacity Building Trainings / Refresher of Departments		Complied
3.6	Data Cleaning, Development & Launching of Dashboard for Client Offices		Complied
4	Coordination		
4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues		Meetings conducted on regular basis
4.2	Meeting of DTLs with respective DTL of NWMC		Meetings conducted on regular basis
4.3	Internal Meetings of ME&IE Consultants		Weekly meetings conducted on regular basis
5	Deliverables:		
5.1	Monthly Monitoring Reports (MMRs)	24 th MMR (Dec. 2022)	Submitted
		25 th MMR (Jan. 2023)	Submitted
		26 th MMR (Feb. 2023)	submitted
		27 th MMR (March 2023)	Report in hand
5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Jan-March 2023	To be submitted in stipulated time
		QM&ER Jan-Mar 2023	To be submitted in stipulated time
5.3	Mid-Line Monitoring & Impact Evaluation Report		Submitted
5.4	Preparation of Baseline Survey 2 Report		Submitted
5.5	Consolidation of Baseline Survey 1 & Baseline Survey 2 Reports		Under process

CHAPTER-1: PROJECT INTRODUCTION

1.1 PROJECT PROFILE

This section covers the following detail of the project:

Project Name: National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)

Project Areas: Punjab, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)

Sponsoring Agency Ministry of National Food Security & Research

Executing Agencies (EAs): Following are different EAs: Federal Project Management Unit (FPMU),

- i. DGA OFWM Punjab
- ii. DG OFWM KP
- iii. DGA OFWM Baluchistan
- iv. Director Irrigation and Small Dams, AJ&K
- v. Director WM, GB
- vi. Director Agriculture Extension Services (AES) ICT

Project Period: 5 Year (2019-2024)

Total Project Cost: Rs. 154,542.355 million (Umbrella PC-1, including Sindh)

ME&IE Consultancy Period: 4 years

ME&IE Consultant: JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD), ADA Consultants Inc. Canada, and S&S Associates.

ME&IE Consultant Mobilized: November 20, 2020

1.2 PROJECT DESCRIPTION

Project description includes followings i.e., the project development objectives, project objectives, project benefits, project components, etc.

1.2.1 Project Development Objectives

The Project Development Objectives (PDOs) are to improve irrigation water management at tertiary and field levels in Pakistan.

1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

1) General Objectives:

The Project aims to replicate the success achieved during the NPIWC Phase-I and further improve the findings of the Project Impact Evaluation Study (PIES). The broad objectives of the project are as under:

- i) Social mobilization through capacity building of WUAs/ FOs,
- ii) Minimization of conveyance and field application losses,
- iii) Reduction in Water Logging and salinity,
- iv) Equity in water distribution,
- v) Reduction in water disputes/thefts/litigation,
- vi) Motivation/participation of farmers,
- vii) Poverty reduction through employment generation, and
- viii) Increase in crops yield/self-sufficiency in food.

2) Quantitative Objectives' Outputs and Impacts:

The quantitative objectives' outputs and impacts of the Project are as under:

Project outputs

- i) Mobilization through capacity building of Water Users Associations/Farmers Organizations in improved water management techniques and their registration under On-Farm Water Management and Water User Associations Ordinance [Act] 1981 and organization of 47,278 WUAs.
- ii) Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete

earthen renovation, partial lining of critical reaches (50% of the total watercourse length as decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).

iii) Construction of 14,932 water storage tanks with 60% subsidy through cost sharing arrangements with the expectation to save about 50% irrigation water for wheat and about 68% of irrigation water for paddy crops.

Project impacts

- iv) Reduction in Water Logging and salinity in project areas to the extent of 10%.
- v) Cropping intensity is expected to increase by 5-20%.
- vi) Crop's yield is estimated to increase by 10-15%.
- vii) Equity in water distribution increased by about 30%.
- viii) Reduction in water disputes/thefts and litigation amongst the Farmers over water distribution by about 80%.
- ix) Help poverty reduction through generation of employment.
- x) Self-sufficiency in food through utilization of water saved including edible oil seed production.

Project indirect benefits to industry/economic activities

- xi) Cement industry, bricks Killen, Precast Structures Industry and other related industries' production will pick up.

Awareness support to farmers

- xii) Motivating farmers through an awareness campaign for watercourse improvement.
- xiii) Providing technical material to farmers for optimal utilization of water resources in the shape of technical manual and operational guidelines.

1.2.3 Project Beneficiaries

Majority of the direct beneficiaries of the project constitute the number of farmers (owners as well as tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming 35 farmers on each watercourse, the total number of the farmers benefiting from the activity comes to 1.655 million. The same number will be benefited due to Water Users' Associations

(WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 farmers will be directly benefited from Water Storage Tanks and 11,620 as recipients of Laser Land Leveling Units. Thus, total gross direct beneficiaries are expected to be around 3.336 million households. However, net beneficiaries are expected to be 1.668 million.

Taking family size at five, total net population benefitting is expected to be 8.34 million people.

1.2.4 Project Components

The NPIWC-II project comprises four components.

C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:

Establishment / reactivation of Water Users Associations (WUAs) through community driven implementation approach. Following are the scope of WUAs:

- i) Provide right of way for constructing watercourse,
- ii) Arrange skilled and unskilled labor required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,
- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of Nacca, distribution of work, etc.
- v) Make alternate arrangements for conveyance of water during execution of improvement works,
- vi) Carry out civil works in accordance with standards and specifications under the supervision of OFWM field staff,
- vii) Regularly undertake O&M of improved watercourses after its construction.

C2: WATERCOURSE IMPROVEMENTS:

47,278 Watercourses are planned to be improved /reconstructed and lined adopting the following criteria:

- i) New watercourses that are not yet improved under earlier programs / projects,
- ii) Reconstruction of more than 20 years old watercourses that outlived their economic / useful life,

iii) Additional lining up to 50% of already improved watercourses.

C3: CONSTRUCTION OF WATER STORAGE TANKS:

The project will construct 14,932 Water Storage Tanks (WSTs). Following will be the benefits of WSTs:

- i) Store water during the rainy season and times of no use in the commands of perennial / non-perennial canals for subsequent irrigations at the critical crop growth stages,
- ii) Provide flexibility for storage of plentiful canal and rainfall runoff water for its more expedient use subsequently,
- iii) Collect, store and filter water from:
 - Small Dams, springs, streams, mullahs etc.
 - Rainfall runoff over agricultural catchment during rainy season
 - Tube-wells and dug wells of low flows
 - Tail-waters from agricultural fields
- v) Regulate the flows so that it can be used efficiently when needed at large flow rates.

C4: PROVISION OF LASER LAND LEVELING UNITS:

Provision of 11,610 Laser Land Leveling (LLL) units to the farmers; the component is strengthening LLL services in the country through provision of LLL Units to farmers / service providers on 50% subsidized rates.

1.2.5 Project Targets

Project aims at achieving the targets for 5 years starting from the year 2019-20 to 2023-24, presented in **Figure-1.1**. Whereas, the targets for each Province / Zone (excluding Sindh) are presented in **Figure-1.2**.

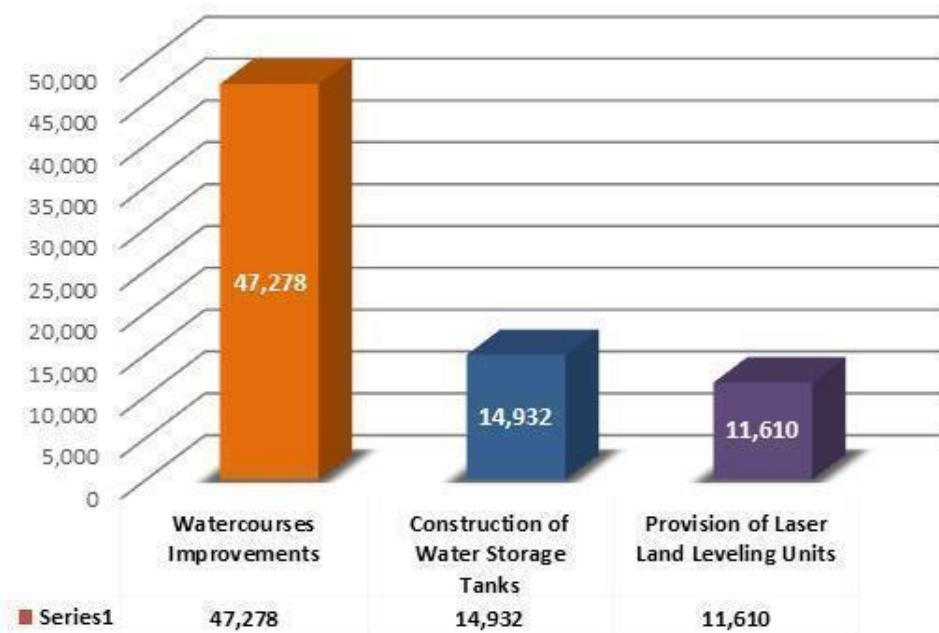


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

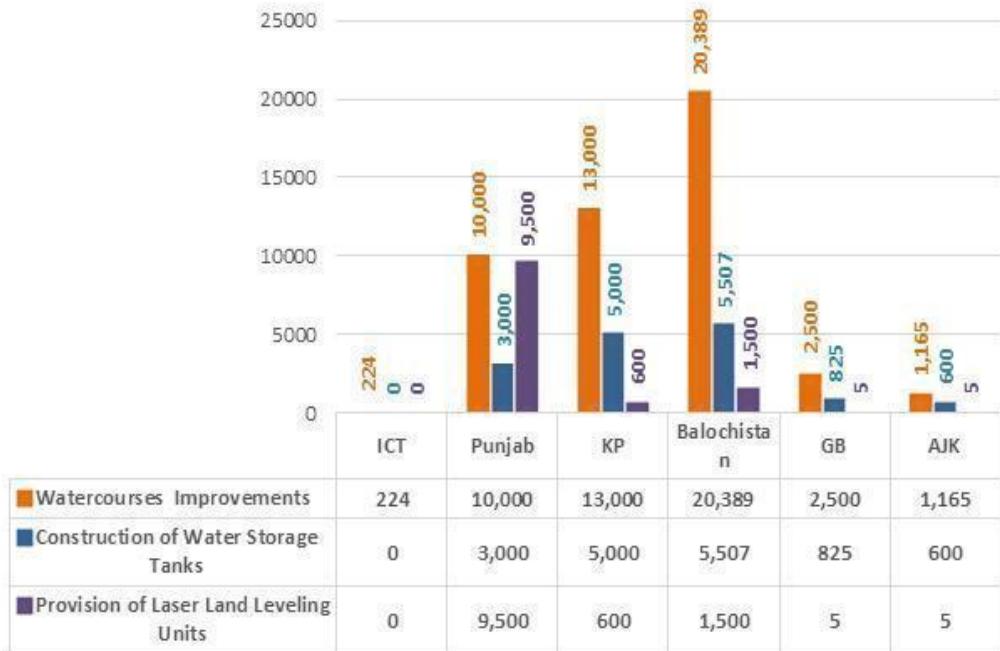


Figure 1.2: Zone-Wise WCs Improvement, WSTs, and LLL Target

CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS

The ME&IE Consultants' services are designed to be provided through a multi-disciplinary team of qualified professionals. All the firms in the joint venture have rich experience in the field of monitoring and evaluations (M&E). The team deputed for this task in the project, comprises highly qualified professionals having long practical experience of such projects earlier launched in Pakistan. The consultants are developing a "State-of-the-Art Management Information System" (MIS) with "Geographical Information System" (GIS) focused for NPIWC-II to monitor progress on project interventions and to carry out an effective monitoring process. The MIS is helping decision makers to make informed decisions.

2.1 OBJECTIVES OF CONSULTING SERVICES

The objective of ME&IE Consultant's services is to carry out M&E of project impacts to ensure achievement of project development objectives.

2.2 SCOPE OF CONSULTING SERVICES

The ME&IE Consultants are responsible for monitoring, evaluation and impact evaluation (ME&IE), and in this context are carrying out the following activities:

- i) Undertake baseline, midline and endline surveys for the project activities / interventions in all the project areas,
- ii) Develop monitoring strategy, framework and Result-Based Monitoring (RBM) indicators,
- iii) Preparation of monthly, quarterly and annual monitoring, evaluation and validation reports of the project activities,
- iv) Assessing the water saving per annum on watercourses, water storage tanks and field levels as well as aggregate due to the project interventions,
- v) Assessing the improvement in water availability due to the provision of conveyance system,
- vi) Assessing the economic benefits to the agriculture in terms of changes in yields, irrigated area, cropping pattern, cropping intensity, farm income and employment in command area of watercourses and water storage tanks,
- vii) Assessing the extent of community

mobilization, financial and administrative sustainability of water users' associations and ensuring the maintenance of watercourses, water storage tanks and laser land Levelers,

- viii) Economic impact of project interventions,
- ix) Carry out the impact evaluation of the project intervention on the economy and stakeholders,
- x) Develop a website containing information on facilities and services, applications, procedures, watercourses, water storage tanks and laser Levelers database, etc. (while the project's IT staff will maintain the website),
- xi) Provide technical support for the development of a custom-designed mobile application (Android Based) to capture on-site project progress and geo-tagged photos. It should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the management.

The said requirement is based on the following functional features:

- *Development of a GIS database with all spatial layers related to activities being undertaken under the project*
- *Give technical assistance for up-dation/up-gradation of water management GIS database.*
- *Development of web-based GIS application as a dashboard interface for comprehensive representation of all spatial and tabular information: custom designed web GIS application be developed for large LED screens, should be self-operative and represent project data on multiple layouts of application interface.*
- *Development of a MIS application as an integral part of web GIS to maintain information on facilities and services, applications, procedures, watercourses database, etc.*
- *Development of a custom designed mobile application (Android) to capture on-site project progress, geo-tagged photos; should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the management.*
- *Application should generate custom designed reports and analysis as per user- defined requirements.*
- *Application should generate alerts (SMS, email, web-notifications) to the user on the non-conformance of project's key indicators;*

the application should have the provision to custom define alerts levels and desired notifications.

2.1. However, detailed methodology and procedures to carry out the ME&IE of the project interventions were explained in Chapter 6 of Inception Report.

2.3 MONITORING STRATEGY OF CONSULTANTS

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in **Table-**

Table 2.2: Monitoring Strategy for ME&IE Activities

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
1	Baseline, midline and endline surveys	Team Leader, Socio-Economic Expert, Agricultural Economist and Deputy Team Leader of the respective Province/Unit.	<ul style="list-style-type: none"> Baseline and impact surveys will be carried out on a sample basis. Data will be collected by field teams on pre-designed data collection tools through an android application on TABs. Baseline and impact surveys will be carried out in phases as target watercourses are not preselected. Baseline will be carried out before launching of the interventions and the impact one year (two crop seasons) after the completion of the intervention. The midterm study will review the project progress in the middle of the project implementation. The end line study will assess the impact of the project interventions.
2	Reporting	All core team members	<p>Following periodic reports will be prepared and submitted:</p> <ul style="list-style-type: none"> Draft Inception Report 45 days after the agreement, Final Inception Report one week after the issuance of comments by the client on the draft, Monthly Monitoring Report on 10th of following month, Quarterly Monitoring Report on 10th of the first month of the following quarter, Annual Monitoring and Evaluation Report during first month of the following year, Baseline Survey Reports (in three phases), First Phase Baseline Survey report will be submitted within the four months after the start of the assignment i.e., Submission of final inception report/Beginning of field activities. Impact Survey Reports (in phases) – two months after the data collection completion for the impact phase, Midline report in the middle of the assignment, Endline Report at the end of end line Survey, Draft Assignment Completion Report at completion of the physical works, Final Assignment Completion Report at completion of works and financial transactions. It will also include the full economic benefit of the project (NPIWC-II) on agriculture sector as well as on the GDP of Pakistan, Special Reports, as and when asked by the client.
3	Water saving assessment	Irrigation Agronomist,	<p>Water Saving on Watercourses:</p> <ul style="list-style-type: none"> Water flow will be measured on sample watercourses

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
		Field Team/ Engineers	<p>selected for the baseline and impact surveys</p> <ul style="list-style-type: none"> The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach and tail reach. The measurements will be done through current meters. Based on water savings on sample watercourses, total water savings will be estimated for all project watercourses. The savings will be reported per watercourse, per annum and aggregate for the project in LPS and Acre feet.
			<p>Water Savings on WSTs</p> <ul style="list-style-type: none"> Since WSTs will be filled and emptied on a continuous basis, the water savings will be assessed on the basis of water pumped from the tank to irrigate the fields. The assessment will be done either by readings on the pump gauge or periodically interviewing the farmer. Based on water savings on sample WSTs, total water savings will be estimated for all project WSTs. The savings will be reported per WST, per annum and aggregate for the project in LPS and in Acre feet. <p>Water savings due to Laser Land Leveling</p> <ul style="list-style-type: none"> Water savings at field level will be assessed through farmers' interviews. The impact survey form will include questions to be asked from the farmers who got their land leveled: <ul style="list-style-type: none"> In how much time an acre was irrigated before watercourse improvement and land leveling In how much time an acre is irrigated after watercourse improvement with land leveling <p>The difference will be water saving due to laser land leveling</p>
			Based on water savings on sample LLL units, total water savings will be estimated for all project LLL units. The savings will be reported per LLL unit, per annum and aggregate for the project in LPS and in Acre feet.
4	Community mobilization	Social and Gender Specialist and Socio-Economic Expert	<p>The extent of community mobilization will be assessed by investigating whether:</p> <ul style="list-style-type: none"> WUAs is functional Holds regular meetings and keep record of them Makes decisions democratically The participation in the organization is voluntary It is financially and administratively sustainable Takes steps and ensures maintenance of watercourses, WSTs and laser land leveler
5	Economic benefits assessment for agriculture	Team Leader, Socio- Economist and Agricultural Economist	<ul style="list-style-type: none"> As indicated at serial No. 1, Agriculture data will be collected before (baseline) and after (impact) the watercourse improvement and WSTs construction. In both the surveys same forms will be used and same sampled farmers will be interviewed Data on variables such as crop yields, irrigated area, cropping pattern, cropping intensity, farm income and employment will be collected and analyzed The difference between before and after situations minus natural growth will be assumed as economic benefits to the

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
			agriculture
6	Impact evaluation-on the economy	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> The results of the baseline and impact surveys will be used to quantify impact on the economy Additional food produced due to the project will be estimated. It is benefitted towards food security Project costs and benefits will be compared in economic and financial terms to carry out economic and financial analysis. Parameters like IRR, NPV and BCR will be estimated.
7	Impact evaluation-on the stakeholders	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> Analysis as in serial 6 will be carried out with reference to various stakeholders, like community, government, farmers, etc.
8	Spot checking	Team Leader, Deputy Team Leaders & Field teams/Engineers	During the field visits for WUAs baselines impacts of Watercourses, WSTs and laser land leveling units, the interventions will be spot checked for quality of construction, material, functioning and beneficiaries' satisfaction, etc.
9	Process monitoring	Field Teams of Agriculture Deptt., Project Consultants, ME&IE Consultants &ICT/Technology Specialist	<ul style="list-style-type: none"> The processed data for all the interventions will be fed to the MIS/GIS database. Client's field staff and field teams of consultants will furnish data of their activities. The ME&IE will assist in developing mobile application for this purpose From this data reports will be generated for process monitoring All interventions will be fully (100%) covered.
10	Project website and MIS/GIS dashboard development	ICT / Technology Specialist (Including all other core team staff will also coordinate in completing data for the MIS/GIS	<ul style="list-style-type: none"> The State-of-the-art MIS / Progress Monitoring Model will be developed for NPIWC-II. Customized forms will be developed to collect data from the implementing teams on-site for progress monitoring These forms will be made available to the teams on smart phones through an android application The teams will be adequately trained to use the application Data on physical and financial stages with dates will be fed to the system for process monitoring GIS coordinates for watercourses, WSTs, laser units (if available) and WUAs offices will be uploaded to the system and could be viewed / reached by the management online The system will be maintained on GOOGLE server so that it is accessible by the management from anywhere in Pakistan and abroad Custom reports will be possible as the user demands / desires The results could be displayed on small as well as large screens.
11	Development of Android based application	ICT / Technology Specialist	All the data collection forms / tools will be executed through customized developed Android based applications accessible with smart phones / TABs.

2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

The framework and Results-Based Monitoring (RBM) Indicators are identified in Table-2.2 of Inception Report. The indicators are further being enhanced and refined in consultation with the client as well as the stakeholders.

The improvement of indicators is a continuous process throughout the project implementation in the light of real and on ground situations.

CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH

As a regular part of the ME&IE assignment, routine field visits & monitoring of project interventions in the field remained continued by ME&IE consultants, during the reporting month. Consultants also carried out different in-house activities related to ME&IE assignment:

3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)

As per contractual obligation, the consultants have submitted twenty sixth MMR (February 2023) in the 1st week of March 2023. While the twenty seventh MMR (the Report in hand) for the month of March 2023 (1st March 2023 to 31st March 2023) will be submitted in stipulated time i.e., in the 1st week of the current month.

Monthly Monitoring Report (MMR) explains the understanding towards all activities to be carried out as per TORs of ME&IE consultants' assignment and their completion within stipulated time frame. The activities include but are not limited to pre-field/ in-house activities, field monitoring activities i.e., monitoring of project interventions, ICT assignments including monitoring of online data collection in the field, and development / improvement of project dashboard and website etc. Consultants of ICT Team also remained in contact Clients' officials for entering data in Dashboard and provided assistance when and where was required by client. All the activities of the current month were in compliance with the quarterly work plan of the consultants. Hence, the main objective of the Monthly Monitoring Report is to update the Client about the activities carried out by the ME&IE Consultants during the reporting month. Reporting is an integral part of the monitoring and evaluation framework.

3.2 SUBMISSION OF BASELINE SURVEY PHASE-II REPORT (UPDATE VERSION)

In the light of the comments of the Clients, the ME&IE Consultants have updated the Draft Report of Baseline Survey-I and submitted it along with an annotated reply of comments on BLS-II and draft report on BLS-II to NPC on 21st of December 2022.

3.3 REGULAR MONITORING / FIELD VISITS BY ME&IE CONSULTANTS

Routine/regular monitoring of the interventions remained in progress during the reporting month. However, due to heavy rains and devastating floods in most of the regions of the Punjab, Baluchistan and KP, the field activities were affected. Detail of data collection and regular field monitoring by field teams of Zonal Offices is given Zone wise as below:

3.4 ACTIVITIES ICT UNIT – MARCH 2023

The major activities conducted by ME&IE consultants during the current month were:

- Capacity building of Field Team Members through allowing them to participate in two distinct types of need-based trainings eligible for the novice and experienced professionals including:
 - a) Five days training on "Planning and management of development project" (Two Team members attended); and
 - b) Three days training on "Report writing of development projects" (Other Two Team Members attended).
- Quarterly Tentative plan designed and developed as well as submitted for conducting Baseline-III, Regular monitoring and spot-checking surveys.
- Assisted in draft reports writings of Baseline-II and Midterm in order to submit client office on the committed dates.
- Technically vetted the draft integrated reports compiled with the input of provincial Zonal DTLs
- Held regular inter and intra zonal as well as coordinating meetings with client and cooperating organizations for smooth functioning of manned ToRs of the NPIWC-II project.

3.4.1 To date Progress of ME&IE Consultants – ICT Unit

The ME&IE Consultants, Islamabad had carried out second baseline survey of 26 Watercourses and 15 WST during the months of August 2022. Impact survey of first baseline was conducted during the months of September & November 2022. These were a total of 8 interventions visited during the first baseline survey while 41 total interventions were visited in the second baseline. Baseline-I and Draft Baseline-II reports have been submitted

through validating the data by adjusting the outliers with the assistance of the respective provincial zonal teams.

The ME&IE consultants of ICT-unit have completed their targets of Baseline-I and Baseline-II. The

impact / midline survey for Baseline-I has also been completed. As a result, the targeted midline impact draft report has been prepared and submitted to the client against the completed baseline surveys at the point in time of the middle of the project

Total Activities, District-wise:

Table 3.3: Total activities, District-wise

Sr. #	District	First Phase Baseline		Second Phase Baseline		Midline Survey		Regular Monitoring / Spot Checking		Total visits
		WC	WST	WC	WST	WC	WST	WC	WST	
1	Islamabad	2	-	5	-	4	-	5	-	16
2	Attock	-	-	-	7	-	2	-	5	14
3	Chakwal	-	1	-	-	-	1	-	1	3
4	Kalar Kahar	-	1	-	-	-	1	-	-	2
5	Kalar Saidan	-	-	-	2	-	2	-	2	6
6	Taxila	-	-	-	1	-	-	-	1	2
7	Bhimber	-	-	9	1	-	-	-	-	10
8	Kotli	-	-	3	-	-	-	-	1	4
9	Mirpur	2	-	6	-	2	-	3	-	13
10	MuzaffarAbad	2	-	3	4	2	-	5	4	20
Sub-Total		6	2	26	15	8	6	12	13	90

3.4.2 Quarterly Work Plan – ICT Unit

A comprehensive tentative quarterly work plan from January to March 2023 was designed and developed for Baseline-III, regular and spot monitoring.

The ME&IE Consultants, Islamabad are committed to accomplish all deliverables on due dates.

A comprehensive tentative Quarterly Work Plan for the next quarter is attached as an Annexure-A

3.4.3 Capacity Building of ME&IE Consultants / Field Team Officers

A 05 days' training course from 20 to 24 March 2023 was conducted at Akhtar Hameed National Center for Rural Development (AHK NCRD) titled ***“Planning and Management for Development Projects”***. AHK NCRD was established as a Federal Training and Research Institution during 1979 and became operational with effect from 1983. It was declared as an attached department of the Ministry of Local Government and Rural Development in 1988. In recognition of invaluable services rendered by late Dr. Akhtar Hameed Khan for the cause of community development, strengthening of civil society and

socio-economic empowerment of the poor and marginalized people living in informal settlements in Pakistan, Government of Pakistan renamed NCRD as Akhtar Hameed Khan National Center for Rural Development and Municipal Administration (AHK NCRD MA). On 16th May, 2013 AHK NCRD became an attached department of the Establishment Division.

The primary goal of training programs by NCRD is to improve employees' performance and productivity by improving existing skills and acquiring new skills. The purpose of the training was to educate participants on the concept of participatory planning and development and its role in public and private systems. The training covered a variety of topics including participatory development, participatory planning, the role of local government representatives, and different skills, attitudes and attributes required for effective participatory planning.

The training methodology was interactive and the trainer not only spread the knowledge but also ensured that the participants were properly aware of and understanding the desired concepts. In order to ensure the effective trainings, the trainers engaged the participants in lively discussions and kept the forums open for getting feedback,

allowing the participants to ask questions and give suggestions. Diverse background resource persons belonging from the government departments delivered their allocated sessions.

At the end of the training, participants' feedback was sought about their level of understanding towards the purpose of the training. A training program is the ideal way to acquire project management knowledge. However, acquiring and applying the knowledge gained is a great way to progress. At the end of the training, participants were asked to give their personal opinion through rating the workshop evaluation. A post-training assessment was also conducted to measure the changes occurring amongst the participants' perceived knowledge, skills and attitudes. Closing ceremony of the training was led by the Director General of NCRD.

Objective & Purpose of Training:

The primary objective of a training program was to upgrade the learners / employee's performance and productivity by refreshing current skills and acquiring new ones. The purpose of training was to train participants on the concept of Participatory Planning and Development and its role in the government & private system. The training

sessions included various topics by employing participatory approaches such as participatory planning, role of Local Government Representatives and various skills and traits required for effective participatory planning.

Methodology of Training

The training methodology was interactive as the trainers ensured that knowledge was not only disseminated but accurately perceived and understood by the participants. In order to ensure this, trainers engaged participants in discussions and kept the forum open for feedback, queries and suggestions. Free discussions/interactive sessions of the training course were supported during training through employing the word feature of power point presentations.

Training Program

Following matrix elaborates the schedule and training components along with the Resource Persons engaged to impart the training amongst the learners/employees:

Training Day	Activities/Components of the Training Course	Resource Person
1st Day Monday 20 February, 2023	Inaugural Session & Recitation from the Holy Quran	
	Course Introduction	Mr. Bilal Raza, Assistant Director, NCRD
	Getting Acquainted	Mr. Israr Mohammad Khan, Director General, AHKNCRD
	Introduction to Project Management: ➤ Understanding Different Approaches of Development Planning & Projects ➤ Consideration for Selecting a Development Approach: Product, Project and Organizational Consideration What are main decisions in project management?	Mr. Salim Khan Khattak, Ex-Joint Chief Economist, Planning Commission/Ministry of Planning, Development and Special Initiatives, Islamabad
2nd Day Tuesday 21st March 2023	Setting a project design through need identification approaches	Mr. Aftab Alam Khan, CEO, Resilient Future International, Islamabad
	➤ The Project Cycle Management: Different phases of project cycle	Mr. Raheel Nazir, International Development Consultant, Islamabad.
3rd Day Wednesday 22nd March 2023	Project set up and its implementation: Role of the project Management Office	Dr. Faisal Anwar Malik, Former GP Head, Centre on Rural Economy, Islamabad

Training Day	Activities/Components of the Training Course	Resource Person
	➤ Project Monitoring and Evaluation through Logical Framework Analysis Project Monitoring and Evaluation System (PMES)	Dr. Usman Mustafa, Former Joint Director, Pakistan Institute of Development Economics, Islamabad
4th Day Thursday 23rd February, 2023	➤ Understanding project management disciplines How to manage project time and project scope?	Mr. Atiq ur Rehman, Director, Asian Centre for Organization Development, Islamabad
	Managing project finances, budget and supply chain	Mr. Huzoor Bux Maher, Former Deputy Chief, Governance Section, Ministry of Planning Development and Reforms, Islamabad
5th Day Friday 24 February, 2023	Risk Management and Project Stakeholder Management	Mr. Shahid Cheema, Chief (Employment & Research), Ministry of Planning, Development & Special Initiatives, Islamabad

PROCEEDINGS OF THE TRAINING COURSE

DAY 1, 20th March2023

SESSION I: INTRODUCTION AND OBJECTIVES OF THE WORKSHOP

The training began with recitation from the Holy Quran. It was formally initiated by **Mr. Bilal Raza**, Assistant Director, NCRD who warmly welcomed the participants, thanked everyone for sparing time to attend these sessions, and shared the objectives of training and invited **Mr. Israr Mohammad Khan**, Director General, AHK NCRD delivered an inaugural note. After that every participant gave their brief introduction.

SESSION II: INTRODUCTION TO PROJECT MANAGEMENT

M. Salim Khan Khattak, Ex- Joint Chief Economist, Planning Commission/Ministry of Planning, Development and Special Initiatives, Islamabad presented the introduction of project management and its importance. The session was very participatory and interactive.

Following topics were covered in this session:

- Understanding Different Approaches of Development Planning & Projects
- Consideration for Selecting a Development Approach: Product, Project and Organizational Consideration
- What are the main decisions in project management?

DAY 2, 21st March2023

SESSION-III: SETTING A PROJECT DESIGN THROUGH NEED IDENTIFICATION APPROACHES

Mr. Aftab Alam Khan, CEO, Resilient Future International, Islamabad, explained the approaches to project identification in detail. He emphasized the two most important steps in a project identification through employing the situational analysis (problem and context analysis), elaboration and prioritizing of project ideas.

SESSION-IV: THE PROJECT CYCLE MANAGEMENT

Mr. Raheel Nazir, International Development Consultant, Islamabad, who explained very well about the Project Cycle Management. He delivered

an excellent lecture through presentation on Project Cycle Management and its stages.



He explained that Project cycle management (PCM) is a method based on years of development, focused on organizing and planning projects through foundational principles and defined phases. This process covers the inception of the project to its planning and execution.

DAY 3, 22nd March 2023

SESSION-V: PROJECT SETUP AND ITS IMPLEMENTATION

Dr. Faisal Anwar Malik, Former GP Head, Centre on Rural Economy, Islamabad, imparted the project preparation setup and its implementation. The overall session was very productive and informative.

Question/ answer session was held at the end which was very well taken by the resource person.

Following topics were covered in the training session:

- Importance of Project Preparation and Management
- Project Management as a Profession
- Project Management & Framework
- 15 Project Management Job Functions
- Two main phases of Project formulation
- Context of projects
- Stakeholder Analysis
- Key Stakeholders
- Problem Analysis
- Problem analysis using the problem tree
- Objective Analysis
- Objective tree
- Giant Chat

SESSION-VI: PROJECT MONITORING AND EVALUATION THROUGH LOGICAL FRAMEWORK ANALYSIS

Dr. Usman Mustafa, Former Joint Director, Pakistan Institute of Development Economics, Islamabad, a legendary Professor and Trainer was resource person of the Training Course. He delivered his lecture on Project Monitoring and Evaluation through Logical Framework Analysis. The lecture was very participatory and interactive throughout the session. He explained the concepts with examples while discussing the Logical Framework as well as its importance in project proposal. The lecture remained gripped on the topic and was very clear and knowledgeable for the participants. The overall session was very productive and informative. Participants raised many questions and got meaningful and satisfactory replies from the resource person.

Following points were covered in the session:

- What is project and its importance
- Economic Growth and Development
- Approaches to Generating Results
- Vision, Mission and Goal
- Objectives, output, input & activities
- Framework for project definition
- What is result?
- Management and function
- Effectiveness & Efficiency
- Impact & its types



Figure 3.3: Lecture proceedings by Prof Usman Mustafa

DAY 4, 23 March2023

SESSION-VII: UNDERSTANDING PROJECT MANAGEMENT DISCIPLINES

Project Management Discipline topic was thoroughly covered by Mr. Atiq Ur Rehman, Director, Asian Centre for Organization Development, Islamabad. The session was very interactive and productive.

Following points were covered in the session:

- Understanding PM disciplines
- Managing time and scope
- PM Disciplines
- What is PM discipline?
- Why PM?
- Different disciplines of PM
- Scope Management

SESSION-VIII: MANAGING PROJECTS FINANCES, BUDGET AND SUPPLY CHAIN

Mr. Huzoor Bux Mahar, Former Deputy Chief, Governance Section, Ministry of Planning Development and Reforms, Islamabad has delivered the project finances, Budget and supply chain in detail. A participatory session was imparted.

Following topics were covered in the session:

- Development Objectives
- Development Planning
- Managing Project Finances
- Supply Chain Management
- Expenditure Management Practices
- Development Budgeting
- National Plan/Projects Approving Fora
- PSDP Financing Mechanism
- Conditions for Concept Clearance Proposal Financing
- Budgeting Project Capital Cost
- Enhancing Effectiveness of Project Finances

DAY 5, 24 March, 2023

SESSION-IX: RISK MANAGEMENT AND PROJECT STAKEHOLDER MANAGEMENT

Mr. Shahid Cheema, Chief (Employment & Research), Ministry of Planning, Development & Special Initiatives, Islamabad has described Risk

Management, its types and situation involving exposure to danger. He explained in detail that in project management, risk management is the practice of identifying, evaluating, and preventing or mitigating risks to a project that have the potential to impact the desired outcome

Following topics were covered in the training session:

- Risk types
- Steps in Risk Management
- Common Project Risk
- How to identify Risk?
- Stakeholder Management

LESSON LEARNED

At the end of training, the participants shared their knowledge with the colleagues in the training to recap the whole training course. Training programs are an ideal way to acquire project management knowledge; however, capturing and applying lessons learned is an excellent way to develop:

- The participants will be able to the ultimate purpose of lessons learned is to provide future project teams with information that can increase effectiveness and efficiency and to build on the experience that has been earned by each completed project.
- Participants gained knowledge regarding the development management is the strategic planning, administration and controlling of a project during its development life cycle, from project planning through to construction completion and project exit.

Project managers work diligently to better define goals and optimize workflows to improve productivity and project quality. With a clear roadmap in hand, teams can better navigate the project and perform the required tasks, ultimately improving the overall quality of work and producing a high-quality product.



Figure 3.4: Training session in progress at NCRD

EVALUATION SESSION

At the end of the training, participants were given workshop evaluation forms to share their feedback. In addition, a post-training assessment test was also conducted to help gauge the perceived changes in knowledge by the participants at the end of the training.



Figure 3.5: FTI, ICT-Zone awarded by certificate from NCRD



Figure 3.6: S&G specialist awarded by certificate from NCRD

CONCLUSION

Training and development are considered as a strategy for growth in every organization. It is adopted by the organization to fill the gap between skills and future opportunities. These training programs definitely enhance skills, improve efficiency, productivity and growth opportunities for the employees.

CONCLUDING SESSION & AWARD OF CERTIFICATES CLOSING

Closing ceremony of the training was led by the Director General of NCRD. The ceremony was initiated with a note of thanks and he addressed the participants and asked about their learning experience and distributed training certificates. He thanked the participants for their active participation in the training. He also congratulated them on successful completion of this training course and hoped that the knowledge gained would be helpful in effective and efficient implementation of the project/ program activities.

RECOMMENDATION/SUGGESTION

- Group activities should be part of the training to enhance understanding and make the training more participatory.
- Presentation slides should be more legible and clearer.
- Relevant trainees must be nominated for the training.
- At the end of each session, participants should be given an evaluation form to rate the resource person session.
- More and frequent nominations for further capacity building of ME&IE consultant's employees.



Figure 3.7: Group photograph of training at NCRD

3.4.4 Three Days Training On: Report Writing of Development Projects

3.4.4.1 Agenda:

Days	Topics	Presenter
Day 1: (27 th February- 23)	<ul style="list-style-type: none"> • Workshop introduction • Report writing skills introduction. • Significance of report writing in development projects. • Common challenges in report writing and their resources. 	1. Mr. Muhammad Ahsan Jamil. (Workshop coordinator at NCRD) 2. Mr. Aftab Alam Khan (CEO resilient future international)
Day 2: (28 th February- 23)	<ul style="list-style-type: none"> • Significance of proposal writing. • Proposal writing for development project. • Professional report writing at different phases in a development project cycle. 	1. Mr. Raheel Nazir Chaudhary . (Development professional, Islamabad).
y3: (1 st March- 23)	<ul style="list-style-type: none"> • Preparing financial and budget reports for development project • M&E report writing for development project 	• Dr. Atiq-ur-Rehman (Director, Asian center for organization development, Islamabad)

3.4.4.2 Summary:

- The report was written to provide information about the training on "Report writing of development project" held in NCRD (ICT) on 27th of February-2023 to 1st March-23 (three days training).
Training session includes:
 - The presentation and practical tasks.
 - Objective of the training includes all the main points and ideas about the report writing skills.

- Recommendation includes the continuation of these kinds of training in future and relevancy of the presentations related topics.

3.4.4.3 Objective

The major objectives of training are as follows:

- To realize the need for and importance of report writing for public and non-governmental development projects.
- To learn to write reports at various stages of a development project.
- To promote sharing of experiences among the participants with respect to report writing skills for development projects.

3.4.4.4 Methodology:

The training involved:

- Face to face discussions.
- Demonstrations of different topics on report writing.
- Presentations on report writing.
- Practical task/ assignments

3.4.4.5 Lessons Learned

Following points were learned in the said training:

1. Demands of organization related to report writing. (Lessons learned, recommendation)
2. Issues faced by the writer while writing reports. (Gender blind reports, language issues, data issues)
3. Challenges faced in report writing.
4. Financial reports. (Balance sheet, income statement, cash flow statement)
5. Introduction to framework, a tool for project design and reporting.
6. Writing better reports by taking care of the Seven Cs, such as:
 - Clear
 - Concise
 - Consistent
 - Coherent
 - Conventional
 - Complete and thoughtful
 - Courageous
7. Rules for report writing (do or don't):
 - Avoid using all capitals (e.g., write "a bad situation" not a BAD situation")

- Spell number less than 10 (e.g., use "ate six times daily for 12 days" not "ate 6 time daily for 12 days")
- Avoid word "very" (e.g. use "they perform well" not "they perform very well")
- Use the word data correctly (e.g., right use of data in the sentence: "data were impressive" not "data was impressive")

8. Program framework, demonstrate links between what we do and what change we seek. It ensures that our M&E activities are practical and relevant.
9. Goal (the ultimate purpose of our project) and strategic objective (highest level of result that a project achieved) of a project.

3.4.4.6 Conclusions

- The training sessions successfully imparted good knowledge and skills amongst more than 100 participants
- The host training sponsored organization received feedback from the participants in order to tailor effective future training programs of this kind.

3.4.4.7 Recommendations

- Training sessions must be provided on need base with regular intervals.
- The presentation must be topic oriented rather than generic.



Figure 3.8: Training session at NCRD



Figure 3.9: Training session at NCRD



Figure 3.10: Training session at NCRD

- Equipment is needed for measuring flow of water and recording of necessary data like pygmy meter and Tablet.
- First aid box, and basic necessities like, umbrella, water with coolers must be provided to the field teams in order to combat emergency situation.
- Tablet must be provided at least 2-3 days prior to visit.
- Each member of the field team must have their official identity card when the team visits the field or the office of OFWM.
- Vehicles with Driver must be available on time to carry out field and other official purposes.
- Field visit Plan/ advance request must be approved prior to field visit in order to avoid any inconvenience in conducting field activities as against the planned field work schedules.

3.4.6 SUMMARY OF ACTIVITIES ISLAMABAD UNIT – March 2023

The salient activities were carried out by the ME&IE ICT-Zone consultants during the current month as follows:

Quarterly Tentative plan designed and developed and submitted for conducting baseline –III, Regular monitoring and spot check surveys,

Engaged in drafting of the case studies,

Case study with respect to the Social and Gender component prepared by the Social& Gender Specialist.

Held regular meetings with the client / cooperation department as well as in-house professionals,

Contributed in the vetting of integrated MMR report for the month of March, 2023, and Looked after and supported the admin and financial duties manned under the charter of Team Leader and Deputy Team Leader of the ICT-Zone along with the National Office, Islamabad.

3.4.5 Key Challenges & Mitigation Measures Adopted

3.4.5.1 Some Limitations:

Some limitations are as follows:

- Smooth running of the project's activities warrants a continuous coordination with OFWM Directorate. It would be good, that this coordination may come to a level that for any activity or support, they may extend their services on telephone call.
- Field visits schedule for conducting Baseline-III, regular monitoring and spot monitoring were tentatively planned during the current month but could not materialized due to number of reasons including:
 - Financial crunch on the part of either the client or the company.
 - Non availability of Driver for field visits.
 - Lack of Admin and financial support staff.

3.4.5.2 Suggestions

For the Smooth operations of field activities following are the main Suggestions:

3.4.7 PROGRESS OF ME&IE CONSULTANTS – ISLAMABAD UNIT UPDATED

3.4.7.1 Overall Progress:

The ME&IE Consultants, Islamabad had carried out second baseline survey of 26 Watercourses and 15 WST during the months of August 2022. Impact survey of first baseline was conducted during the months of September through November 2022. These were a total of 8 interventions visited during first baseline while 41 total interventions were visited in second baseline.

ME & IE consultants of ICT-Zone have completed their targets of Baseline-I and Baseline-II. The impact / midline survey for Baseline-I has also been completed. The consultants have prepared the draft and submitted the Midline Impact Evaluation report to the client against the completed baselines including first and second with the criterion which interventions had completed at least two crop seasons at the point in time of arresting the middle of the project. In accomplishing the midline impact evaluation report, the ME&IE consultants remained busy from all zones / units including ICT-Zone of the project.

Updates about the ICT-Zone Field Activities according to District-wise:

Table 3.4: Total activities, District-wise

Sr. #	District	First Phase Baseline		Second Phase Baseline		Midline Survey		Regular Monitoring / Spot Checking		Total visits
		WC	WST	WC	WST	WC	WST	WC	WST	
1	Islamabad	2	-	5	-	4	-	5	-	16
2	Attock	-	-	-	7	-	2	-	5	14
3	Chakwal	-	1	-	-	-	1	-	1	3
4	KalarKahar	-	1	-	-	-	1	-	-	2
5	KalarSaidan	-	-	-	2	-	2	-	2	6
6	Taxila	-	-	-	1	-	-	-	1	2
7	Bhimber	-	-	9	1	-	-	-	-	10
8	Kotli	-	-	3	-	-	-	-	1	4
9	Mirpur	2	-	6	-	2	-	3	-	13
10	MuzaffarAbad	2	-	3	4	2	-	5	4	20
Sub-Total		6	2	26	15	8	6	13	14	90

3.4.8 QUARTERLY WORK PLAN – ISLAMABAD UNIT

The tentative field plan for conducting the Baseline-III is designed and developed and will be finalized upon the availability of list of targeted WC, WST and provision of Laser Land Levelers (termed as sampling frame) from the NESPAK through the client office. Hopefully, it will be implemented during the month of April 2023 and beyond depending upon the financial and logistic arrangements.

A comprehensive tentative Quarterly Work Plan for the next quarter is presented in Table-2 as well as its memorandum served to the Company Authority by the ME&IE consultants to the company officials for its implementation in letter and spirit.

3.4.9 Quarterly Visit Plan of ICT-Unit: District Wise

Field visit plan for baseline-III as well as monitoring visit plans with respect to regular monitoring and spot checks of water courses, water storage tanks and provision of laser land levelers was duly verified by the respective ME&IE Consultants in accordance to initiate the targeted baseline. However due to some limitations mainly non-provision of list of the targeted schemes (i.e., termed as sampling frame) as well as severe financial crunch prevailed, the tentative plan could not yet initiate. Since the current situation is forcing us to revisit the given schedule on the removal of aforementioned limitations.

Monitoring, Evaluation & Impact Evaluation (ME&IE) of the NPIWC-II:

Social mobilization through capacity building of WUA / FOs, minimization of conveyance and field application loses, reduction in water logging and salinity, equity in water distribution, reduction in water dispute / theft / irrigation, motivation / participation of farmers, poverty reduction through employment generation, increase in crops yield / sufficiency in food.

Intervention in Mirpur Lehri-6 under NPIWC-II

Mirpur Lehri-6 is located in the AJK (Azad Jammu Kashmir) barani natural zone. In this region, wheat, maize, and vegetables (such as soya, radish and carrots) are typically cultivated in a natural as well as off-season habitat.

In Mirpur Lehri-6, an OFWM team conducted a survey. After improved irrigation procedures in place, the ME&IEC team observed during the regular / spot surveys that the water productivity interactive with the soil productivity improved manifold in the form of enhanced cultivation of variety of vegetables.

The site was assessed with the assistance of WUAs for the construction of a water course, taking into account of the water source, soil structure, and overall suitability of sharing mechanism between farmers and OFWM Dept. Thus water course was built on the feasible site within 2-3 months.

Table 3.5: Tentative Quarterly Visit Plan of ICT-Unit according to District wise

Date	Zone	district	Scheme
3-Mar-23	Punjab	Attock	WST
9-Mar-23	ICT	ICT	WC
10-Mar-23	ICT	ICT	WC
23-Mar-23	Punjab	Rwp	WST
24-Mar-23	Punjab	Rwp	WST
27-Mar-23	AJK	Mirpur	WC & WST
28-Mar-23	AJK	Mirpur	WC & WST
6-Apr-23	AJK	Bhimber	WC & WST
11-Apr-23	AJK	Bhimber	WC & WST
14-Apr-23	ICT	ICT	WC
20-Apr-23	Punjab	Rwp	WST
27-Apr-23	Punjab	Attock	WST
28-Apr-22	Punjab	Hassan Abdal	WST
4-May-23	AJK	Muzaffarabad	WC & WST
5-May-23	AJK	Muzaffarabad	WC & WST
9-May-23	ICT	ICT	WC
11-May-23	AJK	Jehlum	WC & WST
12-May-23	AJK	Jehlum	WC & WST
18-May-23	AJK	Kotli	WC & WST
19-May-23	AJK	Kotli	WC & WST
25-May-23	AJK	Poonch	WC & WST
26-May-23	AJK	Poonch	WC & WST
29-May-23	AJK	Bhimber	WC & WST
30-May-23	AJK	Bhimber	WC & WST
8-Jun-23	Punjab	Hassan Abdal	WST
16-Jun-23	AJK	Muzaffarabad	WC & WST
22-Jun-23	AJK	Muzaffarabad	WC & WST
30-Jun-23	ICT	ICT	WC

Meetings/Coordination ICT-Zone

Date	1-03-2023
Venue	National Office Islamabad
Participants	
<ol style="list-style-type: none"> 1. Dr. Ikram Saeed, DTL- ICT zone. 2. Mr. Rasheed Zehri Field team Incharge Islamabad. 3. Ms. Sana Gull ME & IE Officer, Islamabad. 4. Ms. Hafiza 5. Maryam Iqbal ME & IE Officers, Islamabad. 6. Abida Munir Social & Gender Specialist. 	
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> ○ Discussion on field visit plan for three main purposes: <ul style="list-style-type: none"> i. Baseline-III ii. Regular monitoring iii. Spot checks ○ Opportunity Sampling of watercourses and water storage tanks for Baseline-III survey. 	

- Evaluating estimated expenses of field visits.
- Composition of team members



Figure 3.11: Had a Meeting with DTL Islamabad zone in order to finalize visit plan for Baseline-III survey

In addition to series of in-house planning meetings, a couple of meetings attended under the leadership of Team Leader, NPIWC-II with Deputy Project Coordinator in order to update the progress of the project as well as to answer the quarries raised in order to correct / justify in the light of the questions raised in the meeting of the Project Board of Management.

3.5 ACTIVITIES PUNJAB ZONE – MARCH 2023

Broadly monthly monitoring Activities of ME&IE Consultants during the month under review are classified as under.

1. Pre/Post Field Activities
2. Field Activities
3. Coordination/Meeting of ME&IE Consultants with stakeholders

3.5.1 Pre- Post Field Activities

The ME&IE Consultants team remained busy with data Collection/Validation of various Interventions of OFWM for the PMIS-Dashboard. The Task regarding watercourses and water storage ponds/tanks of all Divisions / Districts has been completed. The Data Collection about the Provision of the Laser Land Levelling units from the OFWM Directorate General is under process.

3.5.2 Field Activities

During the period under consideration, limited field activities were carried out due to the no on ground activities by the department in this current year due to financial constraints and certain other circumstances. The main field activities remained confined to data collection from the field on improvement of water courses and construction of water storage ponds/ tanks.

3.5.3 Coordination / Meeting of ME&IE Consultants with Stakeholders / OFWM Officers.

ME&IE Consultants meetings with Various Stakeholders viz OFWM officers and Water Users Associations Chairmen/ Members are held as a regular feature for a better understanding of the project affairs. During the month under review, the following meetings were held in Directorate General OFWM Headquarters and in other OFWM Directorates in the field.

3.5.3.1 Meeting Held in Directorate General OFWM Lahore

Date:	March 27, 2023
Venue:	Director General OFWM Office Davis Road, Lahore

Participants:

1. **Mr. Tahir Mehmood**
Focal Person of DGA OFWM/ DDA Headquarters (OFWM)
2. **Mr. Awais Jahangeer**
Focal Person to DGA OFWM, ME&IE Consultants Punjab Zone Lahore

Discussions/Decisions

1. Both participants discussed the existing situation of the project in detail.
2. Focal Person to DGA OFWM ME&IE Consultants inquired about the training schedule for the field staff on the android-based application to collect the data from the field. The focal Person of DGA OFWM proposed to conduct training by the end of April. It was agreed by ME and IE Consultants.
3. Focal Person of DGA OFWM/Deputy Director Headquarters suggested sending monthly progress reports directly to NPC Office without the endorsement of the DGA OFWM Punjab Office. It was also agreed by both participants.
4. Focal Person to DGA OFWM ME&IE Consultants requested regular meetings in DGA OFWM Office to share the progress of the project. The focal Person of DGA OFWM/DDA Headquarters responded to the matter positively.
5. Participants discussed the project progress is stopped for the time being due to financial constraints and still previous liabilities are pending.



Figure 3.12: View of the Meeting held in Directorate General (Agri) OFWM Office

3.5.3.2 Internal Meetings

The internal meetings are held by the Deputy Team Leader with the field team members from time to time. In the meetings, general issues

relevant to the Monitoring Tools and data collection are discussed. Overall progress is also part of the agenda to evaluate the performance. Futuristic goals and strategies are also planned to counter the unprecedented problems.

**Internal Meeting on March 27, 2023 Zonal office
Punjab Lahore**

As a part of regular internal meetings, this meeting was held in the zonal office, to update the status of various activities. The meeting was attended by almost all the field team members except one field team in charge being on leave.

The main objective of the meeting was to review the performance of operational activities of the office / field and identify the rooms for improvements in conduction of such activities.

Detailed discussions were held among the members, on almost all aspects of the activity carried out so far.

The pre-activation related to the arrangements prior to the field activities were reviewed.

Time management has been observed as the most critical hinging factor, proper timely arrangement will result better response from the field staff of OFWM and better results of field visit.

Post-field activities reflected timely efforts of the field staff collecting/ validating in data of watercourses improvement and water storage tank / pond.

Data for the water storage tank has been submitted for PMIS dash board, timely and successfully. However, data collection about provision of laser land levelers are still pending on the part of the OFWM department. The task is in process.

Field activities pertain to data collection on various interventions of the project. The data are collected through android-based devices and submitted directly to the server-dashboard for analytical proceedings.

By the grace of God, our field team has well managed with field work and successfully achieved the targets of all these interventions. For further strengthening the field activities and understanding of data collection / use of

instruments (MTs) demonstration was also held through mock exercise

Coordination of meeting with stakeholders.

The stakeholders included Director General (Agri) OFWM field officers of the Director General, water users' association (Chairman). The zonal office has kept good relations with almost all the stakeholders, the coordination / cooperation of OFWM, Field staff remained excellent, particularly in the Field during site visits and meeting with Chairmen of water users' association.

Overall, the field Team members showed satisfactory performance. However, they committed to work hard and to complete all assignments well in time.



Figure 3.13: View of internal meeting in zonal office



Figure 3.14: Discussion on various issues with DTL and FTIs

3.6 ACTIVITIES KP ZONE – MARCH 2023

Several meetings were held between Mr. Fawad Ahmad (ICT/Technology Specialist KP) and Mr. Muhammad Hayat Khan focal person NPIWC-II, in the Directorate of OFWM Office Peshawar in the month of March 2023. During these meetings, the progress of Dashboard data provision and scheme coordinates from KP districts for Dashboard was discussed and shared with the OFWM department. In addition, Fawad Ahmad (ICT/Technology Specialist KP) identified the missing data in the schemes and incorrect coordinates of schemes in the Dashboard.

Meetings for the launching of the Dashboard for NPIWC-II KP, Mr. Fawad Ahmad (ICT/Technology Specialist KP) has shared the details of the Dashboard with Mr. Muhammad Hayat Khan, focal person OFWM Peshawar. The ME & IE Consultants have already, imparted one-day refresher training to the OFWM official's zone-wise in February 2023, for uploading the relevant data of the schemes and correction of coordinates for GIS Map (PMIS Dashboard) under the NPIWC-II. Progress of the districts which have corrected and verified the coordinates were highlighted to the department through letter whereas districts whose coordinates were still incorrect were highlighted to complete the task on an urgent basis.

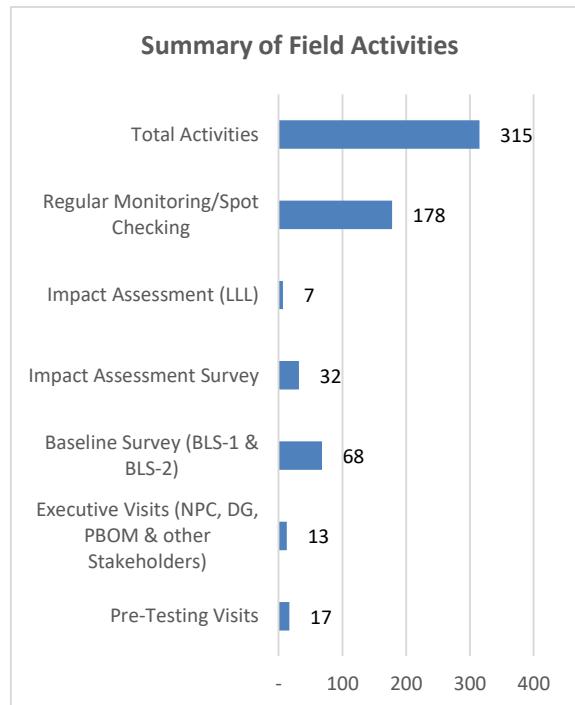
3.7 ACTIVITIES BALOCHISTAN ZONE – MARCH 2023

- Updated progress of ME&IE Consultants, Balochistan by March 2023.
- Progress Review Meeting
- Updated status of Data Validation – Dashboard Balochistan.
- Tentative Work Plan, Balochistan Zone.

3.7.1 UPDATED PROGRESS OF ME&IE CONSULTANTS –BALOCHISTAN

The ME&IE Consultants, Balochistan have monitored 17 sites during the pre-testing of Monitoring Tools in different months. A total of 13 sites were monitored during executive visits with high officials. The ME&IE Consultants, Balochistan have conducted two baseline surveys, the first was

conducted in the month of June 2021 and the second was conducted in two parts (first in March 2022 and second in June 2022). A total of 68 sites were monitored during the baseline surveys i.e., 17 Watercourses and 51 Water Storage Tanks. The ME&IEC, field teams monitored 07 sites of PLL out of 34 total sites, the percentage of monitored sites is 20%. The Impact Assessment Survey was conducted in the month of November 2022 in which 32 sites have been monitored so far. Regular monitoring/spot-checking is another important activity of ME&IE Consultants in which a total of 178 sites of different districts have been monitored till the reporting month. In regular monitoring, ME&IE Consultants monitored ongoing / completed sites covering all financial years i.e., 2019-20, 2020-21, and 2021-22. The Balochistan field teams have so far monitored 77 Watercourses and 101 Water Storage Tanks in regular monitoring. The beneficiaries list of F.Y. 2022-23 is under progress by the Department. As soon as the Department initiates the works on F.Y. 2022-23 and finalizes the beneficiaries' lists, the ME&IEC, Balochistan will start the "Baseline Survey – 3" activities accordingly. The updated status of the total activities done is given below graph:



The Balochistan field teams have monitored the sites of 22 districts out of 33, the remaining districts to be covered in upcoming months.

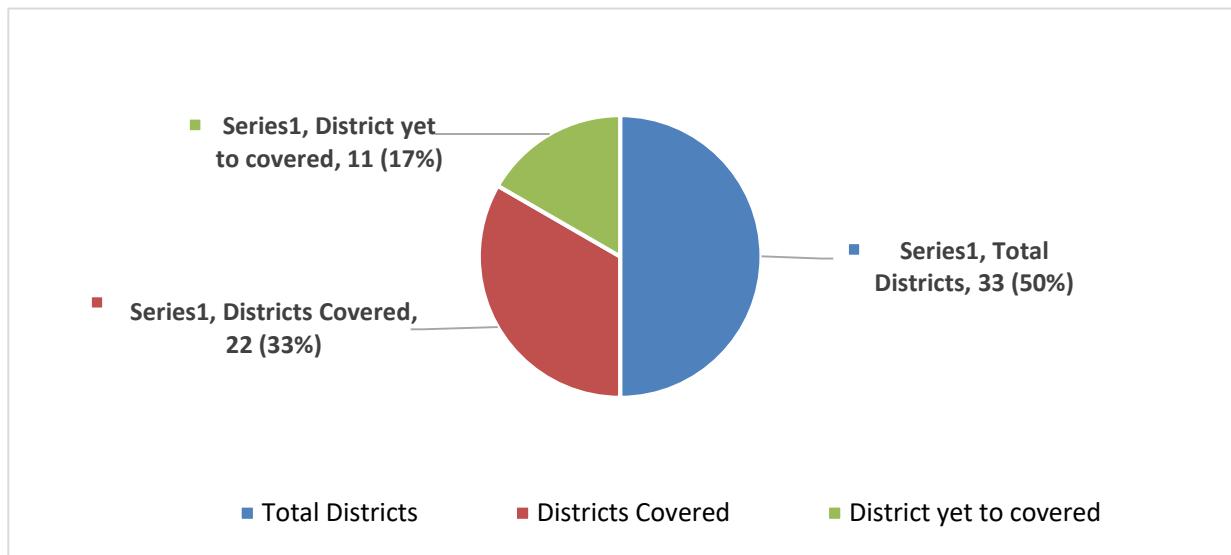


Table 3.6: Summary of Field Activities, District-wise

Sr. #	District	Pre Testing		Executive Visits		Baseline Survey		Impact Assessment Survey		Impact Survey (LLL)	Regular Monitoring / Spot Checking		Total
		WC	WST	WC	WST	WC	WST	WC	WST		WC	WST	
1	Quetta	3	3	1	1	-	6	-	4		5	15	38
2	Pishin	3	1	2	5	-	8	-	4		2	9	34
3	Killa Abdullah	-	-	-	-	1	1	1	1		5	2	11
4	Ziarat	-	-	-	-	-	3	-	-		2	4	9
5	Mastung	-	-	1	1	1	5	1	2		5	8	24
6	Nushki	1	2	1	-	-	-	-	-		2	1	7
7	Sibi	-	-	-	-	-	-	3	-		1	3	7
8	Jhal Magsi	-	-	-	-	1	4	-	-		1	4	10
9	Kachhi	-	-	-	-	-	8	-	-		1	10	19
10	Naseerabad	-	-	-	-	2	4	3	4		14	6	33
11	Jaffarabad	1	1	-	-	-	-	-	-		4	3	9
12	Sohbatpur	-	-	-	-	7	-	-	-		3	14	-
13	Loralai	-	-	-	-	1	2	1	2		2	6	14
14	Duki	-	-	-	-	-	-	-	-		2	1	3
15	Zhab	1	1	-	-	-	-	-	-		2	1	5
16	Kila-Saifullah	-	-	-	-	2	1	3	1		6	7	20
17	Musa khel	-	-	-	-	-	-	-	-		1	1	2
18	Sherani	-	-	-	-	-	-	-	-		2	2	4
19	Khuzdar	-	-	-	-	1	6	-	-		2	7	16
20	Kalat	-	-	-	1	1	3	1	1		4	4	15
21	Turbat	-	-	-	-	-	-	-	-		-	7	7
22	Pangur	-	-	-	-	-	-	-	-		1	3	4
Sub-Total		9	8	5	8	17	51	13	19	7	77	101	315

3.7.2 PROGRESS REVIEW MEETING.

A progress review meeting was held on March 27th, 2023 at the Agriculture Department, Rani Bagh, Sariab Road, Quetta, which was chaired by the worthy Director General, OFWM Balochistan. All the Deputy Directors of the OFWM Department, including the Deputy Team Leader of NWMC and the Deputy Team Leader of ME&IEC, attended the meeting. The purpose of the meeting was to review the physical and financial progress of the following projects.

- Updated physical and financial progress of NPIWC-II, Balochistan Component.
- National Program for Enhancing Command Area of Barani Areas in Pakistan (Balochistan Component).
- On Farm Water Management, Efficiency Enhancement Program (70-30 Gob/Famers)
- Prov. Of 1000 Solar Tube Wells for Agriculture Purpose Based on Boarder Proximity of the Villages.
- PSDP Schemes of District 2022-23
- Submission of beneficiaries list of all the above projects.
- Validation status of PSDP schemes.

The detail of meetings is mentioned below:

Date	27 th March 2023
Venue	Agriculture Office, Rani Bagh, Sariab Road, Quetta
Participants	
I.	Mr. Abdul Wahab Kakar, Director General, OFWM, Agriculture Department, Balochistan (Chair)
II.	Mr. Bashir Agha, Director, Water Management, Agriculture Department, Balochistan, Quetta.
III.	Mr. Meharullah, Director, Monitoring, OFWM, Balochistan.
IV.	Mr. Fahim Tareen, Director, Agriculture Department.
V.	Deputy Directors, OFWM, (all districts of Balochistan)
VI.	Mr. Abdul Wali, DD, HQ, Quetta
VII.	Mr. Behram Mulghani, Agriculture Officer, OFWM, Quetta
VIII.	Mr. Khalid Mehmood, DTL, NWMC, Balochistan
IX.	Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Balochistan
Meeting Agenda/Points discussed:	

- All DDs and both consultants, NWMC and ME&IEC, shared their progress as of February 28, 2023.
- The issues related to the works of FY 2022-23 were discussed in detail.
- The DG, OFWM advised all DDs to give their budget as per the finalized beneficiary list so that physical works could be started immediately (FY 2022-23).
- The DTL of ME&IEC gave a presentation on updated status regarding "dashboard data validation" by OFWM staff.
- The DG of OFWM gave necessary directions to all DDs to complete the validation task immediately and consult with ME&IEC in case of any difficulty.
- The DTL of ME&IEC requested all DDs to upload the beneficiary list (FY 2022-23) on the dashboard after finalizing/completing the departmental process so that the 3rd Baseline Survey could be started accordingly.



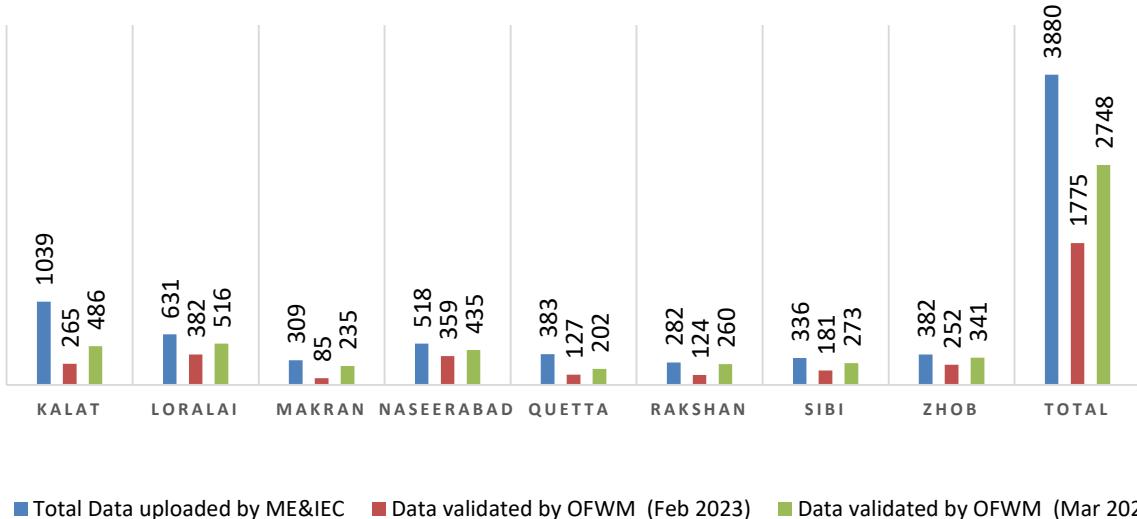


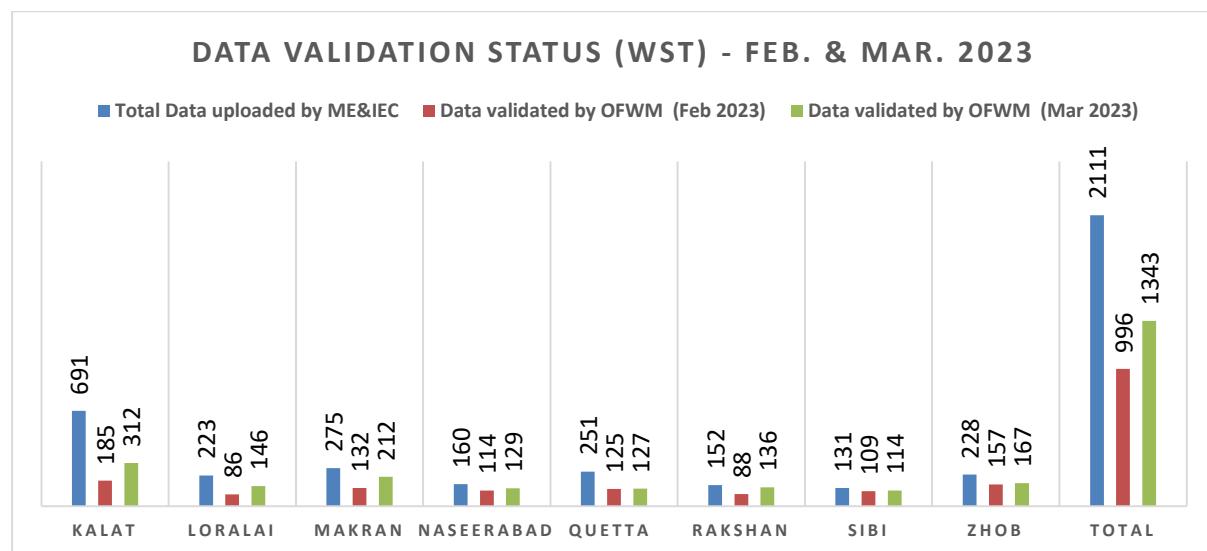
Figure 3.15: View of meeting held at Agriculture Department, Rani Bagh, Sariab Road, Quetta.

3.7.3 COMPARISON OF TWO MONTHS' DATA VALIDATION PROCESS OF DASHBOARD BALOCHISTAN - FINANCIAL YEARS, 2019-20, 2020-21 AND 2021-22.

The ME&IEC of Balochistan planned visits to all Divisional Headquarters in January and February 2023 to facilitate and provide assistance to OFWM staff for data uploading through the Android Database Application. In response to the ME&IEC visits, OFWM staff provided good results regarding data validation and validated 61% of Watercourses and 55% of Water Storage Tanks validated in February 2023. ME&IEC staff continued to liaise with OFWM staff regarding the data validation process and provided assistance. As a result, the data validation of Watercourses increased by 71% and Water Storage Tanks by 64% in March 2023. The data validation process is still ongoing by OFWM staff. The two-month comparison regarding data validation (Division-wise) by OFWM staff is given in the following graphs. The Director General of OFWM is requested to address the administrative issues pointed out by some Deputy Directors that create hurdles in the data validation process.

DATA VALIDATION STATUS (WATERCOURSES) - FEB. & MAR. 2023





3.7.4 UPDATED STATUS - VALIDATED DATA OF WATERCOURSES, BALOCHISTAN OF 03 FINANCIAL YEARS, 2019-20, 2020-21 AND 2021-22.

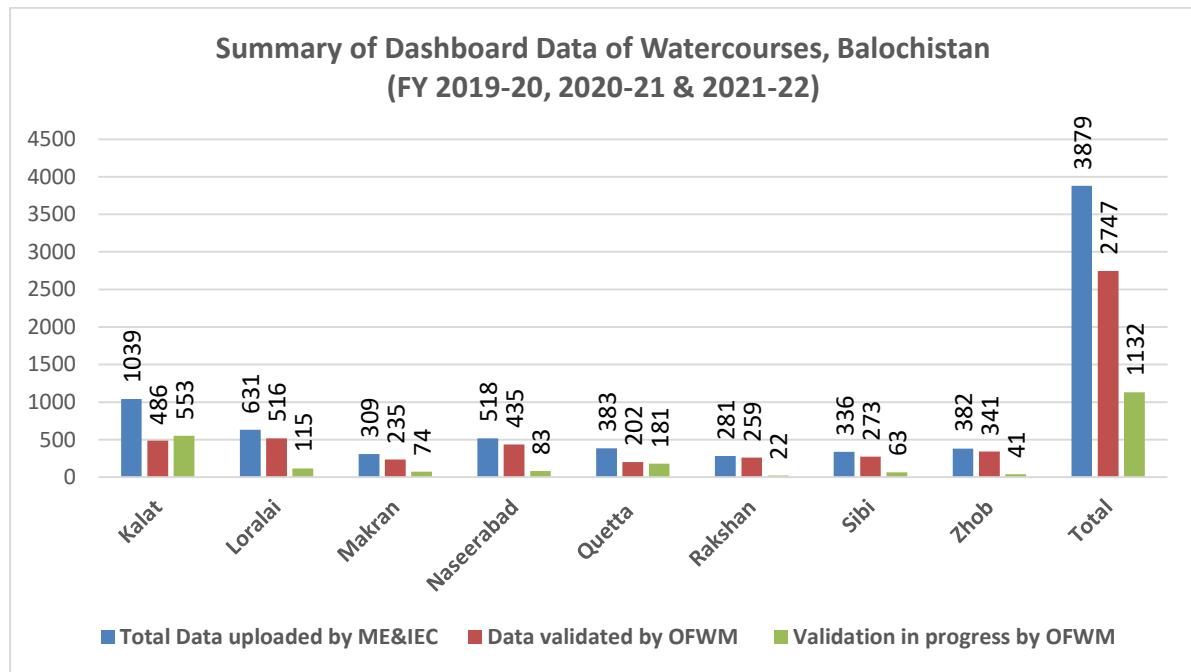
The updated table shows that OFWM staff have validated some districts 100%, namely Surab, Duki, Kech, Jaffarabad, Kachi, Kohlu, and Sibi. Most of the districts have been validated up to 80% to 90%, whereas, there has been no progress in some other districts like Lasbella, Barkhan, Gwadar, Jhal Magsi, and Killa Abdullah. On March 27th, 2023, a progress review meeting was held under the chairmanship of the Director General of OFWM,

Balochistan. During the meeting, the Deputy Team Leader of ME&IEC, Balochistan gave a presentation on the updated status of data validation for the Dashboard of Balochistan. The Deputy Team Leader shared the district-wise progress of data validation with the forum and informed them that some districts have not been able to validate a single site of NPIWC-II schemes to date. The Director General of OFWM, Balochistan expressed great concern and directed all Deputy Directors to prioritize data validation.

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	140	76	22	22	0	0	162	98
Kalat	Kalat	97	0	28	28	158	123	283	151
Kalat	Khuzdar	139	0	17	0	9	6	165	6
Kalat	Lasbela	110	0	35	0	44	35	189	35
Kalat	Mastung	102	93	30	1	66	60	198	154
Kalat	Surab	20	20	11	11	11	11	42	42
Total		608	189	143	62	288	235	1039	486
(%)		31%		43%		82%		47%	
Loralai	Barkhan	61	0	0	0	3	0	64	0
Loralai	Duki	27	27	15	15	1	1	43	43
Loralai	Loralai	158	157	47	43	132	130	337	330
Loralai	Musakhail	100	99	86	44	1	0	187	143
Total		346	283	148	102	137	131	631	516
(%)		82%		69%		96%		82%	
Makran	Gwadar	12	0	11	0	0	0	23	0

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Makran	Kech	68	68	20	20	44	44	132	132
Makran	Panjgur	124	73	25	25	5	5	154	103
Total		204	141	56	45	49	49	309	235
(%)		69%		80%		100%		76%	
Nasirabad	Jaffarabad	53	53	32	32	56	56	141	141
Nasirabad	Jhal Magsi	16	0	6		5		27	0
Nasirabad	Kachi	81	81	18	18	3	3	102	102
Nasirabad	Nasirabad	52	0	35	35	82	82	169	117
Nasirabad	Sohbatpur	14	14	20	20	45	41	79	75
Total		216	148	111	105	191	182	518	435
(%)		69%		95%		95%		84%	
Quetta	Killa Abdullah	106	0	2	0	2	0	110	0
Quetta	Pishin	99	97	38	2	52	52	189	151
Quetta	Quetta	41	25	10		33	26	84	51
Total		246	122	50	2	87	78	383	202
(%)		50%		4%		90%		53%	
Rakhshan	Chaghi	49	49	28	28	0	0	77	77
Rakhshan	Kharan	23	23	3		55	55	81	78
Rakhshan	Nushki	38	38	25	25	40	39	103	102
Rakhshan	Washuk	18	0	2	2	0	0	20	2
Total		128	110	58	55	95	94	281	259
(%)		86%		95%		99%		92%	
Sibi	Dera Bugti	34	0	0	0	65	65	99	65
Sibi	Harnai	23	0	19	15	0	0	42	15
Sibi	Kohlu	41	41	17	17	0	0	58	58
Sibi	Sibi	33	33	6	6	25	25	64	64
Sibi	Ziarat	54	54	17	15	2	2	73	71
Total		185	128	59	53	92	92	336	273
(%)		69%		90%		100%		81%	
Zhob	Killa Saifullah	158	124	38	38	39	39	235	201
Zhob	Sherani	19	18	8	8	39	38	66	64
Zhob	Zhob	55	55	23	20	3	1	81	76
Total		232	197	69	66	81	78	382	341
(%)		85%		96%		96%		89%	
GRAND TOTAL		2165	1318	694	490	1020	939	3879	2747
(%)		61%		71%		92%		71%	

3.7.5 GRAPH: STATUS OF VALIDATED DATA OF WATERCOURSES – DIVISION WISE.



3.7.6 UPDATED STATUS - VALIDATED DATA OF WATER STORAGE TANKS, BALOCHISTAN OF 03 FINANCIAL YEARS, 2019-20, 2020-21 AND 2021-22

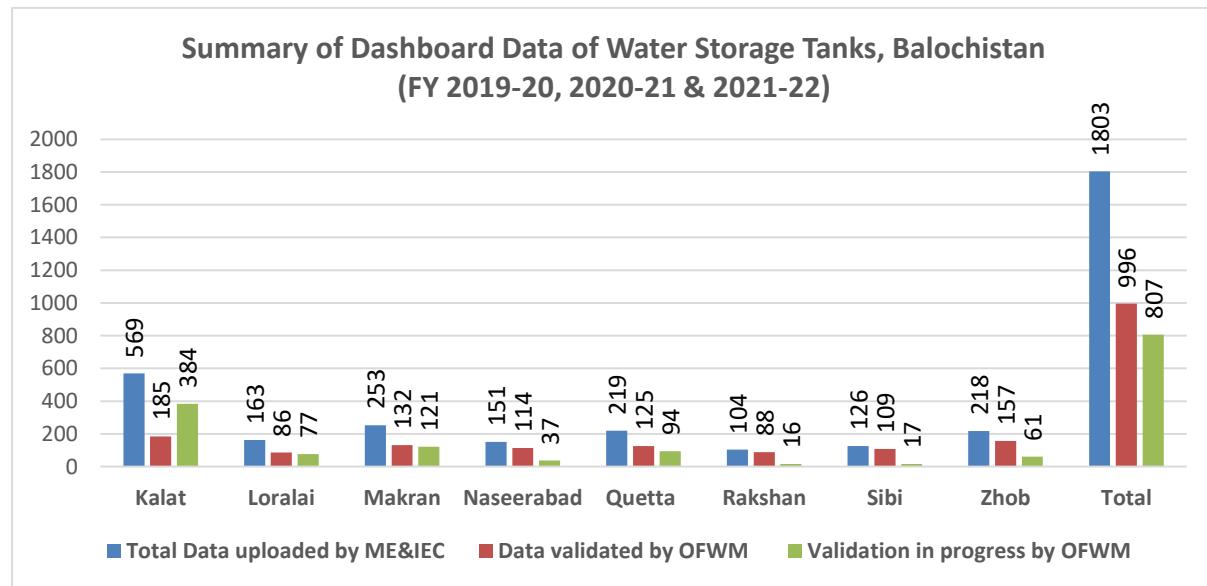
The updated table shows that some districts have been validated 100% by OFWM staff, namely

Surab, Duki, Musakhail, Jaffarabad, Kachi, Noshki, Dera Bugti, Kohlu, Ziarat and Sherani. Most districts have been validated up to 80-90%, while the progress in some districts, namely Gwadar, Jhal Maggi and Killa Abdullah, is nil. The department is requested to take necessary action in this regard."

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	12	12	27	27	48	0	87	39
Kalat	Kalat	20	2	32	32	127	65	179	99
Kalat	Khuzdar	20	0	30	0	89	68	139	68
Kalat	Lasbela	20	0	24	0	106	45	150	45
Kalat	Mastung	20	18	32	2	55	12	107	32
Kalat	Surab	3	3	9	9	17	17	29	29
Total		95	35	154	70	442	207	691	312
(%)		37%		45%		47%		45%	
Loralai	Barkhan	15	0	0	0	39	6	54	6
Loralai	Duki	7	7	9	9	13	13	29	29
Loralai	Loralai	22	22	32	3	59	59	113	84
Loralai	Musakhail	11	11	16	16	0	0	27	27
Total		55	40	57	28	111	78	223	146
(%)		73%		49%		70%		65%	

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Makran	Gwadar	3	0	4	0	0	0	7	0
Makran	Kech	29	18	24	0	46	46	99	64
Makran	Panjgur	18	18	29	25	122	105	169	148
Total		50	36	57	25	168	151	275	212
(%)		72%		44%		90%		77%	
Nasirabad	Jaffarabad	0	0	8	8	9	9	17	17
Nasirabad	Jhal Magsi	7	0	0	0	23	0	30	0
Nasirabad	Kachi	18	18	24	24	40	40	82	82
Nasirabad	Nasirabad	0	0	8	8	9	9	17	17
Nasirabad	Sohbatpur	4	4	8	8	2	1	14	13
Total		29	22	48	48	83	59	160	129
(%)		76%		100%		71%		81%	
Quetta	Killa Abdullah	22	0	34	0	0	0	56	0
Quetta	Pishin	22	22	36	33	61	61	119	116
Quetta	Quetta	9	9	17		50	32	76	41
Total		53	31	87	33	111	93	251	127
(%)		58%		38%		84%		51%	
Rakhshan	Chaghi	10	10	23	23	14	14	47	47
Rakhshan	Kharan	3	3	12		14	14	29	17
Rakhshan	Nushki	9	9	23	23	30	30	62	62
Rakhshan	Washuk	4		10	10	0	0	14	10
Total		16	12	45	33	44	44	152	136
(%)		75%		73%		100%		89%	
Sibi	Dera Bugti	11	11	0	0	28	28	39	39
Sibi	Harnai	3	3	6	6	12	0	21	9
Sibi	Kohlu	9	9	18	18	0	0	27	27
Sibi	Sibi	8	8	5	5	10	5	23	18
Sibi	Ziarat	4	4	6	6	11	11	21	21
Total		35	35	35	35	61	44	131	114
(%)		100%		100%		72%		87%	
Zhob	Killa Saifullah	30	20	32	32	56	56	118	108
Zhob	Sherani	4	4	6	6	15	15	25	25
Zhob	Zhob	15	10	24	24	46		85	34
Total		49	34	62	62	117	71	228	167
(%)		69%		100%		61%		73%	
GRAND TOTAL		382	245	545	334	1137	747	2111	1343
(%)		64%		61%		66%		64%	

3.7.7 GRAPH: STATUS OF VALIDATED DATA OF WATER STORAGE TANKS – DIVISION WISE



3.7.8 SUMMARY OF ACTIVITIES ISLAMABAD UNIT – March 2023

The salient activities were carried out by the ME&IE ICT-Zone consultants during the current month as follows:

Quarterly Tentative plan designed and developed and submitted for conducting baseline –III, Regular monitoring and spot check surveys,

Engaged in drafting of the case studies,

Case study with respect to the Social and Gender component prepared by the Social& Gender Specialist.

Held regular meetings with the client / cooperation department as well as in-house professionals,

Contributed in the vetting of integrated MMR report for the month of March, 2023, and Looked after and supported the admin and financial duties manned under the charter of Team Leader and Deputy Team Leader of the ICT-Zone along with the National Office, Islamabad.

3.7.9 PROGRESS OF ME&IE CONSULTANTS – ISLAMABAD UNIT UPDATED

3.7.9.1 Overall Progress:

The ME&IE Consultants, Islamabad had carried out second baseline survey of 26 Watercourses and 15 WST during the months of August 2022. Impact survey of first baseline was conducted during the months of September through November 2022. These were a total of 8 interventions visited during first baseline while 41 total interventions were visited in second baseline.

ME & IE consultants of ICT-Zone have completed their targets of Baseline-I and Baseline-II. The impact / midline survey for Baseline-I has also been completed. The consultants have prepared the draft and submitted the Midline Impact Evaluation report to the client against the completed baselines including first and second with the criterion which interventions had completed at least two crop seasons at the point in time of arresting the middle of the project. In accomplishing the midline impact evaluation report, the ME&IE consultants remained busy from all zones / units including ICT-Zone of the project.

Updates about the ICT-Zone Field Activities according to District-wise:

Table 3.7: Total activities, District-wise

Sr. #	District	First Phase Baseline		Second Phase Baseline		Midline Survey		Regular Monitoring / Spot Checking		Total visits
		WC	WST	WC	WST	WC	WST	WC	WST	
1	Islamabad	2	-	5	-	4	-	5	-	16
2	Attock	-	-	-	7	-	2	-	5	14
3	Chakwal	-	1	-	-	-	1	-	1	3
4	KalarKahar	-	1	-	-	-	1	-	-	2
5	KalarSaidan	-	-	-	2	-	2	-	2	6
6	Taxila	-	-	-	1	-	-	-	1	2
7	Bhimber	-	-	9	1	-	-	-	-	10
8	Kotli	-	-	3	-	-	-	-	1	4
9	Mirpur	2	-	6	-	2	-	3	-	13
10	MuzaffarAbad	2	-	3	4	2	-	5	4	20
Sub-Total		6	2	26	15	8	6	13	14	90

3.8 SOCIAL & GENDER COMPONENT

During the current month the social and gender team has prepared the draft case study at AJK district Mirpur village Lehri-6. The case study has mentioned the role of women in agricultural aspects. Documentary of the case study will be shared during the upcoming months.

Impacts of the Project Intervention



Words of Shazia Khan's

پانی آگیا تو تعلیم بھی آگی

- Increase in area for cultivation.
- Less water losses.
- Reduction in time to cultivate per unit of land.
- Increase in yield per unit land.
- Increase in cropping intensity.
- Contribution of women in family earning.
- Self-confident and empowerment social gathering decision making from gender point of view.
- A very significant impact of intervention on the livelihood of the female labor life by enhancing the availability of water in the area.

The program boosts social benefits of the community, comprising of control over food supply due to sufficiency of water availability

Growth of cropping pattern before and after the Intervention

On getting ample amount of water after construction of Water course through NPIWC-II Program:

A tremendous increase in crops of the Mrs. Shazia Khan on vegetable farm such as:

Types of vegetables they used to grow before intervention during Rabbi & Kharif seasons	Wheat, Maize,
Types of vegetables they have grown after intervention during Kharif & Rabbi seasons	Radish, carrot, garlic, spinach, ridge gourd, mustard, soya and coriander and is earning 200-300 PKR per day from the sale proceed of vegetables.

Having been motivated by saving in monthly income, she is planning to grow more vegetables and start her business at commercial level.

Before Intervention: (condition):	After Intervention: (condition):

Land before intervention
There was no proper system for irrigation of crops due to which less crops were grown.

Land after intervention.
After intervention as the land is now properly irrigated, thus different seasonal vegetables are grown for domestic use as well as commercial purposes.

Brief History. (Beneficiary of Intervention)

Mrs. Shazia Khan is 35 years old; her original town is district Mardan. Mrs. Shazia Khan is wife of Mr. Akbar Khan, who is permanent hire labor, (PHL) and works on owner's land (Allah Ditta). Her family migrated to Lehri06 village District Mirpur about

03 years ago. Her husband didn't find a good opportunity of employment in Mardan, so they decided to move from Mardan to Mirpur Lehri-6.



Mrs. Shazia Khan belongs to the Pashtoon family. In Pashtoon culture females are not rewarded with any piece of land. Mrs. Shazia Khan is a very potent wife who always supports her husband related to farming activities. Mr. Akbar Khan has 02 wives and 11 children. Mrs. Shazia Khan is the second wife of her husband. Before intervention of water course, Mr. Akbar Khan was earning only 25000/= per month, which was very less to fulfill their family needs. Mrs. Shazia Khan was worried about her house expenditures as she is second wife and her husband's income was not sufficient enough to fulfill their needs. She knows all farming activities and wanted to assist her husband in farming activities but due to insufficient availability of water she could not do much. Moreover, her children were not enrolled in school due to low income. Mrs. Shazia wished to enroll her children in school but due to financial constraints her wish didn't come true. She was not providing a healthy and proper meal to their children due to poverty. Her children were under nourished and caused an alarming threat to the health of their lives.

Changes in life of the Beneficiaries. (After Intervention.)

After the intervention (watercourse improvement) there is equal distribution of water among the farmers. The problem of water scarcity has been

resolved and moreover it opened a lot of opportunities for the beneficiaries. Mrs. Shazia Khan realized that they could grow more vegetables due to proper water management practices. She started growing more seasonal vegetables. There was the small setup within the house by maintaining the traditional 'Parda' Mrs. Shazia motivates her neighboring women folk being a role model as to how to manage expenditure of their family. Now she is using their own vegetable which saves money in their daily expenditure. Mrs. Shazia Khan is very satisfied and more confident after sharing in household expenditures. Her children are consuming proper meals as they had come out of the poverty and the health of the children also improving after the efforts of Mrs. Shazia.



After saving the income, she enrolled her children in school as she can buy the uniform, books and other school related stuff for their children. Shazia khan is very pleased with the project intervention as her dream comes true.

Key Challenges & mitigation measures adopted.

Some Limitations as follows:

- Field visits were not followed as per se scheduled plans and were canceled repeatedly due to certain reasons,
- Non provision of Advance Expenses despite communicating reminders, and
- Non provision of sampling frame list by the client office from the NESPAK

- **For Smooth operation of field as well as HQs, activities following are the main Suggestions:**
 - a) There must be a well maintained and well-equipped Field vehicle with experienced driver available all the time for frequent Field visits,
 - b) availability of the field tour advances, Availability of sampling frame list about WCs and WSTs as well as LLLs by the client office,
 - c) First aid box, basic necessities like, umbrella, water with cooler must be provided to the field teams in order to meet any emergency situation,
 - d) Tablet must be provided at least 2-3 days prior to visit, and
 - e) Each member of the field team must have their official identity card when the team visits the field or the office of OFWM.

3.8.1 Social & Gender - Baseline Survey Phase-II

3.8.1.1 Introduction/ Project Background

Pakistan's economy is primarily based on agriculture. For Pakistan's rural development and food security, it is crucial. It contributes significantly to both employment and foreign exchange revenues. It contributes 22.7 percent to the Gross Domestic Product (GDP) and provides employment to around 37.4 percent of the labor force. The improvement in agriculture production systems will increase farm income, reduce consumer prices, and enhance diverse food supplies besides generating an exportable surplus.

One of the fundamental components of life, water resources influence not only flora and wildlife but also gender relations, raising a number of social, cultural, institutional, and economic issues. The social and cultural context determines power, prestige, position, obligations, and, eventually, services. It describes the current situation regarding women's access to land, money, food, shelter, water, education, health, and employment in comparison to men. Amin et al., (2009) conducted a research study on women's involvement and revealed that in Pakistan the majority of activities of the husband at farm are fulfilled with the help of their wives. These activities encircled the sowing and harvesting of wheat, wheat binding, threshing of wheat crop,

preparation of land for sugarcane cut sowing, sowing of sugarcane sets, peeling of sugarcane crop, binding of cane, Gurr (a sweet brown color product extracted from sugarcane) preparation and making, rice crop sowing, eradication of weeding in rice field, assist in harvesting of rice crop.

Roles of women and girls are burdened with responsibilities related to obtaining, transporting, storing, and using water. They are significant users, especially in households. It is widely acknowledged that women and young people still do not manage and develop these resources independently due to social and cultural conventions that impede their decision-making process, particularly due to the manifestation of the male elder's dominance society that is common in Pakistan. The current state of affairs is very complicated, characterized by important regional and national specificities as well as cross-cultural influences in various agro-ecological regions of the nation.

The Government of Pakistan has implemented a project entitled, "National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)" at a total cost of Rs. 154,542.355 million over a period of five years. The Proposed project is in line with both, the mandate of Government objectives as per the Prime Minister's 100 days' agenda and National Water Policy-2018. This project will cover Punjab, KP, Balochistan and Gilgit Baltistan, and Azad Jammu & Kashmir as well as Islamabad Capital Territory (ICT). Social and gender roles are one of the important components of this project.

3.8.1.2 Background of the Study

This Research study investigates women's role particularly that of rural women in agriculture activities. This is a baseline-II study which indicates the gender role before the installation of watercourses and water storage tanks under the project NPIWC II. Later on, the impact study would be conducted to evaluate the after impact on the basis of this baseline study.

The study would also give policymakers the tools they need to design programs that would address

women's concerns and projects/schemes that would fully use the economy's hidden potential. The study also gives information about women participation in agricultural activities, social activities, role in water user association moreover this baseline study evaluate the land ownership of status of females before intervention. Other than agriculture activities the baseline II study was conducted to gather information about women participation in agricultural practices, their economic status and daily household activities and the irrigation related problems.

The objectives of the study were:

- i. To identify the major agriculture activities performed by women in the targeted project area.
- ii. To estimate land ownership of women.
- iii. To analyze empowerment of gender, female consultation in decision making.
- iv. To identify various problems faced by women regarding irrigation.
- v. To put forward recommendations in the light of the finding of this study.

The study emphasizes the importance of the unseen laborers, women in agriculture, who assist farmers and make significant contributions to the field's advancement. Nazir et al., (2013) conducted a study and concluded that the majority of the women in the research region had well-built contributions in the activities related to farming. These activities included crop production, field management, crop harvesting, animal rearing and family work and home management but their importance and hard work have always remained neglected.

In addition, it is acknowledged that certain women participate more actively in agriculture across Pakistan. Keeping in mind the project objectives the baseline survey regarding social and gender aspects was conducted.

3.8.1.3 Baseline Methodology

Based on data about what is effective for program interventions, baseline assessment is a potent tool for learning, investing, and holding people accountable. With respect to consultancy

objective & evaluation. With respect to consultancy objective & evaluation methodology, baseline MT for both quantitative and qualitative data was devised. All essential best performance indicators were made sure to be incorporated in the project's protocols and the study's goal. The prepared MT was submitted to M&E specialist, social and gender specialists and consultants for feedback and approval. The ME&IE consultants along with social and gender specialist of the project spend substantial time on its preparation. Finally, the baseline questionnaire for social & gender roles was finalized in a meeting with Project Manager & M&E staff.

3.8.1.4 Sampling Framework

For the baseline survey sampling frame were those interventions for which Technical Sanctions were issued. While samples of these interventions' beneficiaries were collected. These beneficiaries consist of the female farmers who will use the additional water and/ or other benefits manifested in return from the NPIWC-II project activities.

The questionnaire / tool consists of 14 questions which were interviewed in the selected area. The beneficiaries consist of two types of female farmers:

- a) The owners of a piece of land on this watercourse and members of the "Water Users Associations"; and
- b) The female farmers use the water of the same watercourse but not the owners of the land. They are the tenants, cultivating land on leasing and / or on sharing basis.

The questionnaire/ tool consists of 14 questions which were interviewed in the selected area. The beneficiaries of sampled interventions were interviewed by the field team. The respondents were female and they were selected from all zones i.e., Punjab, Balochistan, AJK and KPK.

3.8.1.5 Sample Size Calculation

For determining the sample size of the baseline study, the total target number of watercourses was served as the population. A sample size of 2 to 3% of the total targeted sanctioned number of

interventions was drawn, whose 'Technical Section (TS) approved, by using a simple sampling approach.

At each intervention only one female was selected. Total completed interviews are 175.

3.8.1.6 Major Components of The Baseline Survey Data

Following are major components / variables on which baseline data was collected and analyzed:

- Status of Land Ownership (Owner / Tenant / Owner cum Tenant / Landless) and Farming
- Problems faced regarding irrigation water
- Consulted in farming decision
- Consulted on spending income at household
- Consulted in making household decisions
- Household activities
- Knowledge about Water User Associations
- Heard about NPIWC-II Project
- Participation in WUA's Meeting
- Member of WUAs
- Participation in WUA's Meeting
- Wash Clothes at Washing PAD
- Sufficient Culverts for Crossing at Watercourse.

3.8.1.7 Data Collection Through TABS / Android / Based System

Android is a mobile operating system created on a modified version of the Linux kernel and other open-source software. It is designed mainly for touch screen mobile devices e.g., smart phones and tablets. Before the data collected from the field by administering various relevant Performa / questionnaires, in default these were

Programmed in android form so that it may be transmitted immediately to the Management Information System, (MIS) directly from the field. It not only saves time, data entering exercise but also will ensure the quality of data.

3.8.1.8 Training On Android Based Application for Baseline Survey

"Training is vital because it represents a good opportunity for employees to grow their knowledge base and improve their job skills to become more effective in the workplace"

(Chand, 2020, Mustafa et al. 2005). Four Days virtual training was organized by the ICT Department from 21-09-2022 to 24-09-2022 for the Field Team In-Charges (Master Trainers) from all zones of Pakistan. The main objective of the training was to refresh/ strengthen the capacity among the Field Team In-charges as master trainers to impart training to their respective field team members for conducting / adjusting the Baseline Survey-stage-Information.

3.8.1.9 Field Enumerators Training

Four days virtual training was managed and conducted during COVID – 19 epidemics by the ICT Department from 03-05-2021 to 06-05-2021 for the Field Team members (interviewers) and Field Team In-Charge (Field Supervisors) of different Provinces and Units / territories. The main objective of the training was to build capacity among Field Team In-charge and Field enumerators to use the real time.

3.8.1.10 Results and Discussion

The present project NPIWC-II evaluation purposes, the target number of interventions constitutes the population Random sampling method was used for sampling of the baseline-II.

The sample size taken was 2 to 5 percent of the total number of interventions. This was then divided proportionally in each province / unit. The baseline study-II depicts the information of the women of all zones / units of Pakistan (Punjab, KPK, Balochistan, AJ&K and ICT) and how knowledgeable they are related to the project. The data was collected from all provinces of Pakistan and because of this the result varies from each due to cultural and family norm constraints. With respect to consultancy objective & evaluation.

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Table 3.8: Status of Land Ownership (Owner / Tenant / Owner cum Tenant / Landless)

Zone/Unit	Total Respondent (No)	Owner (%)	Tenant (%)	Owner cum Tenant (%)	Landless (%)	Don't Know (%)
Punjab	40	25	0	0	75	0
KP	118	3	0	0	92	5
Balochistan	0	-	-	-	-	-
AJK	16	0	0	0	100	0
ICT	1	0	0	0	100	0
GB	0	-	-	-	-	-
Overall	175	8	0	0	88	3

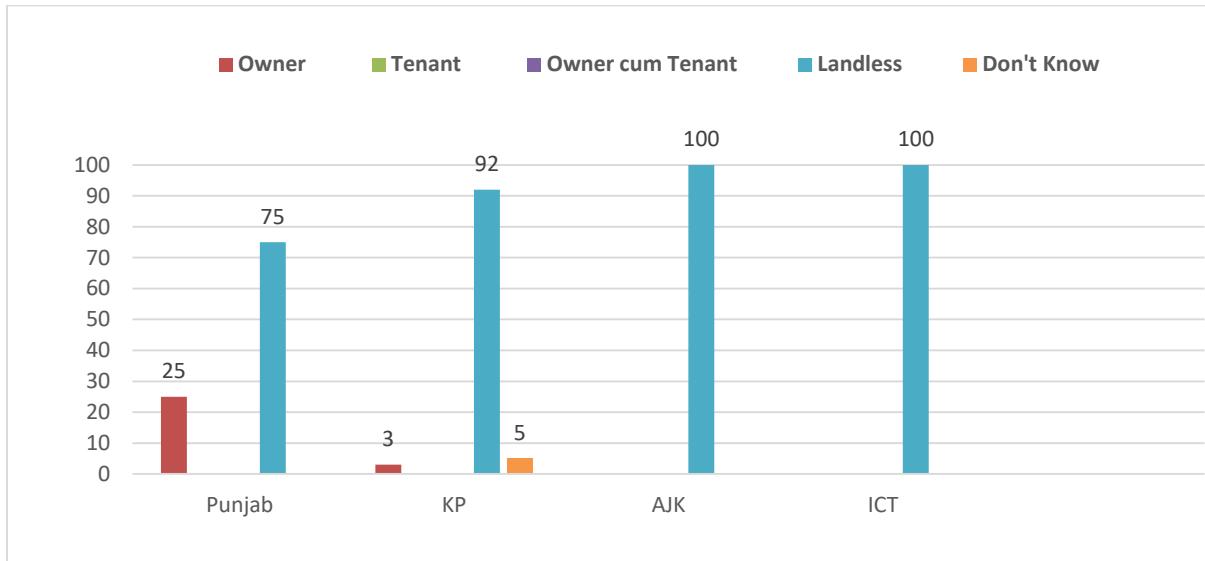


Figure 3.16: Stats of Land Ownership in Percentage

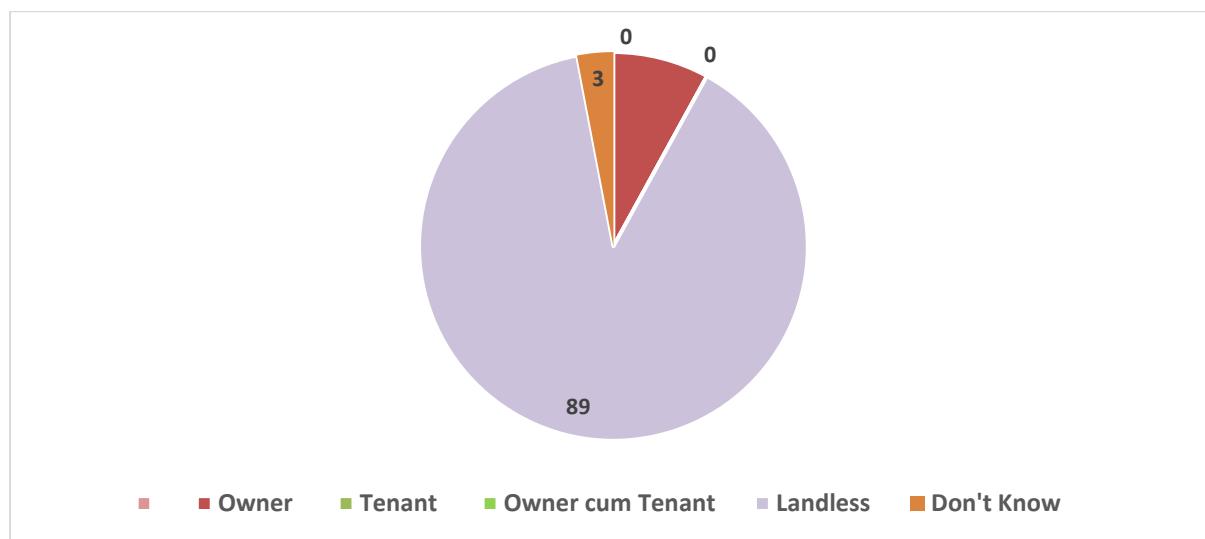


Figure 3.17: Female land ownership (Overall %)

The analysis of the survey data explains the clear picture of Land Ownership classification (i.e., Owner / Tenant / Owner cum Tenant / Landless) as illustrated in **Table-3.8** and **Figure-3.16 & 3.17**. The analyses of data explained that 8 percent female own land against 89 percent landless at surveyed farms. This table helps us to differentiate between owners and landless ownership status of the female found at sampled farms. For example, it clearly showed that most of

the females (75%) amongst the sampled farms in Punjab Zone were landless as against only 25 percent owning land. Similarly, 92 percent females were observed to be landless in KP Zone against only 3 percent females who owned out of the total respondents. In AJK and ICT Units, all the female folks were landless who appeared to be interviewed. This state of affairs proved to be a lopsided distribution of land ownership between female and male genders.

Table 3.9: Status of Land Ownership and Farming

Zone/Unit	Total Respondent (No)	Ownership	Total Land for Farming (Acres)	Average Land for Farming (Acres)
Punjab	40	10	60	6
KP	118	4	44	11
Balochistan	0	0	0	0
AJK	16	0	0	0
ICT	0	0	0	0
GB	1	0	0	0
Overall	175	14	104	17

The data in the above-mentioned table is correlated with table 1. The analysis of the survey data showed a clear picture of landholding and ownership (**Table 3.9**). Out of 175 respondents, 44% respondents in KP and 60% in Punjab responded that about ownership only. This shows a bleaker representation of ownership, that women are not given their rights. The average

landholding is 7 acres which is not sufficient for an average family to live according to the standards, set internationally according to the sustainable development goals. It is suggested in this scenario that women should be given their legal rights. Most of the women are deprived of their property rights in the project area due to social and cultural barriers in vogue.

Table 3.10: Faced problems regarding irrigation water

Zone/Unit	Total Respondent (No)	Yes (%)	No (%)	Don't Know (%)
Punjab	40	50	45	5
KP	118	25	41	34
Balochistan	0	-	-	-
AJK	16	25	75	0
ICT	1	0	100	0
GB	0	-	-	-
Overall	175	31	45	24

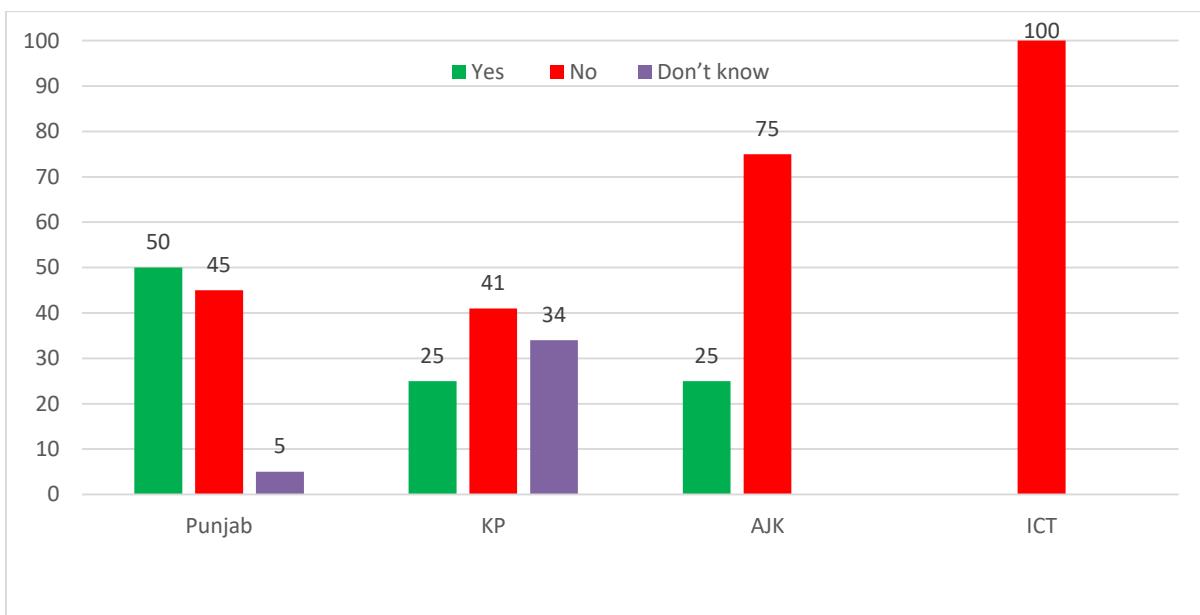


Figure 3.18: Problems faced to female regarding Irrigation

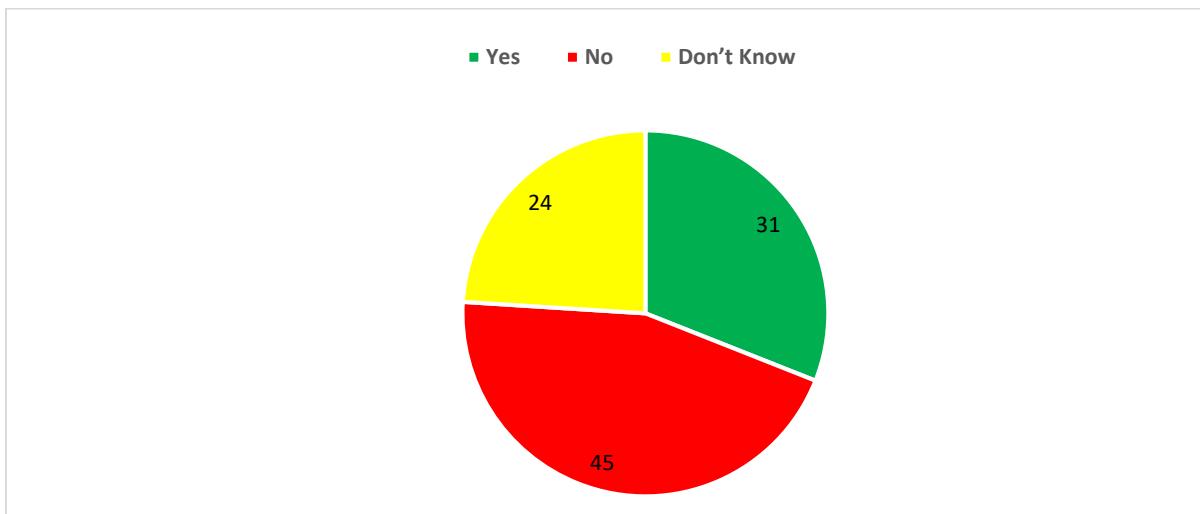


Figure 3.19: Problems faced to female regarding Irrigation (Overall %)

The analysis showed that farmers were facing problems regarding irrigation. In Punjab 50% were

facing problems regarding irrigation/agriculture while in KPK and AJK 25% in each zone/unit of the

project areas female farmers responded yes that they have been facing water problems to irrigate their crops. In Islamabad no one shared their

problems about irrigation though sample size was insignificant (**Table-3.10 and Figure-3.18 & 3.19**).

Table 3.11: Consulted in farming decision

Zone/Unit	Total respondent (No)	Always (%)	Rarely (%)	Never asked (%)
Punjab	40	20	63	17
KP	118	7	50	43
Balochistan	0	-	-	-
AJK	16	81	19	0
ICT	1	100	0	0
GB	0	-	-	-
Overall	175	17	50	33

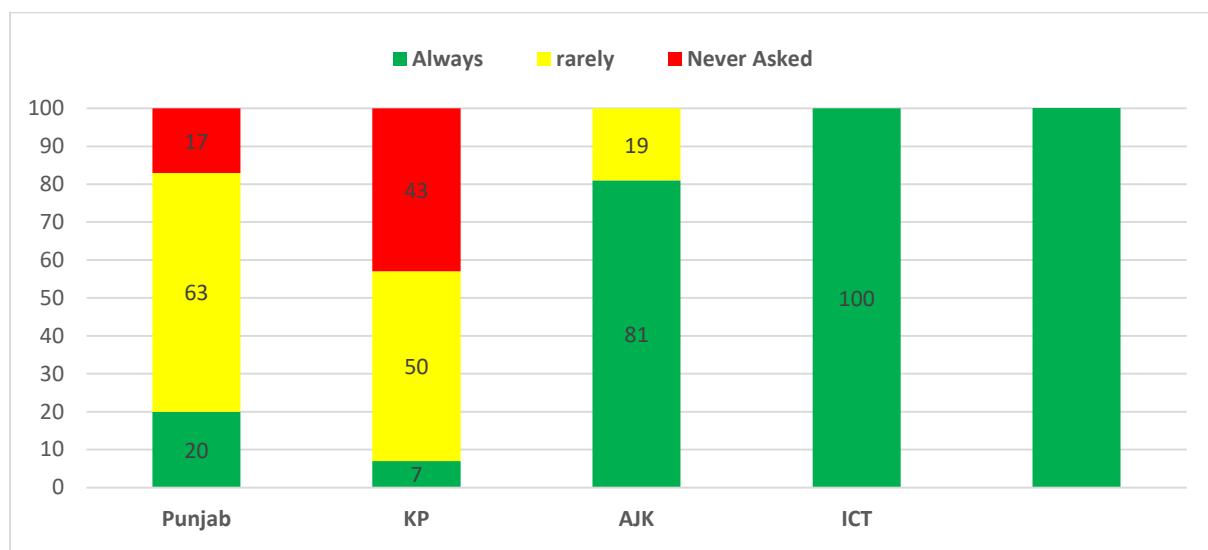


Figure 3.20: Women consultation in farming decisions

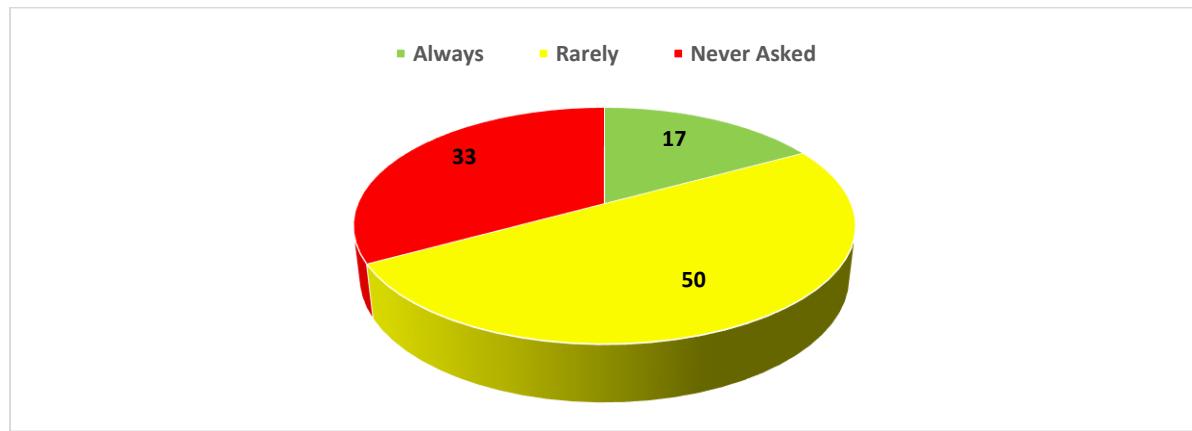


Figure 3.21: female consultation in farming decision (Overall %)

Survey analysis depicted that 30/175 which is equal to 17% of women said yes, they were being taken on board but 87/175 and i.e., 33% said no they have never participated in any decision-

making process. Which is an alarming signal in terms of gender sensitivity in the targeted project areas. Further, it described the status at the stage of bench mark point in time pertaining to the

social & cultural barriers. Although more than 60% women in rural areas work in the agricultural sector, in spite of taking part in all activities they were rarely consulted in making decisions regarding crop production practices except in animal care, storage of grains, etc. This showed

that in some areas women were not properly empowered in rural areas due to the prevailing traditions and poor literacy rate especially amongst rural female folks (**Table-3.11 and Figure-3.20 & 3.21**).

Table 3.12: Consulted on spending income at household

Zone/Unit	Total respondent (No)	Always (%)	Rarely (%)	Never asked
Punjab	40	60	37	3
KP	118	32	66	2
Balochistan	0	-	-	-
AJK	16	100	0	0
ICT	1	100	0	0
GB	0	-	-	-
Overall	175	45	53	2

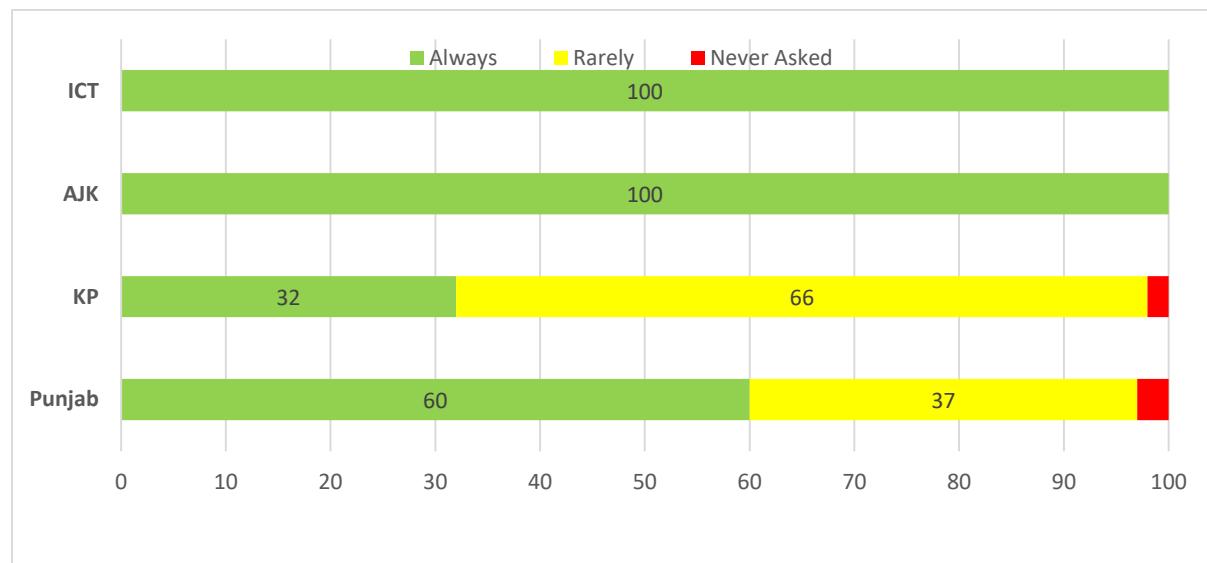


Figure 3.22: Consulted on Spending Income at Household

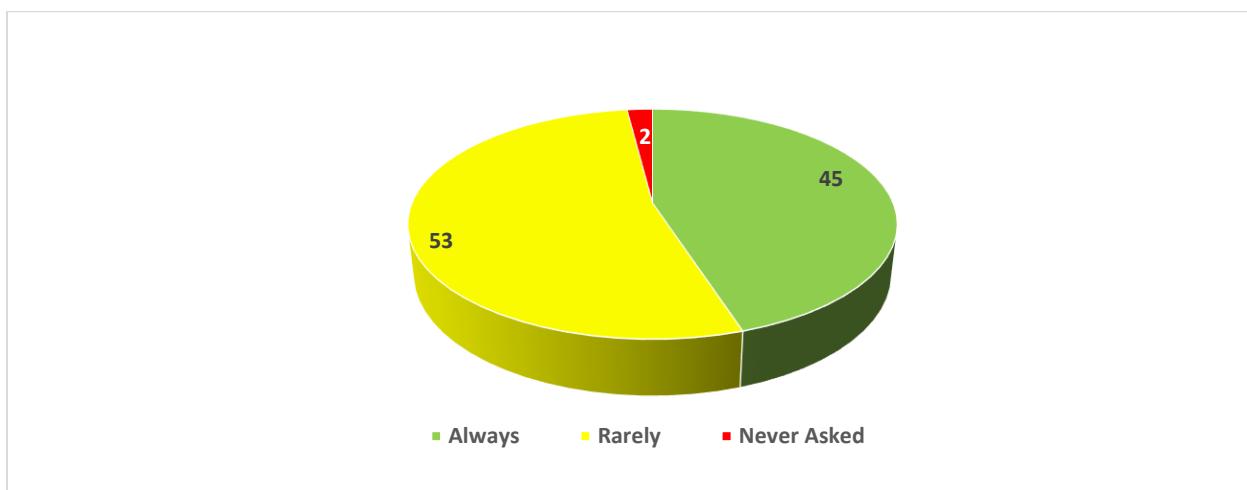


Figure 3.23: Consultation with female on spending income at household (Overall %)

The survey data analysis showed that Baseline data clearly explained that 45% women folks consulted frequently in spending income at the household level but 93/175 i.e., 53% women rarely consulted by the male partner members while making expenditures at household level. Whereas, only 2% female folks were never consulted for managing household expenditures which

appeared to be not very alarming as compared to the total quantum of the respondents interviewed. This set of data explained that women were consulted fairly in one or other way at household level. Thus, these findings inferred that women folks have been fairly empowered in order to address the boundary of the home (See details in **Table-3.12 and Figure-3.22 & 3.23**).

Table 3.13: Consulted in making household decisions

Zone/Unit	Total respondent (No)	Always (%)	Rarely (%)	Never asked (%)
Punjab	40	85	15	0
KP	118	69	30	1
Balochistan	0	-	-	-
AJK	16	100	0	0
ICT	1	100	0	0
GB	0	-	-	-
Overall	175	76	23	1

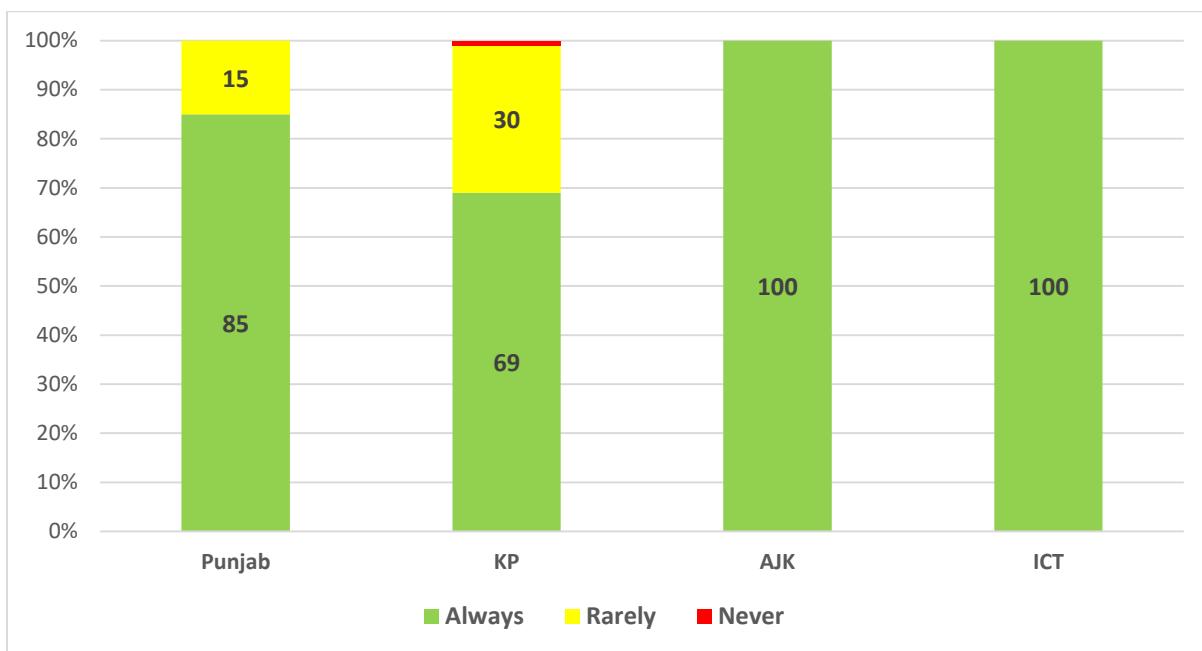


Figure 3.23: Consultation with female in making household decisions

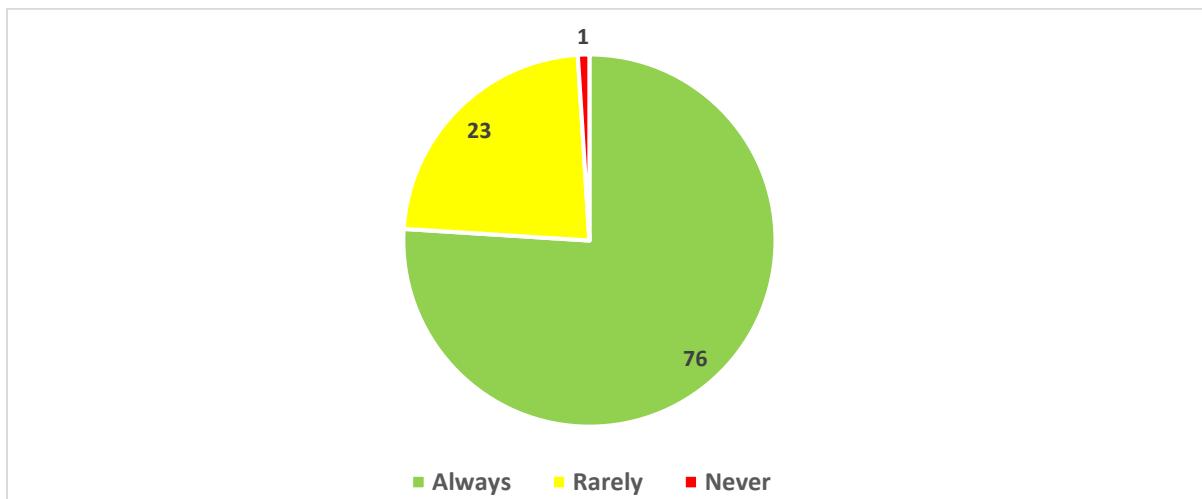


Figure 3.24: Consultation with female in making household decisions (Overall %)

The analysis of the survey results revealed that making decisions in consulting female partners in respect of household affairs, 76% female respondents favored that they were always consulted against only 23% rarely consulted. These results inferred that most of the house-level decisions were made by females. Similarly, its distribution in zones / units wise portrayed as in Punjab 85% said they were always consulted against only 15% rarely and in KP 69% always consulted against only 30% rarely consulted for

addressing the household activities. While in case of AJK and ICT units almost all the respondents revealed that the female folks were always consulted for managing the household chores. In line, we can express that women are often consulted in typical household services like food, clothing, child and aged family members' care, etc., and may be viewed the quantitative details of these chores in the proceeding section (See details in Table-3.13 and Figure-3.24 & 3.25).

Table 3.14: Household activities (Multiple activities)

Zone/Unit	Total respondent (No)	Cooking (%)	Looking after elders (%)	Washing clothes and dishes (%)	Cleaning of house (%)	Caring of children (%)	Bringing drinking water (%)	Bringing fire wood (%)	Others (%)
Punjab	40	90	75	88	85	75	18	15	0
KP	118	94	81	86	91	94	24	25	8
Balochistan	0	-	-	-	-	-	-	-	-
AJK	16	88	19	56	56	75	0	6	6
GB	0	-	-	-	-	-	-	-	-
ICT	1	100	0	0	0	0	0	0	0
Overall	175	92	74	83	86	88	20	21	6

The overall results of the survey explained that majority of the women folks participated in cooking (92%), looking after elders (74%), washing clothes and dishes (83%), cleaning of house (86%), caring of children (88%) against in minority who were rendering the duties of bringing the drinking water and fire wood for the consumption of household needs (20%) and (21%) respectively. In water-related activities, it varied from one zone/ unit to another zone/ unit showing that 24% women in KP fetch water and 25% collect wood. While in Punjab 18% of females fetch water and 15% collect wood. In AJK females were not involved in fetching water activity. While going through the exhausting list of household activities, one can easily conclude that the female workload may be exceeded to the tune of 14 hours a day after counting all activities according to the crystal clear and vivid picture. From dawn to sunset, the

justification of a 14 hours timeline under the condition of a normal day for a normal rural female starts at 04 AM and finishes at 07 PM. Rural women shoulder a dis appropriate amount of unpaid work and household duties which is neither recognized nor remunerated.

The household activity chart depicted in Table-7 that in all zones/ units the cooking service by the female folks was relatively higher as compared to all other chores mentioned, where it was the highest in the ICT unit, it might be due to meager sample size out of limited sampling frame. The result of KPK shows that the women of this province are most likely to be involved in all household activities including bringing firewood and drinking water or doing household chores. As women of KPK are more likely to spend their time at home and the activity evolves around it (See details for other zones / units Table-3.14).

Table-3.15: Participation in farming activities

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	40	43	57
KP	118	25	75
Balochistan	0	-	-
AJK	16	38	62
GB	0	-	-
ICT	1	0	100
Overall	175	30	70

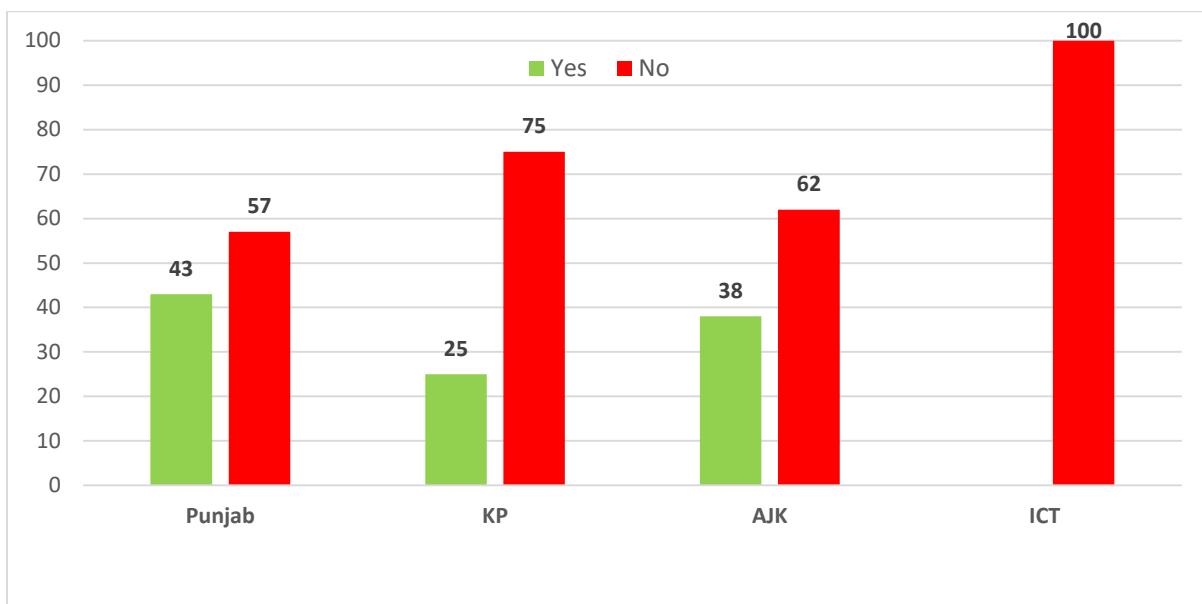


Figure 3.25: Female participation in farming activities

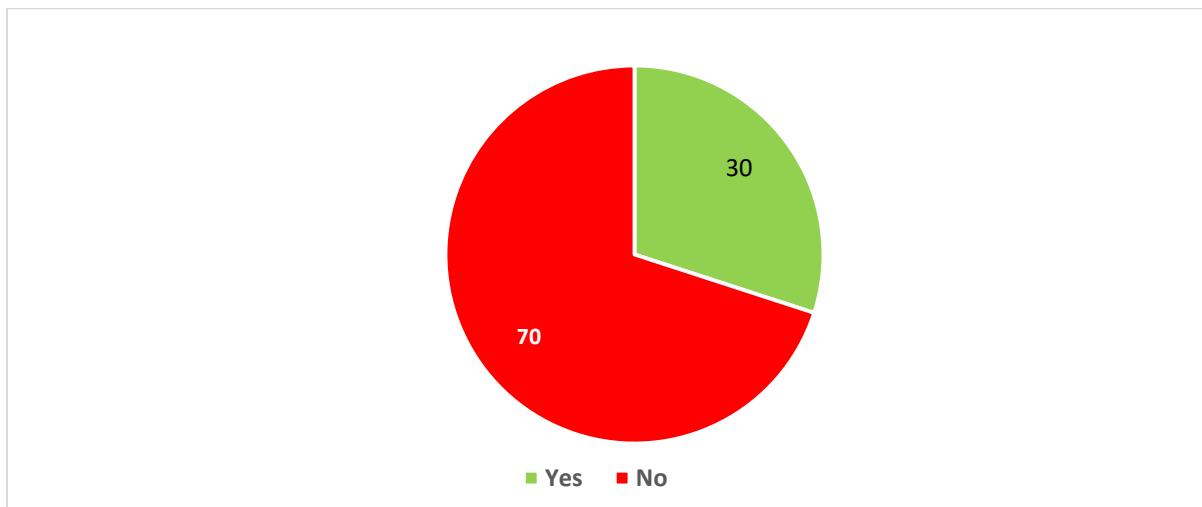


Figure 3.26: Female participation in farming activities (Overall %)

The analysis of survey data depicted pertaining to the overall participation of the rural women in on-farm agriculture sector activities, since they were observed to be involved to a minimum level, i.e., 30 percent. This state of affairs about the extent of the women participation in agricultural activities seems to be underestimated due to the interviewees who might be shying away to give real information as per see of maintaining the cultural taboo of male dominant society. Furthermore, it might be due to small sample size where it was concluded that 70% of the women in the sampled areas were not participating in the

chores of the agricultural activities, and especially in ICT unit where there was only one female respondent who was not taking part in the agricultural activities may be she belongs to an affluent family and their work done through the hired/ rental labor force.

The above chart clearly depicts that the women folks of Punjab zone and AJK unit were chief contributors to the extent of 43% and 38% towards the participation in the agricultural activities respectively, against only 25% in KP Zone. The cultural constraints prevalent in KP zone

cannot be ignored as these were the major factors that refrain the women's active involvement in the

agricultural activities. (See other details from **Table 3.15** and **Figures 3.26 & 3.27**).

Table-3.16: Knowledge about Water User Associations

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	40	48	52
KP	118	11	89
Balochistan	0	-	-
AJK	16	63	37
GB	0	-	-
ICT	1	0	100

The analysis of the survey data revealed that the overall picture of the female farmers' knowledge was very bleak (i.e., 24%) about the WUAs' awareness in the targeted areas of the NPIWC-II project. It identified the major gaps in the social mobilization process for effective improvement of the targeted WCs. It was a major area that was identified for building the capacity of the Water users especially the male partners, women, through introducing the female trainers even at

household levels. Thus, it is recommended that skill building training should be imparted by outreach extension staff to engage more women in program activities. See further details about the zones/ units about the gap exhibited between awareness of female about the knowledge of the WUAs, especially in KP zones and about others may be viewed from **Table-3.16** and **Figures 3.28, & 3.29**

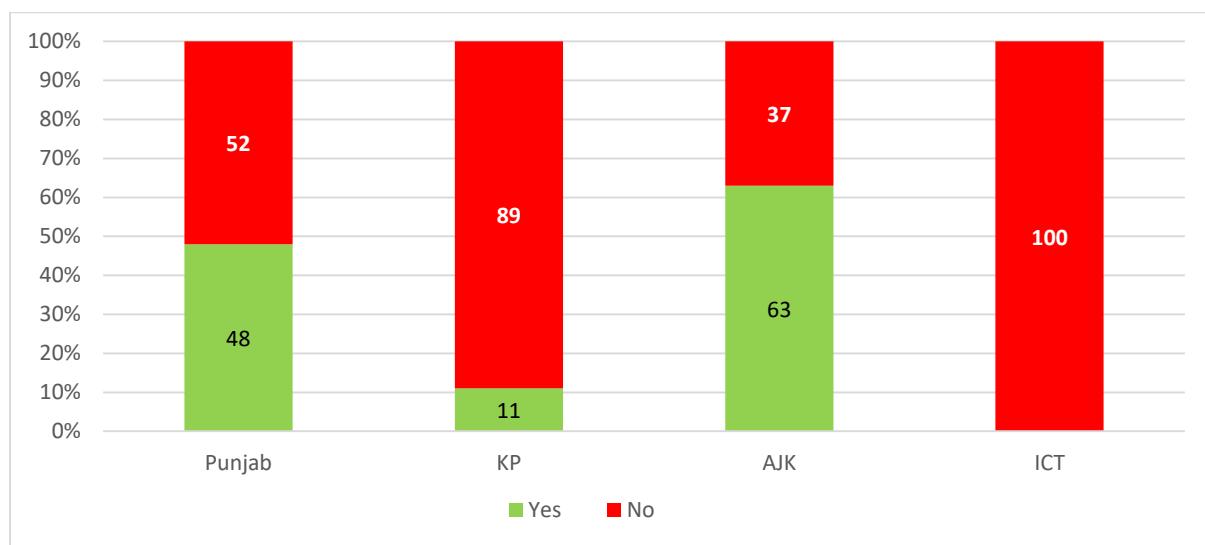


Figure 3.27: Knowledge about Water User Associations

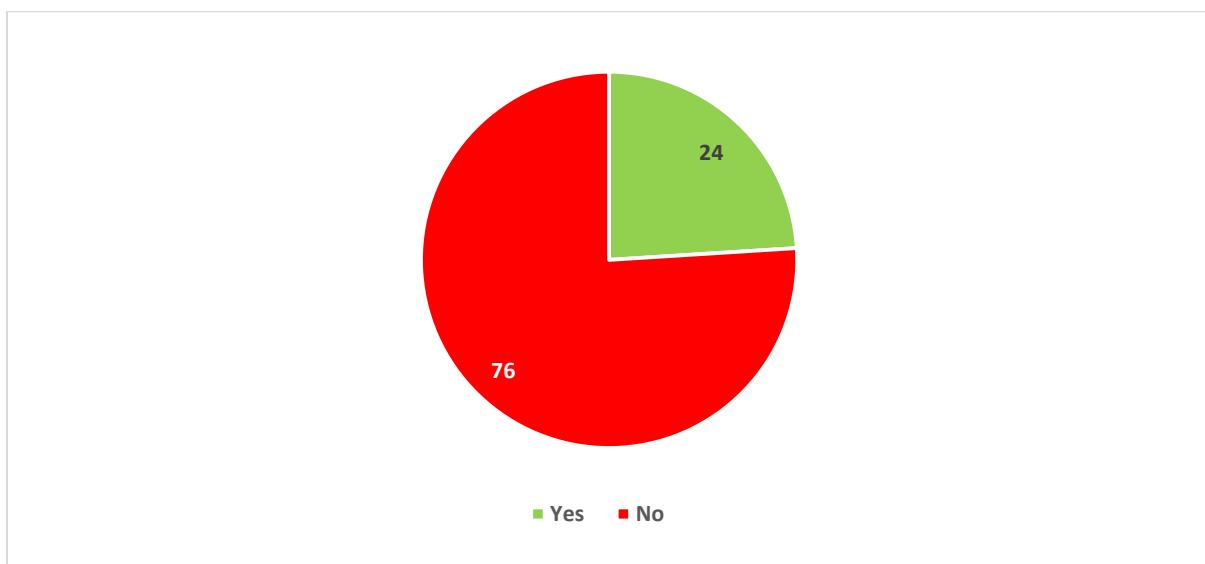


Figure 3.28: Knowledge about Water User Associations (Overall %)

Table-3.17: Heard about NPIWC-II Project

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	40	48	52
KP	118	36	64
Balochistan	0	-	-
AJK	16	94	6
ICT	1	100	0
GB	0	-	-
Overall	175	45	55

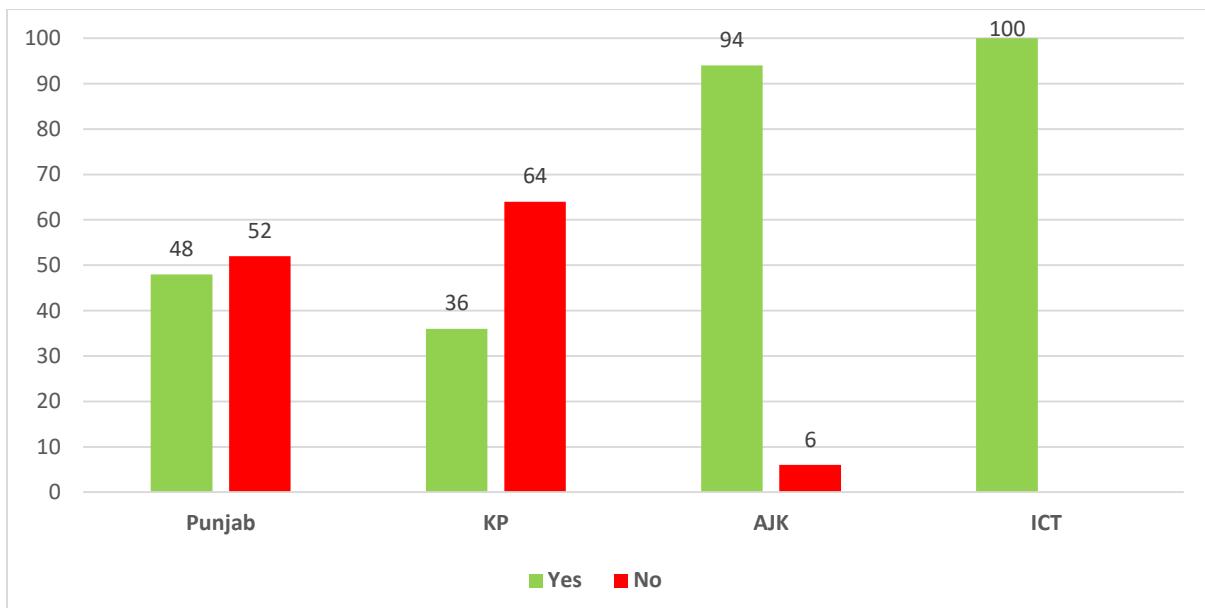


Figure 3.29: Heard about NPIWC-II Project

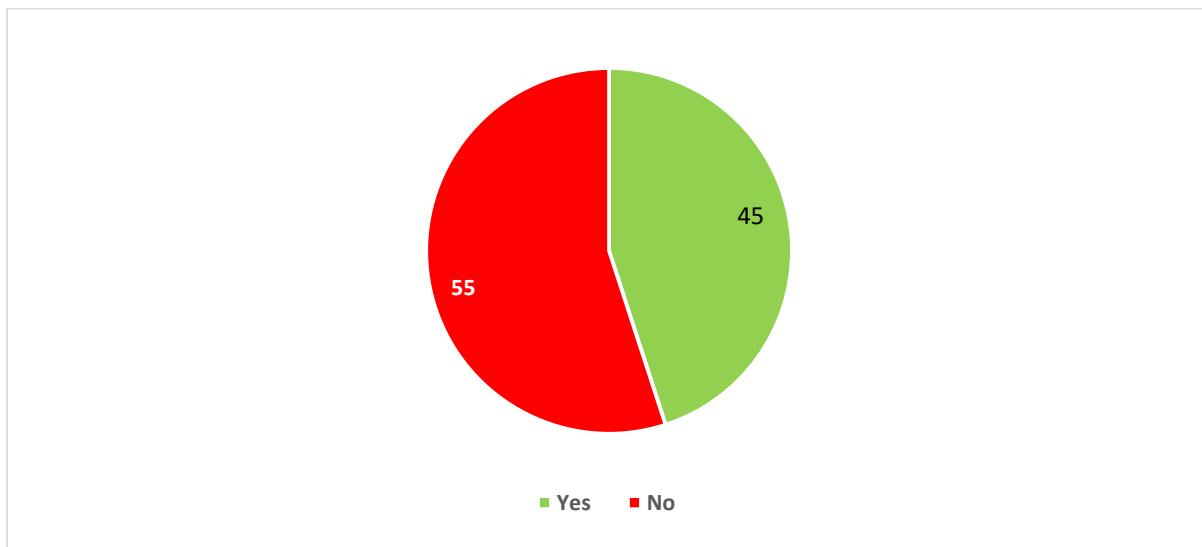


Figure 3.30: Heart about NPIWC-II project (Overall %)

According to the analyzed information collected, only 45% women responded that they have information regarding the launching of the project, NPIWC-II at their respective WC. This evidence was reported from less than 50% of total sampled subjects that suggested the social mobilization process may be looked to bridge the gap of lack of information amongst the masses of WC command area inhabitants including both genders for

assuring the sustainable WC improvement program. Communication strategy and outreach communication should be improved by the back support of WUAs coupled with the advisory services of the extension staff. The intensity of the social mobilization services may be more intensively worked out for KP and Punjab Zones as compared to areas of the Project (See details in **Table-3.17 and Figure-3.30 and 3.31**).

Table-3.18: Member of WUAs

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	19	37	63
KP	13	8	92
Balochistan	0	-	-
AJK	10	0	100
ICT	0	-	-
GB	0	-	-
Overall	42	19	81

The results of the survey showed female respondents out of 42, there were only 19 percent having the membership of WUAs against the 81 percent non-members in the entire project zones/ units. According to the zone wise information, the Punjab zone female respondents reported 37% members of the WUAs, while in KP only 8% females were the members of the WUAs. Data shows in the table that most of the females were not members of WUAs and they knew that their

husband and other family members would have been members of the WUAs. This information suggests that there is a need to mobilize the Social and Gender consultants in this project to work hard for the strengthening the awareness program for developing the sense of ownership in order to make this project objectives more sustainable (See further details in **Table-3.18 and Figures-3.32 & 3.33**).

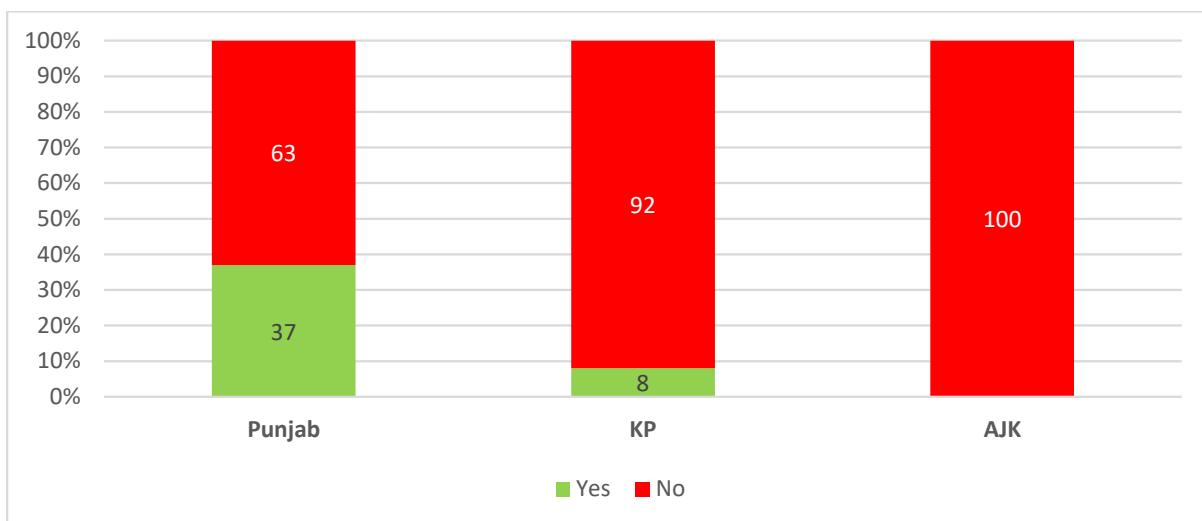


Figure 3.31: Female member of WUAs

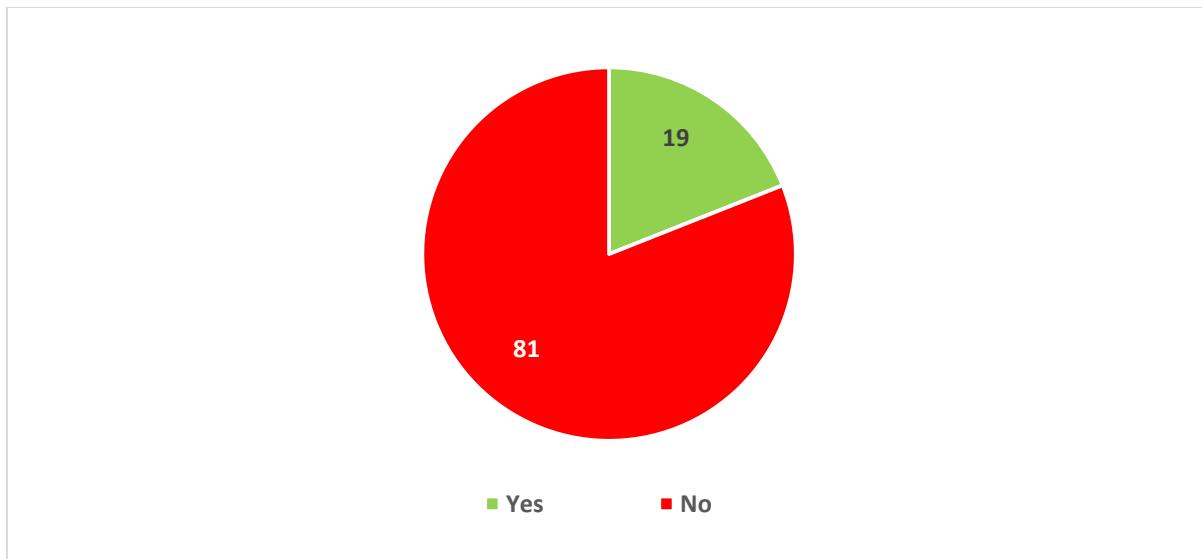


Figure 3.32: Female membership of WUAs (Overall %)

Table-3.19: Participation in WUA's Meeting

Zone/Unit	Total Respondent No.	Always (%)	Never called (%)	Never (%)
Punjab	7	29	43	28
KP	1	0	100	0
Balochistan	0	-	-	-
AJK	0	-	-	-
ICT	0	-	-	-
GB	0	-	-	-
Overall	8	25	50	25

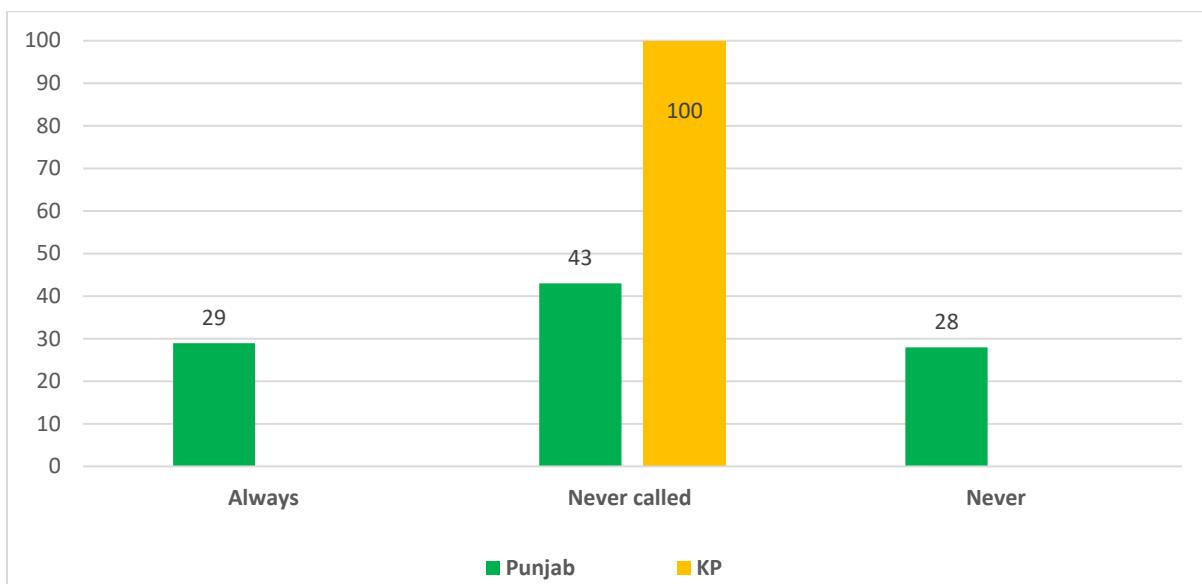


Figure 3.33: Participation of female in WUA's meeting

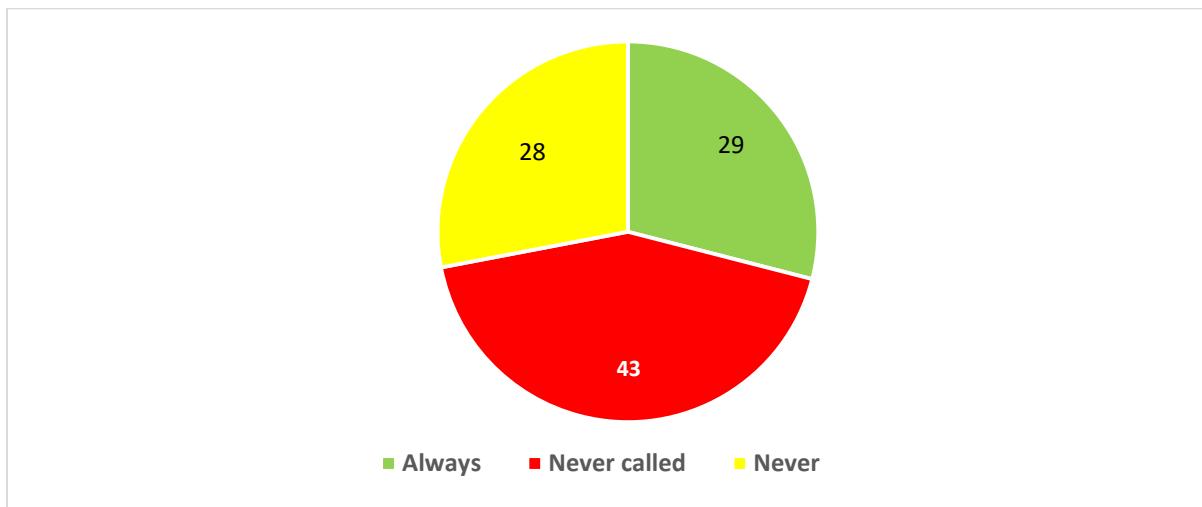


Figure 3.34: Participation of female in WUAs (Overall %)

The results of the survey clearly indicated that there was very less participation of females in the WUAs meetings pertaining to problem solution related activities. Out of only 8 female respondents, only 29 percent female reported their participation from the Punjab zone and none participated from other zones of the project area for addressing the issues and opportunities of the WC improvement. It also indicated that there

might be social or cultural barriers which hindered the female folks from participating in the WUAs membership meetings. The table clearly depicted that 43 % females were never invited for any WUA meeting while the rest of the participants either didn't get any invitation or they never participated in the WUA meeting (See other details in **Table-3.19 and Figure-3.34 & 3.35**).

Table-3.20: Wash Clothes at Washing PAD

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	40	28	72
KP	118	3	97
Balochistan	0	-	-
AJK	16	0	100
GB	0	-	-
ICT	1	0	100
Overall	175	8	92

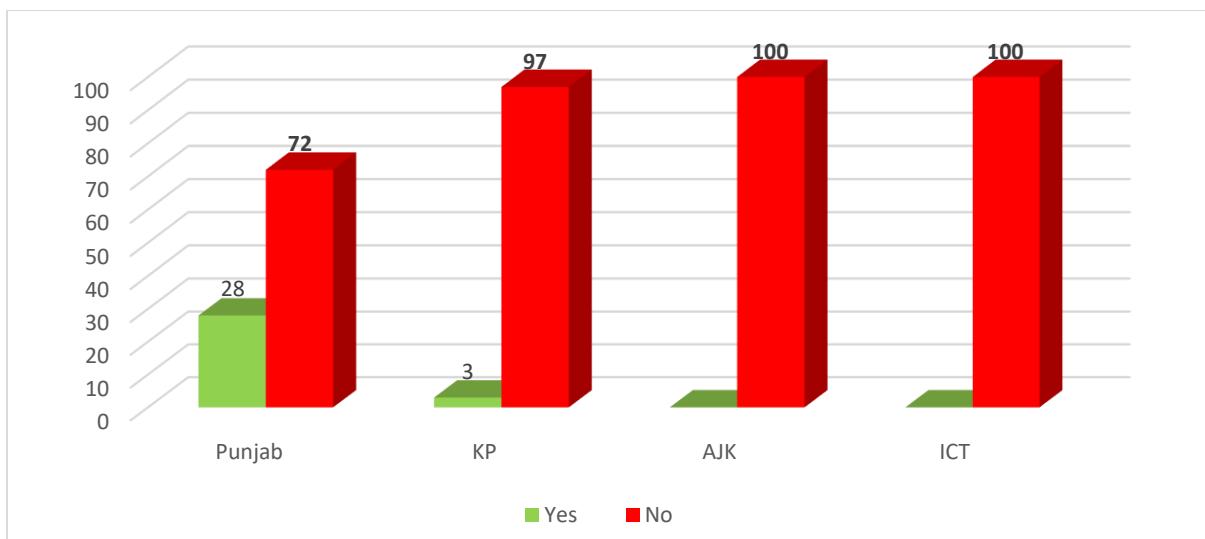


Figure 3.35: Wash Clothes at Washing PAD



Figure 3.36: Wash clothes at Washing (Overall %)

The analysis of the surveyed data from the total 175 female respondents portrayed that only 8 percent females were using washing PAD for washing their clothes on the targeted WCs in the entire project zones/ units against the huge

proportion of the female population who were not using washing PAD for washing their clothes. Since, the construction of washing clothes as well as utensil facilities for the villagers was asked from the female folks from the targeted WCs. Whereas,

many of the households in the rural areas didn't have tap water or any such facility, which enabled them to wash their clothes and utensils easily. Data clearly showed that most of these females

belong to Punjab province and they have been taking advantage of the facility installed on the targeted watercourse for their day-to-day washing (See details in **Table-3.20** and **Figure-3.36 & 3.37**).

Table-3.21: Sufficient Culverts for Crossing at Watercourse

Zone/Unit	Total Respondent No.	Yes (%)	No (%)
Punjab	40	85	15
KP	118	41	59
Balochistan	0	-	-
AJK	16	94	6
GB	0	-	-
ICT	1	100	0
Overall	175	56	44

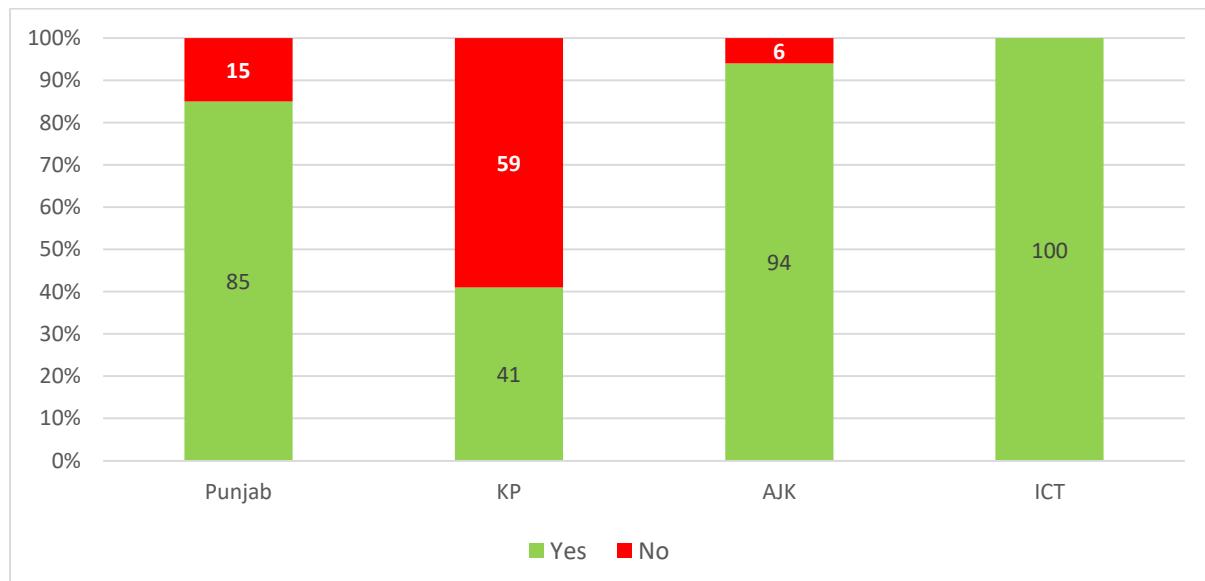


Figure 3.37: Sufficient culverts for crossing at watercourse

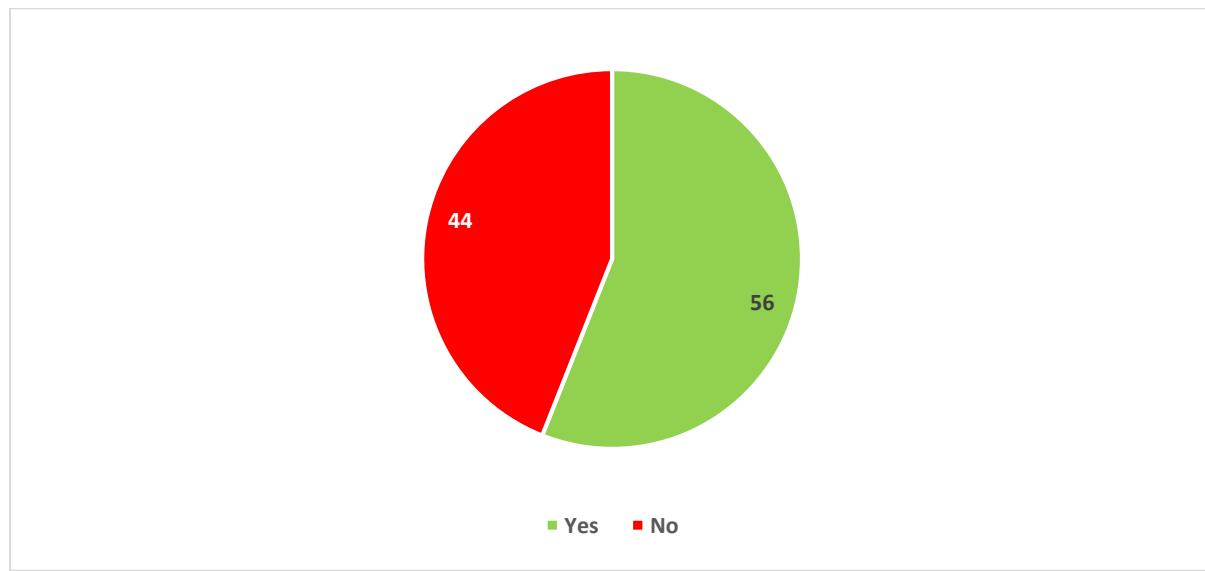


Figure 3.38: Sufficient culverts for crossing at watercourse (Overall %)

Culverts are engineering structures over a watercourse mostly being used for crossing the watercourse. In villages, culverts are being given on the road where the watercourse shifts from one end to another or it is usually given in a field or pedestrian way where pedestrians and tractors cross the watercourse. The above table shows that 56% of respondents out of 175 female folks responded that sufficient culverts are provided which facilitate their movement. 44% responded that culverts were not sufficient according to their requirements. The distribution of the sufficient number and location of the culvert's facility was asked by the female respondents from the respective zones/ units of the project areas that showed in Punjab zone 84%, in KP zone 41% and in AJK unit 94% and all in ICT unit reported the suitability of culverts against non-suitability the culverts in the respective zones/ units of the project (See details **Table-3.21 and Figure-3.38 & 3.39**).

3.8.2 Conclusion

The Baseline study-II depicts the information of the women of all zones of Pakistan (Punjab, KPK, Balochistan, AJK and ICT) and how knowledgeable they are related to the project. Overall, 175 female respondents gave interviews to Social & Gender related questions and they were inquired by all zones of Pakistan. The data was collected from all provinces of Pakistan and because of this the result varies from each due to cultural and family norm constraints. Data collected from all zones reflects obvious variations between landowner and landless. The data also reflects the role of beneficiaries in the farming activities as well as their participation in decision making. The women participation in WUAs and their knowledge about the NPIWC-II project also varies in different zones. The overall results show that women in project areas are largely involved in agriculture activities. Participation of women in Agriculture fields has also resulted in accomplishing the goal of enhancement of agricultural productivity. The overall data demonstrate that 100% females of AJK & ICT consult in making household decisions. It shows that the male members involved their females in household decisions. There is no restriction from male members in these areas.

The data indicates that only in Punjab the females are using washing pads for washing clothes. It is equally true that gender is one of the most powerful social relationships that shapes the daily lives of Pakistani people reflecting the social and political fabric of differences between women and men.

The overall data depicts that in AJK only 95% women know about the NPIWC-II project as compared to other zones of Pakistan. Women of AJK are very active and their male members get them involved in every activity related to farming. In AJK women are very productive and empowered.

According to the data there are multiple activities (Cooking, looking after elders, washing clothes & dishes) among the different zones. More than 80% females of 3 zones (KP, Balochistan, and Punjab) are engaged only in cooking. Interviews taken from females of all specified zones show that there is no involvement of female members in WUA in AJK and ICT, but it demonstrates that 100 % females were well aware of the water user's association.

Data from all zones depicted how much % of the females faced problems regarding irrigation water in respective intervention. It also helps the Social and gender expert in analyzing the percentages of females who had their own land in specified areas of targeted intervention. It showed that in ICT and AJK there were not even a single member who owned a piece of land. All the females of the specific zone have the right to speak up about the household matters, and spending income related matters in AJK and ICT.

3.8.3 Recommendation

- Social mobilizers should put some more effort and increase their public reach towards targeted water users' location that fall in the jurisdiction of the command area of watercourse, then it will give a stronger impact on the effectiveness of WUAs; and.

Needs to build the capacity of female farmers in farming activities by empowering them in enhancing the water productivity. The specific areas of skill development may be upgraded in

quality food and feed production by employing the good agriculture practices with the efficient and effective tools of irrigation, some of the trades may include kitchen and gardening/farming related training should be given to KP, AJK and Punjab female farmers.

3.9 ICT ASSIGNMENT

The ICT Team remained engaged in different activities related to the ME&IE assignment including development of Android based application, data collection for Dashboard and training of client staff on Dashboard / MIS for the project. During the reporting month the activities performed by ICT Team are summarized below.

3.9.1 Development of Customized Android Based Applications

The ICT Technology Team of ME&IE Consultants NPIWC-II has developed Customized Android Based Applications for data collection. Data entry in this application is done directly by the field monitoring teams of all the zonal offices and is uploaded in the MIS system. The data is being observed and monitored by the ICT team of ME&IE Consultants.

In this regard, customized Android Based Applications have been developed, tested, and installed to Small Dams and Irrigation staff of AJK, Water Management Staff of ICT zone and OFWM staff KP zone.

3.9.2 Data collection of interventions in MIS/GIS database

The activity regarding data collection of Interventions in MIS/GIS database was completed in KP Zone in December 2021.

- Data cleaning and validation has been completed in KP Zone.
- The data collection for the dashboard is in progress in Balochistan. The ICT team is facing problems in data collection because a lot of data is missing which was required by the ICT team for Implementation of MIS Dashboard.

3.9.3 Implementation of MIS Dashboard

The Dashboard has been implemented in AJK, and the progress of Interventions is live on the Dashboard since the 4th of November 2021.

AJK Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	32	96	74	16	218
Poonch	37	38	78	21	174
Mirpur	38	107	86	49	280
Overall	107	241	238	86	672

So far, Total 672 Watercourses data from AJK zone has been received and available live on Dashboard by which 411 Watercourse has been completed & 171 watercourses are under progress. Due to farmers' un-willingness 90 Work Orders have been cancelled till now. Detailed summary attached as Annex-G.

AJK Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	35	61	83	5	184
Poonch	13	48	142	99	302
Mirpur	2	16	44	21	83
Overall	50	125	269	125	569

569 Water Storage Tank data received from AJK zone and is available live on Dashboard by which 306 Water Storage Tank has been completed and 179 WSTs are under progress. Due to the unwillingness of farmers there 84 WST work orders have been cancelled till now. Detailed summary attached as Annex-H.

The Dashboard has also been implemented in KP Zone and progress of completed schemes is live on the Dashboard since 11th March 2022.

KP Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur Agency	3	19	40	17	79
Bannu	74	35	93	27	229
D.I Khan	431	14	105	0	550
Hazara	82	66	149	40	337
Khyber Agency	6	13	7	0	26
Kohat	78	32	57	5	172
Kurram Agency	3	5	3	0	11
Malakand	174	177	451	8	810
Mardan	105	67	96	7	275
M. Agency	4	26	13	0	43
N.W Agency	2	3	5	1	11
Orakzai Agency	0	1	0	0	1
Peshawar	107	82	93	10	292
S.W Agency	3	12	15	2	32
Overall	1072	552	1127	117	2868

KP zone currently 2868 total watercourses data live on Dashboard and by which 2462 schemes have been completed and 399 schemes are under progress. Due to the unwillingness of farmers 07 Schemes work order has been cancelled till to date. Detailed Summary attached as **Annex-I**.

KP Zone - WST Data Summary					
Division	2019-20	2020-21	2021-22	22-23	Overall
Bajaur	1	10	9	1	21
Bannu	13	10	23	2	48
D. I. Khan	81	6	19	0	106
Hazara	23	41	46	5	115
Khy. Agency	1	9	12	0	22
Kohat	28	17	32	1	78
Kurram Agency	1	1	0	0	2
Malakand	73	94	172	3	342
Mardan	16	9	26	4	55
M. Agency	1	36	4	0	41
Orakzai Agency	0	2	0	0	2
Peshawar	35	25	59	5	124
S.W Agency	0	15	15	0	30
N.W Agency	0	8	8	1	17
Overall	273	283	425	22	1003

KP zone currently 1003 total WST data live on Dashboard and by which 833 schemes have been completed and 170 WSTs are under progress. Detailed Summary attached as **Annex-J**.

ICT Watercourses Data Summary			
Division	2020-21	2021-22	Overall
ICT	20	14	34
Overall	20	14	34

ICT zone so far 34 watercourse schemes have been initiated in this zone and all 34 have been completed till now.

Balochistan Zone – Watercourses Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	546	132	211	889
Loralai	332	100	123	555
Makran	151	34	5	190
Nasirabad	193	106	174	473
Quetta	236	33	68	337
Rakhshan	124	57	54	235
Sibi	176	49	83	308
Zhob	195	64	73	332
Overall	1953	575	791	3319

Balochistan zone currently has 3319 total watercourses data live on Dashboard and by which 2045 schemes have been completed and remaining 1253 are under progress. Detailed Summary attached as **Annex-K**.

Balochistan Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	91	145	274	510
Loralai	54	56	103	213
Makran	48	56	109	213
Nasirabad	25	46	76	147
Quetta	52	51	76	179
Rakhshan	26	66	57	149
Sibi	34	33	61	128
Zhob	35	61	114	210
Overall	365	514	870	1749

Balochistan zone currently has 1749 total Water Storage Tank data live on Dashboard and by which 899 Water Storage Tanks have been completed and remaining 845 WSTs are under progress. Detailed Summary attached as **Annex-L**.

Punjab Zone – Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bahawalpur	182	189	317	17	705
D.G Khan	154	81	261	0	496
Faisalabad	91	59	199	38	387
Gujranwala	65	30	100	0	195
Gujrat	52	28	119	0	199
Lahore	77	47	122	9	255
Multan	172	83	307	0	562
Sahiwal	95	92	157	0	344
Sargodha	108	89	355	3	555
Overall	996	698	1937	67	3698

Punjab Zone currently has 3698 total Watercourses data live on Dashboard and all schemes are completed. There's also data missing in some districts and the ICT team is in close coordination with the Punjab OFWM Department to fill the missing data from concerned districts. Detailed Summary attached as **Annex-M**.

Punjab Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Bahawalpur	23	46	91	160
D.G Khan	25	30	25	80
Faisalabad	24	48	57	129
Gujranwala	0	4	2	6
Gujrat	2	10	29	41
Khushab	2	7	19	28
Lahore	0	9	5	14
Multan	16	25	26	67
Rawalpindi	0	174	194	368
Sahiwal	9	15	15	39
Sargodha	4	25	28	57
Overall	105	393	491	989

Punjab Zone currently has 989 total Water Storage Pond data live on Dashboard and all schemes are completed. There's also data missing in some districts and the ICT team is in close coordination with the Punjab OFWM Department to fill the missing data from concerned districts. Detailed Summary attached as **Annex-N**.

GB - Watercourse Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Gilgit	180	236	29	445
Skardu	108	231	25	364
Overall	288	467	54	809

GB Zone currently has 809 total Watercourse data live on Dashboard and all schemes are completed. Detailed Summary attached as **Annex-O**.

GB - WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Gilgit	83	95	22	200
Skardu	35	82	11	128
Overall	118	177	33	328

GB Zone currently has 328 total Water Storage Tank data live on Dashboard and all schemes are completed. Detailed Summary attached as **Annex-P**.

CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (JAN 2023 TO MARCH 2023)

The ME&IE Consultants' activities initiating during the 5th Quarter of year 2023 (1st January 2023 to 31st March 2023) are listed below. A tentative Work Plan for 4th Quarter of the year 2022 (1st October 2022 to 31st December 2022) showing time span detail is given as **Annex-A**.

Pre Field-Activities

- i) Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)
- ii) Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey
- iii) Training of Field Staff for 3rd-Phase Baseline Survey

Field Activities

- i) Regular Monitoring of Interventions in the Field
- ii) Data collection of the interventions in the field
- iii) Baseline Survey stage - 3
- iv) Online data entry in android-based application

ICT Assignment

- i) Development / Improvement of website of NPIWC-II
- ii) Monitoring online data collection and Data entry
- iii) Monitoring Android based Mobile Application under implementation by field staff.
- iv) Data collection of interventions in MIS/GIS database
- v) Capacity Building Trainings / Refresher of Departments
- vi) Data Cleaning, Development & Launching of Dashboard for Client Offices

Coordination

- i) Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- ii) Meeting of DTLs with respective DTL of PC & concerned OFWM Departments
- iii) ME & IE Consultants Internal Meetings
- iv) Meetings of TL with NPC and OFWM

Departments regarding Project Progress / Issues

- v) Meeting of DTLs with respective DTL of PC & concerned OFWM Departments
- vi) ME&IE Consultants Internal Meetings

Deliverables

- i) Monthly Monitoring Report
- ii) Quarterly Monitoring Report (January-March 2023)
- iii) Mid-Line Monitoring & Impact Evaluation Report
- iv) Preparation of Baseline Survey Report 2nd-Phase
- v) Consolidation of Baseline Survey Phase-I & II Reports

The detail of deliverables of ME&IE Consultants with the timelines is as under:

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted
Monthly Monitoring Report-First (DEC 2020-JAN 2021)	Submitted
Monthly Monitoring Report-Second (FEB 2021)	Submitted
Monthly Monitoring Report-Third (MAR 2021)	Submitted
Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021)	Submitted
Monthly Monitoring Report-Fourth (APR 2021)	Submitted
Monthly Monitoring Report-Fifth (MAY 2021)	Submitted
Monthly Monitoring Report-Sixth (JUNE 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021)	Submitted
Monthly Monitoring Report-Seventh (JULY)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Annual Monitoring & Evaluation Report (1 st)	Submitted
Baseline Survey Report (Final Draft)	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring &	Submitted

Document	Status	Document	Status
Evaluation Report-Third (JULY - SEPTEMBER 2021)		Monthly Monitoring Report-Twenty Second (OCTOBER 2022)	Submitted within stipulated time
Monthly Monitoring Report-Tenth (OCTOBER 2021)	Submitted	Monthly Monitoring Report-Twenty Third (NOVEMBER 2022)	Submitted within stipulated time
Monthly Monitoring Report-Eleventh (NOVEMBER 2021)	Submitted	Monthly Monitoring Report-Twenty Fourth (DECEMBER 2022)	Submitted
Monthly Monitoring Report-Twelfth (DECEMBER 2021)	Submitted	Monthly Monitoring Report-Twenty Fifth (JANUARY 2023)	Submitted
Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021)	Submitted	Monthly Monitoring Report-Twenty Sixth (FEBRUARY 2023)	Submitted
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	submitted within stipulated time	Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (JAN – MAR 2023)	Under preparation
Monthly Monitoring Report-Fourteenth (MARCH2022)	submitted within stipulated time	Baseline Survey Report Phase-II	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	submitted within stipulated time	Baseline Survey Report Phase-II (First Draft)	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	submitted within stipulated time	Baseline Survey Report Phase-II (Updated version WC)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	submitted within stipulated time	Baseline Survey Report Phase-II (Draft version of WSTs)	Submitted
Monthly Monitoring Report-Seventeenth (MAY 2022)	submitted within stipulated time	Baseline Survey Report Phase-II (Draft version of LLL)	Submitted
Monthly Monitoring Report-EIGHteenth (JUNE 2022)	Submitted within stipulated time	Mid-Line Monitoring & Impact Evaluation Report	Submitted
Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2022 (APRIL – JUNE 2022)	submitted within stipulated time	Survey Manual (Final version) (Special Reports)	Submitted
Annual Monitoring & Evaluation Report (2 nd) Jul 2021-June 2022	Submitted within stipulated time	Special Reports submitted: 1) Monitoring Tools 2) Survey Manual 3) PAM 4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard. 5) Baseline-Endline Survey Manual 6) Android Application Mnaual PMIS Dashboard Manual	Submitted
Monthly Monitoring Report-Nineteenth (JULY 2022)	Submitted within stipulated time		
Monthly Monitoring Report-Twentieth (AUGUST 2022)	Submitted within stipulated time		
Monthly Monitoring Report-Twenty First (SEPTEMBER 2022)	Submitted within stipulated time		
Quarterly Monitoring & Evaluation Report-3 rd Quarter year 2022 (JUL – SEP 2022)	Submitted within stipulated time		

Deliverables/Reporting Requirements are placed at **Annex-D**.

Matrix of Responsibilities

The Matrix of Responsibilities is placed at **Annex-B**.

CHAPTER 5: ISSUES / BOTTLENECKS

The ME&IE Consultants are continuously facing the following constraints for timely instigating the activities:

- Due to non-availability of NWMC (NESPAK) deliverables/reports, ME&IE Consultants are facing hurdles to evaluate working of NWMC. In this regard the cooperation of NWMC and respective Directorates is required.
- Non availability of Technical Sanctions of the watercourses required for performing baseline surveys as well as the required obligatory followed surveys including Midline and end line
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments & NWMC (NESPAK) till to date.
- Irregularity in the fund releases is also one of the key obstacles to the completion of the required obligatory project assignments, timely.

ANNEXES A to P

ANNEX-A: TENTATIVE WORK PLAN

ANNEX A: TENTATIVE QUARTERLY WORK PLAN (JANUARY TO MARCH 2023)

No.	ACTIVITIES	TENTATIVE WORK PLANNED FOR THE QUARTER (January 2023 To March 2023)												Legend	
		January				February				March					
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4		
1	Pre-Field Activities														
1.1	Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)														
1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey														
1.3	Training of Field Staff for 3rd-Phase Baseline Survey														
2	Field Activities														
2.1	Regular Monitoring of Interventions in the Field														
2.2	Data collection of the interventions in the field														
2.3	Baseline Survey stage - 3														
2.4	Online data entry in android based application														
3	ICT Assignment														
3.1	Development / Improvement of website of NPIWC-II														
3.2	Monitoring online data collection and Data entry														
3.3	Monitoring Android based Mobile Application under implementation by field staff.														
3.4	Data collection of interventions in MIS/GIS database														
3.5	Capacity Building Trainings / Refresher of Departments														
3.6	Data Cleaning, Development & Launching of Dashboard for Client Offices														
4	Coordination														
4.1	Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues														
4.2	Meeting of DTLs with respective DTL of PC & concerned OFWM Departments														
4.3	ME&IE Consultants Internal Meetings														
5	Deliverable														
5.1	Monthly Monitoring Report														
5.2	Quarterly Monitoring Report (Oct-Dec 2022)														
5.3	Mid-Line Monitoring & Impact Evaluation Report														
5.4	Preparation of Baseline Survey Report 2nd-Phase														
5.5	Consolidation of Baseline Survey Phase-I & II Reports														

ANNEX –A (i): TENTATIVE QUARTERLY WORK PLAN OF ICT ZONE

Sr. No	Deliverables /Activity	ME&IE Targets	Start Date	End Date	ME&IE Activities for Field visits	2023															
						Baseline + Monitoring	Monitoring	Endline	April				May				June				
	Islamabad OFWM data								W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	
	Kashmir OFWM data																				
	Gilgit Baltistan OFWM data																				
1	Coordination with OFWM by DTL								In house coordination as well as with client office and cooperating line departments under spearheading of TL and sole by DTL through face to face, email and phone for performance review and planning for field visits.												
1.1	Collection of completed data of 2021-22 WC/WST																				
1.2	Coordination for ICR Data with Director Office																				
1.3	Coordination for field visits through emails																				
2	Islamabad/Rawalpindi Visits					Baseline + Monitoring	Monitoring	Training	Endline												
2.1	Water courses	12	1 st April	30-Jun		6	6		-		2	2		2	2			2	2		
2.2	Water Storage Tanks Rawalpindi	8	5 th April	30-Jun		4	4		-				2					2	2	2	
3	Kashmir Visits					Baseline + Monitoring	Monitoring		Endline												
3.1	Water courses	16	10 April	30-Jun		10	6		-		2	2	2		2	2		2	2		2
3.2	Water Storage Tanks	12	10-April	30-June		6	6		-		2		2		2	2		2	2		2
3.3	Laser Land Leveling	-																			

ANNEX –A (ii): TENTATIVE QUARTERLY WORK PLAN OF KP ZONE

S.No	Deliverables /Activity	2023											
		Jan				Feb				Mar			
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
1	Coordination with OFWM & PMU by DTL												
1.1	Collection of completed data of 2022-23 WC/WST												
1.2	Coordination for TS Data with Director Office												
1.3	Coordination for field visits through emails												
2	Team 1 - KP Baseline												
2.1	Water courses		5	9			5	9	7				
2.2	Water Storage Tanks			3			2						
2.3	Laser Land Levelling												
3	Team 2 - KP Baseline												
3.1	Water courses		5	9			5	9	7				
3.2	Water Storage Tanks			3			2						
3.3	Laser Land Levelling												
4	Team 3 - KP Baseline												
4.1	Water courses		5	9			5	9	7				
4.2	Water Storage Tanks			3			2						
4.3	Laser Land Levelling												
5	Reporting												
5.1	Daily Monitoring and Reporting		15	12	12	12	21	15	12	7	7	7	
5.2	Progress review and planning meetings			2		2		2		2	2	2	2
5.3	Monthly Monitoring Report (MMR)				1				1				1
5.4	Quarter Monitoring Report (QMR)												1
5.5	Case Studies report writing				1				1				1
5.6	Baseline Reporting												1
5.7	Annual Report												

ANNEX –A (iii): TENTATIVE QUARTERLY WORK PLAN OF PUNJAB ZONE

TENTATIVE WORK PLANNED FOR the 4th QUARTER of 2022 - 23													Legend					
April - June 2023													Activity starts	Blue Down Arrow				
													Activity Ends	Green Down Arrow				
													Activity Span	Yellow Dashed Line				
													3 Months-Year 2023 (Weeks)					
No.	ACTIVITIES												April		May		June	
	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4		
1	Pre-Field Activities																	
1.1	Preparation of Filed Activities																	
1.2	Strategy For collection of basic data on various interventions																	
2	Field Activities																	
2.1	Regular Monitoring of interventions in the Field																	
2.2	Data Collection on Baseline of interventions																	
2.3	Basic Data Collection on Various Intervention(PMIS Dashboard) at Divisional Level																	
3	Coordination																	
	Meeting of ME&IE Consultants with Stakeholders regarding project progress / Issues																	
3.1	DTL with DG. Agri. OFWM / Director Agri. OFWM Field teams with DDAs and ADAs OFWM in respective Districts																	
3.2	Meeting of ME&IE DTLs with respective DTLs of NWMC																	
3.3	Internal / Zoom Meetings of ME&IE Consultants																	
4	Post Field Activities																	
4.1	Validation on Android Based Field Data on Various Intervention																	
5	Deliverable																	
5.1	Monthly Monitoring report																	
5.2	Quarterly Monitoring Report																	
5.3	Annual Monitoring Report																	

ANNEX –A (iv): TENTATIVE QUARTERLY WORK PLAN OF BALOCHISTAN ZONE

TENTATIVE WORK PLAN FOR THE QUARTER (January to March 2023)												Legend			
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)													
		January				February				March					
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4		
1	Pre-Field Activities														
	1.1	Meetings /Coordination, Sharing of Quarterly Monitoring Plan with DG, OFWM, Balochistan and Deputy Directors, OFWM Balochistan													
	1.2	Planning and collection of beneficiaries details of F.Y. 2022-23 to start the Baseline Survey - 3, Balochistan (Subject to finalize the beneficiary lists by OFWM Department)				■	■								
2	Field Activities														
	2.1	Baseline Field Surveys - 3 activities (Schemes of F.Y. 2022-23)					■						■		
	2.2	Regular Monitoring/Spot Checking				■							■		
3	Dashboard, Balochistan														
	3.1	Meetings /Coordination with OFWM Department regarding data collection through Android Data Application to update Dashboard Balochistan	■				■								
4	Post Field Activities												■		
	4.1	Validation of data received on Android Based Application	■										■		
5	Coordination												■		
	5.1	Meetings /Coordination with OFWM Department, Balochistan, Deputy Directors, OFWM at district level, internal meetings with Team Leader and other Core Team Members (Experts) regarding planning, reporting etc.	■										■		
6	Deliverable														
	6.1	Monthly Monitoring Report (Jan. 2023)		■	■										
	6.2	Monthly Monitoring Report (Feb. 2023)				■	■								
	6.3	Baseline Report - 3 of Balochistan Zone					■	■							
	6.4	Monthly Monitoring Report (Mar. 2023)							■						
	6.5	Quarterly Monitoring Report (Jan. to Mar. 2023)								■	■				

ANNEX -A (v): TENTATIVE WORK PLAN OF BALOCHISTAN ZONE

TENTATIVE WORK PLAN FOR SIX MONTHS (January to June 2023)																			Legend						
No.	ACTIVITIES	6 Months - Year 2023 (Weeks)																		Legend					
		January				February				March				April				May				June			
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4
1	Pre-Field Activities																								
	1.1	Meetings / Coordination, Sharing of Quarterly Monitoring Plan with DG, OFWM, Balochistan and Deputy Directors, OFWM, Balochistan																							
	1.2	Planning and collection of beneficiaries details of F.Y. 2022-23 to start the Baseline - III, Balochistan (Subject to finalize the beneficiary lists by OFWM Department)																							
2	Field Activities																								
	2.1	Baseline-III Field Surveys (Schemes of F.Y. 2022-23)																							
	2.2	Regular Monitoring / Spot Checking																							
3	Dashboard, Balochistan																								
	3.1	Meetings / Coordination with OFWM Department regarding data collection through Android Data Application to update Dashboard Balochistan (F.Y. 2019-20, 2020-21, 2021-22 and 2022-23)																							
4	Post Field Activities																								
	4.1	Data validation by DTL / FTIs of Baseline-III																							
5	Coordination																								
	5.1	Meetings / Coordination with OFWM, Department, Balochistan, Deputy Directors, OFWM at district level, internal meetings with Team Leader and other Core Team Members (Experts) regarding planning, reporting etc.																							
6	Deliverable																								
	6.1	Monthly Monitoring Report (Jan. 2023)																							
	6.2	Monthly Monitoring Report (Feb. 2023)																							
	6.3	Monthly Monitoring Report (Mar. 2023) and Quarterly Monitoring Report (Jan to Mar 2023)																							
	6.4	Monthly Monitoring Report (Apr. 2023)																							
	6.5	Monthly Monitoring Report (May. 2023)																							
	6.6	Monthly Monitoring Report (Jun. 2023) and Quarterly Monitoring Report (Apr to June 2023)																							
	6.7	Submission of Baseline Report - III of Balochistan Zone																							

**ANNEXURE –A (vi) – ECOLOGICAL ZONE/ DISTRICT WISE UNIT OF INTERVENTIONS
 DATA COLLECTED AND REPORTED TILL MIDTERM**

Ecological Zone	Districts	No of Water Course	No of Water Storage Ponds /Tanks	No of Laser Land Levelers
Barani	Jhelum	0	1	0
	Chakwal	0	0	0
	Attock	0	6	0
	Rawalpindi	0	3	0
Sub Total		0	10	0
Partially Barani	Bhakkar	3	5	5
	Mianwali	0	0	0
Sub Total		3	5	5
Irrigated (Rice Zone)	Gujranwala	7	1	7
	Hafizabad	9	4	5
	Gujrat	0	1	6
	Narowal	0	0	0
	Sialkot	0	0	5
	Mandi Bahuddin	1	2	0
	Lahore	0	0	0
	Kasur	3	2	4
	Sheikhupura	9	2	7
	Nankana Sahib	0	2	5
Sub Total		29	14	39
Irrigated (Mixed Zone)	Sahiwal	6	1	8
	Okara	4	1	7
	Faisalabad	1	1	11
	Jhang	0	0	6
	Chiniot	0	0	0
	Toba Tek Singh	0	0	8
	Khushab	0	0	8
	Sargodha	4	2	6
	Pakpattan	0	0	0
Sub Total		15	5	54
North Punjab Total		47	34	98
Irrigated (Cotton Zone)	Multan	9	6	8
	DG Khan	3	3	7
	Bahawalpur	0	0	0
	Bahawalnagar	10	3	11
	Rahim Yar Khan	11	2	2
	Lodhran	0	0	7
	Khanewal	0	1	7
	Rajanpur	0	0	0
	Muzaffargarh	6	2	0
	Layyah	0	0	0
	Vehari	0	0	8
Sub Total		39	17	50
South Punjab Total		39	17	50
Grand Total		86	51	148

ANNEX B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

LEGEND		
●	Primary Responsibility	
○	Secondary Responsibility	
○	Assistance	

SR. NO.	DELIVERABLE / ACTIVITIES	RESPONSIBILITY				
		NPC-FPMU	Agriculture Dept. (FCM&M)	Project Consultants	ME&IE	Consultants
1	Provision of Pre-requisite data of project components for starting of Field Activities: <ul style="list-style-type: none"> • Organization of Water Users Associations, • Watercourses Improvement, • Water Storage Tanks, • Laser Land Levelers, 	○	●	-	-	-
2	Certification of operational documents of the project, <ul style="list-style-type: none"> • Design, cost estimates, completion reports of watercourses, • Design, cost estimates, completion reports of water storage tanks, 	○	○	●	-	-
3	Undertake baseline, midline and endline surveys of the project activities/interventions in all the project areas.	-	-	-	●	-
4	Develop monitoring strategy, framework and Result Based Monitoring (RBM) indicators,	-	-	-	●	-
5	Assessing the water saving per annum on watercourse and water storage tanks as well as aggregate due to the project interventions.	-	-	-	●	-
6	Assessing the improvement in water availability due to provision of conveyance system.	-	-	-	●	-
7	Assessing the economic benefits to the agriculture in terms of increase in yield, irrigated area, cropping pattern, cropping intensity, farm income and employment in command area of watercourses and water storage tanks.	-	-	-	●	-
8	Assessing the extent of community mobilization, financial and administrative sustainability of Water Users' Associations and ensuring the maintenance of watercourses, water storage tanks and laser land levelers.	-	-	-	●	-
9	Economic Impact of project interventions.	-	-	-	●	-
10	Carryout impact evaluation of the project investment on the economy and stakeholders.	-	-	-	●	-
11	Preparation of Monthly, Quarterly and Annual Monitoring, Evaluation and Validation Reports of the project activities.	-	-	-	●	-
12	Develop a website containing information of facilities and services, applications, procedures, watercourses, water storage tanks, and laser levelers database etc. (Maintaining website should be the responsibility of project staff).	-	-	-	●	-
13	Provide technical support for the development of a custom-designed mobile application (Android) to capture on-site project progress, geo tagged photos, should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the	-	-	-	●	-

ANNEX C: MONITORING LOG-FRAME

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
C1: Organization of Water Users' Associations (WUAs)	Reactivation of existing / organization of water users' associations. Ensuring one on each target watercourse. Total WUAs ensured 47,278.	a) Community mobilization at 47,278 watercourses	a) Total 47,278 WUAs reactivated / established/registered	a) Right of way of 47,278 watercourses available b) Skilled and unskilled labor required for watercourse improvement available c) Construction material for civil works of watercourses procured d) Alternate arrangement for water conveyance during construction made e) Watercourse improved	a) Disputes among the water users settled b) Farmers branched improved c) Water allocation made amicably d) Maintenance of watercourses, WST and laser units done e) Cooperation among farmers increased	a) 47,278 watercourses improved and 15 percentage points conveyance losses reduced b) Litigation among farmers reduced	a) The functioning of the WUAs will be established through sample interview surveys of WUAs members twice during the project period
C2: Watercourses Improvements	Improvement of 47,278 watercourses on cost sharing	a) Establishment of 47,278 Water users' associations	a) 47,278 WCAs established; b) 47,278 WCAs registered;	a) Conveyance losses for improved watercourses	a) Increase in cropping intensity on improved	a) Increase in farm income; b) Increase in employment	a) The water flow measurements will be carried out at before

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
	basis: 40% farmers in terms of labour, and 60% funded by project.	(WUAs); b) Registration of 47,278 WUAs; c) Improvement and realignment of earthen section of 47,278 watercourses; d) Lining of up to 50% length of 47,278 watercourses either by: <ul style="list-style-type: none"> ● Precast concrete parabolic lining (PCPL) segments, or ● Rectangular brick masonry, or any other method as approved by the project	c) 47,278 watercourses improved and lined;	decreased by about 15 percentage points. b) 1.654 million households benefited from the activity; c) 11.347 million acres served with improved watercourses	watercourses by 5-24%; b) Increase in crop yields. c) Increase in irrigated area d) Increase in agriculture output per unit of water by about 37%	for farm labour; c) Reduction in poverty; d) Enhanced food security for the country.	and after watercourse improvement on 2-5% sample basis; b) Agriculture survey before and after watercourse improvement on 2-5% sample basis; c) The survey will determine: <ul style="list-style-type: none"> ● Cropping pattern before and after the improvement; ● Cropping intensities before and after improvement; ● Before and after crop yields; ● Before and after employment; d) The difference

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							between before and after will be considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise.
C3: Construction of Water Storage Tanks (WSTs)	<ul style="list-style-type: none"> a) Construction of 14,932 water storage tanks b) They agree to contribute 40% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 40% on issuance of FCR 	<ul style="list-style-type: none"> a) 14,932 small farmers mobilized to construct water storage tanks for irrigation b) 14,932 WSTs operated and maintained 	<ul style="list-style-type: none"> a) 14,932 WSTs constructed b) 14,932 WSTs operated and maintained 	<ul style="list-style-type: none"> a) Water which was otherwise largely going to be wasted is saved b) Irrigation provided at critical stages of the crops c) Flexibility achieved for irrigation 	<ul style="list-style-type: none"> a) More area irrigated b) Increased cropping intensities 	<ul style="list-style-type: none"> a) Increased crop yields b) Increased total crop output quantum c) Increased farm income d) Increased farm employment 	<ul style="list-style-type: none"> a) 2-5% sample of WSTs will be surveyed b) A data collection form will be designed to measure water saving due to WSTs c) The forms used for baseline and impact surveys in case of watercourses will also be used for WSTs d) Same data

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							analysis will be carried out here as in case of watercourses.
C4: Provision of Land Leveling Units	a) Provision of 11,610 laser land leveling units to farmers and service providers on a cost sharing basis: 50% by farmer / service provider and 50% by the project.	a) 11,610 laser units provided to farmers / service providers; b) Farmers trained in using the units.	a) 11,610 farmers / service providers received PLL units; b) Farmers / service providers received training in using the units.	a) Land leveled on Farmers' / service providers' farms; b) Land leveled on fellow farmers on rent; c) Total 3.483million acres levelled by 11,610 units.	a) Water application efficiency increased at field level; b) Even germination of seed. c) Field application losses reduced by 10 percentage points d) Water productivity increased by 24%	e) Increased area under irrigated crops; f) Enhanced crop yields g) Increased farm income	a) The land levelling is expected to save irrigation water and result in better and even germination of seeds which can enhance crop yields. The crop yields thus affected will be reflected in agriculture sample surveys. b) 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery c) The unit will be

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							verified d) Area treated during the year will be collected e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.

ANNEX D: DELIVERABLES/REPORTING REQUIREMENTS

Deliverables/Reporting Requirements

Sr. No.	Document	Copies	Due
1	Draft Inception Report	8	45 days after the effectiveness of the Consulting services Agreement.
2	Final Inception Report	15	One week after the issuance of comments by the Client on Draft Inception Report
3	Monthly Monitoring Report	10	10 th of the following month
4	Baseline Survey Report	10	4 months after start of the assignment
5	Midline Survey Report	10	In the middle of the assignment
6	Endline Survey Report	10	At the end of the endline survey
7	Quarterly Monitoring and Evaluation Report	10	10 th of the first month of following quarter
8	Annual Monitoring and Evaluation Report	10	During first month of following year
9	Draft Assignment Completion Report	5	At completion of physical works / activities
10	Final Completion Report	25	At completion of works as well as financial transactions
11	Special Reports	10	As and when required

ANNEX E: CORRESPONDENCE REGARDING DASHBOARD ACTIVITIES IN BALOCHISTAN

DIRECTORATE GENERAL AGRICULTURE ON FARM WATER MANAGEMENT

BALOCHISTAN QUETTA

Ph # 081-9211873 Fax # 0819211874

Our Faith, Corruption Free Pakistan

Ref: # 6896-13/1-2-8/DG/OFWM

Dated Quetta the 13 December 2022

To,

1-33 Deputy Director Agriculture On Farm Water Management Quetta/ Pishin/Killa Abdullah/Chagai/Nushki/Zhob/Barkhan/Musa Khail/ Killa Saifullah/Duki/Loralai/Sherani/Sibi/Harnai/Ziarat/Kohlu/Nasirabad/Jaffarabad/ JhalMagsi/Sohbatpur/Kalat/Surab/Mastung/Khuzdar/Awaran/Kharan/Washuk/ Kech /Lasebla/Panjgur/Dera Bugti/Gawadar/Bolan (Kachhi)/.

Subject: - **PROVISION OF MISSING RECORD OF NPIWC-II TO M&E CONSULTANT FOR DASHBOARD.**

It refers to the subject noted above and to state ME&IE consultant requires missing data for dashboard of beneficiaries of those schemes which are executed under NPIWC-II in FY 2019-20, 2020-21 & 2021-22.

Therefore, you are hereby directed to coordinate with the focal person of ME&IE consultant i.e Malik Manzoor Khan Kasi and provide the missing data which requires by them.

The matter is most urgent and most important; no negligence will be tolerated in this case.

Director General Agriculture
On Farm Water Management
Balochistan Quetta

Copy to the:-

- 1. Deputy Team Leader ME&IE consultant for information.
- 2. Malik Manzoor Kasi, Focal Person ME&IE consultant for information.

Director General Agriculture
On Farm Water Management
Balochistan Quetta



MONITORING, EVALUATION & IMPACT EVALUATION CONSULTANTS

NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN: PHASE-II (NPIWC-II)
Federal Project Management Unit (FPMU) | Ministry of National Food Security & Research, Islamabad | PAKISTAN
www.npiwc2.org.pk | info@g3jv.com

Ref: ME&IEC/NPIWC-II/BZ/51

Dated: 26th January 2023

The Director General, OFWM, Balochistan,
Rani Bagh, Sariab Road, Quetta.

Sub: *Monitoring, Evaluation, and Impact Evaluation (ME&IE) Consultants for National Program for Improvement of Water Courses in Pakistan: Phase-II – Balochistan Zone.*

DASHBOARD OF NPIWC-II, BALOCHISTAN COMPONENT.

Dear sir,

I am writing to submit our field visits plan for data collection and support to the Deputy Directors / concerned staff at the Division level for the Dashboard in Balochistan as per detail given below:

1. Mr. Rizwan Ahmed, DTL, ME&IEC (Quetta Division) from 26th to 31st January 2023
2. Mr. Manzoor Kasi, Focal Person, ME&IEC (Naseerabad and Sibi Divisions) from 26th to 31st January 2023
3. Mr. Naseeb Jan, FTI, ME&IEC (Zob and Loralai Division) from 26th to 31st January 2023

Our team will provide support to the DDs/Concerned staff in regard to the data uploading to the dashboard, Balochistan. The dashboard task will be carried out in a phased manner. During the visits, our team will work closely with the DDs and their team to ensure the data collected is accurate and up-to-date.

Your good office is requested to give necessary directions to all DDs/Concerned staff for their support and cooperation with ME&IE Consultants with full commitment so that this task could be completed by the targeted date 31st January 2023.

We look forward to working with you to achieve our common goal.

Assuring you our best services at all times.

Sincerely,

Rizwan Ahmed, Deputy Team Leader
ME&IE Consultants for NPIWC-II
Deputy Team Leader, ME&IE Consultants, Balochistan, Zonal Office, Quetta.
ME&IE Consultants for NPIWC-II,
Balochistan, Zonal Office, Quetta.

CC:

- Authorized Representative of JV/Director G3 Engineering Consultants Pvt Ltd. Islamabad
- Dr. Usman Mustafa – Team Leader, ME&IE Consultants, NPIWC-II, Islamabad
- Mr. Manzoor Kasi, Focal Personal/FTI, ME&IE Consultants, Balochistan, Quetta
- Mr. Rizwan Saleem, IT Specialist, ME&IE Consultants, Islamabad
- Office Copy

A Joint Venture of
 G3 Engineering Consultants (Pvt.) Ltd.



In Association with

ADA Consultants Inc.
House No. 40, Arbab Karam Khan Road, Khair Baksh Mani Street, Quetta,
Ph: (+92-81) 2450803

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 G3 Engineering Lead Firm
Consultants (Pvt.) Ltd.



In Association with



ANNEX F: METHODOLOGY OF MEASUREMENT OF WATER FLOW

PYGMY CURRENT METER:

Working principle:

- Current meter Measures Velocity (V)
- Direct / By counting revolutions per unit of time
- Area of Segments (A)
- $Q = A \times V$

SEGMENTAL AREA:

- Measure the top width of the water/channel
- Measure the bottom width of the channel
- Divide width in segments (each segment area = 10% of total area)
- Record the width of each segment
- Mark the distance from the initial point for each segment
- Take the average depth of water in each segment
- Measure velocities at 0.2 & 0.8 if depth >60 cm
- Measure velocities in the center of each segment
- Find average velocity by counting pings/table $V = 0.123 N + 0.007N$ = Revolutions/Second
- Calculate Q of each segment by $Q = A \times V$
- Add Q of all segments for total discharge

Specifications:

Model 1205

Flow Velocity – feet per second (meter per second)

- Minimum .25fps (.075mps)
- Maximum 3 fps (.914 mps)

Weight – Pounds (kilograms) .25 lb (.11kg)

Suspension Means - Wading Rod

Field Observations:

Following are the field observations of the measurement of Water Flow by using a pygmy current meter at Water Course No 45136 /L.

Sr. No	Design Discharge (Cusec)	Actual Discharge Measured (Cusec)
1	3	2.60
2	3	2.55

Average Discharge = 2.57 Cuses

Following were the Field teams members who participated in the measurement of water flow at water course no 45136/L

Name	Designation
Awais Jahangeer	Field Team In charge /ME&IE Expert
Muhammad Zubair	Field Team In charge /ME&IE Expert

ANNEX G: WATERCOURSES DATA SUBMISSIONS

AJK - Watercourses Data Submissions - Summary								
Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	71	5	2	5	13	12	108
	Jhelum	18	0	6	0	14	6	44
	Neelum	27	12	11	3	13	0	66
Muzaffarabad Total		116	17	19	8	40	18	218
Poonch	Poonch	34	10	4	1	2	4	55
	Bagh	24	14	4	0	1	7	50
	Haveli	6	9	2	0	4	8	29
	Sudhnoti	22	16	1	0	1	0	40
Poonch Total		86	49	11	1	8	19	174
Mirpur	Mirpur	71	2	0	0	4	23	100
	Bhimber	106	0	1	0	0	10	117
	Kotli	32	22	5	0	1	3	63
Mirpur Total		209	24	6	0	5	36	280
Overall		411	90	36	9	53	73	672

ANNEX H: WST/WHS DATA SUBMISSIONS

AJK - WST/WHS Data Submissions - Summary						
Division	District	Completed	Work Order Cancelled	Under Progress		Overall
				Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	134	3	6	13	156
	Jhelum	11	0	13	3	27
Muzaffarabad Total		145	3	19	16	183
Poonch	Poonch	48	19	5	22	94
	Bagh	37	18	5	21	81
	Haveli	15	16	14	27	72
	Sudhnoti	12	13	15	7	47
Poonch Total		112	66	39	77	294
Mirpur	Mirpur	10	3	2	6	21
	Bhimber	11	0	0	8	19
	Kotli	27	12	1	3	43
Mirpur Total		48	15	3	17	83
Overall		305	84	61	110	560

ANNEX I: KP - WATERCOURSE DATA SUBMISSION – SUMMARY

Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bajaur Agency	Bajaur	46	0	10	3	20	0	79
Bajaur Agency Total		46	46	0	10	3	20	0
Bannu	Bannu	95	0	0	28	0	0	123
Bannu	Lakki Marwat	108	0	2	0	0	0	110
Bannu Total		199	203	0	2	28	0	0
D.I. Khan	D.I. Khan	493	0	2	0	0	0	495
D.I. Khan	Tank	38	0	0	0	0	0	38
D.I. Khan Total		520	531	0	2	0	0	0
Hazara	Abbottabad	25	0	1	1	0	0	27
Hazara	Battagram	38	0	3	0	0	0	41
Hazara	Haripur	58	0	0	21	0	0	79
Hazara	Lower Kohistan	7	0	0	0	13	0	20
Hazara	Mansehra	92	0	0	62	1	3	158
Hazara	Torghar	29	2	0	1	1	0	33
Hazara	Upper Kohistan	9	0	0	0	0	0	9
Hazara	Kolai Pallas	2	0	0	0	0	0	2
Hazara Total		251	260	2	4	85	15	3
Khyber Agency	Khyber	19	0	0	0	5	1	25
Khyber Agency Total		19	19	0	0	0	5	1
Kohat	Hangu	42	0	0	0	0	0	42
Kohat	Karak	67	0	0	1	0	0	68
Kohat	Kohat	96	0	0	0	0	0	96
Kohat Total		194	205	0	0	1	0	0
Kurram Agency	Kurram	10	0	0	2	0	0	12
Kurram Agency Total		9	10	0	0	2	0	0
Malakand	Buner	94	0	0	0	0	0	94
Malakand	Chitral	88	0	1	2	0	0	91
Malakand	Lower Dir	73	0	6	22	33	7	141
Malakand	Malakand	76	0	0	1	11	1	89
Malakand	Shangla	39	0	0	0	0	0	39
Malakand	Swat	167	3	32	56	2	4	264
Malakand	Upper Dir	85	0	0	12	0	0	97
Malakand Total		614	622	3	39	93	46	12
Mardan	Mardan	132	0	2	2	6	0	142
Mardan	Swabi	93	0	1	33	0	1	128
Mardan Total		205	225	0	3	35	6	1
Mohmand Agency	Upper Mohmand	32	0	0	0	0	0	32
Mohmand Agency	Lower Mohmand	11	0	0	0	0	0	11
Mohmand Agency Total		43	43	0	0	0	0	0
Orakzai Agency	Orakzai	1	0	0	0	0	0	1
Orakzai Agency Total		1	1	0	0	0	0	0
Peshawar	Charsadda	126	1	0	0	13	0	140
Peshawar	Nowshera	98	0	0	0	1	1	100
Peshawar	Peshawar	67	1	6	6	4	11	95
Peshawar Total		266	291	2	6	6	18	12
S.W Agency	S.W Agency	27	0	0	0	1	0	28
S.W Agency Total		27	27	0	0	0	1	0
N.W Agency	N.W Agency	5	0	0	0	0	5	10
N.W Agency Total		5	5	0	0	0	0	5
Overall		2488	7	66	253	111	34	2959

ANNEX J: KP - WST DATA SUBMISSION – SUMMARY

Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bajaur Agency	Bajaur	16	0	0	1	0	17
Bajaur Agency Total		16	0	0	1	0	17
Bannu	Bannu	11	0	1	0	0	12
Bannu	Lakki Marwat	34	0	0	0	0	34
Bannu Total		45	0	1	0	0	46
D.I. Khan	D.I. Khan	81	1	1	5	0	88
D.I. Khan	Tank	16	0	0	0	0	16
Dera Ismail Khan Total		97	1	1	5	0	104
Hazara	Abbottabad	18	0	0	0	0	18
Hazara	Battagram	23	0	0	4	0	27
Hazara	Haripur	40	0	0	0	0	40
Hazara	Kolai Pallas	2	0	0	2	0	4
Hazara	Lower Kohistan	0	0	0	0	1	1
Hazara	Mansehra	35	1	2	4	1	43
Hazara	Torghar	11	0	0	4	0	15
Hazara	Upper Kohistan	7	0	0	0	1	8
Hazara Total		136	1	2	14	3	156
Khyber Agency	Khyber	10	0	0	6	0	16
Khyber Agency Total		10	0	0	6	0	16
Kohat	Hangu	14	0	0	0	0	14
Kohat	Karak	60	0	0	0	0	60
Kohat	Kohat	5	0	0	0	0	5
Kohat Total		79	0	0	0	0	79
Kurram Agency	Kurram	2	0	0	0	0	2
Kurram Agency Total		2	0	0	0	0	2
Malakand	Buner	43	0	0	0	0	43
Malakand	Chitral	21	0	0	0	0	21
Malakand	Lower Dir	15	2	2	9	0	28
Malakand	Malakand	24	0	0	0	0	24
Malakand	Shangla	21	0	0	1	0	22
Malakand	Swat	95	3	6	29	3	136
Malakand	Upper Dir	33	1	0	1	1	36
Malakand Total		252	6	8	40	4	310
Mardan	Mardan	31	0	0	1	0	32
Mardan	Swabi	18	0	2	0	0	20
Mardan Total		49	0	2	1	0	52
Mohmand Agency	Mohmand	41	0	0	0	0	41
Mohmand Agency Total		41	0	0	0	0	41
Orakzai Agency	Orakzai	2	0	0	0	0	2
Orakzai Agency Total		2	0	0	0	0	2
Peshawar	Charsadda	13	0	0	1	0	14
Peshawar	Nowshera	62	0	0	0	0	62
Peshawar	Peshawar	25	3	2	13	9	52
Peshawar Total		100	3	2	14	9	128
S.W Agency	S.W Agency	29	0	0	0	0	29
S.W Agency Total		29	0	0	0	0	29
N.W Agency	N.W Agency	8	0	0	5	0	13
N.W Agency Total		8	0	0	5	0	13
Overall		866	11	16	86	16	995

ANNEX K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION – SUMMARY

Balochistan - Watercourse Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1 st Milestone	2 nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	111	0	0	0	22	133
Kalat	Kalat	124	0	0	0	43	167
Kalat	Khuzdar	142	0	0	0	3	145
Kalat	Lasbela	146	0	0	0	29	175
Kalat	Mastung	115	0	0	0	53	168
Kalat	Surab	0	0	0	0	40	40
Kalat Total		638	0	0	0	190	828
Loralai	Barkhan	55	0	0	0	0	55
Loralai	Duki	0	0	0	42	1	43
Loralai	Loralai	155	0	0	0	158	313
Loralai	Musakhail	141	0	0	0	1	142
Loralai Total		351	0	0	42	160	553
Makran	Gwadar	20	0	0	0	0	20
Makran	Kech	56	0	0	8	0	64
Makran	Panjgur	80	0	0	0	25	105
Makran Total		156	0	0	8	25	189
Nasirabad	Jaffarabad	85	0	0	0	56	141
Nasirabad	Jhal Magsi	21	0	0	0	0	21
Nasirabad	Kachi	0	0	0	17	62	79
Nasirabad	Nasirabad	52	0	0	0	108	160
Nasirabad	Sohbatpur	0	0	0	0	72	72
Nasirabad Total		158	0	0	17	298	473
Quetta	Killa Abdullah	105	0	0	0	0	105
Quetta	Pishin	117	0	0	0	46	163
Quetta	Quetta	39	0	0	1	28	68
Quetta Total		261	0	0	1	74	336
Rakhshan	Chaghi	75	0	0	0	0	75
Rakhshan	Kharan	32	0	0	0	11	43
Rakhshan	Nushki	0	0	1	38	54	93
Rakhshan	Washuk	18	0	0	0	2	20
Rakhshan Total		125	0	1	38	67	231
Sibi	Dera Bugti	30	0	0	0	64	94
Sibi	Harnai	40	0	0	0	0	40
Sibi	Kohlu	0	56	0	0	0	56
Sibi	Sibi	33	0	0	0	20	53
Sibi	Ziarat	62	0	0	0	0	62
Sibi Total		165	56	0	0	84	305
Zhob	Killa Saifullah	123	0	0	0	72	195
Zhob	Sherani	25	0	0	1	36	62
Zhob	Zhob	56	0	0	12	7	75
Zhob Total		204	0	0	13	115	332
Overall		2058	56	1	119	1013	3247

ANNEX L: BALOCHISTAN - WST DATA SUBMISSION – SUMMARY

Balochistan - WST Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	55	0	0	0	29	84
Kalat	Kalat	87	0	0	0	2	89
Kalat	Khuzdar	68	0	0	0	8	76
Kalat	Lasbela	76	0	0	0	32	108
Kalat	Mastung	89	0	0	1	11	101
Kalat	Surab	0	0	0	0	29	29
Kalat Total		375	0	0	1	111	487
Loralai	Barkhan	47	0	0	0	6	53
Loralai	Duki	0	0	0	16	13	29
Loralai	Loralai	48	0	0	0	53	101
Loralai	Musakhail	26	0	0	0	0	26
Loralai Total		121	0	0	16	72	209
Makran	Gwadar	7	0	0	0	0	7
Makran	Kech	35	0	0	0	21	56
Makran	Panjgur	104	0	0	0	39	143
Makran Total		146	0	0	0	60	206
Nasirabad	Jaffarabad	8	0	0	0	9	17
Nasirabad	Jhal Magsi	24	0	0	0	0	24
Nasirabad	Kachi	0	0	0	13	62	75
Nasirabad	Nasirabad	8	0	0	0	0	8
Nasirabad	Sohbatpur	1	0	0	0	13	14
Nasirabad Total		41	0	0	13	84	138
Quetta	Killa Abdullah	22	0	0	0	0	22
Quetta	Pishin	56	0	0	0	47	103
Quetta	Quetta	33	0	0	0	21	54
Quetta Total		111	0	0	0	68	179
Rakhshan	Chaghi	33	0	0	0	13	46
Rakhshan	Kharan	15	0	0	0	14	29
Rakhshan	Nushki	0	0	0	31	30	61
Rakhshan	Washuk	4	0	0	0	9	13
Rakhshan Total		52	0	0	31	66	149
Sibi	Dera Bugti	0	0	0	0	39	39
Sibi	Harnai	20	0	0	0	0	20
Sibi	Kohlu	0	0	0	0	2	2
Sibi	Sibi	13	0	0	0	10	23
Sibi	Ziarat	10	0	0	0	11	21
Sibi Total		43	0	0	0	62	105
Zhob	Killa Saifullah	21	0	0	0	86	107
Zhob	Sherani	9	0	0	1	14	24
Zhob	Zhob	70	0	0	5	3	78
Zhob Total		100	0	0	6	103	209
Overall		989	0	0	67	626	1682

ANNEX M: PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY

Punjab - Watercourse Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bahawalpur	Bahawalnagar	220	0	0	0	0	220
Bahawalpur	Bahawalpur	154	0	0	0	0	154
Bahawalpur	Rahim Yar Khan	331	0	0	0	0	331
Bahawalpur Total		705	0	0	0	0	705
Dera Ghazi Khan	Dera Ghazi Khan	118	0	0	0	0	118
Dera Ghazi Khan	Layyah	126	0	0	0	0	126
Dera Ghazi Khan	Muzaffargarh	133	0	0	0	0	133
Dera Ghazi Khan	Rajanpur	119	0	0	0	0	119
Dera Ghazi Khan Total		496	0	0	0	0	496
Faisalabad	Chiniot	34	0	0	0	0	34
Faisalabad	Faisalabad	130	0	0	0	0	130
Faisalabad	Jhang	99	0	0	0	0	99
Faisalabad	Toba Tek Singh	124	0	0	0	0	124
Faisalabad Total		387	0	0	0	0	387
Gujranwala	Gujranwala	101	0	0	0	0	101
Gujranwala	Narowal	16	0	0	0	0	16
Gujranwala	Sialkot	84	0	0	0	0	84
Gujranwala Total		201	0	0	0	0	201
Gujrat	Gujrat	35	0	0	0	0	35
Gujrat	Hafizabad	85	0	0	0	0	85
Gujrat	Mandi Bahauddin	79	0	0	0	0	79
Gujrat Total		199	0	0	0	0	199
Lahore	Kasur	83	0	0	0	0	83
Lahore	Lahore	23	0	0	0	0	23
Lahore	Nankana Sahib	50	0	0	0	0	50
Lahore	Sheikhupura	99	0	0	0	0	99
Lahore Total		255	0	0	0	0	255
Multan	Khanewal	123	0	0	0	0	123
Multan	Lodhran	154	0	0	0	0	154
Multan	Multan	153	0	0	0	0	153
Multan	Vehari	132	0	0	0	0	132
Multan Total		562	0	0	0	0	562
Sahiwal	Okara	136	0	0	0	0	136
Sahiwal	Pakpattan	121	0	0	0	0	121
Sahiwal	Sahiwal	145	0	0	0	0	145
Sahiwal Total		402	0	0	0	0	402
Sargodha	Bhakkar	183	0	0	0	0	183
Sargodha	Khushab	80	0	0	0	0	80
Sargodha	Mianwali	146	0	0	0	0	146
Sargodha	Sargodha	146	0	0	0	0	146
Sargodha Total		555	0	0	0	0	555
Grand Total		3762	0	0	0	0	3762

ANNEX N: PUNJAB – WATER STORAGE POND DATA SUBMISSION – SUMMARY

Punjab - WSP Data Submission - Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Bahawalpur	Bahawalnagar	51	0	0	51
Bahawalpur	Bahawalpur	42	0	0	42
Bahawalpur	Rahim Yar Khan	67	0	0	67
Bahawalpur Total		160	0	0	160
Dera Ghazi Khan	Dera Ghazi Khan	33	0	0	33
Dera Ghazi Khan	Layyah	18	0	0	18
Dera Ghazi Khan	Muzaffargarh	21	0	0	21
Dera Ghazi Khan	Rajanpur	8	0	0	8
Dera Ghazi Khan Total		80	0	0	80
Faisalabad	Chiniot	8	0	0	8
Faisalabad	Faisalabad	35	0	0	35
Faisalabad	Jhang	31	0	0	31
Faisalabad	Toba Tek Singh	55	0	0	55
Faisalabad Total		129	0	0	129
Gujranwala	Gujranwala	2	0	0	2
Gujranwala	Sialkot	4	0	0	4
Gujranwala Total		6	0	0	6
Gujrat	Gujrat	26	0	0	26
Gujrat	Hafizabad	13	0	0	13
Gujrat	Mandi Bahau-Din	2	0	0	2
Gujrat Total		41	0	0	41
Khushab	Khushab	28	0	0	28
Khushab Total		28	0	0	28
Lahore	Kasur	7	0	0	7
Lahore	Lahore	2	0	0	2
Lahore	Nankana Sahib	3	0	0	3
Lahore	Sheikhupura	2	0	0	2
Lahore Total		14	0	0	14
Multan	Khanewal	22	0	0	22
Multan	Lodhran	14	0	0	14
Multan	Multan	17	0	0	17
Multan	Vehari	14	0	0	14
Multan Total		67	0	0	67
Rawalpindi	Attock	79	0	0	79
Rawalpindi	Chakwal	155	0	0	155
Rawalpindi	Jhelum	63	0	0	63
Rawalpindi	Rawalpindi	71	0	0	71
Rawalpindi Total		368	0	0	368
Sahiwal	Okara	19	0	0	19
Sahiwal	Pakpattan	15	0	0	15
Sahiwal	Sahiwal	5	0	0	5
Sahiwal Total		39	0	0	39
Sargodha	Bhakkar	19	0	0	19
Sargodha	Mianwali	3	0	0	3
Sargodha	Sargodha	35	0	0	35
Sargodha Total		57	0	0	57
Sahiwal Total		989	0	0	989

ANNEX O: GB – WATERCOURSE DATA SUBMISSION – SUMMARY

GB - Watercourses Data Submission - Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Gilgit	Astore	44	0	0	44
Gilgit	Diamer	125	0	0	125
Gilgit	Ghizer	102	0	0	102
Gilgit	Gilgit	109	0	0	109
Gilgit	Hunza	35	0	0	35
Gilgit	Nagar	30	0	0	30
Gilgit Total		445	0	0	445
Skardu	Ghanche	113	0	0	113
Skardu	Kharmang	42	0	0	42
Skardu	Shigar	68	0	0	68
Skardu	Skardu	141	0	0	141
Skardu Total		364	0	0	364
Overall		809	0	0	809

ANNEX P: GB – WATER STORAGE POND DATA SUBMISSION – SUMMARY

GB - WST Data Submission – Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Gilgit	Astore	19	0	0	19
Gilgit	Diamer	50	0	0	50
Gilgit	Ghizer	45	0	0	45
Gilgit	Gilgit	60	0	0	60
Gilgit	Hunza	12	0	0	12
Gilgit	Nagar	14	0	0	14
Gilgit Total		200	0	0	200
Skardu	Kharmang	24	0	0	24
Skardu	Shigar	49	0	0	49
Skardu	Skardu	55	0	0	55
Skardu Total		128	0	0	128
Overall		328	0	0	328