



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

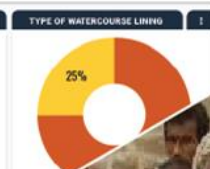
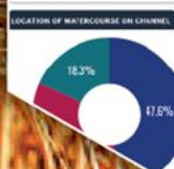
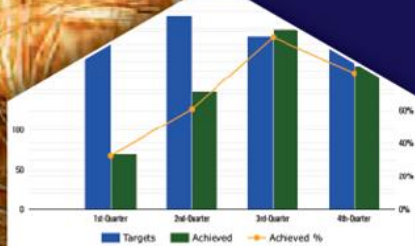
# NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

MONITORING, EVALUATION  
AND IMPACT EVALUATION  
CONSULTANTS



## MONTHLY MONITORING REPORT

NOVEMBER 2022



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



**EASE-PAK**

**ADA**  
Consultants Inc.

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**  
**NOVEMBER 2022**

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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
FPMU	Federal Project Management Unit
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 November 2022” 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, Balochistan, 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 monitoring 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 1<sup>st</sup> November 2022 to 30<sup>th</sup> November 2022.

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 (October 2022)
- Data Analysis in progress and Submitted the synopsis of Baseline Survey Report Phase-II
- Regular Monitoring of Interventions in the Field
- Field Visits of Impact Assessment Survey
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Development of Customized Android Based Applications
- Data collection of interventions in MIS/GIS database
- Implementation of MIS Dashboard
- ICT Team Balochistan Zone Visit
- Monitoring / data collection on social and gender component

**Chapter-4** highlights the quarterly work plan for the period of 1<sup>st</sup> September 2022, to 31<sup>st</sup> December 2022. The work plan is consisting of following activities:

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

The detail time span for 4<sup>th</sup> Quarter of the year 2022 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 2 <sup>nd</sup> Phase Baseline Survey	Complied	
	1.2	Internal Meetings of ME&IE Consultants	Complied	
	1.3	Training of Field Staff for 2 <sup>nd</sup> Baseline Survey	Complied	
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	Data cleaned & processed for uploading on Dashboard pertaining to the Project Interventions	Complied	
4	Coordination			
	4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues	Meetings conducted on regular basi+s	
	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)	21 <sup>st</sup> MMR (Sep. 2022)	Submitted
			22 <sup>nd</sup> MMR (Oct. 2022)	Submitted
			23 <sup>rd</sup> MMR (Nov. 2022)	Report in hand, to be submitted in stipulated time
	5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Jul-Sept 2022	Submitted
			QM&ER Oct-Dec 2022	To be submitted in stipulated time
	5.3	2 <sup>nd</sup> Annual Monitoring & Evaluation Report	(July 2021 – June 2022)	Submitted
	5.4	Baseline Survey Report Phase-II (First Draft)	Submitted	
		Baseline Survey Report Phase-II (Updated version)	To be submitted till 15 <sup>th</sup> December 2022	

## CHAPTER-1: PROJECT INTRODUCTION

### 1.1 PROJECT PROFILE

This section covers the following detail of the project:

<b>Project Name:</b>	National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)
<b>Project Areas:</b>	Punjab, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)
<b>Sponsoring Agency</b>	Ministry of National Food Security & Research
<b>Executing Agencies (EAs):</b>	Following are different EAs: Federal Project Management Unit (FPMU),  i. DGA OFWM Punjab ii. DG OFWM KP iii. DGA OFWM Balochistan iv. Director Irrigation and Small Dams, AJ&K v. Director WM, GB vi. Director Agriculture Extension Services (AES) ICT
<b>Project Period:</b>	5 Year (2019-2024)
<b>Total Project Cost:</b>	Rs. 154,542.355 million (Umbrella PC-1, including Sindh)
<b>ME&amp;IE Consultancy Period:</b>	4 years
<b>ME&amp;IE Consultant:</b>	JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSR), ADA Consultants Inc. Canada, and S&S Associates.
<b>ME&amp;IE Consultant Mobilized:</b>	November 20, 2020

### 1.2 PROJECT DESCRIPTION

Project description includes 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 are the project's general and quantitative objectives:

##### a) 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:

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

##### b) Quantitative Objectives' Outputs and Impacts:

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

##### Project outputs

- 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--- (Amended 2001) and organization of 47,278 WUAs.
- Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete



earthen renovation, partial lining of critical reaches (50% of the total watercourses' 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 percent subsidy, cost sharing, with the expectation to save about 50 percent irrigation water for wheat and about 68 percent of irrigation water for paddy.

#### **Project impacts**

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

#### **Project indirect benefits to industry/economic activities**

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

#### **Awareness support to farmers**

- i) Motivating farmers through an awareness campaign for watercourse improvement.
- ii) Providing technical material to the 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 benefitted due to Water Users' Associations (WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 farmers will be directly benefitted

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 labour 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 Naccas, 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.

iv)

### 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, Nallahs etc.
  - Rainfall runoff over agricultural catchment during rainy season
  - Tube-wells and dug wells of low flows
  - Tail-waters from agricultural fields
- iv) 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**.

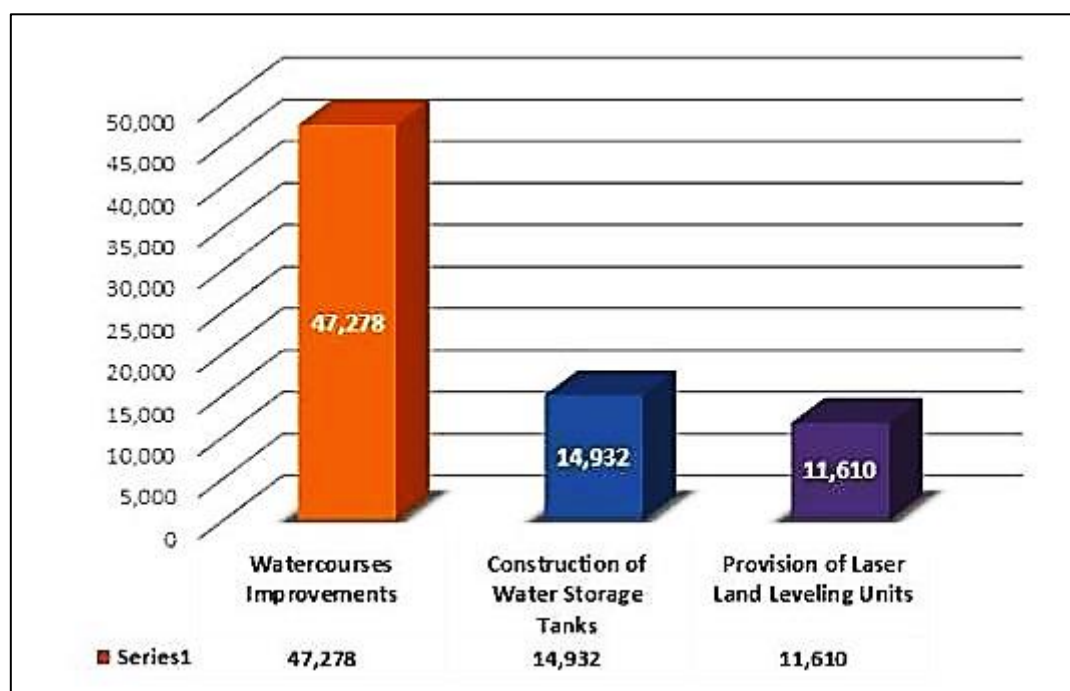


Figure 1.1: NPIWC-II Project - WCs Improvement, CWSTs, and LLL Targets in Pakistan.

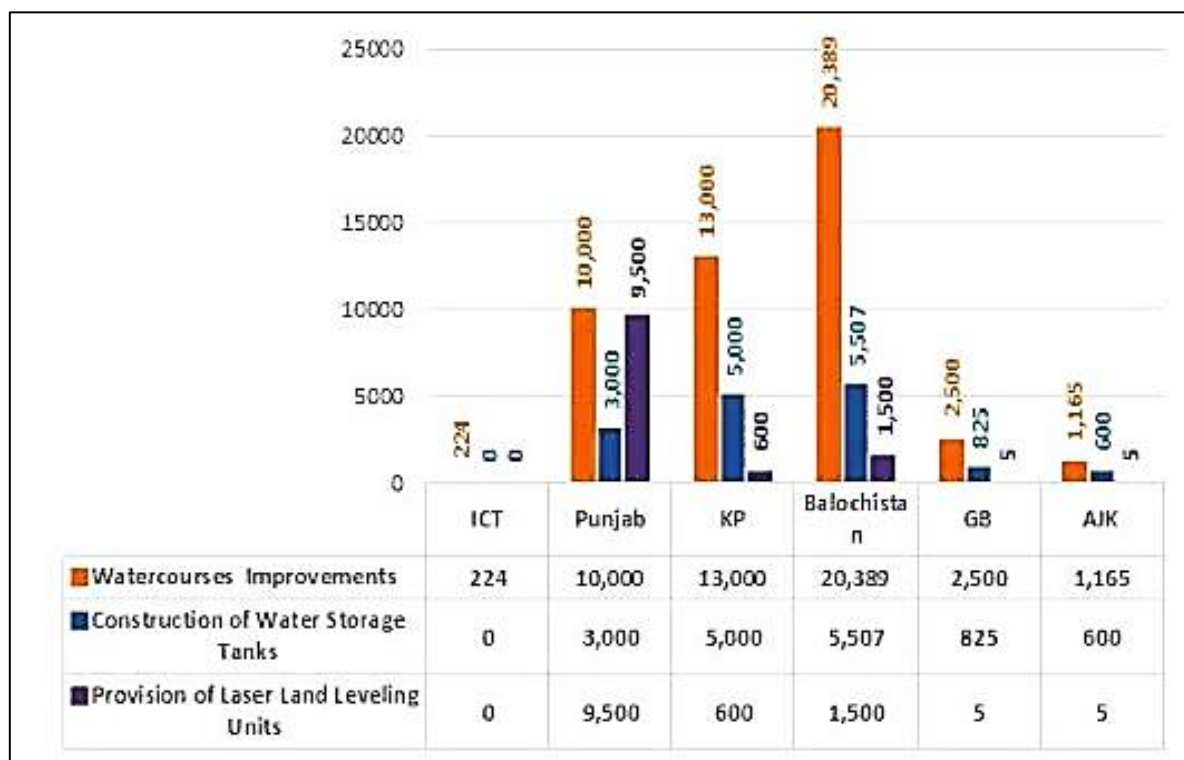


Figure 1.2: Zone-Wise WCs Improvement, WSTs, and LLL Target

## 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 to the extent of community mobilization, financial and administrative

- sustainability of water users' associations and ensuring the maintenance of watercourses, water storage tanks and provision of 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, laser land Levelers database, etc. (while the project staff will maintain the website), and
- 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.*

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in **Table-2.1**. However, detailed methodology and procedures to carry out the ME&IE of the project interventions were explained in Chapter 6 of the Inception Report.

## 2.3 MONITORING STRATEGY OF CONSULTANTS

**Table 2.1: 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"> <li>Baseline and impact surveys will be carried out on sample basis.</li> <li>Data will be collected by field teams on pre-designed data collection tools through an android application on TABs.</li> <li>Baseline and impact surveys will be carried out in phases as target watercourses are not preselected.</li> <li>Baseline will be carried out before the intervention and the impact one year (two crop seasons) after the completion of the intervention.</li> <li>The midterm study will review the project progress at middle of the project implementation</li> <li>The endline study will assess the impact of the project interventions.</li> </ul>
2	Reporting	All core team members	<p>Following periodic reports will be prepared and submitted:</p> <ul style="list-style-type: none"> <li>Draft Inception Report 45 days after the agreement,</li> <li>Final Inception Report one week after the issuance of comments by the client on the draft,</li> <li>Monthly Monitoring Report on 10<sup>th</sup> of following month,</li> <li>Quarterly Monitoring Report on 10<sup>th</sup> of the first month of the following quarter,</li> <li>Annual Monitoring and Evaluation Report during first month of the following year,</li> <li>Baseline Survey Reports (in three phases),</li> <li>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.</li> <li>Impact Survey Reports (in phases) – two months after the data collection completion for the impact phase,</li> <li>Midline report in the middle of the assignment,</li> <li>Endline Report at the end of endline Survey,</li> <li>Draft assignment Completion Report at the completion of the physical works,</li> <li>Final Assignment Completion Report at the 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,</li> <li>Special Reports, as and when asked by the client.</li> </ul>
3	Water saving assessment	Irrigation Agronomist, Field Team/ Engineers	<p><b>Water Saving on Watercourses:</b></p> <ul style="list-style-type: none"> <li>Water flow will be measured on sample watercourses selected for the baseline and impact surveys</li> <li>The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach and tail reach.</li> </ul>

			<ul style="list-style-type: none"> <li>The measurements will be done through current meters.</li> <li>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.</li> </ul>
			<p><b>Water Savings on WSTs</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>The assessment will be done either by readings on the pump gauge or periodically interviewing the farmer.</li> <li>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.</li> </ul> <p><b>Water savings due to Laser Land Leveling</b></p> <ul style="list-style-type: none"> <li>Water savings at field level will be assessed through farmers' interviews.</li> <li>The impact survey form will include questions to be asked from the farmers who got their land leveled: <ul style="list-style-type: none"> <li>In how much time an acre was irrigated before watercourse improvement and land leveling</li> <li>In how much time an acre is irrigated after watercourse improvement with land leveling</li> </ul> </li> </ul> <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"> <li>WUAs is functional</li> <li>Holds regular meetings and keep record of them</li> <li>Makes decisions democratically</li> <li>The participation in the organization is voluntary</li> <li>It is financially and administratively sustainable</li> <li>Takes steps and ensures maintenance of watercourses, WSTs and laser land leveler</li> </ul>
5	Economic benefits assessment for agriculture	Team Leader, Socio- Economist and Agricultural Economist	<ul style="list-style-type: none"> <li>As indicated at serial No. 1, Agriculture data will be collected before (baseline) and after (impact) the watercourse improvement and WSTs construction.</li> <li>In both the surveys same forms will be used and same sampled farmers will be interviewed</li> <li>Data on variables such as crop yields, irrigated area, cropping pattern, cropping intensity, farm income and employment will be collected and analyzed</li> <li>The difference between before and after situations minus natural growth will be assumed as economic benefits to the agriculture</li> </ul>
6	Impact evaluation-on the economy	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> <li>The results of the baseline and impact surveys will be used to quantify impact on the economy</li> <li>Additional food produced due to the project will be estimated. It is benefitted towards food security</li> <li>Project costs and benefits will be compared in economic and</li> </ul>

			<p>financial terms to carry out economic and financial analysis.</p> <ul style="list-style-type: none"> <li>Parameters like IRR, NPV and BCR will be estimated.</li> </ul>
7	Impact evaluation-on the stakeholders	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> <li>Analysis as in serial 6 will be carried out with reference to various stakeholders, like community, government, farmers, etc.</li> </ul>
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 ensuring the quality of construction, material, functioning, 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"> <li>The processed data for all the interventions will be fed to the MIS/GIS database.</li> <li>Client's field staff and field teams of consultants will furnish data of their activities.</li> <li>The ME&amp;IE will assist in developing mobile application for this purpose</li> <li>From this data reports will be generated for process monitoring</li> <li>All interventions will be fully (100%) covered.</li> </ul>
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"> <li>The State-of-the-art MIS / Progress Monitoring Model will be developed for NPIWC-II.</li> <li>Customized forms will be developed to collect data from the implementing teams on-site for progress monitoring</li> <li>These forms will be made available to the teams on smart phones through an android application</li> <li>The teams will be adequately trained to use the application</li> <li>Data on physical and financial stages with dates will be fed to the system for process monitoring</li> <li>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</li> <li>The system will be maintained on GOOGLE server so that it is accessible by the management from anywhere in Pakistan and abroad</li> <li>Custom reports will be possible as the user demands / desires</li> <li>The results could be displayed on small as well as large screens.</li> </ul>
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)

Monthly Monitoring Report (MMR) explains the understanding towards all activities being carried out as per TORs of ME&IE 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, website, etc. The Consultants of ICT Team, also remained in contact with the 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 REPORT PHASE-II

The ME&IE field teams collected data from the field as well as from the client offices for Baseline Survey-II. The data was collected through android-based application and transferred to project MIS system. Experts carried out the analysis of the collected data and prepared draft report. The Draft Report of Baseline Survey Phase-II was submitted to the NPC on 26<sup>th</sup> August 2022 and it was presented by TL on 13<sup>th</sup> October 2022 before the reviewers' panel in the office of Deputy Project Coordinator. The updated baseline-II report is being revised in the light of

the comments conveyed by the committee/ stakeholders and will be submitted in mid of December 2022.

### 3.3 START OF IMPACT SURVEY PHASE-I

The ME&IE field teams collected data from the field for Impact Survey against the baseline-1. The data was collected through android based application and being in the process to transfer to project MIS system. ME&IE consultants are still engaged in data collection in some of the zones which was delayed due to catastrophic floods in some the zones, as well as the process of data cleaning is underway enabling to attempt the analysis of the collected data for drafting the report.

### 3.4 SUMMARY OF ACTIVITIES ISLAMABAD ZONE – Nov 2022

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

- Implementation on visit plans for impact survey of Baseline I.
- Tentative plan was made for impact survey of baseline II.
- Quarterly plan made for baseline 3.
- The Impact survey of Baseline-I has been completed. Two sites will be covered during the following month.
- The impact survey from the perspective of Social & Gender analysis will also be undertaken.
- Food security impact based on calories intake will be conducted from the sample farmers from the target project areas.
- Meetings, coordination and social networking will be managed.
- Data cleaning, validation, tabulation as well as report writing of baseline-II is in process.
- Secondary Data on the targets and its level of achievements in respect of the ME&IE-II project was gathered and collated to feed for the preparation of impact study based on Baseline-I study report.

#### 3.4.1 Updated Progress of ME&IE Consultants - Islamabad.

##### 3.4.1.1 Overall Progress:

The ME&IE Consultants, Islamabad have been engaged to carry out second baseline survey of 25 Watercourses and 7 WST during the months of June through first week of September 2022. Impact survey of first baseline was



conducted during the months of September & November 2022. There were total of 8 interventions visited during the first baseline while, 39 total interventions were visited in the second baseline. The updated visits at the present time arrived at 89 (Table-1)

As per TORs of the ME&IE consultants, they are engaged to gather and prepare the midline survey reports against the baseline targets

during the middle of the project. ME&IE Consultants will be conducting Midline Survey during November and December 2022 on the basis of First Baseline Survey, only two sites of Mirpur, AJK were postponed and delayed due to political interruptions on the GT, Road. Total activities carried out to this point against the targeted interventions are illustrated in Table-2.

**Table-1: Total activities, District-wise:**

Sr. #	District	First Phase Baseline		Second Phase Baseline		Midline Survey		Regular Monitoring / Spot Checking		Total
		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	-	-	2
4	Kalar Kahar	-	1	-	-	-	1	-	-	2
5	Kalar Saidan	-	-	-	2	-	2	-	2	6
6	Taxila	-	-	-	1	-	-	-	1	2
7	Bhimber	-	-	9	1	-	-	2	1	13
8	Kotli	-	-	3	1	-	-	-	1	5
9	Mirpur	2	-	6	-	-	-	1	-	9
10	MuzaffarAbad	2	-	3	4	2	-	5	4	20
<b>Sub-Total</b>		<b>6</b>	<b>2</b>	<b>26</b>	<b>16</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>14</b>	<b>89</b>

**Table-2: Activities being carried out against total target as a whole and during the month of November 2022**

Main Theme	Activity	Areas	Total Project Targets	Total Achieved by Last Month	This Month Targets	This Month achievements
Baseline and End Line	Baseline, Watercourses	Islamabad	15	7	-	-
		Kashmir	35	24	-	-
	Baseline, WST	Islamabad	-	-	-	-
		Kashmir	13	10	-	-
		Rawalpindi	20	12		
	Baseline LLL	Kashmir	5	-		
	Endline, Watercourses	Islamabad	15	4	2	2
		Kashmir	39	2	-	-
	Endline, WST	Islamabad	-	-		
		Kashmir	13	-		
		Rawalpindi	20	6	2	2
	Endline LLL	Kashmir	5	-		
Monitoring activities	Water Users Association	Islamabad				
		Kashmir				
		Rawalpindi				
	Watercourse	Islamabad			2	2
		Kashmir		3	-	-
	Water Storage Tank	Kashmir		10		
		Rawalpindi			2	2
	Laser Land Leveling	Kashmir				

Main Theme	Activity	Areas	Total Project Targets	Total Achieved by Last Month	This Month Targets	This Month achievements
Coordination Meetings	Meeting with OFWM		Need Based	-	2	2
	Meeting with any Other		Need Based	-		-

### 3.4.1.2 Achievements against Outputs

Islamabad team has to cover Islamabad, AJK and one District of Rawalpindi Division for Impact survey.

The Islamabad Zonal field teams have monitored 2 sites at Kallar Kahar Rawalpindi and 2 sites at ICT villages Tumair & Sihala. The process of data feeding on ODK as well as data validation is being attended when ICT team asks or required.

The process of report writing is in progress for the Baseline-2 through the assistance of DTL, ICT-Zone, Islamabad

- Output 1: Baseline/Impact Survey of Watercourses and Water Storage Tanks**

By this project reporting month, impact survey of 4 watercourses and 2 water storage tanks were planned, however due to different factors, team carried out 2 watercourses and 2 WST. The remaining two watercourses are planned to be survey in the first week of December 2022. Additionally, field team collected the data of food security and food eating pattern of the households with the assistance of S&G specialist form the female partner of beneficiaries. This information is being gathered for baseline as well as for the impact studies.

- Output 2: Monitoring of the selected watercourses**

ME&IE Consultants team is also engaged during its visit of baseline, impact and monitoring of watercourses and water storage tanks at ICT & Chakwal regions. The watercourses in ICT areas were properly maintained there was no leakage or damage seen anywhere of the water supply through the pipeline. The farmers were getting benefited due to sufficient availability of water at their crop fields. The crops were irrigated as against the required delta of water the crops being grown in the targeted areas. While monitoring of the Water storage tanks at Kallar Kahar areas of the Chakwal district, the team observed that the interventions were well

maintained and were irrigated the crop fields with the filtered clean water, however, the land needs to be levelled properly which might be not feasible for the farmers at this point of time. Since, the undulated nature of the landscape is the main character of the pothwar terrain.

- Output 3: Coordination Meetings**

During the current reporting month of November 2022, total 2 coordination and meetings were held between OFWM team and the survey team ICT & AJK zone. A coordination meeting was held with Assistant director of agriculture department Kallar kahar in which he discussed about the current status of interventions in Chakwal and kallar kahar areas of NPIWC-II project. The DTL, ICT-Zone managed the aforementioned surveys with the coordination of OFWM, field officers as well as their respective Directors/ PDs through the means of electronics communicaitons.

### 3.4.1.3 Meetings /Coordination of ME&IE Consultants with Stakeholders

Meetings: One to one meeting with the counterpart was not held, only the communications with the stakeholders, OFWM, was done through cell phone, emails as well as WhatsApp. The availability of funds and transport were the major hurdle in maintaining the regular frequency of the face-to-face meetings.

Date	15-11-2022
Venue	Office of Assistant Director of Agriculture (OFWM) Kallar Kahar
Participants	
<ol style="list-style-type: none"> <li>Mr. Qaisar Mehmood Assistant Director OFWM Agri. Kallar Kahar.</li> <li>Mr. Rasheed Ahmad Zehri Field team Incharge. Islamabad.</li> <li>Ms. Syeda Sana Gull ME &amp; IE Officer, Islamabad.</li> <li>Ms. Hafiza Maryam Iqbal ME &amp; IE Officers, Islamabad.</li> </ol>	

5. Ms. Abida Munir Social Gender and Specialist (Punjab)
<b>Meeting Agenda/Points discussed:</b>
<ul style="list-style-type: none"> <li>○ Briefing of ME &amp; IE Consultants in Rawalpindi Division</li> <li>○ Collection of basic data on WSTs and guideline for visiting sites of WSTs</li> <li>○ The OFWM office guided well and accompanied ME&amp;IE consultants team in the sites during their visits</li> </ul>

Meeting with Assistant Director and field supervisor of OFWM Agri. Kallar Kahar, regarding the Impact Survey of WST

#### Key Challenges & Mitigation Measures Adopted.

##### ➤ Some Limitations:

There were certain limitations noted while orientation of the staff members:

- 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 calls.
- There may be some chances that they may not spare free time to coordinate formally with Director due his preoccupied engagements, but there should be cordial and mutually exclusive understanding to facilitate monitoring team out of the way for their activities.
- Public holidays can hinder the activities like the water management/ the govt. officials are not some time bound to work on the weekends but the nature of the agricultural chores are not bound to these limitations rather dynamic in nature.

##### ➤ Suggestions:

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

- Equipment is needed for measuring flow of water and recording the data on the tool, like pygmy meter or better equipment which is more reliable and easier to handle efficiently and effectively.
- First aid box, basic necessities like, umbrella, water with cooler must be provided to the field teams in order to meet any emergency situation.
- Tablet must be provided to each member of the field team.
- They must have their official identity card when the team visits the field or the office of OFWM.
- It would be better that with android based application, field teams may fill all the data on prescribed forms, for better data management.

#### 3.4.2 Quarterly Work Plan – Islamabad Zone

The Islamabad team has started Midline Survey in November 2022 as per work plan. Almost all the targeted intervention has been surveyed by the team. However, remaining sites of Midline survey will be surveyed in the month of December 2022.

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

A comprehensive tentative Quarterly Work Plan for next quarter is being attached as an **Annexure-E**.

##### 1. Brief Profile of WST / Owner

ME&IE team visited village Chak khushi, along with Assistant Director Qaiser Mehmood and field engineer Muhammad Yaseen, of OFWM. The aim of this visit was midline survey and to observe the impact. The beneficiary of Chak Khushi water storage tank was already there.

During introduction, the farmer told about his family, the land occupied by him, and some information about his crops that cultivated. He was well educated and was quite aware of all the agricultural practice.

He also has a farm house with livestock stead including cows, goats, buffaloes and poultry. The

intervention was well maintained. WST was filled with clean water.

The farmer was growing wheat, Berseem lucin, maize fodders, other rabbi and kharif fodders. He further elaborated that before this WST he was only growing Maize and wheat but now he has started growing many fodder crops.

He has hired 2 labors. They were monthly paid by the famer. Interviews were taken. Coordinates were also taken at the spot.

The farmer was using Urea and DAP fertilizer, he also used FYM as an organic fertilizer. The land occupied by him was fertile and was suitable for different crops.

The farmer has agricultural land in non-canal area. The shape of the constructed water storage tank was square, the measured length and width of the four sides was 30X30 while the depth measured was 5ft. Source of water used by the beneficiary for this WST is Nallah, a mini dam was also constructed as a source of continuous supply of water.

<b>Date of Visit</b>	15-11-2022
<b>Scheme</b>	Water storage Tank
<b>Farmer Name</b>	Rizwan Haider
<b>Name of village:</b>	Chak-Khushi
<b>Tehsil</b>	Kallar Kahar
<b>Province</b>	Punjab
<b>District</b>	Chakwal
<b>Source of irrigation:</b>	Nallah
<b>Shape of WST</b>	Square
<b>Length, width</b>	30X30 Sq.feet
<b>Command area of WSP:</b>	12 Acres
<b>No of beneficiaries:</b>	1
<b>Reduction in water disputes/thefts</b>	No problems related to water theft



WST at Chak khushi filled with Water



Field team with farmer at village chak khushi



Livestock at village chak khushi

## 2. Brief Profile of WST / Owner

<b>Date</b>	15-11-2022
<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Muhammad Khan
<b>Name of village:</b>	Manaq- Pur
<b>District:</b>	Rawalpindi
<b>Province</b>	Punjab
<b>Source of irrigation:</b>	Tube well/ Bore
<b>Type of WST:</b>	Square
<b>Length and width of WST:</b>	30X30 Sq. Ft
<b>Command area of WST:</b>	8.5 Acres
<b>No of beneficiaries:</b>	1
<b>Equity in water distribution increased</b>	No Problems related to Equity in Water Distribution.
<b>Reduction in water disputes/thefts</b>	No problems related to water theft



ME&IE Team with beneficiaries at Manaq Pur





Interview taken on android app at Manaq Pur

After village Chak Khushi the team move towards another village “Manaq Pur” to visit their targeted intervention. The team visited there for midline survey, Team had already visited this area before for baseline, but now the aim of this visit was only midline survey and to evaluate impact. The beneficiary’s name is Muhammad Khan. The length and width of WST measured as 30X30 sq.Ft and depth is 5ft.

The farmer has cultivated olive orchard on his land. Before this intervention, he was not cultivating any crop. The olive plants were still young but the beneficiary was happy. He expressed that the stand establishment of the olive plants is good.

This beneficiary used different types of fertilizer including DAP, urea and pesticides for the orchard. He has hired a labour who was living there along with his family and was monthly paid 20,000 PKR by the owner of the land.

The olive orchard was irrigated by the labour after every second day. The beneficiary has also installed solar system and drip irrigation system for the orchard.

### 3.5 REGULAR MONITORING / BASELINE / IMPACT SURVEY OF INTERVENTIONS BY ZONAL OFFICE PUNJAB

The monitoring / Baseline /Impact survey pertain to Various interventions of the project viz improvement of watercourses, water user associations, construction of water storage tanks and laser land levelers. Such surveys are carried out from time to time as a part of regular activity of ME&IE Consultants. The data from the field about any activity of an intervention are collected by field teams of ME&IE Consultants on android-based system. Such data are directly submitted from the field on MIS/GIS system for further processing by ICT department.

The ME&IE consultants have been engaged in different activities during the month i.e., November 2022 as under:

#### 3.5.1 Overall Progress

The field activities comprised of field visit to projects interventions viz under watercourses, Water Storage Tanks. Such activities pertained to Monitoring/Baseline Survey – II and Impact Survey (based on Baseline Survey – I) Such field activities have been completed earlier during the month of October 2022; the validation of data activities remained in process during the current month.

- i. Data Validation of Baseline Survey – II and Impact Survey for processing purposes.

Baseline Survey – II		Impact Survey	
No of Watercourses	67	No of Watercourses	19
No. of Beneficiaries	347	No of Beneficiaries	111
No of WSTs	41	-	
No of Beneficiaries	41	-	

- ii. Basic Data collected for OFWM, for this year 2019 – 20 and 2 – 2 – 21 validations continued

#### 3.5.2 ME&IE Consultants Meeting with Stakeholders

ME&IE Consultants meeting with various stakeholders particularly OFWM, officers head

quarter and field are held as a regular feature for better understanding of the project activities. During the month under review followings meetings were held.

#### 1) Meeting Held with Director General Agri (OFWM)

Date	November 02, 2022
Venue	Director General OFWM Office Davis Road, Lahore
Participants	
<ul style="list-style-type: none"> <li>Malik Muhammad Akram Director General Agriculture OFWM</li> <li>Mr. Muhammad Yousaf Bhatti Deputy Team Leader Punjab ME&amp;IE Consultants</li> <li>Dr. Abdul Quddus Agricultural Economist ME&amp;IE Consultants</li> <li>Mr. Awais Jahangeer Focal Person to DG office ME&amp;IE Consultants</li> </ul>	
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>DGA OFWM emphasized the role &amp; importance of ME&amp;IE Consultants in the project and asked for the strong coordination among allied department &amp; ME&amp;IE Consultants.</li> <li>DGA OFWM asked for efficient monitoring of scheme under construction in the best interest of the project.</li> <li>DTL Punjab ME&amp;IE Consultants proposed the study on backward linkages in the project to show the employment generation &amp; support to industrial resources DGA OFWM agreed on this matter and allowed to visits segments yards and manufacture/suppliers laser land leveler units.</li> <li>Focal Person to DG Office ME&amp;IE Consultants discussed the mechanism of Data provision of completed schemes for PMIS Dashboard, Data Integration on dashboard and the way forward for real time monitoring &amp; data provision from the field for dashboard. DGA OFWM ensured the completed facilitation by the allied department on the matter.</li> <li>Forum unanimously decided to have fortnightly meetings under the chairmanship of DGA OFWM to review the progress &amp; way forward for better coordination and execution work plan to meet the objectives of project. Need basis meetings can be conducted also if needed.</li> </ul>	



Meeting held with DGA (OFWM) Malik Muhammad Akram ME&IE consultants sharing the previous performance & way forward in Punjab.

## 2) Meeting Held with Director (H.Q) Directorate General (Agri) OFWM

Date	November 17, 2022
Venue	Director (H.Q) Agri OFWM Office Davis Road, Lahore
Participants	
<ul style="list-style-type: none"> <li>Hafiz Qaisar Yasin Director Headquarter OFWM</li> <li>Mr. Tahir Mehmood Deputy Director Headquarter</li> <li>Mr. Muhammad Yousaf Bhatti Deputy Team Leader Punjab ME&amp;IE Consultants</li> <li>Mr. Awais Jahangeer Focal Person to DG office ME&amp;IE Consultants</li> </ul>	
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>DTL Punjab asked for the district wise targets of OFWM for the year 2022-23 to start the baseline survey phase-3. Director Headquarter responded on the matter that targets couldn't be finalized yet due to budget constraints. These will be shared as are finalized.</li> <li>DTL Punjab discussed the contents of tentative Midline Report of Project progress. The Director (H.Q) ensured to provide the relevant data in this regard.</li> <li>Focal Person to DG Office discussed the method of data collection for PMIS Dashboard of completed intervention at divisional level. Director Headquarter assured his complete support and its decided ME&amp;IE Consultants team will start data collection from Lahore division.</li> </ul>	



A view of meeting of ME&IE Consultants with Director (H.Q) D.G Directorate (OFWM) Lahore.

## 3) Meeting Held with Deputy Director (Agri) OFWM Faisalabad

Date	November 24, 2022
Venue	Deputy Director (Agri) OFWM Faisalabad
Participants	
<ul style="list-style-type: none"> <li>Muhammad Asif, Deputy Director Agriculture (OFWM) Faisalabad</li> <li>Ch. Muhammad Asif Rafique and Assistant Director Agriculture (OFWM) Faisalabad</li> <li>Mr. Awais Jahangeer Field Team In Charge ME&amp;IE Consultants Punjab zonal office Lahore</li> </ul>	
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>Basic Data collection for PMIS Dashboard</li> <li>The progress/achievements of OFWM in the Tehsil and district for future planning of baseline 3 visits.</li> <li>It was reported that due to shortage of funds work has been stopped in the field under this project.</li> </ul>	



Muhammad Asif, Deputy Director Agriculture (OFWM) Faisalabad discusses on various issues

**4) Meeting Held with Assistants Director (Agri) OFWM, Tandlianwala**

<b>Date</b>	November 25 ,2022
<b>Venue</b>	Assistant Director (Agri) OFWM Tandlianwala
<b>Participants</b>	<ul style="list-style-type: none"> <li>Mr. Aamir Mehmood - Assistant Director Agriculture OFWM Tehsil Tandlianwala District Faisalabad.</li> <li>Mr. Awais Jahangeer Field Team in Charge ME&amp;IE Consultants Punjab zonal office Lahore</li> </ul>
<b>Meeting Agenda/Points discussed:</b>	<ul style="list-style-type: none"> <li>The data collection for PMIS Dashboard.</li> <li>The progress/achievements of OFWM in the Tehsil and for future planning of baseline 3 visits.</li> <li>Due to shortage of funds work has been stopped in the field under NPIWC 2.</li> </ul>



Meeting held with Mr Aamir Mehmood - Assistant Director Agriculture OFWM Tehsil Tandlianwala District Faisalabad.

**5) Meeting Held with Director (Agri) OFWM Lahore Division**

<b>Date</b>	November 27 ,2022
<b>Venue</b>	Director (Agri) OFWM Lahore Division
<b>Participants</b>	<ul style="list-style-type: none"> <li>Dr. Muhammad Maqsood Director (Agri) OFWM Lahore</li> <li>Muhammad Yousaf Bhatti Deputy Team Leader Punjab ME&amp;IE Consultants</li> <li>Mr. Awais Jahangeer Field Team in Charge ME&amp;IE Consultants Punjab zonal office Lahore</li> <li>M. Rizwan Suleman Field Team in Charge II ME&amp;IE Consultants Punjab zonal office Lahore</li> </ul>
<b>Meeting Agenda/Points discussed:</b>	<ul style="list-style-type: none"> <li>Procedure for PMIS Dashboard. He assured his complete cooperation in this matter with consultants Punjab Zonal Office Lahore</li> <li>It Was decided to provide the data either in Director (Agri) Lahore officers or ME&amp;IE Consultants, Punjab zonal office Lahore.</li> <li>The Data already discuss with consultants, will be submitted to Director (Agri) for Further validation at OFWM end.</li> </ul>



Meeting held at Director (Agri). OFWM, Lahore



### 3.6 UPDATED PROGRESS OF KP ZONE – NOVEMBER 2022

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

- Refresher training on new version of ODK continued.
- Data validation activities continued.
- Mock test on new ODK was performed and issues were discussed in training session.
- Refresher training on utilization of Pigmy current meter was carried out at field level.
- Coordination and meetings with OFWM focal person/ district officers for the missing data on dashboard such as CNIC duplicates and Technical/ Social data etc.
- Coordination with department was done for Technical Sanction issued for new schemes.
- Prepared work plan and implemented for field visits but could not completed as per given

schedule due to different additional activities, however, it is planned to execute the activity in coming months.

- Drafted KP MMR report for the month of November
- Hiring/posting/transfer of staff members

#### 3.6.1 Overall Progress:

The ME&IE Consultants, KP had carried out first baseline survey of 18 Watercourses and 6 WST during the June 2021.

As per TORs, ME&IE consultants have to submit midline survey reports against the baseline targets during the middle of the project. In line, ME&IE Consultants are in the process of carrying out the Midline Survey. The ME&IE has monitored a total of 32 interventions till now. KP team is further planning to complete the remaining impact survey with coming few days.

Total activities, District-wise

S. No	District	First Phase Baseline		Second Phase Baseline		Midline Survey		Regular Monitoring / Spot Checking		Total
		WC	WST	WC	WST	WC	WST	WC	WST	
1	Abbot Abad	1		1		2				4
2	Bannu	1				1				2
3	Batagram	1				1				2
4	Bunir			6	2					8
5	Charsadda	1	1	1		2				5
6	Dera Ismail Khan	2		31	10	2				45
7	GB Zone	1	1							2
8	Hari Pur	2	2	5	3	1				13
9	Kohat	1		2		3				6
10	Lakki Marwat	1				1				2
11	Mansehra	1		12	4	2				19
12	Mardan	1		4	1	5				11
13	Nowshera	1	1	19	7	6				34
14	Peshawar	1		11	7	3				22
15	Swabi	2				2				4
16	Swat			11	3					14
17	Tank		1							1
18	Torghar	1				1				2
Sub-Total		18	6	103	37	32				196

#### 3.6.2 Achievements against Outputs

KP team remain busy in following activities during the month of November.

##### 3.6.2.1 Out put 1: Baseline/Impact Survey of Watercourses and Water Storage Tanks

During the reported month, KP Zonal team did not visit any watercourse or water storage tank for

baseline or mid line activity due to continued activities from the month of October regarding the data validation and cleaning. Additionally, team also carried out mock exercises for testing of the data on ODK and Pigmy Meter.

### 3.6.2.2 Output 2: Monitoring of the selected watercourses

The field team could not conduct regular monitoring in the reporting month due to data entry to the dashboard system. Teams will try to conduct monitoring visits in coming months.

### 3.6.2.3 Output 3: Coordination Meetings

During the current reporting month of November 2022, extensive coordination meetings have been carried out with OFWM department of KP. The purpose of the coordination with them was to streamline and correct the missing/wrong data for dashboard completion and representation. This is to honor that ME&IE team receive tremendous support from OFWM directorate, whenever there is a need.

### 3.6.2.4 Output 4: Capacity Building of ME&IE Consultants and OFWM staff on Android Application

During the current reporting month, online training on data validation and pygmy meter was continued from ICT department. ICT department further clarified all the queries raised by the team members after mock exercises for better field activities and data collection. Additionally, continuous support was provided to OFWM officials on telephone for any issue while operating android system and/or data collection process.

### 3.6.2.5 Hiring/transfer of staff

One of the Field Team Incharge was replaced and another FTI was transferred from Islamabad to fill the gaps. The transferred FTI belongs to Peshawar and was initially performing duties at KP office, and it is hoped that he may carry out activities in better way at home area.

### 3.6.3 Justification for not meeting the targets.

The project activities have been planned, however due to changes in android application system and field mechanism, the visits were not performed during the month of November 2022.

### 3.6.4 Key Challenges & mitigation measures adopted

#### Some Limitations:

There were Certain Limitations noted while orientation of the staff members:

- Directorate remain involve in implementation of other funded projects with the NPIW-II. They face shortage of time, while supporting field visits. ME&IE need strong coordination at one hand and internal availability of funding on the other hand for timely execution of the activities.
- There may be chances that there may not be having the spare time to coordinate formally with Directorate, thus, on line contacts must be kept in intact for establishing coordination.
- Public holidays can hinder the activities routine.

#### Suggestions:

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

- Equipment is needed for measuring flow of water and recording the data on the tool.
- First aid box, basic necessities (umbrella) must be provided to field team in order to meet any emergency situation.
- Tablet must be providing at least 2-3 days' prior field visit.
- Each member of field team must have their official identity card when team visit field or office of OFWM.
- Funds must remain available for conducting field surveys at each province level in advance so they can execute their planning well on time without any hinders.

#### Lessons Learned

1. It would be good that formal system through letters/emails may be followed with all the stakeholders in a way that sufficient timing may be given to stakeholders for their planning for the demands of the ME&IE.
2. ME&IE may follow visits according to the shared plans with stakeholders, because change of plans leaves the bad impression of the ME&IE consultants.

### 3.6.5 QUARTERLY WORK PLAN – KP ZONE

The ME&IE Consultants, KP is committed to accomplish all deliverables on due dates.

A comprehensive tentative Quarterly Work Plan for next quarter was shared already.

### 3.7 PROGRESS OF BALOCHISTAN ZONE – OCTOBER 2022

The activities done by the Balochistan zone in the reporting month are listed below:

- Updated Summarized Progress of ME&IE Consultants, Balochistan Zone.
- Field Visits Report of Impact Assessment Surveys.
- Field Visit Report of Authorized Representative of JVs / Director, G3EC
- Visit of NPC and Authorized Representative of JVs / Director, G3EC
- Visit of IT Staff to prepare Dashboard, Balochistan and training to OFWM staff.
- Meetings.

#### 3.7.1 Updated Progress - ME&IE Consultants - Balochistan:

The ME&IE Consultants (ME&IE), Balochistan have monitored 17 Watercourses and 51 Water Storage Tanks in Baseline Survey activities. The total Baseline

Survey /Bench Marked are 68. The Impact Assessment Survey is continued and till now 36 activities have been monitored. The Balochistan field teams are also conducting regular monitoring of ongoing / completed sites covering all financial years i.e., 2019-20, 2020-21, and 2021-22 on a monthly basis. The Balochistan field teams have so far monitored 73 Watercourses and 88 Water Storage Tanks. A total of 161 sites have been monitored. The updated status of the total activities done is given in the below table:

Sr. No.	Type of Visit	No. of Visits
1	Pre-Testing Visits	16
2	Baseline Survey	68
3	Impact Assessment Survey	36
4	Executive Monitoring Visits	12
5	Regular Monitoring/Spot Checking	161
<b>Total Activities</b>		<b>293</b>

#### Summary of total activities done, District-wise

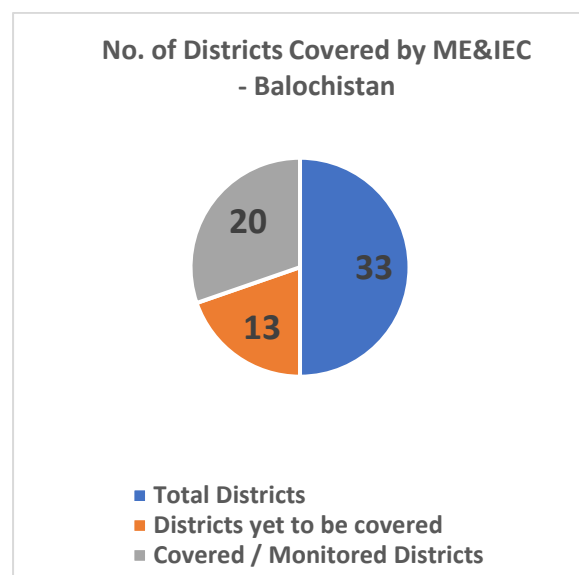
Sr. #	District	Pre Testing		Executive Visits (NPC, DG, & other Stakeholders)		Baseline / Bench Marked		Impact Assessment Survey		Regular Monitoring / Spot Checking		Total
		WC	WST	WC	WST	WC	WST	WC	WST	WC	WST	
1	Quetta	3	3	-	-	-	6	-	4	5	15	36
2	Pishin	3	1	2	5	-	8	-	4	2	9	34
3	Killa Abdullah	-	-	-	-	1	1	-	1	3	2	8
4	Ziarat	-	-	-	-	-	3	-	-	2	4	9
5	Mastung	-	-	1	1	1	5	1	3	5	8	25
6	Nushki	1	2	1	-	-	-	-	-	2	1	7
7	Sibi	-	-	-	-	-	-	-	-	1	3	4
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	-	-	-	-	-	-	3	-	5
12	Sohbatpur	-	-	-	-	7	-	3	-	14	-	24
13	Loralai	-	-	-	-	1	2	1	4	2	6	16
14	Duki	-	-	-	-	-	-	-	-	2	1	3
15	Zhob	1	1	-	-	-	-	-	-	2	1	5
16	Kila-Saifullah	-	-	-	-	2	1	3	3	5	4	18
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
<b>Sub-Total</b>		<b>9</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>17</b>	<b>51</b>	<b>12</b>	<b>24</b>	<b>73</b>	<b>88</b>	<b>293</b>

The beneficiaries list of F.Y. 2022-23 are under progress by the Department. As soon as 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.

### 3.7.1.1 Districts Coverage

There are 33 districts in Balochistan, 02 more districts have been notified but their administrative setup yet to be functional. The Balochistan Team has planned to cover all Balochistan as each district has different agriculture setup. All districts have different crops, vegetable, fruits based on their different climate and soil types. Some districts i.e., Quetta, Ziarat, Kalat, Muslim Bagh have extreme cold weather while some districts i.e., Sibi, Naseerabad, Jaffarabad, Sohbatpur, Lasbella lies in extreme hot weather. Due to this reason ME&IEC, Balochistan have planned to cover all Balochistan to give a complete picture of cropping pattern and its intensity, social and gender data, water situation, cost production etc., to make more authentic data.

The Balochistan Zonal field teams have monitored the sites of 20 districts of 33 districts, the remaining 13 districts to be covered in upcoming months.



### 3.7.2 Field Visits of Impact Assessment Survey

#### Field visits detail of Impact Assessment Survey - Balochistan Zone

Team – 1: Monitored by Mohammad Tariq, FTI / M&E Expert and Saleem Ahmed, M&E Officer.

#### 1) Field Visit Date – 10/11/22

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Javaid Ahmed
<b>Name of village:</b>	Kundi
<b>Union council:</b>	Shah Pur
<b>Chairman WUA:</b>	Javaid Ahmed
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Chattar
<b>Coordinates</b>	28.7082764 68.3074756
<b>Source of irrigation:</b>	Tube Well
<b>Shape of water storage tank:</b>	Squire
<b>Size of water storage tank:</b>	50x50
<b>Depth of WST:</b>	4.5 Ft
<b>Command area of water storage tank:</b>	25 Acre
<b>No of beneficiaries:</b>	2
<b>Quality of work</b>	Satisfactory
<b>Cropping intensity increased</b>	• Yes
<b>Crops yield increased</b>	• Yes
<b>Equity in water distribution increased</b>	• Yes
<b>Reduction in water disputes/thefts</b>	• There is no theft of water
<b>Poverty reduction through generation of employment.</b>	• Yes
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	• Industrialization increased marginally due to recent inflation.
<b>Overall feedback of Farmer / Beneficiary</b>	• It has become easier for the farmer to manage the water which helps to avoid



	unnecessary water loss
<b>General Observations</b>	<ul style="list-style-type: none"> <li>Water tank helped us to store water for field and also cover most population</li> </ul>



Monitoring visit of WST, Javaid Ahmed village, Khurram Abad and Meeting with Farmers.

**Team – 1: Monitored by Mohammad Tariq, M&E Expert and Saleem Ahmed, M&E Officer**

## 2) Field Visit Date – 10/11/22

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Fareed Khan
<b>Name of village:</b>	Mir Fareed Khan
<b>Union council:</b>	11
<b>Chairman WUA:</b>	Fareed Khan
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali

<b>Coordinates</b>	28.5335477 68.2699299
<b>Source of irrigation:</b>	Patfeder
<b>Shape of water storage tank:</b>	Squire
<b>Size of water storage tank:</b>	60x60
<b>Depth of WST:</b>	4.5 Ft
<b>Command area of water storage tank:</b>	70 Acre
<b>No of beneficiaries:</b>	6
<b>Quality of work</b>	Satisfactory
<b>Cropping intensity increased</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Crops yield increased</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Equity in water distribution increased</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Reduction in water disputes/thefts</b>	<ul style="list-style-type: none"> <li>There is no theft of water</li> </ul>
<b>Poverty reduction through generation of employment.</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>Water Losses decreased 80%</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>Farmer was happy with this intervention</li> </ul>



Monitoring visit of WST Fareed Khan village Mir Fareed Khan Umrani & Meeting with Farmers.

**Team – 1: Monitored by Mohammad Tariq, M&E Expert and Saleem Ahmed, M&E Officer**

### 3) Field Visit Date – 11/11/22

<b>Scheme:</b>	Watercourse
<b>Name of Farmer:</b>	Munawer Ali
<b>Name of village:</b>	Noor Mohammad
<b>Union council:</b>	Quba Sher Khan Gharbi
<b>Chairman WUA:</b>	Munawr Ali
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali
<b>Coordinates</b>	28.5697871 68.0920689
<b>Source of irrigation:</b>	Rabbi Canal/Patfeder
<b>Total length of watercourse:</b>	685 Mtr
<b>Estimated length of lining:</b>	509 Mtr
<b>Command area of watercourse:</b>	60 Acre
<b>No of beneficiaries:</b>	4
<b>Cost of Construction of WC:</b>	2,825,815
<b>Quality of Work</b>	Satisfactory
<b>Reduction in Water Logging and salinity</b>	There is no salinity in water
<b>Cropping intensity increased</b>	Yes, approximately 10 percent Increased
<b>Crops yield increased</b>	Yes
<b>Equity in water distribution increased</b>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Reduction in water disputes/thefts</b>	<ul style="list-style-type: none"> <li>There is no theft of water</li> </ul>
<b>Poverty reduction through generation of employment.</b>	<ul style="list-style-type: none"> <li>The former gets good income due to better production</li> </ul>
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	<ul style="list-style-type: none"> <li>Industrialization did not increase significantly</li> </ul>
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>Labour cost also decreased</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>The farmer was very happy and its fertile land properly. Demanded more schemes.</li> <li>Due to this scheme that farmer irrigated his land for rice crops and vegetables as well.</li> </ul>

- WUA formed but not activated



Monitoring visit of WST Munawar Ali Village Noor Muhammad with DDA, Naseerabad Saeed Ahmed Khosa.

**Team – 1: Monitored by Mohammad Tariq, M&E Expert and Saleem Ahmed, M&E Officer**

### 4) Field Visit Date – 11/11/22

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Mohammad Din
<b>Name of village:</b>	Haji Mohammad Din
<b>Union council:</b>	Quba Sher Khan Gharbi
<b>Chairman WUA:</b>	Mohammad Din
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali
<b>Coordinates</b>	28.5586092 68.0962307
<b>Source of irrigation:</b>	Rabbi Canal/Patfeder
<b>Shape of water storage tank:</b>	Squire
<b>Size of water storage tank:</b>	50x50

Depth of WST:	4.5 Ft
Command area of water storage tank:	65 Acre
No of beneficiaries:	5
Quality of work	Satisfactory
Cropping intensity increased	• Yes
Crops yield increased	• Yes
Equity in water distribution increased	• Yes
Reduction in water disputes/thefts	• There is no theft of water
Poverty reduction through generation of employment.	• Yes, Due to the good yield of the crop the poverty of the formers has reduced
Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.	• Industrialization didn't increase due to recent inflation.
Overall feedback of Farmer / Beneficiary	• It has become easier for the farmer to manage the water which helps to avoid unnecessary water loss
General Observations	• Farmer was quite happy and demanding more intervention to increase their cultivated area.



Moniotirng visit of WC, Mohammad Din village Haji  
Mohammad Din Meeting with Farmers and DDA  
Naseerabad Saeed Ahmed Khosa.


## Field Visits detail of Impact Assessment Survey - Balochistan Zone

Team – 2: Monitored by Mr. Naseeb Jan, FTI/M&E Expert, Mr. Muhammad Arsalan and Mr. Hamza H. Qureshi, M&E Officer

### 5) Field Visit Date – 8<sup>th</sup> November, 2022

Scheme:	Watercourse
Name of Farmer:	Rehmatullah
Name of village:	Badwan
Union council:	Kulak
Chairman WUA:	Rehmatullah
District:	Killa Abdullah
Tehsil	Killa Abdullah
Coordinates	N 30.6929, E 66.7858
Source of irrigation:	Tube Well
Total length of watercourse:	1981 Meters
Estimated length of lining:	610 Meters
Command area of watercourse:	40 Acres
No of beneficiaries:	1
Quality of Work	Satisfactory
Reduction in Water Logging and salinity	No such Problem in the area
Cropping intensity increased	To Some Extent
Crops yield increased	To Some Extent
Equity in water distribution increased	No such Problem in the area
Reduction in water disputes/thefts	No such Problem in the area
Poverty reduction through generation of employment.	To Some Extent
Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.	No
Overall feedback of Farmer / Beneficiary	• According to the beneficiary, he sold his crop in standing position last season, and due to the lack of care for the trees by the buyer, the trees were left to dry, but due to this WC he become able to provide proper water




	<p>to the trees and the trees.</p> <ul style="list-style-type: none"> <li>• Heavy prices of crop/yield related items in market are unbearable resultantly causing miseries for him.</li> <li>• Government must make sure provision of crop related items on a subsidized rates in boosting up agricultural activities in area.</li> <li>• Government should proceed with such type of interventions in the area as these are coming out with savings of water which will definitely boost up agricultural activities in shape of crop &amp; yield.</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>• Cultivated land increased 30%</li> <li>• Heavy loadshedding causing miseries for farmers.</li> <li>• Heavy prices of crop related items were observed unbearable by farmers.</li> </ul>
	
View of WC and view of data taking from farmer	

#### 6) Field Visit Date – 8<sup>th</sup> November, 2022

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Abdul Qahar Agha
<b>Name of village:</b>	Lamaran
<b>Union council:</b>	Kulak
<b>Chairman WUA:</b>	Abdul Qahar Agha
<b>District:</b>	Killa Abdullah
<b>Tehsil</b>	Killa Abdullah
<b>Coordinates</b>	N 30.7191, E 66.8214
<b>Source of irrigation:</b>	Tube Well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	60x60 ft.
<b>Depth of WST:</b>	4.75ft.
<b>Command area of water storage tank:</b>	25 Acres
<b>No of beneficiaries:</b>	1
<b>Quality of work</b>	Satisfactory
<b>Cropping intensity increased</b>	No
<b>Crops yield increased</b>	20%
<b>Equity in water distribution increased</b>	No such Problem in the area
<b>Reduction in water disputes/thefts</b>	No such Problem in the area
<b>Poverty reduction through generation of employment.</b>	To Some Extent
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	No
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>• The total number of livestock and yield of apple and grapes increased after this intervention.</li> <li>• Due to such intervention, he brought some area lying waste under cultivation.</li> <li>• Govt must ensure provision of subsidized seeds,</li> </ul>



	<p>seedlings, sprays to farmers.</p> <ul style="list-style-type: none"> <li>Govt must take concrete steps in bringing up water table by making mini dames and it must focus and make ground related policies strategies to counter global warming challenges.</li> <li>Govt must ensure provision of subsidized seeds, sprays etc</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>Due to this intervention, the farmer had some land prepared near the WST and had planted wheat on this land.</li> <li>Farmer was optimistic about more such schemes in the area for boosting up agricultural activities.</li> <li>Heavy loadshedding was observed causing issues for farmers.</li> </ul>
	
View of meeting with Farmer and view of WST	

## 7) Field Visit Date – 10<sup>th</sup> November 2022

<b>Scheme:</b>	Watercourse
<b>Name of Farmer:</b>	Muhammad Younas
<b>Name of village:</b>	Sra Bazala
<b>Union council:</b>	Kan Mehtarzai
<b>Chairman WUA:</b>	Muhammad Younas
<b>District:</b>	Killa Saifullah
<b>Tehsil</b>	Kan Mehtarzai
<b>Coordinates</b>	N 30.7092, E 67.4925
<b>Source of irrigation:</b>	Tube Well
<b>Total length of watercourse:</b>	610 Meters
<b>Estimated length of lining:</b>	610 Meters
<b>Command area of watercourse:</b>	12 Acres
<b>No of beneficiaries:</b>	1
<b>Quality of Work</b>	Satisfactory
<b>Reduction in Water Logging and salinity</b>	No such Problem in the area
<b>Cropping intensity increased</b>	No
<b>Crops yield increased</b>	To Some Extent
<b>Equity in water distribution increased</b>	No such Problem in the area
<b>Reduction in water disputes/thefts</b>	No such Problem in the area
<b>Poverty reduction through generation of employment.</b>	No
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	No
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>The per tree yield increased by a significant amount and the farmer was planning to plant more Apple trees on his land but heavy loads heeding creating problems for farmer.</li> <li>Heavy prices of farm related items were become unbearable for them.</li> <li>Government must ensure seeds, sprays etc. on subsidized rates.</li> </ul>

	<ul style="list-style-type: none"> <li>Government should arrange awareness sessions to farmers regarding modern technics of farming.</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>The water available for this land was very good for agriculture purpose, and the farm was very properly maintained and every tree was irrigated properly.</li> <li>Heavy prices of farming items were observed unbearable.</li> <li>Heavy loadshedding causing miseries for farmers in irrigating their farm properly.</li> <li>Farmers need to be equipped with modern way and technique of farming in boosting up crop and yields.</li> </ul>
	
<b>View of WC</b>	

#### 8) Field Visit Date – 10<sup>th</sup> November 2022

<b>Scheme:</b>	Watercourse
<b>Name of Farmer:</b>	Muhammad Gulab
<b>Name of village:</b>	Molvi Bakhtiyar
<b>Union council:</b>	Bindat Mirzai
<b>Chairman WUA:</b>	Muhammad Gulab
<b>District:</b>	Killa Saifullah
<b>Tehsil</b>	Killa Saifullah
<b>Coordinates</b>	
<b>Source of irrigation:</b>	Tube Well
<b>Total length of watercourse:</b>	701 Meters
<b>Estimated length of lining:</b>	666 Meter
<b>Command area of watercourse:</b>	20 Acres
<b>No of beneficiaries:</b>	1
<b>Cost of Construction of WC:</b>	N/A
<b>Quality of Work</b>	Satisfactory
<b>Reduction in Water Logging and salinity</b>	No such Problem in the area
<b>Cropping intensity increased</b>	No
<b>Crops yield increased</b>	To some Extent
<b>Equity in water distribution increased</b>	No such Problem in the area
<b>Reduction in water disputes/thefts</b>	No such Problem in the area
<b>Poverty reduction through generation of employment.</b>	2 to 3 labors increased
<b>Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.</b>	No
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>Total Yield of Carrot was increased a lot and the farmer was planning to plant more vegetables.</li> <li>Farmer was optimistic in terms of increasing yield due to such intervention but load shedding on a large-scale causing miseries and issues in irrigating such a vast area for cropping.</li> </ul>

#### General Observations

- The farmer was treating and preparing more land more his barren lands for other vegetables but load shedding on a large scale was observed as hurdle in irrigating his areas.
- Heavy prices of seeds, seedlings, sprays and other crop related items were issues faced by farmers.
- Farm to market transportation of yield was also a crucial issue.
- Farmer was observed in dire need of such intervention due to his vast barren land bringing it under cultivating other cropping.



View of data taking from Farmer and view of plowing.

**Team – 3: Monitored by Mr. Manzoor Ahmad Kasi, FTI/ M&E Expert, Mr. Qaisar Khan, M&E Officer, Mr. Basit Ahmad, M&E Officer, Ms. Mahgul Noor, M&E Officer & Mr. Muhammad Umair, M&E Officer**

#### 9) Field Visit Date – 8<sup>th</sup> November 2022

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Ain Uddin
<b>Name of village:</b>	Killi Malik Yar
<b>Union council:</b>	Malikyar
<b>Chairman WUA:</b>	Ainudin
<b>District:</b>	Pishin
<b>Tehsil</b>	Pshin
<b>Coordinates</b>	30.689096 67.08964



Source of irrigation:	Tube well
Shape of water storage tank:	Square
Size of water storage tank:	30x30
Depth of WST:	4.5
Command area of water storage tank:	5
No of beneficiaries:	1
Starting date:	
Quality of work	Satisfactory
Cropping intensity increased	15%
Overall feedback of Farmer / Beneficiary	This scheme is so help full for former. Farmer was demanding for solar system to have better results for his farming.



View of Sign Board

#### 10) Field Visit Date – 8<sup>th</sup> November 2022

Scheme	Water Storage Tank
Farmer Name	Abdul Manan
Name of village:	Malikyar
Union council:	Malikyar
Chairman WUA:	Abdul Manan
District:	Pishin
Tehsil	Pshin
Coordinates	30.690617 67.093618
Source of irrigation:	Tube well
Shape of water storage tank:	Square

Size of water storage tank:	40'x40'
Depth of WST:	4.5'
Command area of water storage tank:	7
No of beneficiaries:	1
Quality of work	Satisfactory
Cropping intensity increased	• 15%
Crops yield increased	• No



The M&E Team taking data from Farmer and OFWM Staff

#### 11) Field Visit Date – 8<sup>th</sup> November 2022

Scheme	Water Storage Tank
Farmer Name	Muhammad Yaseen
Name of village:	Killi Abdullah Jan
Union council:	Faiz Abad
Chairman WUA:	Muhammad Yaseen
District:	Pishin
Tehsil	Pshin
Coordinates	30.546255 66.99387
Source of irrigation:	Tube well
Shape of water storage tank:	Square
Size of water storage tank:	50'x50'
Depth of WST:	4.5'
Command area of water storage tank:	8
No of beneficiaries:	1
Quality of work	Satisfactory



Cropping intensity increased	• 15%
Crops yield increased	• No
Equity in water distribution increased	• No



View of Sign Board and group photo with OFWM staff and Farmer

### 12) Field Visit Date – 8<sup>th</sup> November 2022

Scheme	Water Storage Tank
Farmer Name	Muhammad Younas
Name of village:	Killi Abdullah Jan
Union council:	Faiz Abad
Chairman WUA:	Muhammad Younus
District:	Pishin
Tehsil	Pshin
Coordinates	30.547467 66.996863
Source of irrigation:	Tube well
Shape of water storage tank:	Square
Size of water storage tank:	60'x60'

Depth of WST:	4.5 ft
Command area of water storage tank:	8 acre
No of beneficiaries:	1
Cropping intensity increased	• 15%
Crops yield increased	• No



View of WST

### 13) Field Visit Date – 10<sup>th</sup> November 2022

Scheme	Water Storage Tank
Farmer Name	Ghulam Raza
Name of village:	Hassan Lalo
Union council:	Kalat
Chairman WUA:	Ghulam Raza
District:	Kalat
Tehsil	Kalat
Coordinates	28°56.090 066°35.366
Source of irrigation:	Tube well
Shape of water storage tank:	Square
Size of water storage tank:	60'x60'
Depth of WST:	4.5'
Command area of water storage tank:	18
No of beneficiaries:	1
Cropping intensity increased	8%



Views of WST and ME&IE field team with DDA, OFWM and Farmer taking data.



M&E Staff filling data on ODK, view of Sign Board and WC

#### 14) Field Visit Date –10<sup>th</sup> November 2022

<b>Scheme:</b>	Watercourse
<b>Name of Farmer:</b>	Abdul Hameed
<b>Name of village:</b>	Zarazai
<b>Union council:</b>	Khaliqabad
<b>Chairman WUA:</b>	Abdul Hameed
<b>District:</b>	Kalat
<b>Tehsil</b>	KhaliqAbad
<b>Coordinates</b>	29°21.967 066°32.569
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	2000 Rft
<b>Estimated length of lining:</b>	2000 Rft
<b>Command area of watercourse:</b>	15 Acers
<b>No of beneficiaries:</b>	1
<b>Cost of Construction of WC:</b>	1,548,688/=



### 3.7.3 Social and Gender Component - Focus Group Discussion and Key Informant Interview:

Interviewed by Ms Mahgul Noor, M&E Expert, District  
Kalat.

Visit Date	10 <sup>th</sup> Nov 2022
<b>LOCATION</b>	
Province	Balochistan
Division	Kalat
District	Kalat
Tehsil	Sadar Kalat
Union council?	Hassan lalo
Village	Hassan lalo
Watercourse Location?	N/A it was a water storage tank
Canal area/Non canal area	Non canal area
<b>PERSONAL INFORMATION</b>	
Name of respondent	Haneefa
Husband/Father Name?	Mir Muhammad
Age of the respondent (Years)?	35
Does any member of your household have a mobile telephone?	Yes
Do you have own cell phone	No
Contact number	N/A
CNIC?	Yes
Caste & Social group	Raysayani
Does your household have access to the internet at home?	No
Rent house/own	This house is farmer's house, they work as a tenant

The Table of HH interviewed is given in **Annex-E**.

Questions	Answer
What is your mother language?	• Brahavi
Main energy source for the household (cooking, heating etc? <i>[tick once]</i> )	• Wood
Drinking water facilities	• Well
Transportation	• Bicycle
What household activities are performed by you?	<ul style="list-style-type: none"> <li>• Cooking</li> <li>• Looking after elders</li> <li>• Washing clothes and dishes</li> <li>• Cleaning of house</li> <li>• Caring of Children</li> <li>• Bringing drinking water</li> <li>• Bringing fire wood</li> <li>• Bathing livestock</li> <li>• Feeding livestock</li> </ul>
Have you hired any maid for household activities?	No
If no, reason why	• Cultural issues / not allowed outsider to work
Do you have livestock?	Yes
Do you have milking animal?	Yes
If yes, dairy products for sale	No
Do women own the animals they tend, and do they have control over or access to the income derived from the sale of meat and milk, etc.?	No
Dairy product for your own use	Yes
If own use, What dairy products you make from milk?	<ul style="list-style-type: none"> <li>• Desi Ghee</li> <li>• Yogurt</li> </ul>
<b>Women &amp; Agriculture</b>	
Do you participate in farming activities?	No
Do you participate in Non-farming activities?	Yes
If yes than, tick activities	Watering to Livestock Poultry rearing

Questions	Answer
	Milking animals Preparing milk products Bringing fodders for animals
What field tasks are traditionally performed by women, and which by men?	Women task Not willing to answer this question.
Do you have knowledge regarding crops	No
If yes than, did you use any new variety after w/c lining, if yes than explain	N/A
Do you know which crops you are sowing/cultivation now?	No
If yes, give the names of the crops.	N/A
Are female receiving same amount as compare to male labour?	Don't know
Who receives land income from crop production?	Male
What constraints prevent women from growing and marketing cash crops?	Don't know
What percentage of farming households are headed by women in your area?	Don't know
Are women included in processing or marketing cooperatives or in communal projects?	No
Do you have any health facility in your area?	No
Is there a govt school in your village?	No
Do your children go to school?	No
If no, what is the reason	There is no school in area.

Questions	Answer
<b>Decision making</b>	
Do your husband/father consult you or any other female for house hold decision matters? like	No
Can you spend as much money as you want?	No
Can you go to the hospital on your own?	No
Do you consult about your children's educational decisions?	No
Who takes the Marital decision	<ul style="list-style-type: none"> <li>Male family members</li> </ul>
Are you consulted in spending income at your household?	<ul style="list-style-type: none"> <li>Never</li> </ul>
Are you consulted in making household decisions?	<ul style="list-style-type: none"> <li>Never</li> </ul>
Are you consulted in spending income at your household?	<ul style="list-style-type: none"> <li>Never</li> </ul>
<b>Water User Association (WUAs) details</b>	
Do you the knowledge of Watercourse lining/ WST intervention/scheme carried out in your village:	Don't know
Does the scheme is beneficial for women?	Yes
If yes, what are the benefits:	<ul style="list-style-type: none"> <li>Saved travel and waiting time for water collection for domestic use</li> <li>Washing cloths</li> </ul>
Is the scheme beneficial for your agriculture:	Yes
If yes, explain how?	<ul style="list-style-type: none"> <li>Increase in crops production</li> <li>Time savage in irrigation</li> </ul>
Is the scheme beneficial for your livelihood?	Yes
If yes, explain how?	<ul style="list-style-type: none"> <li>Health issues</li> </ul>



Questions	Answer
Is the scheme beneficial for social bonding among women?	Yes
If yes, explain how?	<ul style="list-style-type: none"> <li>• Washing clothes activities</li> <li>• Livestock bathing</li> </ul>
Is the scheme beneficial to decrease the women's efforts towards water:	Yes
If yes, explain how?	<ul style="list-style-type: none"> <li>• Saved travel for water collection</li> <li>• Easy access</li> </ul>
Workload reduces after intervention	Yes
If yes, explain how?	<ul style="list-style-type: none"> <li>• Availability of water for domestic purposes (washing clothes)</li> <li>• Availability of drinking water for livestock</li> <li>• Easy access of water for bathing animals</li> <li>Time-saving</li> </ul>
<b>Crops Knowledge</b>	
Is water sufficient for irrigation after intervention?	Yes
Did you face any problem before intervention regarding crops production	Don't know
If yes then what problem you faced?	<ul style="list-style-type: none"> <li>• Wastage of time/more time consuming</li> </ul>
Do you think crops production increases after intervention?	don't know
If yes then how much	N/A
Are Culverts sufficient for crossing at the watercourse	Yes No N/A
Have you heard about the NPIWC-II project?	Don't know
<b>Landownership</b>	
Do you own a piece of agricultural land?	No
Do your family/husband own a	<ul style="list-style-type: none"> <li>• Worked as a tenant</li> </ul>

Questions	Answer
piece of agri land or work as tenant?	

#### Economic Evaluation:

Don't have information about it

#### Households Expenditure Detail:

Don't have information about it

How do you assess the economic situation of your household?	Very poor, there is sometimes even not enough food available
---	--

**Additional income & priorities**  
respondent should give priority numbers from 1 (very important), 2 (a bit less important) to 3 (less important)

Item	Priority		
	Very important	A bit less important	less important
Better food	1		
Better clothes	1		
Repair, rebuilt house			3
Better health services	1		
Better schools (clothing, books) for children	1		
Better water/sanitation / sewerage system			3
Electricity supply	1	2	
Buy car or motorbike			3
Open shop or start business	1		
Start professional training / studies			3
Buy livestock	1		
Hire farm staff			0
Buy livestock goods/equipment	1		
Buy seeds/trees			0
Buy agricultural goods/equipment/technologies			0
Helping others			0
Any other please specify			

**Do you have irrigation/non-irrigation agriculture land?**

No

**Do you face any problems in agriculture in the present scenario producing good quality & quantity of crops (during seeding, sowing, plantation, harvesting, and post-harvesting activities [tick once**

Don't know

**General information**

1. They work as a tenant; former pay them monthly 12000/=.
2. They have livestock one cow, and 10 sheep.
3. They didn't have basic facilities of electricity and gas for house hold activates.
4. There is no health facility in area they face a lot of problems for basic treatment.
5. There is no school and madressa, their children don't go any school.
6. They don't have washroom, for washroom they go outside which is completely unhygienic.

**Executive Monitoring Field Visit - detail of Impact Assessment Survey - Balochistan Zone**

Monitored by Mr. Saif Ullah Ejaz Ch, Authorised Representative of JVs / Director, G3ED and Mr. Rizwan Ahmed, DTL, M&E Consultants, Balochistan

**01- Field Visit Date –12<sup>th</sup> November 2022**

<b>Scheme:</b>	Water Storage Tank
<b>Name of Farmer:</b>	Abdul Quddus Lehri
<b>Union council:</b>	Shamozai
<b>Chairman WUA:</b>	Abdul Quddus Lehri
<b>District:</b>	Quetta
<b>Tehsil</b>	Quetta
<b>Source of irrigation:</b>	Tube Well
<b>Size of WST</b>	60x60
<b>No of beneficiaries:</b>	1
<b>Coordinates:</b>	N 30.1138, E 66.9414
<b>Shape of Water Storage Tank:</b>	Square
<b>Size of Water Storage Tank:</b>	60x60 ft.
<b>Depth of WST:</b>	4.5 ft.
<b>Financial Year:</b>	2019-2020
<b>Quality of Work</b>	Satisfactory
<b>Reduction in Water Logging and salinity</b>	No such Problem in the area

<b>Cropping intensity increased</b>	Yes
<b>Crops yield increased</b>	Yes
<b>Equity in water distribution increased</b>	No such Problem in the area
<b>Reduction in water disputes/thefts</b>	No such Problem in the area
<b>Poverty reduction through generation of employment.</b>	Yes
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>• According to the beneficiary, his cultivated area increased up to 4 to 5 acres due to this intervention.</li> <li>• Water Saving increased 80%</li> <li>• Farmer told that now he has started tunnel farming after availability of sufficient water.</li> <li>• A good impact observed on livestock.</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>• Due to Heavy loadshedding farmer feeling lot of problems.</li> <li>• Heavy prices of crop related items were observed unbearable by farmers.</li> </ul>





**View of Sign Board and WST**

### 3.7.4 MEETINGS

During the reporting months different meetings were held by the ME&IEC, Balochistan with client and other stakeholders.

The detail of meetings is given below:

Date	8 <sup>th</sup> Nov. 2022
Venue	Office of the DDA, OFWM, Pishin
Participants	
I.	Mr. Faiz Ullah Shah, DDA OFWM
II.	Mr. Naeem Tareen, WMO
III.	Mr. Imran Agha, WMO
IV.	Mr. Manzoor Ahmad Kasi, FTI, M&EC
V.	Mr. Qaisar Khan, M&E Officer, M&EC
VI.	Mr. Basit Ahmad, M&E Officer, M&EC
VII.	Mr. Muhammad Umair, M&E Officer, ME&EC
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>Discussed field activities/Impact Assessment Survey.</li> <li>Discussed the beneficiaries' list of FY. 2022-23</li> <li>The DD talked about the losses faced due to heave flood in last quarter</li> </ul>	
 	
View of meeting's participants	

Date	11 <sup>th</sup> November, 2022
Venue	DG Office, OFWM, Rani Bagh, Quetta.
Participants	
I.	Mr. Abdul Wahab, DG, OFWM, Agriculture Department, GoB, Quetta.
II.	Mr. Saifullah Ejaz Ch, Authorised Representative of JVs/Director G3EC
III.	Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Balochistan
IV.	Mr. Behram Mulghani, Aricultue Officer, OFWM, Quetta
V.	Mr. Abdul Wali, DD, QuettaMr. Manzoor Kasi, Focal Person / FTI, M&EC, Balochistan.
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>The DG, welcomed to Authorized Representative of GV / Director, G3EC.</li> <li>The DTL, Balochistan shared the updated progress of Balochistan Zone with DG, OFWM.</li> <li>The backlogs regarding data collection for Dashboard, Balochistan shared by Authorized Representative of JVs / Director, G3EC in detail.</li> <li>The Authorized Representative of JVs / Director, G3EC gave a presentation to DG, OFWM and all Directors, OFWM on Dashboard.</li> <li>The DG, OFWM ensured to M&amp;E Consultants on their best cooperation at all times especially data providing for Dashboard, Balochistan.</li> </ul>	
 	
View of meeting with DG, OFWM, Balochistan and the Authorized Representative of JVs / Director, G3EC giving a presentation to DG, OFWM and other staff	



Date	<b>11<sup>th</sup> November, 2022</b>
Venue	Office of the ME&IE Consultants, Arbab Karam Khan Road, Quetta.
<b>Participants</b>	
I.	Mr. Asif Kakar, NPC, FPMU, NPIWC-II
II.	Mr. Saifullah Ejaz Ch, Authorised Representative of JVs/Director G3EC
III.	Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Balochistan
IV.	Mr. Manzoor Kasi, Focal Person / FTI, M&EC, Balochistan.
V.	All Field and Support Staff of ME&IE Consultants, Balochistan
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The DTL, Balochistan shared updated progress of Balochistan Zone with NPC, FPMU.</li> <li>The IT Team will visit Balochistan Zone and finalize Dashboard Data along with implementation of Dashboard.</li> <li>Salary structure should be the same across the board as per respective cadre.</li> <li>Staff Salaries will be paid within one week.</li> <li>Tools, etc. will also be provided soon.</li> <li>Mr. Saifullah Ejaz, Authorized Representative of JV of NPIWC-II will ensure his personal visits of Balochistan Zone once in a month by any means.</li> <li>The meeting ended with vote of thanks from the NPC, PFMU.</li> </ul>	



View of meeting and group of photo with NPC, FPMU, NPIWC-II at Zonal Office, Quetta.

Date	<b>23<sup>rd</sup> and 24<sup>th</sup> November, 2022</b>
Venue	DG Office, OFWM, Balochistan, Rani Bagh, Sariab Road, Quetta.
<b>Participants</b>	
I.	Mr. Rizwan Ahmed, DTL, ME&IE Consultants, Balochistan.
II.	Mr. Behram Malgani, Agriculture Officer,
III.	Mr. Manzoor Kasi, Focal Persona / FTI, ME&IE Consultants.
IV.	Mr. Rizwan Saleem, IT Specialist, ME&IE Consultants.
V.	Mr. Shumail, IT In charge, M&E Consultants
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The IT Specialist, ME&amp;IEC shared the format regarding data collection</li> </ul>	



- The OFWM gave their feedback on data collection format
- After detailed discussion of two days, the Format got finalized.
- The IT Specialist, ME&IEC give a presentation on new MTs
- The DTL, Balochistan briefed the forum about data collection on field and role and responsibilities.



View of meeting and presentation at DG, OFWM Office, Quetta.



View of meeting and presentation at DG, OFWM Office, Quetta.

Date	<b>26<sup>th</sup> November, 2022</b>
Venue	ME&IEC Office, Marri Street, Arbab Karam Khan Road, Quetta.
<b>Participants</b>	
I.	Mr. Khalid Mehmood, DTL, NWMC, Balochistan
II.	Mr. Rizwan Ahmed, DTL, ME&IE Consultants, Balochistan.
III.	Mr. Manzoor Kasi, Focal Persona / FTI, ME&IE Consultants.
IV.	Mr. Rizwan Saleem, IT Specialist, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• The updated progress of NPIWC-II and other issued were discussed.</li> <li>• The DTL, Balochistan and IT Specialist of ME&amp;IEC briefed to DTL, NWMC on Dashboard Balochistan.</li> </ul>	

### 3.8 ICT ASSIGNMENT

#### 3.8.1 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.

#### 3.8.2 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.

#### 3.8.3 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	73	3	204
Poonch	37	38	78	2	155
Mirpur	38	107	88	31	264
<b>Overall</b>	<b>107</b>	<b>241</b>	<b>239</b>	<b>36</b>	<b>623</b>

So far, Total 623 Watercourses data from AJK zone has been received and available live on Dashboard by which 373 Watercourse has been completed & 160 watercourses are under progress. Due to farmers' unwillingness 90 Work Orders have been cancelled till now. Detailed summary given as **Annex-H**.

AJK Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	35	61	73	2	171
Poonch	15	46	140	33	234
Mirpur	2	16	64	13	95
<b>Overall</b>	<b>52</b>	<b>123</b>	<b>277</b>	<b>48</b>	<b>500</b>

500 Water Storage Tank data received from AJK zone and is available live on Dashboard by which 280 Water Storage Tank has been completed and 149 WSTs are under progress. Due to un-willingness of farmers there 71 WST work orders have been cancelled till now. Detailed summary attached as **Annex-I**.

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

Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	3	18	30	7	58
Bannu	73	35	93	0	201
D.I. Khan	417	12	93	0	522
Hazara	84	56	146	18	304
Khyber Agency	6	13	6	0	25
Kohat	98	39	57	0	194
Kurram Agency	1	5	4	0	10
Malakand	178	167	406	3	754
Mardan	102	59	49	0	210
M. Agency	4	26	13	0	43
Orakzai Agency	2	3	0	0	5
Peshawar	0	1	0	0	1
S.W. Agency	136	85	84	2	307
N. W Agency	3	12	13	0	28
<b>Overall</b>	<b>1107</b>	<b>531</b>	<b>994</b>	<b>30</b>	<b>2662</b>

KP zone currently 2662 total watercourses data live on Dashboard and by which 2387 schemes have been completed and 271 schemes are under progress. Due to un-willingness of farmers 04 Schemes work order has been cancelled till to date. Detailed Summary attached as **Annex-J**.

KP Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	1	9	6	0	16
Bannu	12	18	23	0	53
DI Khan	79	6	19	0	104
Hazara	28	42	80	2	152
Khyber Age	1	9	6	0	16
Kohat	29	17	32	0	78
Kurram Age	1	1	0	0	2
Malakand	74	88	146	0	308
Mardan	15	8	18	0	41

KP Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
M. Agency	1	36	4	0	41
Orakzai Age	0	2	0	0	2
Peshawar	36	25	56	2	119
S.W Agency	0	15	14	0	29
N.W Agency	0	0	5	0	5
<b>Overall</b>	<b>277</b>	<b>276</b>	<b>409</b>	<b>4</b>	<b>966</b>

KP zone currently 949 total WST data live on Dashboard and by which 845 schemes have been completed and 120 WSTs are under progress. Due to un-willingness of farmer 01 work order has been cancelled till to date. Detailed Summary attached as **Annex-K**.

ICT Watercourse Data Summary			
Division	2020-21	2021-22	Overall
ICT	20	14	34
<b>Overall</b>	<b>20</b>	<b>14</b>	<b>34</b>

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	600	141	73	814
Loralai	345	145	7	497
Makran	148	11	5	164
Nasirabad	215	60	94	369
Quetta	243	48	17	308
Rakhshan	126	58	41	225
Sibi	185	42	17	244
Zhob	197	69	6	272
<b>Overall</b>	<b>2059</b>	<b>574</b>	<b>260</b>	<b>2893</b>

Balochistan zone currently has 2893 total watercourses data live on Dashboard and by which 2892 schemes have been completed. There's a lot of data missing to fulfill the Dashboard requirement due to deficiency in data some function of Balochistan Zone Dashboard unable to display the appropriate results. ICT team coordinating with concerned officials to fill the gap.

Balochistan Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	98	150	319	567
Loralai	54	41	52	147
Makran	47	52	121	220

Balochistan Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Nasirabad	39	40	69	148
Quetta	53	87	71	211
Rakhshan	26	67	67	160
Sibi	32	33	61	126
Zhob	39	62	117	218
<b>Overall</b>	<b>388</b>	<b>532</b>	<b>877</b>	<b>1797</b>

Balochistan zone currently has 1797 total Water Storage Tank data live on Dashboard and by which 1797 tanks have been completed. There's also lot of data missing to fulfill the Dashboard requirement due to deficiency in data some function of Balochistan Zone Dashboard unable to display the appropriate results. ICT team coordinating with concerned officials to fill the gap.

### 3.8.4 ICT Team Balochistan Zone Visit

The ICT team is stationed in Quetta from November 22, 2021 to acquire the data for Balochistan zone Dashboard and OFWM staff capacity building training.

ICT team held meetings with DG OFWM Balochistan and Customized the Balochistan zone Dashboard data collection format in Balochistan scenario (**Annex-L**).

ICT team is currently working on Balochistan zone data cleaning and validation as received from Director OFWM Mr. Behram Khan.

Two days training of OFWM staff Balochistan zone data collection through Android Application is also scheduled on 07 to 08 December 2022.



### 3.9 MONITORING / DATA COLLECTION ON SOCIAL AND GENDER COMPONENT

In this month social and gender specialist worked on the process of impact assessment, discussions with teams were carried out with teams, proposed study for Impact assessments was designed and shared with teams the questionnaire, the main focus of the study would be how programs affected the lives of poor and less marginalized this will cover social uplift, income growth asset building and reduction of vulnerability.

National Gender Specialist was visiting District Khushab privately and on the way found a board mentioning NPIWC and gathering there, stopped and discussed informally about the program generally good vibes were perceived and they were looking forward for laser land leveling. Farmers were very happy on the construction of watercourses as the water in the area is brackish and they are mixing surface water with tube wells.



Proposed study questionnaire was pretested by Punjab provincial gender specialist, further refinement of questionnaire is in process and study will be carried out in the first quarter of 2023.

Social & Gender Questionnaire is given as **Annexure-G** for information and record.





## CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (OCTOBER TO DECEMBER 2022)

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

### Pre Field Activities

- Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 2nd Phase Baseline Survey
- Training of Field Teams for 2<sup>nd</sup> Phase of Baseline Survey

### Field Activities

- Regular monitoring of Interventions in the field
- Data collection of the intervention in the field
- Baseline Survey Stage-II
- Online data entry I android based application

### ICT Assignment

- Development/improvement of website of NPIWC-II
- Monitoring Android based Mobile Application under implementation by field staff
- Data collection of interventions in MIS/GIS database
- Data Cleaning, Development & Launching of Dashboard for Client Offices

### Coordination

- Meeting of TL with NPC and OFWM Department regarding Progress / Issues
- Meetings of DTLs with respective DTL of PC & concerned OFWM Department
- ME&IE Consultants' Internal Meeting

### Deliverables

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

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted

Document	Status
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 <sup>st</sup> )	Submitted
Baseline Survey Report (Final Draft)	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Third (JULY - SEPTEMBER 2021)	Submitted
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.	Submitted
Monthly Monitoring Report-Tenth (OCTOBER 2021)	Submitted
Monthly Monitoring Report-Eleventh (NOVEMBER 2021)	Submitted
Monthly Monitoring Report-Twelfth (DECEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021)	Submitted

Document	Status
Monthly Monitoring Report- Thirteenth (JANUARY 2022)	submitted within stipulated time
Monthly Monitoring Report- Fourteenth (FEBRUARY 2022)	submitted within stipulated time
Monthly Monitoring Report- Fifteen (MARCH 2022)	submitted within stipulated time
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	submitted within stipulated time
Monthly Monitoring Report- Sixteen (APRIL 2022)	submitted within stipulated time
Monthly Monitoring Report- Seventeenth (May 2022)	submitted within stipulated time
Monthly Monitoring Report- Eighteenth (June 2022)	Submitted within stipulated time
Quarterly Monitoring & Evaluation Report-2 <sup>nd</sup> Quarter year 2022 (APRIL – JUNE 2022)	submitted within stipulated time
Annual Monitoring & Evaluation Report (2 <sup>nd</sup> ) Jul 2021-June 2022	Submitted within stipulated time
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 <sup>rd</sup> Quarter year 2022 (JUL – SEP 2022)	submitted
Baseline Survey Report Phase-II	Submitted
Monthly Monitoring Report- Twenty Second (October 2022)	Submitted
MMR for the Month of November 2022	Report in hand to be 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 following constraints for timely initiating 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 baseline survey
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments & NWMC (NESPAK) till to date.

## ANNEXES A to M



## ANNEX-A: TENTATIVE WORK PLAN

## ANNEX - A: TENTATIVE QUARTERLY WORK PLAN (OCTOBER TO DECEMBER 2022)

TENTATIVE WORK PLANNED FOR THE QUARTER (Oct 2022 To Dec 2022)												Legend		
												Activity starts	↓	
												Activity Ends	↓	
												Activity Span	---	
No.	ACTIVITIES		3 Months-Year 2022 (Weeks)											
			Oct				Nov				Dec			
			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	<b>Pre-Field Activities</b>													
	1.1	Preparation for 2nd-Phase Baseline Survey (Finalization of MTs)	↓			↓								
		Internal Meetings of ME&IE Consultants' Zonal Offices for development of	↓			↓								
	1.2	Methodology for 2nd Phase Baseline Survey												
	1.3	Training of Field Staff for 2nd-Phase Baseline Survey		↓		↓								
2	<b>Field Activities</b>													
	2.1	Regular Monitoring of Interventions in the Field	↓											
	2.2	Data collection of the interventions in the field	↓											
	2.3	Baseline Survey stage - 2	↓											
	2.4	Online data entry in android based application	↓											
3	<b>ICT Assignment</b>													
	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	Data Cleaning, Development & Launching of Dashboard for Client Offices												
4	<b>Coordination</b>													
	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	<b>Deliverable</b>													
	5.1	Monthly Monitoring Report	↓		↓		↓		↓		↓		↓	
	5.2	Quarterly Monitoring Report (January-March 2022)	↓		↓									
	5.3	Preparation of Baseline Survey Report 2nd-Phase								↓				

## ANNEX - B: MATRIX OF RESPONSIBILITIES

### MATRIX OF RESPONSIBILITIES

LEGEND	
●	Primary Responsibility
○	Secondary Responsibility
○	Assistance

SR. NO.	DELIVERABLE / ACTIVITIES	NPC-FPMU	Agriculture Dept. (CEMW)	Project Consultants	ME&IE Consultants
1	<b>Provision of Pre-requisite data of project components for starting of Field Activities:</b> • Organization of Water Users Associations, • Watercourses Improvement, • Water Storage Tanks, • Laser Land Levelers,	○	●	-	-
2	<b>Certification of operational documents of the project,</b> • 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

## Annex-C: Monitoring Log-frame

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
<b>C1: Organization of Water Users' Associations (WUAs)</b>	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 labour 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

<b>C2: Watercourses Improvements</b>	Improvement of 47,278 watercourses on cost sharing basis: 40% farmers in terms of labour, and 60% funded by project.	<p>a) Establishment of 47,278 Water users' associations (WUAs);</p> <p>b) Registration of 47,278 WUAs;</p> <p>c) Improvement and realignment of earthen section of 47,278 watercourses;</p> <p>d) Lining of up to 50% length of 47,278 watercourses either by:</p> <ul style="list-style-type: none"> <li>● Precast concrete parabolic lining (PCPL) segments, or</li> <li>● Rectangular brick masonry, or any other method as approved by the project</li> </ul>	<p>a) 47,278 WCAs established;</p> <p>b) 47,278 WCAs registered;</p> <p>c) 47,278 watercourses improved and lined;</p>	<p>a) Conveyance losses for improved watercourses decreased by about 15 percentage points.</p> <p>b) 1.654 million households benefited from the activity;</p> <p>c) 11.347 million acres served with improved watercourses</p>	<p>a) Increase in cropping intensity on improved watercourses by 5-24%;</p> <p>b) Increase in crop yields.</p> <p>c) Increase in irrigated area</p> <p>d) Increase in agriculture output per unit of water by about 37%</p>	<p>a) Increase in farm income;</p> <p>b) Increase in employment for farm labour;</p> <p>c) Reduction in poverty;</p> <p>d) Enhanced food security for the country.</p>	<p>a) The water flow measurements will be carried out at before and after watercourse improvement on 2-5% sample basis;</p> <p>b) Agriculture survey before and after watercourse improvement on 2-5% sample basis;</p> <p>c) The survey will determine:</p> <ul style="list-style-type: none"> <li>● Cropping pattern before and after the improvement;</li> <li>● Cropping intensities before and after improvement;</li> <li>● Before and after crop yields;</li> </ul>
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							<ul style="list-style-type: none"> <li>• Before and after employment;</li> <li>d) The difference 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.</li> </ul>
<b>C3: Construction of Water Storage Tanks (WSTs)</b>	a) Construction of 14,932 water storage tanks	a) 14,932 small farmers mobilized to construct water storage tanks for irrigation b) They agree to contribute 40% of the cost c) Agree to first construct the tank with his/her own funds and then received	a) 14,932 WSTs constructed b) 14,932 WSTs operated and maintained	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	a) More area irrigated b) Increased cropping intensities	a) Increased crop yields b) Increased total crop output quantum c) Increased farm income d) Increased farm employment	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



		subsidy at 40% on issuance of FCR					will also be used for WSTs d) Same data analysis will be carried out here as in case of watercourses.
<b>C4: Provision of Land Leveling Units</b>	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

							<p>one years of delivery</p> <p>c) The unit will be verified</p> <p>d) Area treated during the year will be collected</p> <p>e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</p>
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## 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 <sup>th</sup> 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 <sup>th</sup> 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: TENTATIVE QUARTERLY WORK PLAN FOR NEXT QUARTER – ISLAMABAD ZONE



ANNEXURE-E: TENTATIVE QUARTERLY WORK PLAN FOR NEXT QUARTER – ISLAMABAD ZONE

Sr. No.	Deliverables /Activity	M&E Targets	Start Date	End Date	ME&IE Activities for Field visits			2022											
					Baseline + Monitoring	Monitoring	Endline	Dec				Jan				Feb			
	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				This coordination will be carried out by DTL with NPC and relevant Line Departments through email and phone 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	Impact												
2.1	Water courses	14	15-Dec.22	28-Feb. 23	6	6	2			4	2	2		2			2	2	
2.2	Water Storage Tanks Rawalpindi	28	15- Dec22	28-Feb23	10	10	8	3	3	2	1	2	3	2	3	3	3	3	
2.3	Laser Land Levelling	0																	
3	Kashmir Visits				Baseline + Monitoring	Monitoring	Impact												
3.1	Water courses	49	5-Dec	15-Feb	14	14	21	6	6	3	4	6	6	4		3	4	4	3
3.2	Water Storage Tanks	36	15-Dec	20-Feb	15	15	6	3	4	3	2	6	3			4	5	3	3
3.3	Laser Land Leveling																		

## ANNEX - F: TOTAL NO. OF HH INTERVIEWED BY M&E EXPERT IN DISTRICT KALAT

Total No. of HH interviewed by M&E Expert in District Kalat

Name	Marital status	Relation with HH	Gender (F/M)	Age (years)	Education level	Profession
Mir Muhmmad	Married	Husband	Male	38	Uneducated	
Haneefa	Married	Wife	Female	35	Uneducated	Housewife
Dur Muhmmad	Single	Son	Male	22	Uneducated	Jobless
Ghulm Muhmmd	Single	Son	Male	20	Uneducated	Jobless
Murad Bi Bi	Single	Daughter	Female	21	Uneducated	Jobless
Yaseen	Single	Son	Male	18	Uneducated	Jobless
Rafia	Single	Daughter	Female	12	Uneducated	Jobless
Asif	Single	Son	Male	8	Uneducated	Jobless
Mudasir	Single	Son	Male	5	Uneducated	Jobless
Sakima	Single	Daughter	Female	3 months		

## ANNEX - G: SOCIAL & GENDER QUESTIONNAIRE

SOCIAL & GENDER QUESTIONNAIRE	
Date	D/M/Y
Interviewer name	
Province	
Division	
District	
Tehsil	
OFWM Field Team?	
Union council?	
Village	
Name of Chairman?	
Contact of Chairman	
Watercourse Location?	
Canal area/Non canal area	
PERSONAL INFORMATION	
Name of respondent	
Husband/Father Name?	
Age of the respondent (Years)?	
Does any member of your household have a mobile telephone?	Yes No.
Do you have own cell phone	Yes No.
Contact number	
CNIC?	Yes No.
Does your household have access to internet at home?	Yes No.
Rent house/own	
Education (Years of formal Schooling)?	<ul style="list-style-type: none"> <li>• Illetrate</li> <li>• Literate/read and write</li> <li>• Primary/Middle/Matric</li> <li>• Intermediate/ Graduate and above</li> <li>• Madrasa education</li> </ul>
Marital status	<ul style="list-style-type: none"> <li>• Married</li> <li>• Unmarried</li> <li>• Divorce</li> <li>• Single</li> <li>• widow</li> </ul>
What is your mother language?	<ul style="list-style-type: none"> <li>• Punjabi</li> <li>• Potohari</li> <li>• Siriki</li> <li>• Sindhi</li> <li>• Pashtoo</li> <li>• Persian</li> <li>• If any other, Specify?</li> </ul>
Husband occupation	<ul style="list-style-type: none"> <li>• Agriculture Farmer</li> <li>• Labor</li> <li>• Govt/Private job</li> <li>• Business</li> <li>• Jobless</li> <li>• If any other, Specify?</li> </ul>
What is your occupation?	<ul style="list-style-type: none"> <li>• Housewife</li> <li>• Agriculture Farmer</li> </ul>



SOCIAL & GENDER QUESTIONNAIRE		
		<ul style="list-style-type: none"> <li>• Labor</li> <li>• Govt/Private job</li> <li>• Business</li> <li>• Jobless</li> <li>• If any other, Specify?</li> </ul>
	How many family members are earning?	Male    Female    Total
	How many children do you have?	Male    Female    Total
	No. of school going children?	Male    Female    Total
	Basic facilities	<ul style="list-style-type: none"> <li>• Electricity</li> <li>• Gas</li> <li>• water</li> </ul>
	Transportation	<ul style="list-style-type: none"> <li>• Bicycle</li> <li>• Motor cycle</li> <li>• Car</li> <li>• NA</li> <li>• If any other, Specify?</li> </ul>
Household/daily routine activities		
	What household activities are performed by you?	<ul style="list-style-type: none"> <li>• Cooking</li> <li>• Looking after elders</li> <li>• Washing clothes and dishes</li> <li>• Cleaning of house</li> <li>• Caring of Children</li> <li>• Bringing drinking water</li> <li>• Bringing fire wood</li> <li>• Bathing livestock</li> <li>• Feeding livestock</li> <li>• Making dunk cakes</li> <li>• If any other, Specify?</li> </ul>
	Have you hired any maid for household activities?	Yes                      No.
	If no, reason why	<ul style="list-style-type: none"> <li>• Financial problem</li> <li>• Cultural issues/not allowed outsider to work</li> <li>• Not Available</li> <li>• Accessibility</li> <li>• Not interested</li> </ul>
	Do you have livestock?	Yes                      No.
	Do you have milking animal?	Yes                      No.
	If yes, dairy products for sale	Yes                      No.
	Do women own the animals they tend, and do they have control over or access to the income derived from the sale of meat and milk, etc.?	Yes                      No.
	Dairy product for your own use	Yes                      No.
	If own use, What dairy products you make from milk?	<ul style="list-style-type: none"> <li>• Desi Ghee</li> <li>• Butter</li> <li>• Cheese</li> <li>• Yogurt</li> </ul>

SOCIAL & GENDER QUESTIONNAIRE			
Women & Agriculture			
	Do you participate in farming activities?	Yes No	
	If yes than,	1. Land preparing <ul style="list-style-type: none"> <li>• Ploughing</li> <li>• Planking</li> <li>• Levelling</li> <li>• Irrigation</li> </ul> 2. Seed and sowing <ul style="list-style-type: none"> <li>• seed store</li> <li>• Ploughing</li> <li>• Planking</li> <li>• Pesticide</li> </ul> 3. Bund making manual 4. Weedicides 5. Irrigation 6. water course cleaning 7. Harvesting 8. Threshing: 9-Any other, Specify-----	
	What field tasks are traditionally performed by women, and which by men?	Women task	Men task
	Do you have knowledge regarding crops	Yes No.	
	If yes than, Did you use any new variety after w/c lining, if yes than explain		
	Do you know which crops you are sowing/cultivation now?	Yes No.	
	If yes, give the names of the crops.		
	Are female receiving same amount as compare to male labour?	Yes No.	
	Who receives land income from crop production?	Male	Female Both
	Daily wages paid to male	Amount per day	DK
	Daily wages paid to female	Amount per day	DK
	What constraints prevent women from growing and marketing cash crops?		
	What percentage of farming households are headed by women in your area?		
	Are women included in processing or marketing cooperatives or in communal projects?	Yes No.	
Health issues			
	Do you have any health facility in your area?	Yes No	
	If yes then What type of facility you have in your area?	<ul style="list-style-type: none"> <li>• BHU</li> <li>• RHC</li> <li>• MCH,</li> <li>• DHQ</li> <li>• Dispensary</li> <li>• Private clinic/TBA/Hakeem/Homeo</li> <li>• Any other-----</li> </ul>	

SOCIAL & GENDER QUESTIONNAIRE		
	Last time visited to health facility in your area (This question does not relate to any big hospital in any other city)	<ul style="list-style-type: none"> <li>• Within the month</li> <li>• More than one month</li> <li>• Last Quarter</li> <li>• Six month before</li> <li>• One year before</li> <li>• Never</li> </ul>
	If yes then, who was ill?	<ul style="list-style-type: none"> <li>• Yourself</li> <li>• husband</li> <li>• Child</li> <li>• Relative</li> <li>• Family member</li> <li>• Neighbor</li> </ul>
Decision making		
	Do your husband/father consult you or any other female for house hold decision matters? like	<ul style="list-style-type: none"> <li>• No</li> <li>• Household related matters</li> <li>• Crops related matters</li> <li>• Livestock related matters</li> <li>• Both household and farming related matters</li> <li>• Other, if any</li> </ul>
	Can you spend as much money as you want?	Yes No.
	Can you go to the hospital on your own?	Yes No.
	Do you consult about your children's educational decisions?	Yes No.
	Who takes Marital decision	<ul style="list-style-type: none"> <li>• Head of HH</li> <li>• Male family members</li> <li>• Female family members</li> <li>• Elder family members only</li> </ul>
INTERVENTION DETAIL		
	DO YOU HAVE THE KNOWLEDGE OF WATERCOURSE LINING/ WST INTERVENTION/SCHEME CARRIED OUT IN YOUR VILLAGE:	Yes No.
	Are there water user associations?	Yes No.
	Any member of your household is the member of WUAs	Yes No.
	If yes, relation with WUAs member	
	Can women join them?	Yes No.
	Are women members of water user associations?	Yes No.
	Does the scheme is beneficial for women?	Yes No.
	If yes, what are the benefits:	<ul style="list-style-type: none"> <li>• Increase in Income generation</li> <li>• Provides greater availability and stability of Food supplies</li> <li>• Reduction in malnutrition</li> </ul>

SOCIAL & GENDER QUESTIONNAIRE		
		<ul style="list-style-type: none"> <li>Social gathering/social bounding among women</li> <li>Saved travel and waiting time for water collection for domestic use</li> <li>Any other, Specify-----</li> </ul>
	Is the scheme beneficial for your agriculture:	Yes No.
	If yes, explain how?	<ul style="list-style-type: none"> <li>Increase in crops production</li> <li>Cropping intensity</li> <li>Time savage in irrigation</li> <li>Dispute among farmers resolved</li> <li>Reduction in cost of production</li> <li>Any other, Specify-----</li> </ul>
	Is the scheme beneficial for your livelihood?	Yes No.
	If yes, explain how?	<ul style="list-style-type: none"> <li>Improved life style</li> <li>Awareness/knowledge</li> <li>Health issues</li> </ul>
	Is the scheme beneficial for social bonding among women?	Yes No.
	If yes, explain how?	<ul style="list-style-type: none"> <li>WUAs meeting</li> <li>Washing clothes activities</li> <li>Livestock bathing</li> </ul>
	Is the scheme beneficial to decrease the women's efforts towards water:	Yes No.
	If yes, explain how?	<ul style="list-style-type: none"> <li>Saved travel for water collection</li> <li>Conflicts resolution</li> <li>Easy access</li> </ul>
	Workload reduces after intervention	Yes No.
	If yes, explain how?	<ul style="list-style-type: none"> <li>Availability of water for domestic purpose(washing clothes)</li> <li>Availability of drinking water for livestock</li> <li>Easy access of water for bathing animals</li> <li>Time saving</li> <li>Leisure time</li> </ul>
	<b>Income</b> <b>*If women is working in women related Q than ask otherwise write NA(Not applicable)</b>	
	Daily expenditure before intervention	
	Daily expenditure after intervention	
	Weekly expenditure	
	Monthly expenditure	
	Female income Monthly	



SOCIAL & GENDER QUESTIONNAIRE		
	Male income monthly	
	Income before intervention	
	Income after intervention	
Crops Knowledge		
	Is water sufficient for irrigation after intervention?	Yes                  No.
	Did you face any problem before intervention regarding crops production	
	If yes then what problem you faced?	<ul style="list-style-type: none"> <li>• Income</li> <li>• Less production</li> <li>• Land holding</li> <li>• Cost of production</li> <li>• Wastage of time/more time consumed</li> <li>• Spoil/damage crops</li> <li>• Lack of awareness about fertilizers</li> </ul>
	Do you think crops production increases after intervention?	Yes                  No.
	If yes then how much	

## ANNEX - H: AJK – WST/WHs DATA SUBMISSIONS SUMMARY

AJK - WST/WHs DATA SUBMISSIONS SUMMARY						
Division	District	Completed	Work Order Cancelled	Under Progress		Overall
				Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	120	3	8	13	144
	Jhelum	11	0	13	3	27
Muzaffarabad Total		131	3	21	16	171
Poonch	Poonch	45	19	8	20	92
	Bagh	33	18	3	0	54
	Haveli	15	16	13	15	59
	Sudhnoti	11	2	6	10	29
Poonch Total		104	55	30	45	234
Mirpur	Mirpur	7	1	4	9	21
	Bhimber	11	0	0	20	31
	Kotli	27	12	1	3	43
Mirpur Total		45	13	5	32	95
Overall		280	71	56	93	500

## ANNEX - I: AJK – WATERCOURSES DATA SUBMISSIONS SUMMARY

AJK - WATERCOURSES DATA SUBMISSIONS SUMMARY								
Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
MZD	Muzaffarabad	55	5	8	8	18	13	107
	Jhelum	18	0	6	0	14	6	44
	Neelum	23	12	13	5	0	0	53
Muzaffarabad Total		96	17	27	13	32	19	204
Poonch	Poonch	31	12	7	1	0	1	52
	Bagh	24	14	1	0	0	0	39
	Haveli	6	9	0	0	2	8	25
	Sudhnoti	19	15	4	0	1	0	39
Poonch Total		80	50	12	1	3	9	155
Mirpur	Mirpur	66	1	0	0	7	28	102
	Bhimber	99	0	0	0	0	0	99
	Kotli	32	22	5	0	1	3	63
Mirpur Total		197	23	5	0	8	31	264
Overall		373	90	44	14	43	59	623

## ANNEX - J: KP – WATERCOURSE DATA SUBMISSION - SUMMARY

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	5	2	5	0	58
<b>Bajaur Agency Total</b>		<b>46</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>58</b>
Bannu	Bannu	93	0	0	0	0	0	93
Bannu	Lakki Marwat	106	0	2	0	0	0	108
<b>Bannu Total</b>		<b>199</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>201</b>
D.I. Khan	D.I. Khan	482	0	2	0	0	0	484
D.I. Khan	Tank	38	0	0	0	0	0	38
<b>D.I. Khan Total</b>		<b>520</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>522</b>
Hazara	Abbottabad	24	0	2	1	0	0	27
Hazara	Battagram	38	0	3	0	0	0	41
Hazara	Haripur	58	0	0	15	0	0	73
Hazara	Lower Kohistan	7	0	0	0	13	0	20
Hazara	Mansehra	79	0	0	27	1	0	107
Hazara	Torghar	23	0	0	1	1	0	25
Hazara	Upper Kohistan	9	0	0	0	0	0	9
Hazara	Kolai Pallas	2	0	0	0	0	0	2
<b>Hazara Total</b>		<b>240</b>	<b>0</b>	<b>5</b>	<b>44</b>	<b>15</b>	<b>0</b>	<b>304</b>
Khyber Agency	Khyber	19	0	0	0	5	1	25
<b>Khyber Agency Total</b>		<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>25</b>
Kohat	Hangu	42	0	0	0	0	0	42
Kohat	Karak	67	0	0	1	0	0	68
Kohat	Kohat	84	0	0	0	0	0	84
<b>Kohat Total</b>		<b>193</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>194</b>
Kurram Agency	Kurram	9	0	0	1	0	0	10
<b>Kurram Agency Total</b>		<b>9</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>
Malakand	Buner	94	0	0	0	0	0	94
Malakand	Chitral	88	0	1	0	0	0	89
Malakand	Lower Dir	68	0	5	7	15	2	97
Malakand	Malakand	76	0	0	1	7	1	85
Malakand	Shangla	39	0	0	0	0	0	39
Malakand	Swat	164	3	28	55	1	2	253
Malakand	Upper Dir	85	0	0	12	0	0	97
<b>Malakand Total</b>		<b>614</b>	<b>3</b>	<b>34</b>	<b>75</b>	<b>23</b>	<b>5</b>	<b>754</b>
Mardan	Mardan	124	0	0	0	2	0	126
Mardan	Swabi	81	0	0	0	2	1	84
<b>Mardan Total</b>		<b>205</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>210</b>
Mohmand Agency	Upper Mohmand	32	0	0	0	0	0	32
Mohmand Agency	Lower Mohmand	11	0	0	0	0	0	11
<b>Mohmand Agency Total</b>		<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>
Orakzai Agency	Orakzai	1	0	0	0	0	0	1
<b>Orakzai Agency Total</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
Peshawar	Charsadda	126	1	0	0	13	0	140
Peshawar	Nowshera	76	0	0	0	13	4	93
Peshawar	Peshawar	64	0	0	3	4	3	74
<b>Peshawar Total</b>		<b>266</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>30</b>	<b>7</b>	<b>307</b>
S.W Agency	S.W Agency	27	0	0	0	1	0	28
<b>S.W Agency Total</b>		<b>27</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>28</b>
N.W Agency	N.W Agency	5	0	0	0	0	0	5
<b>N.W Agency Total</b>		<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
<b>Overall</b>		<b>2387</b>	<b>4</b>	<b>48</b>	<b>126</b>	<b>83</b>	<b>14</b>	<b>2662</b>

## ANNEX - K: KP – WATERCOURSE/ WST DATA SUBMISSION - SUMMARY

KP - WST 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	16	0	0	0	0	0	16
<b>Bajaur Agency Total</b>		<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
Bannu	Bannu	11	0	0	0	0	0	11
Bannu	Lakki Marwat	34	0	0	0	0	0	34
Bannu	N.W Agency	8	0	0	0	0	0	8
<b>Bannu Total</b>		<b>53</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>53</b>
D.I. Khan	D.I. Khan	80	0	0	0	8	0	88
D.I. Khan	Tank	16	0	0	0	0	0	16
<b>Dera Ismail Khan Total</b>		<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>104</b>
Hazara	Abbottabad	18	0	0	0	0	0	18
Hazara	Battagram	23	0	0	0	4	0	27
Hazara	Haripur	40	0	0	0	0	0	40
Hazara	Kolai Pallas	2	0	0	0	2	0	4
Hazara	Lower Kohistan	0	0	0	0	0	1	1
Hazara	Mansehra	32	0	0	2	5	0	39
Hazara	Torghar	11	0	0	0	4	0	15
Hazara	Upper Kohistan	7	0	0	0	0	1	8
<b>Hazara Total</b>		<b>133</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>2</b>	<b>152</b>
Khyber Agency	Khyber	10	0	0	0	6	0	16
<b>Khyber Agency Total</b>		<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>16</b>
Kohat	Hangu	14	0	0	0	0	0	14
Kohat	Karak	60	0	0	0	0	0	60
Kohat	Kohat	4	0	0	0	0	0	4
<b>Kohat Total</b>		<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>78</b>
Kurram Agency	Kurram	2	0	0	0	0	0	2
<b>Kurram Agency Total</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
Malakand	Buner	43	0	0	0	0	0	43
Malakand	Chitral	20	1	0	0	0	0	21
Malakand	Dir Lower	15	0	0	0	10	2	27
Malakand	Dir Upper	24	0	0	0	0	0	24
Malakand	Malakand	21	0	0	0	1	0	22
Malakand	Shangla	95	0	3	6	29	2	135
Malakand	Swat	33	0	1	0	1	1	36
<b>Malakand Total</b>		<b>251</b>	<b>1</b>	<b>4</b>	<b>6</b>	<b>41</b>	<b>5</b>	<b>308</b>
Mardan	Mardan	30	0	0	0	0	0	30
Mardan	Swabi	9	0	0	0	0	2	11
<b>Mardan Total</b>		<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>41</b>
Mohmand Agency	Mohmand	41	0	0	0	0	0	41
<b>Mohmand Agency Total</b>		<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41</b>
Orakzai Agency	Orakzai	2	0	0	0	0	0	2
<b>Orakzai Agency Total</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
Peshawar	Charsadda	13	0	0	0	1	0	14
Peshawar	Nowshera	57	0	0	0	0	0	57
Peshawar	Peshawar	25	0	0	2	12	9	48
<b>Peshawar Total</b>		<b>95</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>13</b>	<b>9</b>	<b>119</b>
S.W Agency	S.W Agency	29	0	0	0	0	0	29
<b>S.W Agency Total</b>		<b>29</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>
N.W Agency	N.W Agency	0	0	0	0	5	0	5
<b>N.W Agency Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>
<b>Overall</b>		<b>845</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>88</b>	<b>18</b>	<b>966</b>



## ANNEX - L: ICT TEAM'S MEETINGS WITH DG & DIRECTOR OFWM BALOCHISTAN



## ANNEX - M: KP FIELD TEAMS TESTING AND PRACTICING PIGMY CURRENT METER ACTIVITY

