



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

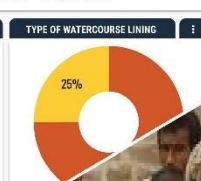
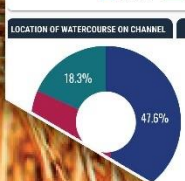
# NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

## MONITORING, EVALUATION AND IMPACT EVALUATION CONSULTANTS



## MONTHLY MONITORING REPORT

JANUARY 2023



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







**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**  
**JANUARY 2023**

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## ACRONYMS

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



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

## EXECUTIVE SUMMARY

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

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

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

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

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

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

**Chapter-3** explains purpose of Monthly Monitoring Report (MMR). This current MMR covers the period from 1<sup>st</sup> January 2023 to 31<sup>st</sup> January 2023.

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

- Regular Monitoring of Interventions in the Field
- Baseline and Impact survey field data collection
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Refresher Capacity Building Trainings of KP Departments
- Data entry, cleaning, validation and reporting
- Submission of MMR for the previous Month (December 2022)
- Submission of Quarterly Monitoring Report (Oct-Dec 2022)
- Draft Report write-up of Baseline-II WST (Draft).
- Mid-Line Monitoring & Impact Evaluation Report (Draft)
- 

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

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

The detail time span for 3<sup>rd</sup> Quarter of year 2022-23 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**

Table 1: ES-IP 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 3rd-Phase Baseline Survey (Finalization of MTs)	Will be initiated in March 2023	
	1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey	Will be initiated in March 2023	
	1.3	Training of Field Staff for 3rd-Phase Baseline Survey	Will be initiated in March 2023	
2	Field Activities:			
	2.1	Regular Monitoring of Interventions in the Field	Complied	
	2.2	Data collection of the interventions in the field for Baseline & Impact survey	Complied	
	2.3	Baseline Survey Phase-II	Complied	
	2.4	Online data entry in android-based application	Complied	
3	ICT Assignment:			
	3.1	Development / Improvement of website of NPIWC-II	Complied	
	3.2	Monitoring online data collection and Data entry	Complied	
	3.3	Monitoring Android based Mobile Application under implementation by field staff.	Complied	
	3.4	Data collection of interventions in MIS/GIS database	Complied	
	3.5	Capacity Building Trainings / Refresher of Departments	Complied	
	3.6	Data Cleaning. Development & Launching of Dashboard for Client Offices	Complied	
4	Coordination			
	4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues	Meetings conducted on regular basis	
	4.2	Meeting of DTLs with respective DTL of NWMC	Meetings conducted on regular basis	
	4.3	Internal Meetings of ME&IE Consultants	Weekly meetings conducted on regular basis	
5	Deliverables:			
	5.1	Monthly Monitoring Reports (MMRs)	24 <sup>th</sup> MMR (Dec. 2022)	Submitted
			25 <sup>th</sup> MMR (Jan. 2023)	Under consideration
			25 <sup>th</sup> MMR (Feb. 2023)	To be submitted in stipulated time
	5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Oct-Dec 2022	Submitted
			QM&ER Jan-Mar 2023	To be submitted in stipulated time
	5.3	Baseline Survey Report Phase-II (Updated version WC)	Submitted	
		Baseline Survey Report Phase-II (Draft version of WSTs)	Submitted	
	5.4	Survey Manual (Final version) (Special Reports)	Submitted	

## CHAPTER-1: PROJECT INTRODUCTION

### 1.1 PROJECT PROFILE

This section covers the following detail of the project:

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

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

**Sponsoring Agency** Ministry of National Food Security & Research

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

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

**Project Period:** 5 Year (2019-2024)

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

**ME&IE Consultancy Period:** 4 years

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

**ME&IE Consultant Mobilized:** November 20, 2020

### 1.2 PROJECT DESCRIPTION

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

#### 1.2.1 Project Development Objectives

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

#### 1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

##### 1) General Objectives:

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

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

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

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

##### Project outputs

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



47,278 watercourses, involving complete earthen renovation, partial lining of critical reaches (50% of the total watercourse length as decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).

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

#### **Project impacts**

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

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

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

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

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

#### **1.2.3 Project Beneficiaries**

Majority of the direct beneficiaries of the project constitute the number of farmers (owners as well as tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming 35 farmers on each watercourse, the total number of the farmers benefiting from the activity comes

to 1.655 million. The same number will be 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.

#### C3: CONSTRUCTION OF WATER STORAGE TANKS:

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

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

#### C4: PROVISION OF LASER LAND LEVELING UNITS:

Provision of 11,610 Laser Land Leveling (LLL) units to the farmers; the component is strengthening LLL services in the country through provision of LLL

Units to farmers / service providers on 50% subsidized rates.

#### 1.2.5 Project Targets

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

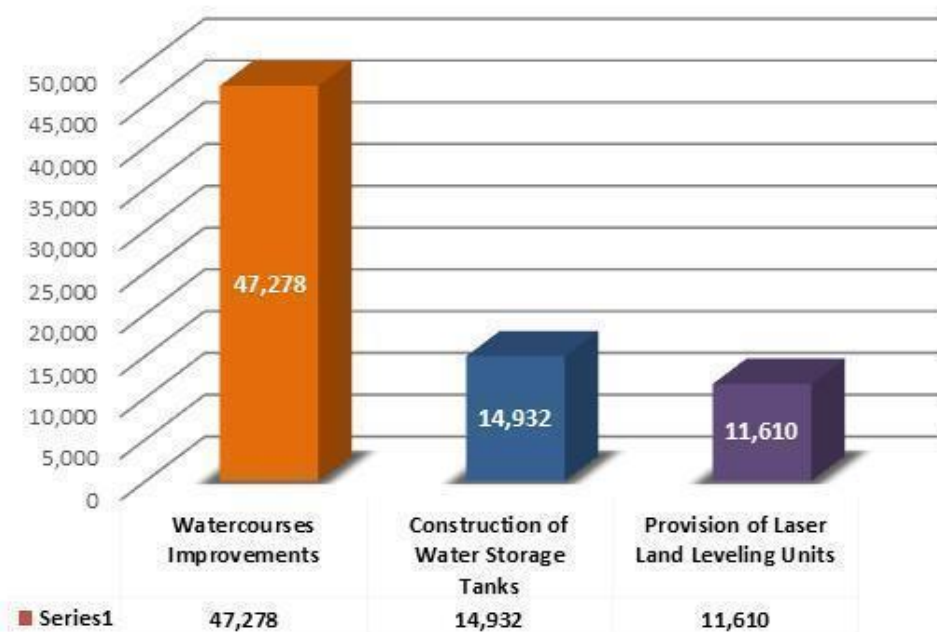


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan



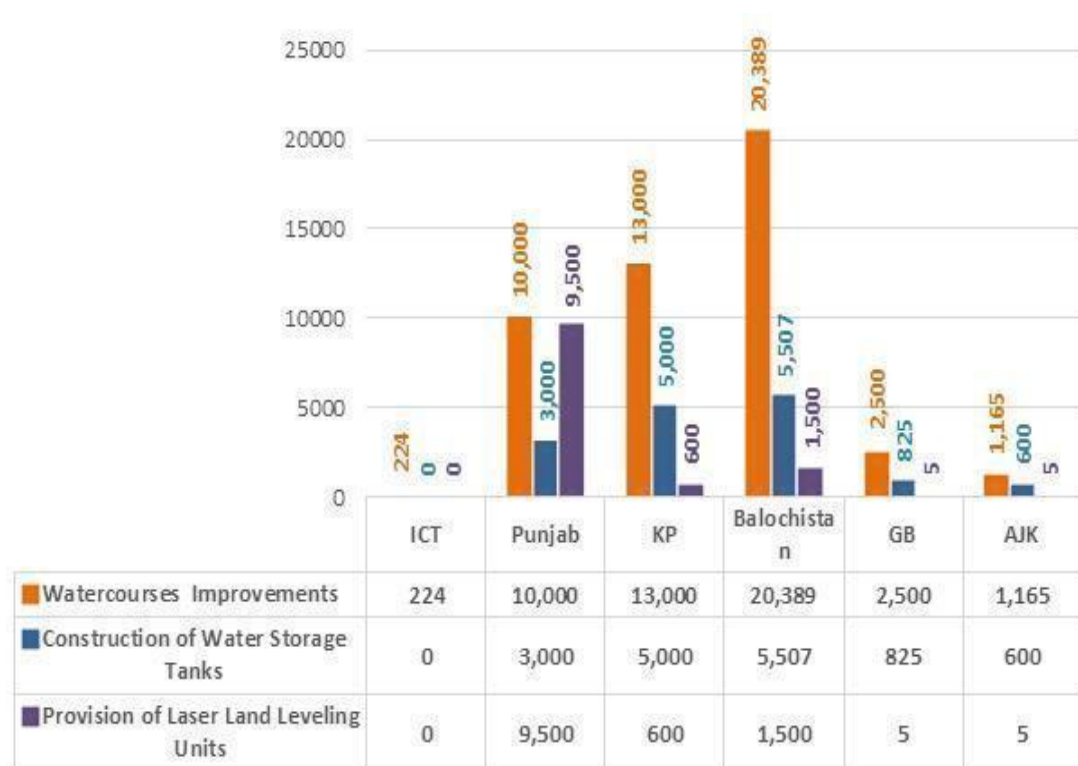


Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target

## CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS

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

### 2.1 OBJECTIVES OF CONSULTING SERVICES

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

### 2.2 SCOPE OF CONSULTING SERVICES

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

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

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

The said requirement is based on the following functional features:

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



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

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

### 2.3 MONITORING STRATEGY OF CONSULTANTS

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

**Table 2.1: 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 launching of the interventions 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 end line 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 10th of following month,</li> <li>Quarterly Monitoring Report on 10th 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 end line Survey,</li> <li>Draft Assignment Completion Report at completion of the physical works,</li> <li>Final Assignment Completion Report at completion of works and financial transactions. It will also include the full economic benefit of the project (NPIWC-II) on agriculture sector as well as on the GDP of Pakistan,</li> <li>Special Reports, as and when asked by the client.</li> </ul>
3	Water saving assessment	Irrigation Agronomist, Field Team/	<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> </ul>

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
		Engineers	<ul style="list-style-type: none"> <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> <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</li> </ul>

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
			agriculture
6	Impact evaluation-on the economy	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> <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 financial terms to carry out economic and financial analysis.</li> <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 quality of construction, material, functioning and beneficiaries' satisfaction, etc.
9	Process monitoring	Field Teams of Agriculture Deptt., Project Consultants, ME&IE Consultants & ICT/Technology Specialist	<ul style="list-style-type: none"> <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)

As per contractual obligation, the consultants have submitted twenty forth MMR (December 2022) on the 1<sup>st</sup> week of January 2023. While the twenty fifth MMR (the Report in hand) for the month of January 2023 (1<sup>st</sup> January 2023 to 31<sup>st</sup> January 2023) will be submitted in stipulated time i.e., in the 1<sup>st</sup> week of current month.

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

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

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

### 3.3 REGULAR MONITORING / FIELD VISITS BY ME&IE CONSULTANTS

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

### 3.4 ACTIVITIES ISLAMABAD ZONE – JANUARY 2023

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

- Regular monitoring visits.
- Baseline Survey field visits
- Submission of quarterly monthly report.
- Conducted case study survey regarding gender role in district Mirpur.
- Conducted Focused group discussion regarding social & gender role.
- Held regular meetings.
- Precision land leveler's data compilation of all zones by ICT zone.
- G&S Baseline Report edited

### 3.5 UPDATED PROGRESS OF ME&IE CONSULTANTS – ISLAMABAD

#### 3.5.1 Overall Progress:

ME&IE consultant's ICT zone has completed their targets of Baseline-I and Baseline-II. The impact / midline survey for Baseline-I has also been completed. They have to submit midline survey report against the completed baseline & Impact targets during the middle of the project. Baseline-I and Draft.

Baseline-II reports have been submitted; the data set of the later report was validated by all zones / units' consultants including ICT-Zone of the project.

Since its inception, the ME&IE Consultants ICT field team other than routine monitoring has conducted baseline surveys for 38 watercourses, including 31 in AJK and 7 in ICT as well as 13 WSTs in the Potohar region. They have also conducted an Impact field survey of 5 watercourses in ICT and 4 Watercourses in AJK and 7 WSTs in Potohar region. As far as this month is concerned, they have conducted baseline field visits of 8 watercourses, 4 WST in AJK and 3 WSTs in Potohar region.

Table-3.2: Total Activities, District-wise

Sr. #	District	Baseline		Impact		Total visits
		Watercouce	WST	Watercouce	WST	
1	ICT	7	-	5	-	12
2	Muzaffarabad	5	5	2	-	12
3	Bhimber	9	2	-	-	11
4	Mirpur	8	1	2	-	11
5	Jhelum	2	4	-	-	6
6	Poonch	2	2	-	-	4
7	Kotli	2	2	-	-	4
8	Bagh	2	1	-	-	3
9	Sudhnoti	1	1	-	-	2
10	Attock	-	6	-	5	11
11	Chakwal	-	2	-	2	4
12	Jhelum (Punjab)	-	1	-	-	1
13	Rawalpindi	-	4	-	-	4
	<b>Sub Total</b>	<b>38</b>	<b>31</b>	<b>9</b>	<b>7</b>	<b>85</b>

### ➤ Achievements against Outputs

Islamabad Zone team has conducted regular monitoring visits in respect of WC in Mirpur Areas of AJK and WST in Kallar Kahar areas of Chakwal District and their respective reports have been written accordingly. Furthermore, the ICT-team have also conducted surveys related to case studies. The team has already completed Baseline-I, Baseline-II and Impact/Midline surveys. Presently, the impact/midline report is in the process of write-up and hopefully its draft will be completed by the mid of February 2023. Tentative plan for Baseline-III has made and will be implemented in the coming months.

#### ● Output 1: Baseline/Impact Survey of Watercourses and Water Storage Tanks

During the current month, the Field Team was on alert and ready to validate data regarding the information about watercourses and water storage tanks pertaining to baseline and impact reports, when needed by the ICT team and the team which is engaged in the write up of Impact/midline report.

#### ● Output 2: Monitoring of the selected watercourses.

The field team also conducted regular monitoring of watercourses and water storage tanks during the reporting month of January. The watercourse and water storage tanks at these sites were properly maintained, there was no leakage or damage seen anywhere.

In order to conduct regular monitoring, the team visited district Mirpur and district Chakwal Kallar Kahar areas under the supervision of Team Leader and Deputy Team Leader of ICT- zone's ME&IE consultants. It was observed by the monitoring team that the targeted interventions including water storage tank and watercourse were properly maintained in terms of no leakages or damages seen anywhere, respectively.

#### ● Output 3: Coordination Meetings

During the current reporting month of January 2023, coordination and meetings have been carried out with Mini Dam Irrigation and OFWM department of AJK and Rawalpindi division respectively. The purpose of the coordination with them was to share and collect information in respect of the regular monitoring and conducting of case study surveys. Proper schedule was prepared and the same plan was ensured and implemented in respect of their staff's availability while conducting field visits. The department of small dams and irrigation of Mirpur divisions showed their keen interest and co-operated in sharing the information as well as facilitated in conducting the field surveys. Likewise, the OFWM department of Kallar Kahar areas also facilitated the team and offered full support in conducting field visit for data gathering in all aspects as spelled out by preparing informal list of questions.

Output 4: Meetings /Coordination of ME&IE Consultants with Stakeholders:

<b>Date</b>	24-01-2023
<b>Venue</b>	Office of Small Dams and Irrigation, Department, Mirpur.
<b>Participants</b>	
<ol style="list-style-type: none"> <li>1. Javed Qamar, D.D Small Dams &amp; Irrigation, Mirpur.</li> <li>2. M. Ali, A.D Small Dams &amp; Irrigation, Mirpur.</li> <li>3. Dr. Usman Mustafa, TL, ME&amp;IE Consultants (NPIWC-II).</li> <li>4. Mr. Rasheed Zehri Field Team Incharge, ICT.</li> <li>5. Ms. Hafiza Maryam Iqbal ME &amp; IE Officer, ICT.</li> <li>6. Ms. Abida Munir, S&amp;G Specialist.</li> </ol>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>○ Briefing of ME &amp; IE Consultants in AJK.</li> <li>○ Collection of basic data on WC and guideline for visiting the sites.</li> <li>○ The Small Dams and Irrigation Dept. Office guided well and accompanied ME&amp;IE consultants team in concerned sites for conducting their visits</li> </ul>	



Figure 3.3: ME&IE Consultants meeting with Deputy Director of Small Dams and Irrigation, Mirpur.

<b>Date</b>	23-01-2023
<b>Venue</b>	Office of Assistant Director, OFWM Department, Kallar Kahar, Chakwal Districts
<b>Participants</b>	
<ol style="list-style-type: none"> <li>1. Mr. Qaiser Mehmood Batth, A.D Agriculture OFWM Department.</li> <li>2. M. Yaseen, Field Engineer, OFWM.</li> <li>3. Dr. Ikram Saeed, DTL, ICT-Zone, ME&amp;IE Consultants (NPIWC-II).</li> <li>4. Mr. Rasheed Zehri Field Team Incharge, ICT-Zone.</li> <li>5. Ms. Hafiza Maryam Iqbal ME &amp; IE Officer, ICT-Zone.</li> <li>6. Ms. Sana Gull, ME &amp; IE Officer ICT-Zone.</li> </ol>	

#### Meeting Agenda/Points discussed:

- Briefing of ME & IE Consultants in the office of OFWM, Department, Kallar Kahar
- Collection of basic data on WST and guideline for visiting the sites.
- The OFWM Officers guided well and accompanied with the ME&IE consultants team to visit in concerned sites during their tour



Figure 3.4: ME&IE Consultants meeting with Assistant Director, OFWM, at Office Kallar Kahar.

### 3.5.2 Key Challenges & mitigation measures adopted.

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

- Smooth running of the project involved need continuous coordination with OFWM directorate. It would be good, that this coordination may come to a level that for any activity or support, they may extend their services on telephone call. This is what we are practicing in the jurisdiction of ICT-Zone,
- In case of inconvenience to coordinate with the hang-ups of the department for facilitation and necessary data there may be some alternate officials fully equipped with information regarding the intervention, available. There may be chances that the host department might not have the time to coordinate formally with Directorate, thus, they may understand that they have to facilitate monitoring team out of the way for their activities.

Day to day public processions and agitations of Field hinder the routine activities of Team.



### Suggestions:

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

- Equipment is needed for 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 whenever any team member visits field or offices of stakeholder/OFWM/ NESpak/NPC.

### Lessons Learned

1. It is time of the project when there is informal collaboration is equally working. The stakeholder departments are happy with this arrangement. Presently, their participation is assured through telephone calls then WhatsApp message would be served to the field office with the due consent of their respective supervisor. I don't have any complaints so far from any corner. The formal letter to conduct the field visit is enough, if someone has the objection on this arrangement. Yes, if you are supposed to collect voluminous data for dashboard then the 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 meeting the data demands of the ME&IE consultants.
2. ME&IE consultants may follow visits according to shared plans with stakeholders, since changing in plans don't bring positive results.

### 3.5.3 QUARTERLY WORK PLAN – ISLAMABAD ZONE

The Islamabad team has completed midline / Impact survey. Baseline-III planning is in the way and the impact survey for baseline-II has completed and their report write up in the way to be completed during the mid of February 2023.

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-A.

### C1. Brief Visit Profile of WST / Beneficiary

ME&IE Consultants field team accompanied with DTL, ICT-Zone (NPIWC-II), National Office, Islamabad to visit targeted village, Chak khushi in the vicinity of Kallar Kahar Areas. The visit was conducted in collaboration with the professionals of OFWM Dept., Kallar Kahar at the targeted intervention site of the beneficiary. The aim of this tour was a follow-up visit to perform the duty of on spot monitoring/regular monitoring as well as assessing the interim impact evaluation of the promising intervention of the project, i.e., WST.

The consultants' team understood the purpose of the visit by administering the informal questions and personal observations pertaining to the project's interventions' issues as well as opportunities. The specific list of questions was covering on the following aspects:

Before and after inventory stoking of farming in respect of:

- Size of Land holding by the farmer, cropping pattern,
- Number of irrigations,
- Source of irrigation,
- Casual and permanent hired labour,
- Output of the crops,
- Livestock rearing.

It was reported that the farmer has been cultivating only kharif maize fodder and Rabi wheat crops on few kanals (i.e., 24 kanals out of about total 216 kanals) of his total landholdings before launching the targeted interventions of the project. The rest of the land was left unattended as grazing land fully occupied by the wild weeds as well as swamp area left barren (i.e., a refuge of wild boars, fishes, preying fowls, etc.). After treatment of WST intervention of the project which was fetching from three sources of irrigation water including bore (tube well), mini dam and nullah. As a result, the farmer was only growing variety of fodders viz., maize, Jundri (oat), lucin and berseem, and forages (perineal) viz., Chittala, Napier grass, Rhode Grass on his entire land holdings except culture able waste lands.

Date of Visit	23-1-2023
Scheme	Water storage Tank
Farmer Name	Rizwan Haider
Name of village:	Chak-Khushi
Tehsil	Kallar Kahar
Province	Punjab
District	Chakwal
Source of irrigation:	Nullah + Bore +Mini Dam
Shape of WST	Square
Length, width	30/30 feet
Command area of WSP:	27 Acres



Figure 3.5: Before intervention: Picture of field area when initiated Land Development Process

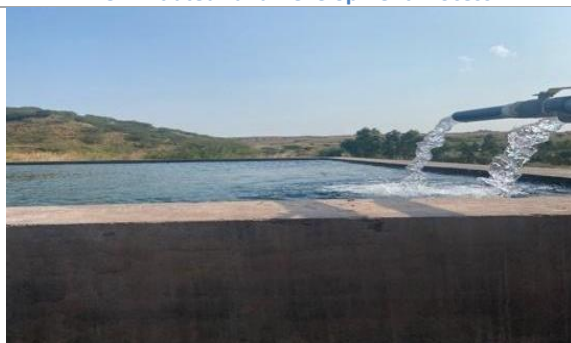


Figure 3.6: After Intervention: WST Constructed



Figure 3.7: After Intervention: Picture of Sprinkler Irrigation Gun in Operation



Figure 3.8: After Intervention: Livestock in Courtyard



Figure 3.9: NPIWC-II/ME&IE Consultants' Team with Beneficiary and Host OFWM Professionals at the Targeted Site

After the introduction of WST intervention, the farmer's decision was very feasible to make use of every drop of controlled water by intensive cultivation of only fodder and forages that encouraged him to rear commercial livestock farming. The farmer has allocated the land resources very economically as well as equitably considering the available water harvest resources in order to supply round the year fodder and forages to feed the livestock amounting about 105 heads including large and small ruminants. Moreover, it was observed that the farmer used to keep few animals of local breeds with uneconomical output, but with the introduction of WST intervention, he was motivated to keep improved and high value breeds of large ruminants viz., Holstien Friesian cows and mix breeds of Nili Ravi buffalos, and small ruminants viz., Rajan Puri Goats. His farm is at an infancy stage, currently he is only earning income from selling of fresh milk worth about Rs. 28.00 million per annum from only 45 milking animals. He is feeding the entire fodder and pasture grazing from his own farm resources except purchased silage as a supplement

feed worth Rs. 0.60 million as well as to cover lean fodder and forage seasons of the year.

The farmer was using Urea and DAP fertilizer, as well as FYM as an organic fertilizer to maintain the health and fertility of the land. The land occupied by him was fertile and was suitable for different other crops, but currently extensively cultivating fodder and forage crops to rear his animal farming exclusively.

The farmer is looking forward and planning to plant olives orchard in the coming season on the available culture able waste lands including construction of more animal shed on about 8 kanals of land.

#### Regular monitoring based on the consultants' observations:

- The WST was constructed as per OFWM / NESPAK requirements.
- WST had no leakages and damages found.
- Thus this is the single farmer unit, where he was no confronted with any sort of conflict for managing farm resources.

Beneficiary of the intervention, WST was fully satisfied with the objectives of WST, since, he is making best use of stored water resources through employing the renewable energy sources (Solar-panels) with minimal operation cost except initial cost of worth Rs. 01.2 million. Of this total investment which was shared by the farmer by utilizing the subsidized grant worth Rs. 0.3 million offered by the OFWM kitty of subsidized grant available.

- The officials of local OFWM department were regularly monitoring the routine operations of the intervention.

#### C2. Brief Profile of WST / Owner

ME&IE field team, along with Team Leader (NPIWC-II) Dr. Usman Mustafa, visited district Mirpur at village Lehri-6. The aim of this visit was to conduct regular monitoring as well as to evaluate the impact of the intervention.

Before this intervention, the farmer was cultivating only maize and wheat but now after intervention he started to cultivate different seasonal vegetables, including turnip, carrot,

radish, spinach garlic and soya. The farmer was very happy with the intervention, a good impact was seen on his income and livelihood.

The team evaluated the impact by conducting baseline and then after 2 years conducting the impact survey. Farmer has his own livestock including cows and buffaloes, farmer told that he earned almost 5-6 lac per annum by selling milk of cows and buffaloes. He also told the team about selling of vegetables in market and in nearby areas of village. Farmer has 1 PHL. The PHL of farmer was well aware of agricultural practices and his wife also knows about the agricultural practices PHL of the farmer has 2 wives who are supportive and work with the PHL in the field. PHL of beneficiary told that his owner was allowed him to use vegetables for his home as well as also give him some share from his crops.

It was observed by the team on regular monitoring that the intervention is well maintained, it was properly cleaned and was saved from any kind of leakage/damage. The type of WC was PCP (Pre cast parabolic). The farmer was using Urea and DAP fertilizer, he also used FYM as a fertilizer. The land occupied by him was fertile and was suitable for different other crops. The farmer has agricultural land in non-canal area.

A caution is needed to interpret the results presented in the forthcoming table which were directly recorded by the field team from the mount of the farmers. Some figures are over/underestimated thus the implications may not be drawn from the presented data rather these are indicative outputs as well as prices of the targeted commodities.

<b>Date</b>	24-1-2023
<b>Scheme</b>	Water Course
<b>Farmer Name</b>	Allah Ditta
<b>Name of village:</b>	Lehri-6
<b>District:</b>	Mirpur
<b>Province</b>	AJK
<b>Source of irrigation:</b>	Tube well
<b>SHAPE OF WC:</b>	PCP
<b>Command area of WC:</b>	12.5 Acres
<b>No of beneficiaries:</b>	3





Figure 3.10: Before intervention: Picture of field area when initiated Land Development Process

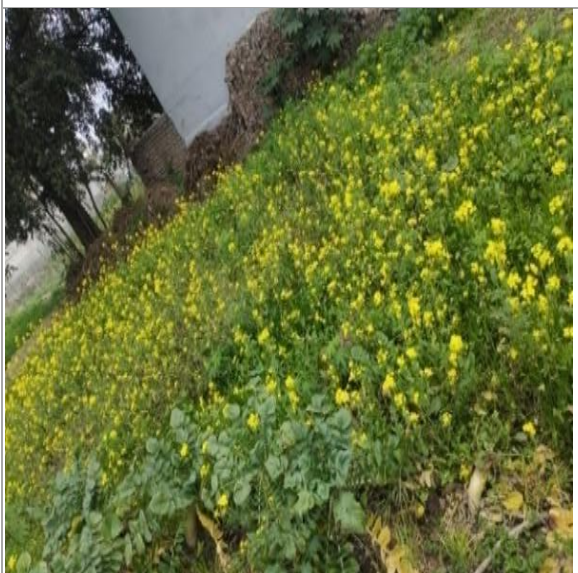


Figure 3.11: Land after Intervention



Figure 3.12: After Intervention: vegetable crops



Figure 3.13: PCP WC Mirpur



Figure 3.14: NPIWC-II/ME&IE Consultants' Team with Beneficiary and Host OFWM Professionals at the Targeted Site

LEHRI-6	Before Intervention	After Intervention
Land Holding	12.5 Acre	12.5 Acre
Agricultural Land	5 Acre	12 Acre
Number of Crops	2 crops (wheat, maize)	1 crop (wheat) Vegetables (radish, carrot, garlic, spinach, turnip, coriander, mustard, soya)
Fertilizer Used	DAP, UREA, FYM	FYM, DAP, UREA, WEEDICIDE SPRAY
Yield Of Main	Wheat (30	Wheat (34



LEHRI-6	Before Intervention	After Intervention
<b>Crops</b>	Mound Per Acre) Maize (32 Mound Per Acre)	Mound Per Acre) Radish (140 Mound Per Acre) Carrot (175 Mound Per Acre) Garlic (70mound Per Acre) Turnip (220 Mound Per Acre) Spinach (240 Mound Per Acre) Sarso (40 Mound Per Acre)
<b>Income From Crops</b>	Rs-2200 per mound wheat Rs-2300 per mound maize	Wheat- 2600 per mound
<b>Irrigation Source</b>	Tube well	Tube well, Bore
<b>Live Stock</b>	6 cows	11 cows
<b>Income From Live Stock Milk</b>	Rs.80 per kg	Rs 100 per kg

### 3.6 ACTIVITIES PUNJAB ZONE – JANUARY 2023

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

- Regular Monitoring, Baseline and Impact survey field visits of watercourses, WSTs and PLLs.
- Held regular meetings with stakeholders
- Data entry, validation of data collected from field.

Broadly Activities could be defined as under

1. Pre/post – Field Activities
2. Field Activities
3. ME&IE Consultants Meeting with stakeholders

#### 3.6.1 Pre/Post Field Activities

The ME&IE consultants' teams remained busy in data collection/Validation on previous years' basic data for watercourse improvement and water storage tank interventions for this year 2019 – 20

to 2021 – 22. Such data has been collected from various districts/division and validated for PMIS Dashboard as under:

**Table-1 Status of Watercourses Data of PMIS Dashboard**

Division	District	Status	
		19-20 & 20-21	2021 – 22
Lahore	Lahore	Complete	Complete
	Sheikhupura	Complete	Complete
	Nankana Sahib	Complete	Complete
	Kasur	Complete	Complete
Faisalabad	Faisalabad	Complete	Complete
	Jhang	Complete	Complete
	Chiniot	Complete	Complete
	Toba Tek Singh	Complete	Complete
Gujranwala	Gujranwala	Complete	Complete
	Narowal	Complete	Complete
	Sialkot	Complete	Complete
Gujrat	Gujrat	Complete	Complete
	Hafizabad	Complete	Complete
	Mandi Bahu din	Complete	Complete
Sargodha	Sargodha	Complete	Complete
	Khushab	Complete	Complete
	Mainwali	Complete	Complete
	Bhakkar	Complete	Complete
Sahiwal	Okara	Complete	Complete
	Sahiwal	Complete	Complete
	Pakpattan	Complete	Complete
Bahawalpur	Bahawalpur	Complete	Complete
	R.Y Khan	Complete	Complete
	Bahawalnagar	Complete	Complete
D.G Khan	D.G Khan	Complete	Complete
	Muzaffargarh	Complete	Complete
	Layyah	Complete	Complete
	Rajanpur	Complete	Complete
Multan	Multan	Complete	Complete
	Lodhran	Complete	Complete
	Khanewal	Complete	Complete
	Vehari	Complete	Complete

**Table-2 Status of Water Storage Tank Data collection for PMIS Dashboard**

Division	District	OFWM WST nos	Status
Bahawalpur	Bahawalpur	52	Complete
	R.Y Khan	42	Complete
	Bahawalnagar	57	Complete
D.G Khan	D.G Khan	33	Complete
	Muzaffargarh	18	Complete

Division	District	OFWM WST nos	Status
	Layyah	21	Complete
	Rajanpur	10	Complete
Faisalabad	Faisalabad	8	Complete
	Jhang	35	Complete
	Chiniot	31	Complete
	Toba Tek Singh	45	Complete
Gujranwala	Gujranwala	2	Complete
	Narowal	2	Complete
	Sialkot	2	Complete
Gujrat	Gujrat	24	Complete
	Hafizabad	13	Complete
	Mandi Bahu din	2	Complete
Lahore	Lahore	7	Complete
	Sheikhupura	1	Complete
	Nankana Sahib	2	Complete
	Kasur	2	Complete
Multan	Multan	21	Complete
	Lodhran	14	Complete
	Khanewal	18	Complete
	Vehari	14	Complete
Sahiwal	Okara	17	Complete
	Sahiwal	15	Complete
	Pakpattan	5	Complete
Sargodha	Sargodha	19	Complete
	Khushab	29	Complete
	Mainwali	3	Complete
	Bhakkar	35	Complete
Rawalpindi	Rawalpindi	72	Complete
	Attock	79	Under Process
	Chakwal	88	Under Process
	Jhelum	53	Under Process

### 3.6.2 Field Activities (Regular Monitoring /Field Survey of Interventions)

The monitoring / Baseline and Impact Field survey has been conducted pertained to watercourses, WSTs and provision laser land levelers (PLL) during the month under review. The data collection activities for this intervention were carried out by three field teams under the supervision and guidance of deputy team leader Punjab zone Lahore.

**Table-3: District-wise Baseline & Impact survey field visits of WCs & WSTs till reporting month**

District	Baseline		Impact		Total Visits
	WC	WST	WC	WST	
Attock		6		5	11
Bahawalnagar	10	3			13
Bahawalpur	1	1			2
Bhakkar	3	5	3	5	16
Chakwal		2		2	4
Chiniot	1				1
Dera Ghazi Khan	3	3	3	3	12
Faisalabad	3	1			4
Gujranwala	7	1	7	1	16
Gujrat	6	1		1	8
Hafizabad	10	3	9		22
Jhang	4	1			5
Jhelum		1			1
Kasur	3	2	2	2	9
Khanewal	7	1			8
Khushab		1		1	2
Lahore	1				1
Lodhran	14	1			15
Layyah		1			1
Mandi Bahaiddin	1	2	1		4
Multan	9	5			14
Muzaffargarh	6	2	6	2	16
Nankana Sahib		2			2
Okara	14	1	4		19
Pakpattan	5	1			6
Rahim Yar Khan	11	2			13
Rajanpur	1				1
Rawalpindi		4			4
Sahiwal	6	1	4		11
Sargodha	4	2			6
Sheikhupura	8	2			10
Sialkot	5				5
Toba Tek Singh	5	2			7
<b>Grand Total</b>	<b>148</b>	<b>60</b>	<b>39</b>	<b>22</b>	<b>269</b>

As per proposed methodology for PLL study sample size of 3.2% of population was considered as appropriate sample size the sample was determined while using the stratified purposive and randomized technique. Ecological zone District wise sample was divided proportionally in accordance with population. It includes number of delivered units at least one year earlier than the date of survey and remained in usage of service provider. Table 3 reflects the ecological zone wise target population and sample size.

**Table-4 Target Population and Sample size of PLL**

Ecological Zone	Overall Achievement till 31/12/2021*	ME & IE Consultants Sample size (3.2% of Overall Achievement)	Achievement of ME & IE Consultants
Partial Irrigated Zone	244	8	5
Irrigated (Rice Zone)	1197	39	39
Irrigated (Mixed Zone)	1237	40	54
<b>Sub Total North Punjab</b>	<b>2678</b>	<b>87</b>	<b>98</b>
Irrigated (Cotton Zone)	1523	48	48
<b>Sub Total South Punjab</b>	<b>1523</b>	<b>48</b>	<b>48</b>
<b>Grand Total</b>	<b>4200</b>	<b>135</b>	<b>146</b>

It is assumed and included 50% PLL delivery till 31-12-2021 of the year 2021 – 22

The achievements of ME&IE consultants in conducting the survey of PLL are more than 108% of the sample size. The district wise detail in this respect are given in Annexure A. Out of 146 interventions covered, 24 have been surveyed earlier while the remaining 123 have been surveyed in the current month.

The updated data collection tool was used in the field (copy attached as annexure – B). The tool was converted into android-based system on tabs/mobile phone were submitted on PMIS dashboard system directly from the field for the further processing and analysis.

### 3.6.3 Field Visits

The following field visits were made in connection with monitoring and collection of data relevant to land leveler usage.

### Visit-1

<b>Name of Service Provider</b>	Mahiwal
<b>Father Name</b>	Noor Muhammad
<b>Tehsil &amp; District</b>	Faisalabad
<b>Address</b>	252 RB
<b>Area Owned Levelled</b>	14 Acres
<b>Others Land Levelled</b>	620 Acres



**Figure 3.15: Interview with the beneficiary along with the view of PLL**

### Visit-2

<b>Name of Service Provider</b>	Muhammad Khan
<b>Father Name</b>	Muhammad Akram
<b>Tehsil &amp; District</b>	Faisalabad Saddar & Faisalabad
<b>Address</b>	
<b>Area Owned Levelled</b>	5 Acres
<b>Others Land Levelled</b>	850 Acres



**Figure 3.16: Service provider with PLL unit**



### Visit-3

<b>Name of Service Provider</b>	Arif Hussain Gill
<b>Father Name</b>	Faqeer Hussain Gill
<b>Tehsil &amp; District</b>	Faisalabad Saddar & Faisalabad
<b>Address</b>	272 RB
<b>Area Owned Levelled</b>	12 Acres
<b>Others Land Levelled</b>	450 Acres



Figure 3.17: Field Team with the beneficiary along with his PLL unit

### Visit-4

<b>Name of Service Provider</b>	Muhammad Anwar
<b>Father Name</b>	Sardar Muhammad
<b>Tehsil &amp; District</b>	Sammundri & Faisalabad
<b>Address</b>	477 GB
<b>Area Owned Levelled</b>	75 Acres
<b>Others Land Levelled</b>	100 Acres



Figure 3.18: The Service provider pictured with PLL

### Visit-5

<b>Name of Service Provider</b>	Jammat Ali
<b>Father Name</b>	Nawab Din
<b>Tehsil &amp; District</b>	Faisalabad Saddar & Faisalabad
<b>Address</b>	256 RB
<b>Area Owned Levelled</b>	60 Acres
<b>Others Land Levelled</b>	500 Acres



Figure 3.19: Inspection of PLL with the service provider

### Visit-6

<b>Name of Service Provider</b>	Allah Ditta
<b>Father Name</b>	Akbar Ali
<b>Tehsil &amp; District</b>	Sammundri & Faisalabad
<b>Address</b>	372 GB
<b>Area Owned Levelled</b>	20 Acres
<b>Others Land Levelled</b>	800 Acres



Figure 3.20: Service provider giving his views about PLL

### Visit-7

<b>Name of Service Provider</b>	Touqeer Abbas
<b>Father Name</b>	Abbas Ali
<b>Tehsil &amp; District</b>	Sammundri & Faisalabad
<b>Address</b>	136 GB
<b>Area Owned Levelled</b>	60 Acres
<b>Others Land Levelled</b>	120 Acres



Figure 3.21: Service provider with PLL



#### Visit-8

Name of Service Provider	Abdul Rauf
Father Name	Fateh Muhammad
Tehsil & District	Sammundri & Faisalabad
Address	50 GB
Area Owned Levelled	32 Acres
Others Land Levelled	300 Acres



Figure 3.22: Service provider giving his thoughts on PLL

#### Visit-9

Name of Service Provider	Muhammad Zubair
Father Name	Muhammad Ali
Tehsil & District	Sammundri & Faisalabad
Address	223 GB
Area Owned Levelled	40 Acres
Others Land Levelled	800 Acres

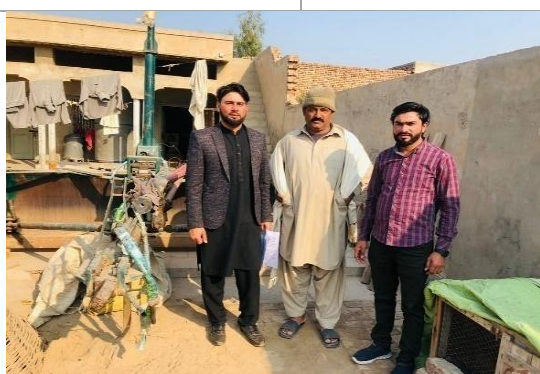


Figure 3.23: Beneficiary pictured with PLL along the field team

#### Visit-10

Name of Service Provider	Arbab Saifullah
Father Name	Saifullah
Tehsil & District	Sammundri & Faisalabad
Address	223 GB

Area Owned Levelled	14 Acres
Others Land Levelled	600 Acres



Figure 3.24: The PLL unit at the site along with Service provider

#### Visit-11

Name of Service Provider	Bashir Ahmad
Father Name	Sadar Din
Tehsil & District	Sammundri & Faisalabad
Address	208 GB
Area Owned Levelled	56 Acres
Others Land Levelled	1400 Acres



Figure 3.25: Service provider with the PLL unit

#### Visit-12

Name of Service Provider	Chawa
Father Name	Ghulam Muhammad
Tehsil & District	Kamalia & Toba Tek Singh
Address	Mouza Inaami Khud
Area Owned Levelled	75 Acres
Others Land Levelled	400 Acres



Figure 3.26: Glimpse of PPL unit with the service provider

#### Visit-13

Name of Service Provider	Zafar Iqbal
Father Name	Muhammad Aslam
Tehsil & District	Toba Tek Singh
Address	
Area Owned Levelled	28 Acres
Others Land Levelled	200 Acres



Figure 3.27: Service provider with the PLL unit along with Field Team

#### Visit-14

Name of Service Provider	Shahmir Khan
Father Name	Muhabat Ali
Tehsil & District	Jhang
Address	Mouza Kot Dewan
Area Owned Levelled	100 Acres
Others Land Levelled	10 Acres



Figure 3.28: A view of PLL Unit with the service provider

#### Visit-15

Name of Service Provider	Ajmal Nadeem
Father Name	Shahmir Khan
Tehsil & District	Jhang
Address	Mouza Kot Dewan
Area Owned Levelled	70 Acres
Others Land Levelled	30 Acres



Figure 3.29: Beneficiary pictured with PLL along the field team

#### Visit-16

Date	23/01/2023
Name of Service Provider	Umar Hayat
Contact No.	03467242261
Tehsil & District	Jhang
Address	
Area Owned Levelled	25 Acres
Others Land Levelled	150 Acres



Figure 3.30: Service provider giving his thoughts on PLL

#### Visit-17

Name of Service Provider	Ghulam Murtaza
Father Name	Akbar Ali
Tehsil & District	Toba Tek Singh
Address	325 JB
Area Owned Levelled	30 Acres
Others Land Levelled	150 Acres





Figure 3.31: Service provider with PLL unit

#### Visit-18

Name of Service Provider	Muhammad Ali
Father Name	Abdul Hayee Khan
Tehsil & District	Toba Tek Singh
Address	325 JB
Area Owned Levelled	125 Acres
Others Land Levelled	300 Acres



Figure 3.32: A view of PLL Unit with the service provider

#### Visit-19

Name of Service Provider	Ikram Ul Haq
Father Name	Muhammad Botta
Tehsil & District	Toba Tek Singh
Address	
Area Owned Levelled	50 Acres
Others Land Levelled	300 Acres



Figure 3.33: Beneficiary pictured with PLL along the field team

#### Visit-20

Name of Service Provider	Umar Hayat
Father Name	Noor Muhammad
Tehsil & District	Toba Tek Singh
Address	309 JB
Area Owned Levelled	80 Acres
Others Land Levelled	60 Acres



Figure 3.34: Glimpse of PPL unit with the service provider

#### Visit-21

Name of Service Provider	Muhammad Nasrullah
Father Name	Ghulam Nabi
Tehsil & District	Burewala & Vehari
Address	495 EB
Area Owned Levelled	20 Acres
Others Land Levelled	450 Acres



Figure 3.35: A view of PLL Unit with the service provider

#### Visit-22

Name of Service Provider	Sajjad Mehmood
Father Name	Bashir Ahmed
Tehsil & District	Burewala & Vehari
Address	
Area Owned Levelled	200 Acres
Others Land Levelled	150 Acres



Figure 3.36: Beneficiary pictured with PLL along the field team

#### Visit-23

<b>Name of Service Provider</b>	Muhammad Saleem
<b>Father Name</b>	Rehmat Ullah
<b>Tehsil &amp; District</b>	Burewala & Vehari
<b>Address</b>	
<b>Area Owned Levelled</b>	2 Acres
<b>Others Land Levelled</b>	0



Figure 3.37: Service provider of PLL with the field team

#### Visit-24

<b>Name of Service Provider</b>	Master Basir Ahmed
<b>Father Name</b>	Atta Muhammad
<b>Tehsil &amp; District</b>	Burewala & Vehari
<b>Address</b>	114 EB
<b>Area Owned Levelled</b>	40 Acres
<b>Others Land Levelled</b>	250 Acres



Figure 3.38: The Service provider pictured with PLL

#### Visit-25

<b>Name of Service Provider</b>	Karam Elahi
<b>Father Name</b>	Haji Allah Baksh
<b>Tehsil &amp; District</b>	Burewala & Vehari
<b>Address</b>	219 EB
<b>Area Owned Levelled</b>	75 Acres
<b>Others Land Levelled</b>	100 Acres



Figure 3.39: PLL unit with the service provider at the site

#### Visit-26

<b>Name of Service Provider</b>	Muhammad Banyameen
<b>Father Name</b>	Muhammad Sarwar
<b>Tehsil &amp; District</b>	Burewala & Vehari
<b>Address</b>	193 EB
<b>Area Owned Levelled</b>	200 Acres
<b>Others Land Levelled</b>	250 Acres



Figure 3.40: The service provider giving interview to the field team

#### Visit-27

<b>Name of Service Provider</b>	Ashraf Ali
<b>Father Name</b>	Ali Muhammad
<b>Tehsil &amp; District</b>	Burewala & Vehari
<b>Address</b>	293 EB
<b>Area Owned Levelled</b>	50 Acres
<b>Others Land Levelled</b>	450 Acres





Figure 3.41: PLL unit under operation at the site

#### Visit-28

Name of Service Provider	Muhammad Yaqoob
Father Name	Sajwara
Tehsil & District	Burewala & Vehari
Address	293 EB
Area Owned Levelled	100 Acres
Others Land Levelled	700 Acres



Figure 3.42: The Service provider pictured with PLL

#### Visit-29

Name of Service Provider	Nazar Muhammad
Father Name	Muhammad Nawaz Khan
Tehsil & District	Sahiwal
Address	Mouza Noor Muhammad Shah
Area Owned Levelled	150 Acres
Others Land Levelled	600 Acres



Figure 3.43: The service provider giving interview to the field team

#### Visit-30

Name of Service Provider	Muhammad Nawaz
Father Name	Noor Muhammd
Tehsil & District	Sahiwal
Address	55/GD
Area Owned Levelled	60 Acres
Others Land Levelled	240 Acres



Figure 3.44: Glimpse of PPL unit with the service provider

#### Visit-31

Name of Service Provider	Muhammad Ramzan
Father Name	Karam Ali
Tehsil & District	Sahiwal
Address	189/9-AL
Area Owned Levelled	25 Acres
Others Land Levelled	60 Acres



Figure 3.45: The Service provider pictured giving interview regarding PLL

#### Visit-32

Name of Service Provider	Usman ali
Father Name	Arshad Akhter
Tehsil & District	Sahiwal
Address	133/9L
Area Owned Levelled	200 Acres
Others Land Levelled	150 Acres



Figure 3.46: The service provider giving interview to the field team

#### Visit-33

Name of Service Provider	Noor Muhammad
Father Name	Muhammad Ameer
Tehsil & District	Sahiwal
Address	50/GD
Area Owned Levelled	220 Acres
Others Land Levelled	200 Acres



Figure 3.47: The PLL unit at the site along with Service provider

#### Visit-34

Name of Service Provider	Muhammad Ibrar
Father Name	M.Idrees
Tehsil & District	Sahiwal
Address	88/9L
Area Owned Levelled	200 Acres
Others Land Levelled	50 Acres



Figure 3.48: The PLL unit at the site along with Service provider

#### Visit-35

Name of Service Provider	Ali Rizwan khan
Father Name	Zahoor Khan
Tehsil & District	Sahiwal
Address	
Area Owned Levelled	150 Acres
Others Land Levelled	100 Acres



Figure 3.49: Glimpse of PPL unit with the service provider

#### Visit-36

Name of Service Provider	Abdul Farooq
Father Name	Peer Muhammad
Tehsil & District	Sahiwal
Address	73/4R
Area Owned Levelled	100 Acres
Others Land Levelled	60 Acres



Figure 3.50: The service provider giving interview to the field team

#### Visit-37

Name of Service Provider	Maqbool Ahmed
Father Name	Sardar Muhammad Zafar
Tehsil & District	Okara
Address	43/ GD
Area Owned Levelled	200 Acres
Others Land Levelled	200 Acres





Figure 3.51: Service provider with the PLL unit along with Field Team

#### Visit-38

Name of Service Provider	Sabir
Father Name	Abdul Ghani
Tehsil & District	Okara
Address	
Area Owned Levelled	100 Acres
Others Land Levelled	1200 Acres



Figure 3.52: Glimpse of PPL unit with the service provider

#### Visit-39

Name of Service Provider	Muhammad Ramzan
Father Name	Taj ud Din
Tehsil & District	Okara
Address	Mouza Joiya
Area Owned Levelled	90 Acres
Others Land Levelled	1000 Acres



Figure 3.53: The PLL unit at the site along with Service provider

#### Visit-40

Name of Service Provider	Haji Muhammad Ashraf
Father Name	Fazal Karim
Tehsil & District	Okara
Address	Mouza Jabuka
Area Owned Levelled	100 Acres
Others Land Levelled	400 Acres



Figure 3.54: The service provider giving interview to the field team

#### Visit-41

Name of Service Provider	Muhammad Younas Bhatti
Father Name	Salamat Ali Bhatti
Tehsil & District	Okara
Address	10/GD
Area Owned Levelled	150 Acres
Others Land Levelled	450 Acres



Figure 3.55: The PLL unit at the site along with Service provider

#### Visit-42

Name of Service Provider	Khan Muhammad
Father Name	Wali Muhammad
Tehsil & District	Okara
Address	Mouza Shareen
Area Owned Levelled	35 Acres
Others Land Levelled	150 Acres



Figure 3.56: The service provider giving interview to the field team

#### Visit-43

Name of Service Provider	Muhammad Akram
Father Name	Muhammad Ali
Tehsil & District	Okara
Address	16/GD
Area Owned Levelled	90 Acres
Others Land Levelled	600 Acres



Figure 3.57: Glimpse of PPL unit with the service provider

#### Visit-44

Name of Service Provider	Hanif Tahir
Father Name	Muhammad Ramzan
Tehsil & District	Jhang
Address	Mouza Gagrana
Area Owned Levelled	25 Acres
Others Land Levelled	300 Acres



Figure 3.58: The PLL unit at the site along with Service provider giving interview

#### Visit-45

Name of Service Provider	Bilal Hussain
Father Name	Muhammad Ashraf
Tehsil & District	Jhang
Address	Mouza Nankana Pakky Wala
Area Owned Levelled	75 Acres
Others Land Levelled	100 Acres

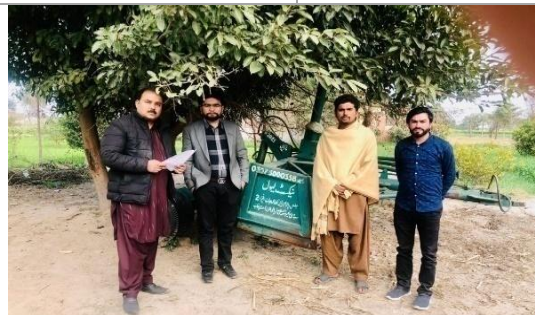


Figure 3.59: The service provider giving interview to the field team

#### Visit-46

Name of Service Provider	Taj Mehmood Ashi
Father Name	Muhammad Abdullah
Tehsil & District	Jhang
Address	Chak No 220
Area Owned Levelled	34 Acres
Others Land Levelled	310 Acres



Figure 3.60: Service provider and the beneficiaries of PLL unit pictured with field team

#### Visit-47

Name of Service Provider	Ijaz Ahmed
Father Name	Muhammad Sharif
Tehsil & District	Toba Tek Singh
Address	403 JB
Area Owned Levelled	200 Acres
Others Land Levelled	400 Acres





Figure 3.61: Glimpse of PPL unit with the service provider

#### Visit-48

Name of Service Provider	Muhammad Jameel
Father Name	Rukan Din
Tehsil & District	Toba Tek Singh
Address	325 JB
Area Owned Levelled	18 Acres
Others Land Levelled	175 Acres



Figure 3.62: Glimpse of PPL unit with the service provider

#### Team 2

##### Visit-1

Name of Service Provider	Wahid Ali
Father Name	Muhammad Ismail
Tehsil & District	Sialkot
Address	Guna Kalan, Tehsil Sialkot
Area Owned Levelled	5 acres
Others Land Levelled	200 acres



Figure 3.63: Interview in progress with the service provider

##### Visit-2

Name of Service Provider	Muhammad Naveed
Father Name	Muhammad Mushtaq
Tehsil & District	Sialkot
Address	Bhagowal
Area Owned Levelled	6 acres
Others Land Levelled	400 acres



Figure 3.64: Interview in progress with the service provider

##### Visit-3

Name of Service Provider	Muhammad Zakauallah
Father Name	Sana Ullah
Tehsil & District	Sialkot
Address	Bhagowala, Tehsil Sialkot
Area Owned Levelled	5 acres
Others Land Levelled	400 acres



Figure 3.65: Interview in progress with the service provider

##### Visit-4

Name of Service Provider	Amjid Mehmood
Father Name	Muhammad Sharif
Tehsil & District	Sialkot
Address	Bhoni, Tehsil Sialkot
Area Owned Levelled	10 acres
Others Land Levelled	70 acres



Figure 3.66: Interview in progress with the service provider

#### Visit-5

<b>Name of Service Provider</b>	Munir Ahmad
<b>Father Name</b>	Barkat Ali
<b>Tehsil &amp; District</b>	Sialkot
<b>Address</b>	Chak Bidya Tehsil Sialkot
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	400 acres



Figure 3.67: Interview in progress with the service provider

#### Visit-6

<b>Name of Service Provider</b>	Rafaqat Ali
<b>Father Name</b>	Saif Ali
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Sohdara Tehsil Wazirabad
<b>Area Owned Levelled</b>	7 acres
<b>Others Land Levelled</b>	50 acres



Figure 3.68: Interview in progress with the service provider

#### Visit-7

<b>Name of Service Provider</b>	Muhammad Farooq
<b>Father Name</b>	Muhammad Hussain
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Talwara Sohdra, Tehsil Wazirabad
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	50 acres



Figure 3.69: Interview in progress with the service provider

#### Visit-8

<b>Name of Service Provider</b>	Nadeem Raza Cheema
<b>Father Name</b>	Muhammad Khan Cheema
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Wadla Cheema Tehsil Wazirabad
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.70: Interview in progress with the service provider



#### Visit-9

<b>Name of Service Provider</b>	Muhammad Asif Javaid
<b>Father Name</b>	Muhammad Khan
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Wadala Cheema Tehsil Wazirabad
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	50 acres



Figure 3.71: Interview in progress with the service provider

#### Visit-10

<b>Name of Service Provider</b>	Fiaz Ahmad
<b>Father Name</b>	Muhammad Khan
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Rakh Baroki Tehsil Wazirabad
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	250 acres



Figure 3.72: Interview in progress with the service provider

#### Visit-11

<b>Name of Service Provider</b>	Akhtar Hussain
<b>Father Name</b>	Fateh Muhammad
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Rakh Baroki Tehsil Wazirabad

<b>Area Owned Levelled</b>	6.5 acres
<b>Others Land Levelled</b>	25 acres



Figure 3.73: Interview in progress with the service provider

#### Visit-12

<b>Name of Service Provider</b>	Tariq Hussain
<b>Father Name</b>	Talib Hussain
<b>Tehsil &amp; District</b>	Tehsil Wazirabad District Gujranwala
<b>Address</b>	Bharoki Cheema
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	300 acres



Figure 3.74: Interview in progress with the service provider

#### Visit-13

<b>Name of Service Provider</b>	Aurangzaib
<b>Father Name</b>	Muhammad Razzaq
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Lakhanwal Tehsil Gujrat
<b>Area Owned Levelled</b>	-
<b>Others Land Levelled</b>	-



Figure 3.75: Interview in progress with the service provider

#### Visit-14

<b>Name of Service Provider</b>	Naeem Sohail
<b>Father Name</b>	Nazeer Ahmad
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Adowal Kalan Tehsil Gujrat
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	150 acres



Figure 3.76: Interview in progress with the service provider

#### Visit-15

<b>Name of Service Provider</b>	Nazar Hussain
<b>Father Name</b>	Muhammad Din
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Lakhanwal Tehsil Sialkot
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.77: Interview in progress with the service provider

#### Visit-16

<b>Name of Service Provider</b>	Qayyum Sarwar Qamar
<b>Father Name</b>	Muhammad Sarwar
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Jalalpur Tehsil Gujrat
<b>Area Owned Levelled</b>	-
<b>Others Land Levelled</b>	-



Figure 3.78: Interview in progress with the service provider

#### Visit-17

<b>Name of Service Provider</b>	Faisal Nawaz
<b>Father Name</b>	Muhammad Nawaz
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Pindihasna Tehsil Gujrat
<b>Area Owned Levelled</b>	12.5 acres
<b>Others Land Levelled</b>	50 acres



Figure 3.79: Interview in progress with the service provider



#### Visit-18

<b>Name of Service Provider</b>	Aftab Ahmad
<b>Father Name</b>	Muhammad Naeem Ullah
<b>Tehsil &amp; District</b>	Gujrat
<b>Address</b>	Kotla Qasim Tehsil Gujrat
<b>Area Owned Levelled</b>	12.5 acres
<b>Others Land Levelled</b>	50 acres



Figure 3.80: Interview in progress with the service provider

#### Visit-19

<b>Name of Service Provider</b>	Shahid Iqbal
<b>Father Name</b>	Munir Ahmad
<b>Tehsil &amp; District</b>	Hafizabad
<b>Address</b>	Bhoon Kalan p/o Karyala Tehsil Hafizabad
<b>Area Owned Levelled</b>	8 acres
<b>Others Land Levelled</b>	215 acres



Figure 3.81: Interview in progress with the service provider

#### Visit-20

<b>Name of Service Provider</b>	Allah Rakha
<b>Father Name</b>	Muhammad Iqbal
<b>Tehsil &amp; District</b>	Hafizabad
<b>Address</b>	Wachohki p/o Mattam, Tehsil & District Hafizabad
<b>Area Owned Levelled</b>	-
<b>Others Land Levelled</b>	-



Figure 3.82: Interview in progress with the service provider

#### Visit-21

<b>Name of Service Provider</b>	Mumtaz Ahmad
<b>Father Name</b>	Abdullah
<b>Tehsil &amp; District</b>	Hafizabad
<b>Address</b>	Wachoki Kalan, p/o Jourian Tehsil Hafizabad
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	70 acres



Figure 3.83: Interview in progress with the service provider

#### Visit-22

<b>Name of Service Provider</b>	Samia Begum
<b>Father Name</b>	Iftikhar Ahmad
<b>Tehsil &amp; District</b>	Hafizabad
<b>Address</b>	Thatha Kharlan p/o Manget Uncha Tehsil Hafizabad
<b>Area Owned Levelled</b>	40 acres
<b>Others Land Levelled</b>	500 acres



Figure 3.84: Interview in progress with the service provider

### Visit-23

<b>Name of Service Provider</b>	Usman Afzal Chatta
<b>Father Name</b>	Muhammad Afzal Chatta
<b>Tehsil &amp; District</b>	Hafizabad
<b>Address</b>	Ahmad Pur Chatha Tehsil Hafizabad
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	150 acres



Figure 3.85: Interview in progress with the service provider

### Visit-24

<b>Name of Service Provider</b>	Muhammad Fazal Ur Rehman
<b>Father Name</b>	Gull Muhammad
<b>Tehsil &amp; District</b>	Sargodha
<b>Address</b>	Mari Tehsil Sargodha
<b>Area Owned Levelled</b>	4 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.86: Interview in progress with the service provider

### Visit-25

<b>Name of Service Provider</b>	Muhammad Safdar
<b>Father Name</b>	Shah Muhammad
<b>Tehsil &amp; District</b>	Sargodha
<b>Address</b>	Lak more Tehsil Sargodha
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	300 acres



Figure 3.87: Interview in progress with the service provider

### Visit-26

<b>Name of Service Provider</b>	Ahmad Hussain
<b>Father Name</b>	Noor Hussain
<b>Tehsil &amp; District</b>	Sargodha
<b>Address</b>	Rakh Dharima Tehsil Sargodha
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	60 acres



Figure 3.88: Interview in progress with the service provider

### Visit-27

<b>Name of Service Provider</b>	Allah Yar
<b>Father Name</b>	Ahmad Yar
<b>Tehsil &amp; District</b>	Sargodha
<b>Address</b>	Dherma Tehsil Sargodha
<b>Area Owned Levelled</b>	7 acres
<b>Others Land Levelled</b>	250 acres



Figure 3.89: Interview in progress with the service provider



#### Visit-28

<b>Name of Service Provider</b>	Saleh Muhammad
<b>Father Name</b>	Allah Yar
<b>Tehsil &amp; District</b>	Sargodha
<b>Address</b>	Ajnala Tehsil Sargodha
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	400 acres



Figure 3.90: Interview in progress with the service provider

#### Visit-29

<b>Name of Service Provider</b>	Sher Khan
<b>Father Name</b>	Ahmad Khan
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Hadali Tehsil Khushab
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.91: Interview in progress with the service provider

#### Visit-30

<b>Name of Service Provider</b>	Mansab Dar
<b>Father Name</b>	Ahmad Khan
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Factory Area Block No. 29 Jauharabad
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.92: Interview in progress with the service provider

#### Visit-31

<b>Name of Service Provider</b>	Muhammad Ramzan
<b>Father Name</b>	Muhammad Khan
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Botala Tehsil Khushab
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	100 acres



Figure 3.93: Interview in progress with the service provider

#### Visit-32

<b>Name of Service Provider</b>	Muhammad Safdar
<b>Father Name</b>	Shah Muhammad
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Choha Tehsil Khushab
<b>Area Owned Levelled</b>	5 acres
<b>Others Land Levelled</b>	150 acres



Figure 3.94: Interview in progress with the service provider



### Visit-33

<b>Name of Service Provider</b>	Muhammad Shameer
<b>Father Name</b>	Muhammad Ameer
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Bijar Janobi Tehsil Khushab
<b>Area Owned Levelled</b>	8 acres
<b>Others Land Levelled</b>	200 acres



Figure 3.95: Interview in progress with the service provider

### Visit-34

<b>Name of Service Provider</b>	Khushi Muhammad
<b>Father Name</b>	Atta Muhammad
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	TDA 4, Quaidabad
<b>Area Owned Levelled</b>	15 acres
<b>Others Land Levelled</b>	350 acres



Figure 3.96: Interview in progress with the service provider

### Visit-35

<b>Name of Service Provider</b>	Umer Daraz
<b>Father Name</b>	Muhammad Raza
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	hasan pur tiwana Tehsil Khushab
<b>Area Owned Levelled</b>	12 acres
<b>Others Land Levelled</b>	300 acres



Figure 3.97: Interview in progress with the service provider

### Visit-36

<b>Name of Service Provider</b>	Ghulam Akbar
<b>Father Name</b>	Atta Muhammad
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Roda Tehsil Khushab
<b>Area Owned Levelled</b>	12 acres
<b>Others Land Levelled</b>	300 acres



Figure 3.98: Interview in progress with the service provider

### Visit-37

<b>Date</b>	25/01/2023
<b>Name of Service Provider</b>	Sher Khan
<b>Father Name</b>	Ahmad Khan
<b>CNIC No.</b>	38201-7968134-3
<b>Contact No.</b>	0306-6392422
<b>Tehsil &amp; District</b>	Khushab
<b>Address</b>	Hadali Tehsil Khushab
<b>Area Owned Levelled</b>	10 acres
<b>Others Land Levelled</b>	200 acres



### Team 3

#### Visit-1

<b>Name of Service Provider</b>	Muhammad Imran
<b>Father Name</b>	Muhammad Sharif
<b>Tehsil &amp; District</b>	Nankana Sahib
<b>Address</b>	Nankana Sahib
<b>Area Owned Levelled</b>	5
<b>Others Land Levelled</b>	450



#### Visit-2

<b>Name of Service Provider</b>	Muhammad Asim
<b>Father Name</b>	Muhammad Saleem
<b>Tehsil &amp; District</b>	Shahkot & Nankana Sahib
<b>Address</b>	Chak no 82-RB
<b>Area Owned Levelled</b>	5
<b>Others Land Levelled</b>	200



#### Visit-3

<b>Name of Service Provider</b>	Zafar Iqbal
<b>Father Name</b>	Nazeer Ahmad
<b>Tehsil &amp; District</b>	Nankana Sahib
<b>Address</b>	Ward no 07, Nankana Sahib
<b>Area Owned Levelled</b>	6
<b>Others Land Levelled</b>	450



#### Visit-4

<b>Name of Service Provider</b>	Abdul Sattar
<b>Father Name</b>	Sardar Muhammad
<b>Tehsil &amp; District</b>	Nankana Sahib
<b>Address</b>	Ward no 12, Nankana Sahib
<b>Area Owned Levelled</b>	8.5
<b>Others Land Levelled</b>	1200



#### Visit-5

<b>Name of Service Provider</b>	Aitzaz Hussain
<b>Father Name</b>	Nazeer Ahmad
<b>Tehsil &amp; District</b>	Shahkot & Nankana Sahib
<b>Address</b>	Kari wala
<b>Area Owned Levelled</b>	5





#### Visit-6

Name of Service Provider	Ghulam Muhi Din
Father Name	Hassan Din
Tehsil & District	Sheikhupura
Address	Chak Shahpur
Area Owned Levelled	5
Others Land Levelled	900



Figure 3.105: Inspection of the PLL

#### Visit-7

Name of Service Provider	Muhammad Akhtar
Father Name	Niyamat Ali
Tehsil & District	Sheikhupura
Address	Moza Ammoke
Area Owned Levelled	10
Others Land Levelled	550



Figure 3.106: View of PLL Site

#### Visit-8

Name of Service Provider	Asad Ullah
Father Name	Denar Ahmad
Tehsil & District	Sheikhupura
Address	Thatha tahrarn p.o Tibi humbo
Area Owned Levelled	4
Others Land Levelled	700



Figure 3.107: Interviewing the Service Provider

#### Visit-9

Name of Service Provider	Mubarak Ali
Father Name	Ghulam Ali
Tehsil & District	Sheikhupura
Address	Ghanga
Area Owned Levelled	5
Others Land Levelled	500



Figure 3.108: Collecting Data from the Service Provider and inspecting the condition of PLL

#### Visit-10

Name of Service Provider	Shafqat Ali
Father Name	Muhammad Shafi
Tehsil & District	Sheikhupura
Address	St#06 Shumali Ghang road sheikhupura
Area Owned Levelled	7
Others Land Levelled	500





Figure 3.109: Interviewing the Service Provider

#### Visit-11

Name of Service Provider	Sajjad Ahmad
Father Name	Nazeer Ahmad
Tehsil & District	Sheikhupura
Address	Khokharki mallian
Area Owned Levelled	12
Others Land Levelled	700



Figure 3.110: View of PLL

#### Visit-12

Name of Service Provider	Muhammad Akram
Father Name	Khushi Muhammad
Tehsil & District	Sheikhupura
Address	Tibbi Humbo, chak 578 GB
Area Owned Levelled	12
Others Land Levelled	800



Figure 3.111: Interviewing the Service Provider

#### Visit-13

Name of Service Provider	Ali Asghar
Father Name	Muhammad Din
Tehsil & District	Kasur
Address	Nizam pur
Area Owned Levelled	8
Others Land Levelled	300



Figure 3.112: Service Provider's remarks about the Issues raised and Opportunities fetched

#### Visit-14

Name of Service Provider	Bashir Ahmad
Father Name	Muhammad Shafi
Tehsil & District	Kasur
Address	Patto khurd
Area Owned Levelled	2.5
Others Land Levelled	1000



Figure 3.113: View of PLL

#### Visit-15

Name of Service Provider	Abid Hussain
Father Name	Fareed Din
Tehsil & District	Kasur
Address	Fakeeriye wala
Area Owned Levelled	8
Others Land Levelled	250



Figure 3.114: Collected Coordinates and Inspected the PLL.



Figure 3.116: Inspected the PLL and Collected the Coordinates.

#### Visit-16

Name of Service Provider	Muhabbat Ali
Father Name	Rehmat Ali
Tehsil & District	Kasur
Address	Gohar hither
Area Owned Levelled	11
Others Land Levelled	450



Figure 3.115: ME&IE Consultants' team debriefing about the Project's Objectives.

#### Visit-18

Name of Service Provider	Muhammad Sharif
Father Name	Muhammad Iqbal
Tehsil & District	Mianchannu & Khanewal
Address	6315-L



Figure 3.117: Checked the PLL and Collected the Coordinates

#### Visit-17

Name of Service Provider	Zia Ullah Khan
Father Name	Haq Nawaz Khan
Tehsil & District	Khanewal
Address	29 -10R tehsil khanewal
Area Owned Levelled	5
Others Land Levelled	500

#### Visit-19

Name of Service Provider	Asghar Ali
Father Name	Muhammad Anwar
Tehsil & District	Khanewal
Address	70-10R tehsil khanewal
Area Owned Levelled	4.5
Others Land Levelled	800



Figure 3.118: Interviewing the Service Provider



#### Visit-20

Name of Service Provider	Amjad Hussain
Father Name	Muhammad Waryar
CNIC No.	361042033861
Contact No.	03457073992
Tehsil & District	Khanewal
Area Owned Levelled	6
Others Land Levelled	200



Figure 3.119: Interviewing the Service Provider about PLL.

#### Visit-21

Name of Service Provider	Muhammad Ibrahim
Father Name	Muhammad Ismail
Tehsil & District	Khanewal
Address	8385-10R Tehsil Khanewal
Area Owned Levelled	2.5
Others Land Levelled	700



Figure 3.120: Inspected PLL and Collected the Coordinates

#### Visit-22

Name of Service Provider	Muhammad Abid Khan
Father Name	Khalil Ahmad
Tehsil & District	Jahania & Khanewal
Address	173-10R Tehsil Khanewal
Area Owned Levelled	5
Others Land Levelled	550



Figure 3.121: View of PLL

#### Visit-23

Name of Service Provider	Syed shaheen Haider
Contact No.	Khanewal
Tehsil & District	34-10R
Address	6
Area Owned Levelled	500
Others Land Levelled	



Figure 3.122: View of Laser

#### Visit-24

Name of Service Provider	Riaz Hussain
Father Name	Muhammad sharif Bajwa
Tehsil & District	Multan
Address	Chak no 13-MR ,UC Khanpur maryal
Area Owned Levelled	12.5
Others Land Levelled	500



Figure 3.123: Performance Assessment about PLL Service



#### Visit-25

<b>Name of Service Provider</b>	Khuda Buksh
<b>Father Name</b>	Muhammad Buksh
<b>Tehsil &amp; District</b>	Multan
<b>Address</b>	Moza 9 Fiaz, post office Qadir pur lal
<b>Area Owned Levelled</b>	6
<b>Others Land Levelled</b>	300



Figure 3.124: Viewing PLL and Collecting the data.

#### Visit-26

<b>Name of Service Provider</b>	Muhammad Aslam
<b>Father Name</b>	Allah Dad
<b>Tehsil &amp; District</b>	Multan
<b>Address</b>	Qayan pur,p.o Rangeel pur
<b>Area Owned Levelled</b>	12
<b>Others Land Levelled</b>	1500



Figure 3.125: View of PLL

#### Visit-27

<b>Name of Service Provider</b>	Muhammad Arif
<b>Father Name</b>	Muhammad Suleman
<b>Tehsil &amp; District</b>	Multan
<b>Address</b>	Qayan pur,p.o Rangeel pur
<b>Area Owned Levelled</b>	12
<b>Others Land Levelled</b>	580



Figure 3.126: View of PLL

#### Visit-28

<b>Date</b>	24/01/2023
<b>Name of Service Provider</b>	Shoukat Hussain
<b>Father Name</b>	Ameer Buksh
<b>CNIC No.</b>	3630309055965
<b>Contact No.</b>	03022593254
<b>Tehsil &amp; District</b>	Multan
<b>Address</b>	Moza Gill,p.o Makhdoom Rashid
<b>Area Owned Levelled</b>	2.5
<b>Others Land Levelled</b>	1600



Figure 3.127: Interviewing the Service Provider

#### Visit-29

<b>Name of Service Provider</b>	Ghulam Rasool
<b>Father Name</b>	Nawab Din
<b>Tehsil &amp; District</b>	Multan
<b>Address</b>	13-MR ,p.o Khanpur Maryal
<b>Area Owned Levelled</b>	7
<b>Others Land Levelled</b>	550



Figure 3.128: Collected data about the working of PLL

#### Visit-30

Name of Service Provider	Muhammad Iqbal
Father Name	Bashir Ahmad
Tehsil & District	Multan
Address	9-MR ,P.O MR, Tehsil Multan
Area Owned Levelled	10
Others Land Levelled	1400



Figure 3.129: View of PLL

#### Visit-31

Name of Service Provider	Umer Farooq Khan
Father Name	Sahib var
Tehsil & District	Lodhran
Address	Moza Ghulab wala
Area Owned Levelled	2.5
Others Land Levelled	500



Figure 3.130: Interviewing the PLL Service Provider

#### Visit-32

Name of Service Provider	Abdul Malik
Father Name	Azam Ali
Tehsil & District	Lodhran
Address	Danwra
Area Owned Levelled	11
Others Land Levelled	700



Figure 3.131: View operation of PLL in the Field

#### Visit-33

Name of Service Provider	Javed Iqbal
Father Name	Muhammad Sharif
Tehsil & District	Lodhran
Address	Wahi Dower khan
Area Owned Levelled	5
Others Land Levelled	300



Figure 3.132: View of PLL

#### Visit-34

Name of Service Provider	Haq Nawaz
Father Name	Pearinditta
Tehsil & District	Lodhran
Address	Sadullah pur
Area Owned Levelled	10
Others Land Levelled	1250





Figure 3.133: Interviewing the PLL Service Provider

#### Visit-35

Name of Service Provider	Mushtaq Hussain
Father Name	Muhammad Buksh
Tehsil & District	Lodhran
Address	Kamal pur jatyal
Area Owned Levelled	5
Others Land Levelled	1000



Figure 3.134: View of PLL

#### Visit-36

Name of Service Provider	Talha naeem
Father Name	Muhammad Afzal
Tehsil & District	Lodhran
Address	89-M
Area Owned Levelled	12.5
Others Land Levelled	500



Figure 3.135: View of PLL

#### Visit-37

Name of Service Provider	Hazoor Ahmad
Father Name	Pearinditta
Tehsil & District	Lodhran
Address	Sadullah pur
Area Owned Levelled	
Others Land Levelled	



Figure 3.136: Interviewing the Service Provider

#### 3.6.4 Field Observations of ME&IE Consultants

The field teams of consultants have certain observations while monitoring the operations of the intervention in the field. The observation regarding "Impact assessment" of the intervention were the results of "before" and "after" the use of the laser land leveler.

##### Important observations regarding monitoring of the intervention are:

1. Majority of service providers have started to rent out the laser units to fellow farms at their farms for leveling of fields. The rate for levelling are charged per acre and per hour varies depending upon the nature of soil.
2. Most of the service providers of Laser Units keep no record for its usage.
3. It was also noticed that some Laser Companies were delaying the supply of laser units as per given schedule to the farmers.
4. The service providers/farmers have certain complaints which draws immediate attention of OFWM department.
5. The service providing companies of laser land levelers are only performing the roles of supplying laser units and ignoring the role of after service i.e., repair / maintenance services and spare parts.
6. For the purpose of maintenance / repairs farmer has to travel long distances to avail such facilities by the concerned company.



**The important observations regarding impact assessment are:**

- Reduction in water losses during the field application was significant after the use of laser.
- Time saving in irrigating the field before levelled and after levelled has been significantly found.
- Reduction in labor utilization in sowing, cultural practices, irrigating fertilizers, harvesting has also been seen.
- Easily sown and grown evenly seed linked with other practices provides noticeable push for increase in yield per acre of major crops. Income increase due to increase in yield per acre is expected to be higher than the cost of levelling the field.

**Recommendations:**

- Laser supplying companies have been delaying in the delivery of Laser units to farmers due to extra booking of units. Booking of maximum numbers should be fixed in accordance to their production capacity and allocate the area to companies for providing better after sale services.
- After Sale service of laser supplying companies needs to be improved. Proper repair and maintenance should be provided at the doorstep of farmers / LLL Service provider or at District level.
- Out of total payment, 10 % should be held until the laser unit supply by the companies or preferably hold this amount for two years for ensuring proper provision of after sale services. Warranty may also be extended from two to five years from delivery date for laser land leveler units
- LLL Service Providers should be trained for record keeping and simple log book can be provided for this purpose.

**3.6.5 Coordination / Meetings of ME&IE Consultants Punjab Zone with Stakeholders**

**Meeting at Director General OFWM Office**

<b>Date</b>	January 02 ,2023
<b>Venue</b>	Director General OFWM Office Davis Road, Lahore
<b>Participants</b>	
<ul style="list-style-type: none"> <li>Mr. Tahir Mehmood Focal Person of DGA OFWM/ DDA Headquarters OFWM</li> <li>Mr. Muhammad Rafi System Analyst OFWM</li> <li>Mr. Muhammad Yousaf Bhatti Deputy Team</li> </ul>	

- Leader Punjab ME&IE Consultants
- Mr. Rizwan Saleem ICT Specialist ME&IE Consultants
- Mr. Awais Jahangeer Focal Person to DGA OFWM office ME&IE Consultants

**Meeting Agenda/Points discussed:**

- Forum unanimously decided that fortnightly review meeting minutes & Monthly Monitoring/Progress report will be shared with FPMU endorsed by Focal Person of DGA OFWM.
- ME&IE Consultants ensured the access on PMIS Dashboard by 3rd January 2022.
- Deployment of Android Based Application for real time data collection from field & Capacity Building of OFWM Field staff will get finalized after the approval of DGA OFWM.



Figure 3.137: View of Meeting holding in D.G, OFWM Office

**Meeting at Director General OFWM Office**

<b>Date</b>	January 16 ,2023
<b>Venue</b>	Director General OFWM Office Davis Road, Lahore
<b>Participants</b>	
Mr. Tahir Mehmood Focal Person of DGA OFWM/ DDA Headquarters OFWM Mr. Muhammad Rafi System Analyst OFWM Mr. Rizwan Saleem ICT Specialist ME&IE Consultants Mr. Awais Jahangeer Focal Person to DGA OFWM office ME&IE Consultants	
<b>Meeting Agenda/Points discussed:</b>	
Forum unanimously finalized & approved the Data Collection format for Water Storage Ponds and Laser Land Leveler. (WSP format attached in annexure 1 & LLL format attached in annexure 2) ME&IE Consultants ensured to collect the complete data collection of Water Storage Ponds in collaboration with Directorate of OFWM. Focal Person of DGA OFWM ensured the provision	

of LLL Data from the Headquarters of OFWM. Training Scheduled for Lahore Division, and the Nomination List of Field Staff will be provided by Focal Person of DGA OFWM. ME&IE Consultants ensured the Development of Android Based Application for data collection from field of WC & WST through employing the trainings amongst the field team members



Figure 3.138: View of Meeting held in Director General (Agri) OFWM Office

#### Meeting with DGA OFWM Punjab

<b>Date</b>	January 17, 2023
<b>Venue</b>	Director General OFWM Office Davis Road, Lahore
<b>Participants</b>	
Malik Muhammad Akram Director General Agriculture OFWM Punjab Mr. Tahir Mehmood Focal Person of DGA OFWM/ DDA Headquarters OFWM Choudhary Saif Ullah Ejaz Authorized Representative of G3JV ME&IE Consultants Mr. Awais Jahangeer Focal Person to DGA OFWM office ME&IE Consultants	
<b>Meeting Agenda/Points discussed:</b>	
ME&IE Consultants shared the Report on Data Acquisition by the field offices with Director, DGA OFWM. On this matter DGA OFWM ensured their full support from all field offices. DGA OFWM emphasized on the importance of impact reports, special reports on water saving & project outcomes. Authorized Representative of G3JV ME&IE Consultants ensured the close coordination with DGA OFWM Office & Focal Person of DGA OFWM in the future.	



Figure 3.139: View of Meeting held with Director General (Agri) OFWM

#### Meeting with Deputy Director Agriculture OFWM Faisalabad

<b>Date</b>	20-01-2023
<b>Venue</b>	DDA & ADA (OFWM) Office Faisalabad
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Dr. Muhammad Asif DDA Agri. (OFWM) Faisalabad</li> <li>- Asim Munir ADA Agri. (OFWM), Tehsil Faisalabad.</li> <li>- Awais Jahangeer, FTI, ME&amp;IE, Consultants</li> <li>- Sohail Ahmad, FTE, ME&amp;IE, Consultants</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of Laser Land Levelers in the district Faisalabad</li> </ul>	

Figure 3.140: Meeting in progress of LLL in Dist./ Tehsil, Faisalabad

#### Meeting with Assistant Director Agriculture OFWM Samundri

<b>Date</b>	21-01-2023
<b>Venue</b>	ADA (OFWM) Office Samundri
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- ADA Agri. (OFWM), Tehsil Samundri.</li> <li>- Mr. Mazhar Iqbal Qureshi</li> <li>- Awais Jahangeer FTI ME&amp;IE Consultants</li> </ul>	

NPIWC-II  
- Sohail Ahmad FTE ME&IE Consultants NPIWC-II

**Meeting Agenda/Points discussed:**

- Discussion regarding progress of Laser Land Levelers in Tehsil Samundri its constraints highlighted in the meeting.



**Figure 3.141: Meeting in Progress of Laser Land Levelers in Tehsil Samundri**

#### Meeting with Assistant Director Agriculture OFWM Jhang

<b>Date</b>	23-01-2023
<b>Venue</b>	DDA & ADA (OFWM) Office Jhang
<b>Participants</b>	
<ul style="list-style-type: none"> <li>Waheed Uz Zaman Deputy Director of Agriculture (OFWM District and Tehsil Jhang)</li> <li>Assistant Director (OFWM) Aamir Jamil District and Tehsil Jhang</li> <li>Awais Jahangeer FTI ME&amp;IE Consultants NPIWC-II</li> <li>Sohail Ahmad FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>Progress of the project activities.</li> <li>Basic Data Collection of PLL units</li> <li>Issues faced by the farmer regarding PLL</li> <li>Seek the Cooperation/Coordination of field staff</li> </ul>	



**Figure 3.142: Meeting in progress of Laser Land Levelers in District & Tehsil Jhang**

#### Meeting with Deputy Director Agriculture and ADA OFWM Toba Tek Singh

<b>Date</b>	24-01-2023
<b>Venue</b>	DDA & ADA (OFWM) Office Toba Tek Singh
<b>Participants</b>	
<ul style="list-style-type: none"> <li>Farhana Jamil Deputy Director of Agriculture (OFWM) Toba Tek Singh</li> <li>Asif Ali Assistant Director (OFWM), Toba Tek Singh</li> <li>Awais Jahangeer FTI ME&amp;IE Consultants NPIWC-II</li> <li>Sohail Ahmad FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>Discussion regarding the progress of Laser Land Levelers in District &amp; Tehsil Toba Tek Singh</li> <li>Seek the cooperation/coordination of field staff</li> </ul>	



**Figure 3.143: Meeting in progress of Laser Land Levelers in District & Tehsil Toba Tek Singh**

#### Meeting With Assistant Director Agriculture OFWM Burewala

<b>Date</b>	25-01-2023
<b>Venue</b>	ADA (OFWM) Office Burewala
<b>Participants</b>	
<ul style="list-style-type: none"> <li>Aamir Shabbir Assistant Director (OFWM), Burewala</li> <li>Awais Jahangeer FTI ME&amp;IE Consultants NPIWC-II</li> <li>Sohail Ahmad FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>Discussion regarding the progress of Laser Land Levelers in Tehsil Burewala</li> <li>To review the progress of project in the respective area's sampled interventions.</li> <li>Seek the cooperation/coordination of field staff</li> </ul>	





Figure 3.144: Meeting in progress of Laser Land Levelers in Tehsil Burewala

#### Meeting With Deputy Director Agriculture OFWM Sahiwal

Date	26-01-2023
Venue	DDA (OFWM) Office Sahiwal
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Muhammad Shafique Deputy Director of Agriculture (OFWM), Sahiwal</li> <li>- Awais Jahangeer FTI ME&amp;IE Consultants NPIWC-II</li> <li>- Sohail Ahmad FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	

#### Meeting Agenda/Points discussed:

- Discussion regarding the progress of Laser Land Levelers in District & Tehsil Sahiwal
- Basic Data Collection of PLL units
- Issues faced by the farmer regarding PLL



Figure 3.145: Meeting in progress of Laser Land Levelers in District & Tehsil Sahiwal

#### Meeting with Assistant Director (Agri) OFWM Okara

Date	27-01-2023
Venue	ADA (OFWM) Office Okara
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Muhammad Younas Asstt. Dir. Agri. (OFWM), Okara</li> <li>- Awais Jahangeer FTI ME&amp;IE Consultants</li> </ul>	

NPIWC-II

- Sohail Ahmad FTE ME&IE Consultants NPIWC-II

#### Meeting Agenda/Points discussed:

- Discussion regarding the progress of Laser Land Levelers at District & Tehsil Okara
- Basic Data Collection of PLL units
- Issues faced by the farmer regarding PLL
- Review of OFWM, Activities in Punjab zone



Figure 3.146: Meeting in the progress of PLL at Tehsil Okara

#### Meeting with Deputy Director Agriculture & ADA OFWM Sialkot

Date	19-01-2023
Venue	DDA & ADA (OFWM) Office Sialkot
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Muhammad Imran DDA Agri. (OFWM) Sialkot</li> <li>- Muhammad Asif ADA Agri. (OFWM) Sialkot</li> <li>- Muhammad Misbah ur Rehman FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	

#### Meeting Agenda/Points discussed:

- Discussion regarding the progress of Laser Land Levelers in the district Sialkot
- To review the progress of project in the respective area
- Seek the cooperation/coordination of field staff



Figure 3.147: Meeting in progress regarding PLL at District Hq

### Meeting With Assistant Director Agriculture OFWM District Gujranwala Tehsil Wazirabad

<b>Date</b>	21-01-2023
<b>Venue</b>	ADA (OFWM) Office Wazirabad
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Aaftab Ahmad Asstt. Dir. Agri. (OFWM), Wazirabad</li> <li>- Muhammad Misbah ur Rehman FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of Laser Land Levelers in District Gujranwala</li> <li>• Progress of the project activities.</li> <li>• Basic Data Collection of PLL units</li> <li>• Issue faced by the farmer regarding PLL</li> </ul>	
	
<p><b>Figure 3.148: Meeting in progress regarding PLL at Districts Hq.</b></p>	

### Meeting with Deputy Director Agriculture, ADA OFWM Office Hafizabad

<b>Date</b>	23-01-2023
<b>Venue</b>	DDA & ADA (OFWM) Office Hafizabad
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Zahid Hussain Deputy Director of Agriculture (OFWM)</li> <li>- Zafar Iqbal Asstt. Dir. Agri. (OFWM), Hafizabad</li> <li>- Muhammad Misbah ur Rehman FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of Laser Land Levelers in the district Hafizabad</li> <li>• Review field activities of ME&amp;IE Consultants</li> <li>• Briefing of ME &amp; IE Consultants on project activities.</li> <li>• To review the progress of project in the respective area and basic data sampled interventions.</li> </ul>	

- Seek the cooperation/coordination of field staff



**Figure 3.149: Meeting in progress regarding the PLL at District Hqs.**

### Meeting With Assistant Director Agriculture OFWM Sargodha

<b>Date</b>	24-01-2023
<b>Venue</b>	ADA, (OFWM) Office Sargodha
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Umar Hayat Bhatti Asstt. Dir. Agri. (OFWM), Sargodha</li> <li>- Muhammad Misbah ur Rehman FTE, ME&amp;IE Consultants, NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of Laser Land Levelers in the district Sargodha</li> <li>• Progress of the project activities.</li> <li>• Basic Data Collection of PLL units</li> <li>• Issue faced by the farmer regarding PLL</li> </ul>	
	
<p><b>Figure 3.150: Meeting in progress regarding PLL at District Hqs</b></p>	

### Meeting With Deputy Director Agriculture OFWM Khushab

<b>Date</b>	25-01-2023
<b>Venue</b>	Deputy Director Agriculture (OFWM) Office Khushab
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Aamir Shahzad Deputy Director of Agriculture (OFWM)</li> <li>- Zahid Khan Asstt. Dir. Agri. (OFWM), Khushab</li> </ul>	



- Muhammad Misbah ur Rehman FTE ME&IE Consultants NPIWC-II

**Meeting Agenda/Points discussed:**

- Discussion regarding the progress of PLL in District khushab
- view of field activities, of ME&IE Consultants
- Seek the cooperation/coordination of field staff



Figure 3.151: Meeting in progress regarding PLL at District Hqs

**Meeting With Deputy Director Agriculture OFWM Nankana Sahib**

**Date** 19-01-2023

**Venue** Deputy Director, Agriculture (OFWM) Office Nankana Sahib

**Participants**

- Zia ur Rehman DDA Agri. (OFWM) Nankana Sahib
- Muhammad Bilal Sohail FTE ME&IE Consultants NPIWC-II
- Noman Rasheed FTE ME&IE Consultants NPIWC-II

**Meeting Agenda/Points discussed:**

- Discussion regarding the progress of PLL of the district Nankana Sahib
- Progress of the project activities.
- Basic Data Collection of PLL units
- Issue faced by the farmer regarding PLL



Figure 3.152: Meeting in progress regarding PLL at Districts Hq

**Meeting With Deputy Director Agriculture OFWM Sheikhupura**

**Date** 20-01-2023

**Venue** Deputy Director Agriculture OFWM Office Sheikhupura

**Participants**

- Adeeb Faisal DDA Agri. (OFWM) Sheikhupura
- Muhammad Bilal Sohail FTE ME&IE Consultants NPIWC-II
- Noman Rasheed FTE ME&IE Consultants NPIWC-II

**Meeting Agenda/Points discussed:**

- Discussion regarding the progress of PLL in District, Sheikhupura



Figure 3.153: Meeting in progress regarding PLL at District Hqs

**Meeting With Assistant Director Agriculture OFWM Kasur**

**Date** 21-01-2023

**Venue** Assistant Director, Agriculture OFWM Office, Kasur

**Participants**

- Attiq Ur Rehman ADA Agri. (OFWM) Sheikhupura
- Muhammad Bilal Sohail FTE ME&IE Consultants NPIWC-II
- Noman Rasheed FTE ME&IE Consultants NPIWC-II

**Meeting Agenda/Points discussed:**

- Discussion regarding the progress of PLL in District Kasur
- Briefing of ME & IE Consultants on project activities.
- To review the progress of project in the respective area and basic data sampled interventions.



Figure 3.154: Meeting in progress regarding the PLL at District Level

#### Meeting With Deputy Director Agriculture OFWM Khanewal

Date	23-01-2023
Venue	Deputy Director Agriculture OFWM Office Khanewal
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Shahid Hussain DDA Agri. (OFWM) Khanewal</li> <li>- Muhammad Bilal Sohail FTE ME&amp;IE Consultants NPIWC-II</li> <li>- Noman Rasheed FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of PLL in District Khanewal</li> <li>• Progress of the project activities.</li> <li>• Basic Data Collection of PLL units</li> <li>• Issues faced by the farmer regarding PLL</li> </ul>	

Figure 3.155: Meeting in progress regarding the PLL status at District Level

#### Meeting With Deputy Director Agriculture OFWM Multan

Date	24-01-2023
Venue	Deputy Director, Agriculture OFWM Office Multan
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Ijaz Gul DDA Agri. (OFWM) Multan</li> <li>- Muhammad Bilal Sohail FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	

- Noman Rasheed FTE ME&IE Consultants NPIWC-II

#### Meeting Agenda/Points discussed:

- Discussion regarding the progress of PLL in District Multan
- Progress of the project activities.
- Basic Data Collection of PLL units
- Issue faced by the farmer regarding PLL



Figure 3.156: Meeting in progress regarding the PLL of the districts

#### Meeting with Assistant Director, Agriculture OFWM, Lodhran

Date	25-01-2023
Venue	Assistant Director Agriculture OFWM Office Lodhran
<b>Participants</b>	
<ul style="list-style-type: none"> <li>- Mudassar ADA Agri. (OFWM) Multan</li> <li>- Muhammad Bilal Sohail FTE ME&amp;IE Consultants NPIWC-II</li> <li>- Noman Rasheed FTE ME&amp;IE Consultants NPIWC-II</li> </ul>	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• Discussion regarding the progress of PLL in District Lodhran</li> <li>• Progress of the project activities.</li> <li>• Basic Data Collection of PLL units</li> <li>• Issues faced by the farmer regarding PLL</li> </ul>	

Figure 3.157: Meeting in progress regarding PLL working



### 3.7 ACTIVITIES KP ZONE – JANUARY 2023

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

Updated Progress of ME&IE Consultants, KP Zone includes;

- Carried out field activities for Regular Monitoring as well as Baseline & Impact survey data collection from field.
- Meetings were carried out with Gilgit OFWM Offices for collection of undergoing schemes. However, it was found that schemes were mostly completed under NPIW program. New schemes will be initiated when Govt may allocate budget.
- NPIWC-II KP all watercourse, and water storage tank schemes coordinate verification through Google Earth and identification of incorrect coordinates.

- One Day of refreshing training was held at Abbottabad for all Hazara division district officers on android mobile application and taking coordinates through application for NPIWC-II project schemes.
- Drafted KP MMR report for the month of December

#### 3.7.1 UPDATED PROGRESS OF ME&IE CONSULTANTS - KP.

#### 3.7.2 Overall Progress:

The ME&IE Consultants KP field teams conducted two baseline surveys from June 2021 to January 2023. They visited 165 watercourses and 65 WST schemes for data collection for the baseline survey in KP & GB, similarly, for data collection of the Impact survey in KP & GB 57 watercourses 21 WSTs and 5 PLL interventions were also visited.

**District-wise Baseline & Impact Survey field visits till reporting month**

Zone / Region	District	Baseline		Impact		PLL	Total
		WC	WST	WC	WST		
KP	Dera Ismail Khan	33	10	2	-	5	50
	Nowshera	20	9	1	1	-	31
	Mansehra	15	4	1	-	-	20
	Peshawar	13	7	1	-	-	21
	Haripur	9	7	2	2	-	20
	Charsadda	7	2	1	1	-	11
	Mardan	6	1	1	-	-	8
	Swabi	4	1	2	-	-	7
	Buner	6	2	-	-	-	8
	Kohat	3	-	1	-	-	4
	Swat	3	-	-	-	-	3
	Abbottabad	2	1	1	-	-	4
	Lakki Marwat	1	2	1	1	-	5
	Torghar	1	-	1	-	-	2
	Bannu	1	-	1	-	-	2
	Battagram	1	1	1	-	-	3
	Khyber	-	1	-	-	-	1
	Tank	-	2	-	1	-	3
	<b>Sub Total KP</b>	<b>125</b>	<b>50</b>	<b>17</b>	<b>6</b>	<b>5</b>	<b>203</b>
	Skardu	7	2	7	2	-	18
	Diamer	6	2	6	2	-	16
	Ghanche	6		6		-	12
	Gilgit	5	3	5	3	-	16
	Ghizer	4	2	4	2	-	12

Zone / Region	District	Baseline		Impact		PLL	Total
		WC	WST	WC	WST		
GB	Shigar	4	2	4	2	-	12
	Nagar	2	1	2	1	-	6
	Astore	2	1	2	1	-	6
	Kharmang	2	1	2	1	-	6
	Hunza	2	1	2	1	-	6
	<b>Sub Total GB</b>	<b>40</b>	<b>15</b>	<b>40</b>	<b>15</b>	<b>0</b>	<b>110</b>
<b>Grand Total</b>		<b>165</b>	<b>65</b>	<b>57</b>	<b>21</b>	<b>5</b>	<b>313</b>

### 3.7.3 Achievements against Outputs

KP team worked on data entry, location validation with GPS coordinates and field visit for data collection and coordination in the month of January.

- Output 1: Baseline/Impact Survey of Watercourses, Water Storage Tanks and Laser Land Levelling

The monitoring / Baseline pertains 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 brief feature of an intervention is given in this report as under:

- Field visits of target intervention.
  - Improvement of watercourses
  - Construction of water storage tank
  - Provision of laser land leveler
- Meetings with field officers and staff of OFWM.
- ME&IE Consultant's remarks regarding on monitoring and feedback of beneficiaries.

During the reported month, KP Zonal team visited DI Khan and Gilgit Baltistan for baseline surveys and data collection of the targeted activities. During current month KP team carried out survey of baseline activities for the Laser Land leveler in Dera Ismail Khan.

A total of five LLL were visited, the following were the main finding:

- Farmers were very happy with the provision of LLL and they said that they can now save 25% time in irrigation practices while this activity also reduce their electricity/diesel bills due to flat and even surface of the farm.
- Some 60% farmers were providing the LLL to other farmers on rental basis, while 20% farmer told that they provide this service on free of cost in terms that farmers may not have to pay for rent, they have to bear diesel and Mobil oil cost for tractor instead of cash payment. While remaining farmers told that they did not provide the LLL due to flood and its after affects.
- Farmers suggested that Govt may provide the tube well and solar system to on farm Water management for better execution. They criticized the other departments who are not working with appropriate dedication.

Many of the farmers told that due to recent flood, their landholding was affected largely and they are now working for its restoration. They were quiet happy with provision of LLL services to them.



Figure 3.158: Visit to LLL of Mr. Junaid Khan





Figure 3.159: Visit to LLL of Mr. Malik Bahawal



Figure 3.160: Visit to LLL of Mr. Arsahad Khan



Figure 3.161: Visit to LLL of Mr. Arif



Figure 3.162: Visit to LLL of M. Ramzan

schemes of Baluchistan and KP province. The activity was distributed among different team members in support of IT team.

- Output 2: Monitoring of the selected watercourses;

The field team of DIK region also carried out the monitoring of the LLL units being in the possession of the service providers and reported through online application.

- Output 3: Coordination Meetings

During the current reporting month, coordination and meetings have been carried out with OFWM department of KP. The purpose of the coordination with them was to collect the GPS location-based data for dashboard completion and visits of teams to different destinations for baseline surveys. OFWM directorate extends their usual support and provided all the relevant information. Team visited to DIKhan met with focal person for LLL activities Mr. Salman Shahsawar, who visited the team in all the regions and provided his utmost support for completion of the task. It was however revealed by him that they started to distribute the LLL Units from June 2022 and none of them have passed 1 year time period.

Date	19-1-2023
Venue	Water management and Irrigation department
<b>Participants</b>	
i. DG Fazl ur Rahman, Gilgit	
ii. Engr. Iftikhar, Gilgit	
iii. FTI Mahmood, KP Team	
iv. FTI Rizwan Suleman, Punjab Team	
v. Irfan Aziz, ICT Team.	
<b>Meeting Agenda/Points discussed:</b>	
- Collection of the data for Dashboard of NPIWC-II	
- Collection of data for baseline & Impact activities.	
<b>Outcome of the meeting:</b>	

### Data Entry and GPS validation

During the reported months KP Teams entered and validated the GPS locations for almost 2000

Officials from Gilgit Baltistan cooperate to provide data to ME&IE teams.



**Figure 3.163: Meeting with Mr. Fazal Ur Rahman DG (OFWM) Gilgit Baltistan**

Date	20-1-2023
Venue	Water management department Dera Ismail Khan

**Participants**

- i. Mr. Salman Shah Sawar
- ii. Muhammad Bilal, FTI
- iii. Arsalan Bashir, Field team member

**Meeting Agenda/Points discussed:**

- Collection of the distribution data of LLL to farmers of Dera Ismail Khan
- Field visits for baseline surveys.

**Outcome of the meeting:**

Mr. Salman (focal person for LLL at DIK) told the visiting team that they have distributed 50 LLL to farmers from June 2022. He told that yet none of the LLL has completed one year time frame. Upon request he called different service providers and supported the ME&IE team in organizing the field survey. It was told by him that due to flood activities and crops in the field, most of the service providers didn't start the levelling activities in their area as well to neighboring farmers. However, they believe that with the cutting of wheat in March-April they will start levelling the fields with speed.



**Figure 3.164: Meeting with Mr. Salman (OFWM) DIK focal person for LLL activities**

Date	30-1-2023
Venue	Peshawar OFWM office

**Participants**

1. DG (Javed Iqbal Khattak) OFWM
2. Focal Person (Hayat Khan)
3. Asif Director Training,
4. Naseeb ur Rehman Director HQ and
5. IT staff (Mehboob Alam)
6. Fawad Ahmad, IT, NPIW
7. Rizwan Saleem, ICT specialist

**Meeting Agenda/Points discussed:**

- Dashboard data management
- Missing parameters in data, and
- Incorrect coordinates

**Outcome of the meeting:**

DG advised to call a meeting of all The District Officials and other focal person. The meeting was held at Directorate of OFWM under supervision of DG OFWM on /1/2023.

DG advised NPIW consultants to assess the knowledge of OFWM staff to identify gaps and shortcoming in managing the collection of GPS coordinates.

Shortcoming were shared with staff and it was finalized to hold trainings at Regional level to build capacity of OFWM field staff.





Figure 3.165: Meeting with DG OFWM and Focal Person



Figure 3.166: Meeting with DG OFWM and Focal Person



Figure 3.167: Meeting of all The District Officials and other focal person

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

During the current reporting month, formal trainings were imparted to OFWM officials. However, continuous support was provided to OFWM officials on telephone for any issue while operating android system and/or data collection process.

IT team carried out one day visit to Charsadda and assess the understanding of field staff for

utilization of android app to collect the data of GPS coordinates. It was found that there was some negligence from staff of OFWM in collection of GPS coordinates, which was planned to overcome.



Figure 3.168: Gap identification of OFWM field staff at Charsadda



Figure 3.169: Gap identification of OFWM field staff at Charsadda



Figure 3.170: Training of OFWM Regional staff at Abbottabad

One Day of refreshing training was held at Abbottabad for all Hazara division district officers on android mobile application and taking coordinates through application for NPIWC-II project schemes. The gaps were filled in the understanding of the field teams of OFWM and ensured that they may follow the principals of the



data collection in near future for better data gathering.

**Suggestions:**

For the Smooth operations of field activities following are the main Suggestions provided to Team Leader and Authorized Representative of JV.

- It was observed that all the data was being collected on android system and teams don't keep the data in any hard form. One of the KP team managed to compile it to 4 pages and it was already shared. If management may agree, it could be printed and all teams may keep this hard data with them for all coming surveys.
- 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.
- The assurance of funds availability for conducting field surveys must be in provided to each province in advance so they can execute their planning well on time without hinders.

### 3.8 ACTIVITIES BALUCHISTAN ZONE – JANUARY 2023

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

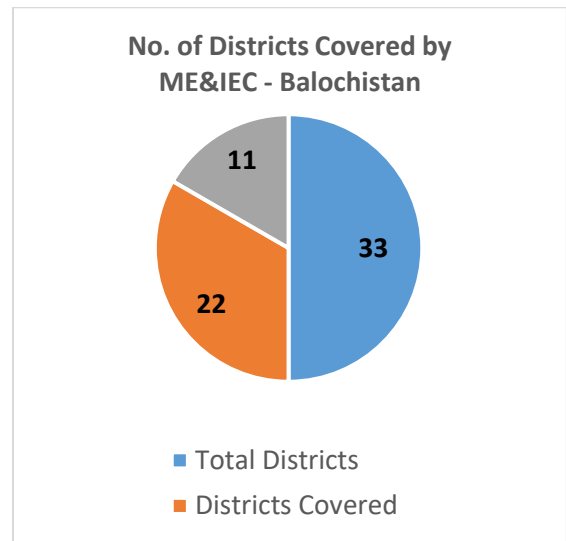
- Updated progress of ME&IE Consultants, Baluchistan.
- Audit of ME&IE Consultants, Baluchistan.
- Impact Assessment Survey & Visits of PLL
- Visit of 05 Divisional Head Quarters regarding data collection for Dashboard, Baluchistan / held regular meetings.
- Tentative Quarterly Work Plan

#### 3.8.1 UPDATED PROGRESS OF ME&IE CONSULTANTS –BALUCHISTAN

The ME&IE Consultants, Baluchistan, have monitored 17 sites during the pre-testing of Monitoring Tools in different months. A total of 13 sites were monitored during executive visits with high officials. The ME&IE Consultants, Baluchistan have conducted two baseline surveys, the first was conducted in 2021 and the second was conducted in 2022-23. A total of 149 sites were monitored during the baseline surveys i.e., 61 Watercourses and 88 Water Storage Tanks. The ME&IEC, field teams monitored 07 sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. During the reporting month 07 PLL 01 watercourse and 08 WST schemes have been visited for Impact Assessment Survey. The Impact Assessment Survey was conducted in the 2022-23 in which till reporting month 53 watercourse and 63 WSTs

were visited for data collection. Regular monitoring/spot-checking is another important activity of ME&IE Consultants. The Baluchistan field teams have so far monitored more than 77 Watercourses and 101 Water Storage Tanks in regular monitoring/spot checking. In regular monitoring, ME&IE Consultants monitored ongoing / completed sites covering all financial years i.e., 2019-20, 2020-21, and 2021-22. As soon as the Department initiates the works on F.Y. 2022-23 and finalizes the beneficiaries' lists, the ME&IEC, Baluchistan will start the "Baseline Survey – 3" activities accordingly. The updated status of the total activities done is given in the below table:

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



**Summary of District-wise Baseline & Impact Survey field visits till reporting month**

District	Baseline Survey		Impact Survey		PLL	Total Visit
	WC	WST	WC	WST		
Jaffarabad	3	-	3	-	4	10
Jhal Magsi	1	4	1	4	-	10
Kachi	2	10	2	9	-	23
Kalat	3	4	3	4	-	14
Khuzdar	3	7	3	7	-	20
Killa Abdullah	7	2	3	2	-	14
Killa Saifullah	-	4	2	1	-	7
Loralai	3	7	2	2	-	14
Mastung	5	8	5	3	-	21
Musakhail	1	1	1	1	-	4
Nasirabad	9	6	9	5	-	29
Nushki	2	1	2	1	-	6



District	Baseline Survey		Impact Survey		PLL	Total Visit
	WC	WST	WC	WST		
Pishin	2	9	2	5	-	18
Quetta	3	15	3	12	-	33
Sherani	2	2	2	2	-	8
Sibi	1	3	1	3	-	8
Sohbatpur	10	-	6	-	3	19
Zhob	2	1	2	1	-	6
Ziarat	2	4	1	1	-	8
<b>Total</b>	<b>61</b>	<b>88</b>	<b>53</b>	<b>63</b>	<b>7</b>	<b>272</b>

### 3.8.2 AUDIT OF ME&IE CONSULTANTS – BALUCHISTAN

An audit team of client visited the ME&IE Consultants, Zonal office, Quetta from 23<sup>rd</sup> to 24<sup>th</sup> January 2023 to check the assets, inventory lists, personal files, equipment etc. and physical verification of staff.

The audit team were consisting i.e., Mr. Kareem, Mr. Soaib Kundi, Mr. Farhan Kakar from PFMU, Islamabad and Mr. Sajid Ali, Agriculture Officer, DG, Office, Quetta.

The visit was a comprehensive review of the project's assets and physical verification of staff to ensure they are in agreement with the compliance with Contract Agreement.

The Team met with staff, visited the entire office, reviewed the personal files and attendance register etc. The ME&IE Consultants now believe that client will clear all long pending bills/invoices which will be an important step in ensuring the organization's financial stability. There is enormous pressure of vendors on consultants to clear their bills which are pending since inception of the project.

### 3.8.3 IMPACT ASSESSMENT SURVEY OF LASER LAND LEVELER – BALUCHISTAN

The provision of Laser Land Leveler is an important intervention of the NPIWC-II. The enhancement of water productivity at farm level is the most appropriate solution to redress water scarcity. Laser land leveling is the best option for improving water productivity through minimizing water application losses. Use of Laser technology for the purpose is the latest development, which was introduced in the country during 1985. On average Laser Land Leveler has the capacity of doing

precision land leveling of about 300 acres per annum.

The aim of this component was to strengthen LASER land leveling services through provision of Laser Land Leveling Units to farmers/service providers on 50% subsidized rates (one-time financial assistance of Rs. 250,000/-, while the beneficiary farmer would contribute the entire remaining cost of the equipment).

As per PC-1 the LLL targets for Baluchistan were:

Laser Land Leveling (Numbers)					
Year-1	Year-2	Year-3	Year-4	Year-5	Total
200	350	400	400	150	1,500

The OFWM, Baluchistan has been provided only 34 LLL to the farmers in last three years.

The Balochistan field team conducted impact survey of LLL, the detail of visits is given below:

#### PLL Visit-1

Date	23/01/2023
District	Jaffarabad
Tehsil	Jhat Pat
Name of Scheme / Farmer	Sher Khan
Company Name (Providing LLL)	Amjad Brothers Zarai Industries
Model of machine	CLS 3000
Quality (as per farmer)	Satisfactory
Coordinates	68.4011377 28.5043908
Culturable Command Area	10 Acre
Land Levelled "Owner"	10 Acre
Land Levelled "Others"	100 Acre

<b>No. of farmers served</b>	6 Farmers
<b>Duration of LLL used</b>	1 Month
<b>Impact – Irrigation Time Decreased</b>	Rice = 20% Wheat = 33%
<b>Impact – Crop Yield Increased</b>	Rice = 33% Wheat = 29%
<b>General Observations</b>	The farmer sent LLL to another district, due to this reason physical verification of LLL could not be done.



Figure 3.171: Meeting with Sher Khan about Laser Land Leveler, Tehsil Jhat Pat.

#### PLL Visit-2

<b>Date</b>	23/01/2023
<b>District</b>	Jaffarabad
<b>Tehsil</b>	Jhat Pat
<b>Name of Scheme / Farmer</b>	Javeed Ali
<b>Company Name (Providing LLL)</b>	Amjad Brothers Zarai Industries
<b>Model of machine</b>	CLS 3000
<b>Quality (as per farmer)</b>	Satisfactory
<b>Coordinates</b>	68.3496091 28.3787233
<b>Culturable Command Area</b>	14 Acre
<b>Land Levelled "Owner"</b>	14 Acre
<b>Land Levelled "Others"</b>	150 Acre
<b>No. of farmers served</b>	12 farmers
<b>Duration of LLL used</b>	1.5 Month
<b>Impact – Irrigation Time Decreased</b>	Rice = 29% Wheat = 33%
<b>Impact – Crop Yield Increased</b>	Rice = 30% Wheat = 25%
<b>General Observations</b>	The farmer sent LLL to another district, due to this reason physical verification of LLL could not be



Figure 3.172: Mr. Javeed Ali is being interviewed by ME&IEC, field staff about LLL, Tehsil Jhat Pat

#### PLL Visit-3

<b>Date</b>	23/01/2023
<b>District</b>	Jaffarabad
<b>Tehsil</b>	Jhat Pat
<b>Name of Scheme / Farmer</b>	Ejaz Ali
<b>Company Name (Providing LLL)</b>	Amjad Brothers Zarai Industries
<b>Model of machine</b>	CLS 3000
<b>Quality (as per farmer)</b>	Satisfactory
<b>Coordinates</b>	68.3447343 28.3770417
<b>Culturable Command Area</b>	55 Acre
<b>Land Levelled "Owner"</b>	55 Acre
<b>Land Levelled "Others"</b>	250 Acre
<b>No. of farmers served</b>	22 Farmers
<b>Duration of LLL used</b>	2 Months
<b>Impact – Irrigation Time Decreased</b>	Rice = 33% Wheat = 33%
<b>Impact – Crop Yield Increased</b>	Rice = 33% Wheat = 36%
<b>General Observations</b>	The farmer sent LLL to another district, due to this reason physical verification of LLL could not be done.



Figure 3.173: Mr. Ejaz Ahmed Magsi sharing his views about LLL, Tehsil Jhat Pat

#### PLL Visit-4

Date	23/01/2023
District	Jaffarabad
Tehsil	Jhat Pat
Name of Scheme / Farmer	Mohammad Kaleem
Company Name (Providing LLL)	Amjad Brothers Zarai Industries
Model of machine	CLS 3000
Quality	Satisfactory
Coordinates	68.2659517 28.4052517
Culturable Command Area	1500 Acre
Land Leveled "Owner"	0
Land Leveled "Others"	0
No. of farmers served	0
Duration of LLL used	0
Impact – Irrigation Time Decreased	Rice = 0% Wheat = 0%
Impact – Crop Yield Increased	Rice = 0% Wheat = 0%
General Observations	The farmer could not use the LLL due to non-availability of technical staff. The department is requested to give necessary training or assistance so that it could be

used and farmer take benefits.



Figure 3.174: Mr. Kaleem sharing his views about LLL with ME&IEC field team member, Tehsil Jhat Pat.

#### PLL Visit-5

Date	24/01/2023
District	Sohbat Pur
Tehsil	Farid Abad
Name of Scheme / Farmer	Mohammad Hassan
Company Name (Providing LLL)	Amjad Brothers Zarai Industries
Model of machine	CLS 3000
Quality	Satisfactory
Coordinates	28.602299 68.4196574
Culturable Command Area	150 Acre
Land Leveled "Owner"	70 Acre
Land Leveled "Others"	0
No. of farmers served	0
Duration of LLL used	1 Month
Impact – Irrigation Time Decreased	Rice = 29% Wheat = 25%
Impact – Crop Yield Increased	Rice = 35% Wheat = 33%
General Observations	<ul style="list-style-type: none"> <li>Farmer was happy with this intervention.</li> <li>The LLL was not properly maintained</li> </ul>





Figure 3.175: Discussion with Mr. M Hassan about LLL, Tehsil Faridabad.

#### PLL Visit-6

Date	24/01/2023
District	Sohbat Pur
Tehsil	Farid Abad
Name of Scheme / Farmer	Ghulam Sabir
Company Name (Providing LLL)	Amjad Brothers Zarai Industries
Model of machine	CLS 3000
Quality (as per farmer)	Good
Coordinates	68.3603847 28.4432565
Culturable Command Area	500
Land Leveled "Owner"	200
Land Leveled "Others"	0
No. of farmers served	0
Duration of LLL used	2 months
Impact – Irrigation Time Decreased	Rice = 38% Wheat = 25%
Impact – Crop Yield Increased	Rice = 30% Wheat = 38%
General Observations	<ul style="list-style-type: none"> <li>Farmer was happy as his yield increased.</li> <li>Records were not properly maintained.</li> </ul>



Figure 3.176: View of LLL and meeting with Mr. Sabir, Tehsil Faridabad.

#### PLL Visit-7

Date	24/01/2023
District	Sohbat Pur
Tehsil	Farid Abad
Name of Scheme / Farmer	Mohiudin
Company Name (Providing LLL)	Amjad Brothers Zarai Industries
Model of machine	CLS 3000
Quality (as per farmer)	Satisfactory
Coordinates	68.3494883 28.3792027
Culturable Command Area	120 Acre
Land Leveled "Owner"	80 Acre
Land Leveled "Others"	150 Acre
No. of farmers served	6 Farmers
Duration of LLL used	1 Month
Impact – Irrigation Time Decreased	Rice = 38% Wheat = 25%
Impact – Crop Yield Increased	Rice = 25% Wheat = 36%
General Observations	<ul style="list-style-type: none"> <li>Farmer was happy with the benefits of LLL</li> <li>Record was not</li> </ul>



Figure 3.177: Discussion with Mr. Mohidin about LLL, Tehsil Faridabad.

### 3.8.4 VISIT OF 05 DIVISIONAL HEAD QUARTER TO COLLECT THE DASHBOARD DATA – BALOCHISTAN

The ME&IE Consultants conducted of two days training/workshop regarding data collection through Android Application on 7<sup>th</sup> and 8<sup>th</sup> December 2022 in Quetta. It was observed the progress of data receiving was quite weak, in spite of several reminders. Therefore ME&IE Consultants planned a rush plan to visit all districts headquarters to expedite the work and give them support and assistance too. The activity was carried out in a phased manner. In first phase ME&IE Consultants covered 5 Divisions. In these activities multiple meetings and data feeding activities were conducted.

The detail of visits / meetings is mentioned below:

<b>Date</b>	17 <sup>th</sup> January 2023
<b>Venue</b>	Zonal Office, Quetta
<b>Participants</b>	
i.	Mr. Mukhtiar Ahmed, DD, OFWM, Ziarat
ii.	Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The DD, OFWM, Ziarat visited the Consultant's office at Quetta to discuss the data feeding issues they are facing. The DTL provided him with an orientation on the android data collection application since he was unable to attend the training provided by the IT Department of the Consultants.</li> </ul>	



Figure 3.178: View of internal meeting held to finalize the visit plan to collect data for Dashboard, Balochistan

<b>Date</b>	25 <sup>th</sup> January 2023
<b>Venue</b>	Zonal Office, Quetta
<b>Participants</b>	
i.	Mr. Rizwan Ahmed, DTL, ME&IEC, Balochistan.
ii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IEC.
iii.	Mr. Naseeb Jan, FTI, ME&IEC.
iv.	Mr. Basit Kakar, M&E Officer, ME&IEC
v.	Mr. Qaisar Tareen, M&E Officer, ME&IEC
vi.	Mr. Arsalan, M&E Officer, ME&IEC
vii.	Mr. Umair, M&E Officer, ME&IEC
viii.	Mr. Umair, Account Assistant, ME&IEC
ix.	Mr. Nazeer, Computer Operator, ME&IEC
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The DLT discussed visit plan and assigned the task and timelines.</li> <li>FTIs shared visits plan with tentative expenses</li> </ul>	

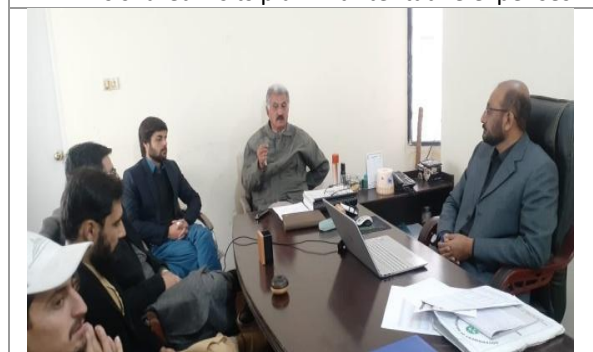


Figure 3.179: View of internal meeting held to finalize the visit plan to collect data for Dashboard, Baluchistan

<b>Date</b>	25 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DG, OFWM, Baluchistan, Rani Bagh, Sariab Road, Quetta
<b>Participants</b>	
i. Mr. Wahab Kakar, DG, OFWM, Agriculture Department, Govt. of Baluchistan, Quetta	
ii. Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan	
iii. Mr. Behram Mulghani, Focal Person, OFWM, Quetta	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The DTL, ME&amp;IEC shared updated progress of data receiving from DDs on Dashboard, Baluchistan</li> <li>DTL, ME&amp;IEC shared the grievances of consultant regarding weak response of DDs regarding data validation on Dashboard, Baluchistan</li> <li>The DG, OFWM asked to Focal Person, OFWM issue notices to all DDs to expedite the work and complete this task immediately, or else strict action will be taken by the department</li> </ul>	

<b>Date</b>	26 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DG, OFWM, Baluchistan, Rani Bagh, Sariab Road, Quetta
<b>Participants</b>	
i. Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan	
ii. Mr. Behram Mulghani, Focal Person, OFWM, Quetta	
iii. Mr. Naseeb Jan, FTI, ME&IE Consultants	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The DTL, ME&amp;IEC shared visit plan to five divisional headquarters with Focal Person to collect the data of Dashboard, Baluchistan at district levels.</li> <li>The Focal Person promptly responded and informed the DDs about the planned visits by the ME&amp;IEC</li> <li>The Focal Person assured the ME&amp;IEC of full support from the department at all levels.</li> </ul>	



Figure 3.180: View of meeting with Focal Persona, OFWM, Quetta.

<b>Date</b>	26 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DD, Sibi
<b>Participants</b>	
i. Mr. Barkat Buledi, DDA, OFWM, Sibi	
ii. Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,	
iii. Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants	
iv. Mr. Basit Kakar, M&E Officer, ME&IE Consultants.	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IE Consultants visited the office of DD, OFWM, Sibi twice to resolve the issues regarding data uploading.</li> <li>There were issues with the availability of data in Sibi district, but the OFWM staff advised to fill the available data and resolve these issues with the support of DG Office.</li> </ul>	



Figure 3.181: Group photo of OFWM and ME&IE Consultants staff at Sibi Office.

<b>Date</b>	26 <sup>th</sup> January 2023
<b>Venue</b>	Punjab Zonal Office Lahore
<b>Participants</b>	
i. Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan	
ii. Mr. Imran, Agriculture Officer, OFWM, Pishin.	
iii. Mr. Umair, Account Assistant, ME&IEC	
iv. Mr. Nazeer, Computer Operator, ME&IEC	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The OFWM staff of District Pishin visited the ME&amp;IE Consultants.</li> <li>The OFWM staff shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team.</li> <li>The forum distributed the data entry works among OFWM and ME&amp;IE Consultants staff, so that it could be completed on time.</li> </ul>	





Figure 3.182: View of meeting held at Zonal office, Quetta.

<b>Date</b>	29 <sup>th</sup> January 2023
<b>Venue</b>	Office of DD, OFWM, Kachi
<b>Participants</b>	
i.	Mr. Gohar Magsi, DD, OFWM
ii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
iii.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
iv.	Mr. Basit Kakar, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IEC field team met with DD, OFWM, Gohar Magsi to discuss the issues regarding data collection of Dashboard, Baluchistan.</li> <li>The ME&amp;IEC staff solve the issues raised by the DD and their staff, now the data feeding process is in progress.</li> </ul>	



Figure 3.183: View of meeting with DD, Gohar Magsi and his staff

<b>Date</b>	27 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Loralai
<b>Participants</b>	
i.	Mr. Muhammad Anwar, DDA, OFWM, Loralai
ii.	Mr. Niamat Ullah, DDA, OFWM, Musakhail
iii.	Mr. Tika Khan, Ex DDA, OFWM, Dukki
iv.	Mr. Muhammad Raza, Agriculture Officer, District Sherani

- v. Mr. Naseeb Jan, FTI, ME&IE Consultants
- vi. Mr. Arsalan, M&E Officer, ME&IE Consultants.
- vii. Mr. Umair, M&E Officer, ME&IE Consultants.

**Meeting Agenda/Points discussed:**

- The ME&IEC field team met with DDs, OFWM, of District Loralai and Musa Khail to discuss the issues regarding data collection of Dashboard, Balochistan.
- The ME&IEC staff also met with Ex DD, OFWM, Duki to solve the data issued regarding his tenure.
- The DDs gave very good response and now data feeding is under progress of these districts.



Figure 3.184: ME&IE Team Baluchistan held a meeting with Deputy Director Loralai Mr Muhammad Anwar, Deputy Director MusaKhail, Mr Niamat Ullah and Ex Deputy Director Dukki Mr Tika Khan at Divisional Head Quarter Loralai in terms of Data Validation for Dashboard

<b>Date</b>	28 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DDA, OFWM, Jaffarabad
<b>Participants</b>	
i.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants.
ii.	The Sub Engineer, OFWM, District Dera Bugti.
iii.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
iv.	Mr. Basit Kakar, M&E Officer, ME&IE Consultants.

**Meeting Agenda/Points discussed:**

- The ME&IEC field team met with OFWM staff of district Dera Bugti to discuss the matter of dashboard.
- The OFWM staff of Sibi district shared the issues / problems faced during the data collection and uploading. The ME&IEC staff resolved the IT related issues promptly.



**Figure 3.185: View of meeting of ME&IEC staff and OFWM staff, Dera Bugti**

<b>Date</b>	28 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DDA, OFWM, Loralai

**Participants**

- The OFWM Staff of District Loralai, Duki and Musa Khail
- Mr. Naseeb Jan, FTI, ME&IE Consultants
- Mr. Arsalan, M&E Officer, ME&IE Consultants.
- Mr. Umair, M&E Officer, ME&IE Consultants.

**Meeting Agenda/Points discussed:**

- The ME&IEC field team visited the office of the DD, Loralai regarding data collection of Dashboard, Balochistan.
- The OFWM staff of Duki and Musakhail also join this session and shared their problem faced during the data collection and uploading for dashboard, Balochistan.
- The ME&IE consultants solve these issues raised by the OFWM staff, now the data feeding process is ongoing.



**Figure 3.186: The ME&IEC staff give support to OFWM staff in data uploading of dashboard.**

<b>Date</b>	28 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Jaffarabad

**Participants**

- Mr. Lal Jan, DDA, OFWM, Jaffarabad
- Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
- Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
- Mr. Basit Kakar, M&E Officer, ME&IE Consultants.

**Meeting Agenda/Points discussed:**

- The ME&IEC field team met with OFWM staff of district Jaffarabad to discuss the matter of dashboard.
- The OFWM staff of Jaffarabad district shared the issues / problems faced during the data collection and uploading. The ME&IEC staff resolve the IT related issues promptly.





<b>Date</b>	29 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Sohbatpur

#### Participants

- Mr. Imdad, DDA, OFWM, Sohbat Pur
- Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
- Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
- Mr. Basit Kakar, M&E Officer, ME&IE Consultants.

#### Meeting Agenda/Points discussed:

- The ME&IEC field team visited the office of the DD, Sohbatpur regarding data collection of Dashboard, Balochistan.
- The ME&IE consultants solve these issues raised by the OFWM staff, now the data feeding process is ongoing.



Figure 3.188: View of meeting with Mr. Imdad, DDA, Mr Qasim Sub Engineer and group photo of ME&IEC and OFWM staff at District Sohbatpur

<b>Date</b>	30 <sup>th</sup> January 2023
<b>Venue</b>	The Zonal Office, Quetta of ME&IE Consultants.

#### Participants

- Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan
- Qari Basit, Sub Engineer, OFWM, Quetta
- Mr. Saleem Abro, M&E Officer, ME&IEC
- Mr. Umair, Account Assistant, ME&IEC
- Mr. Nazeer, Computer Operator, ME&IEC

#### Meeting Agenda/Points discussed:



Figure 3.187: Meeting with DDA Jaffarabad and group photo of OFWM and Consultants staff

- A group session held in the office of DTL, ME&IEC, Quetta regarding data entry of Quetta district on dashboard, Baluchistan
- The DTL, ME&IEC distributed the data feeding task among OFWM and ME&IEC staff so that the data feeding could be completed on time keeping in mind the lack of staff in Quetta district.



Figure 3.189: View of group session at zonal office, Quetta regarding dashboard activities.

<b>Date</b>	30 <sup>th</sup> January 2023
<b>Venue</b>	Punjab Zonal Office Lahore
<b>Participants</b>	
i.	Mr. Noor Ahmed, DD, OFWM, District Quetta
ii.	Mr. Faqir Muhammad, DD, OFWM, District Mastung
iii.	Mr. Rizwan Ahmed, DTL, ME&IEC, Baluchistan
iv.	Mr. Nazeer, Computer Operator, ME&IEC



#### Meeting Agenda/Points discussed:

- The ME&IE Consultants visited the office of DD, Quetta and met with DD, Quetta and DD, Mastung and discussed the issues faced by the OFWM staff regarding data uploading for dashboard, Baluchistan.
- The DD Quetta informed the DTL that he has shortage of staff, the DTL offered him services of ME&IEC and distributed the works among OFWM and ME&IE Consultants so that the missing data could be filled in with in stipulated time.



Figure 3.190: View of meeting with DD, Quetta at his office.

<b>Date</b>	30st January 2023
<b>Venue</b>	Punjab Zonal Office Lahore
<b>Participants</b>	
i.	Mr. Umar Khan, WMO, OFWM, Zhob
ii.	Mr. Muhammad Raza, Agriculture Officer, District Sherani
iii.	Mr. Naseeb Jan, FTI, ME&IE Consultants
iv.	Mr. Arsalan, M&E Officer, ME&IE Consultants.
v.	Mr. Umair, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• The ME&amp;IEC field team visited the office of the DD, Zhob regarding data collection of Dashboard, Balochistan.</li> <li>• The ME&amp;IEC staff also covered district Sheerani at Zhob office and solve the issues and uploaded the data of Sheerani.</li> <li>• The OFWM staff shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team and briefed them about importance of dashboard implementation.</li> </ul>	



Figure 3.191: View of meeting at District Zhob.

<b>Date</b>	30 <sup>th</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Dera Murad Jamali
<b>Participants</b>	
i.	Mr. Saeed Khosa, DDA, OFWM, Dera Murad Jamali
ii.	Mr. Lal Jan Kethran, DD, OFWM, Jaffarabad
iii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
iv.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
v.	Mr. Basit Kakar, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>• The ME&amp;IEC field team visited the office of the DD, DM Jamali regarding data collection of Dashboard, Balochistan.</li> <li>• The ME&amp;IEC staff also met with DD, Jaffarabad and discussed the issues regarding dashboard, Balochistan.</li> <li>• The Naseerabad zone gave a good and prompt response to ME&amp;IE staff and completed their zones in stipulated time.</li> </ul>	



Figure 3.192: A group photo of ME&IEC staff with DDA Dera Murad Jamali. Mr Saeed Khosa, DDA Jaffarabad. Mr Lal Jan Kethran, along with their staff at DM Jamlai.



Figure 3.193: Address the Field Team and Discussion on MTs about Social & Gender aspect.



<b>Date</b>	31 <sup>st</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Mastung
<b>Participants</b>	
i.	Mr. Faqir Muhammad, DD, OFWM, Mastung
ii.	Mr. Rizwan Ahmed, DTL, ME&IE Consultants, Balochistan
iii.	Mr. Shair Ahmed, Sub Engr. OFWM, Mastung
iv.	Mr. Sultan Ahmed, Sub Engineer, OFWM, Mastung
v.	Mr. Umair, ME&IE Consultants
vi.	Mr. Nazir, ME&IE Consultants
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IEC field team visited the office of the DD, Mastung regarding data collection of Dashboard, Baluchistan.</li> <li>The DD, OFWM and their staff shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team.</li> <li>The process of uploading data is ongoing.</li> <li>All participants agreed on a date to complete the task by 2<sup>nd</sup> Feb. 2023.</li> </ul>	

<b>Date</b>	31 <sup>st</sup> January 2023
<b>Venue</b>	Office of the DD, OFWM, Killa Saifullah
<b>Participants</b>	
i.	Mr. Muhammad Sadiq, DD, OFWM, Barkhan
ii.	Mr. Abdul Salam, Sub Engineer, OFWM, Killa Saifullah
iii.	Mr. Naseeb Jan, FTI, ME&IE Consultants
iv.	Mr. Arsalan, M&E Officer, ME&IE Consultants.
v.	Mr. Umair, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IEC field team visited the office of the DD, Killa Sifullah, where met with OFWM staff of Killa Saifullah and DD, OFWM, Barkhan regarding data collection of Dashboard, Baluchistan.</li> <li>The OFWM staff shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team and briefed them about importance of dashboard implementation.</li> <li>The OFWM staff gave a very positive response and the process of uploading data is now ongoing.</li> </ul>	





Figure 3.194: Trickle down on data feeding and Data validation for Dashboard at District Kila Saifullah.

<b>Date</b>	31 <sup>st</sup> January 2023
<b>Venue</b>	Office of the DDA, OFWM, Dhadar.
<b>Participants</b>	
i.	The DDA, OFWM, Dhadar
ii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
iii.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
iv.	Mr. Basit Kakar, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IEC field team visited the office of the DD, Dhadar regarding data collection of Dashboard, Baluchistan.</li> <li>The DD, OFWM and their staff shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team.</li> <li>The process of uploading data is ongoing.</li> </ul>	



Figure 3.195: Office of DDA Dhadar along with Sub Engineer. Uploading the data of FY 2021-22, Distt Dhadar, Naseerabad Division

<b>Date</b>	1 <sup>st</sup> February 2023
<b>Venue</b>	Office of DD, OFWM, Ziarat.
<b>Participants</b>	
i.	Mr. Mukhtiar Ahmed, Kakar, DD, OFWM, Ziarat.
ii.	Mr. Naseeb Jan, FTI, ME&IE Consultants
iii.	Mr. Arsalan, M&E Officer, ME&IE Consultants.
iv.	Mr. Umair, M&E Officer, ME&IE Consultants.
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>The ME&amp;IEC field team met with DD, OFWM, Ziarat and provided him with support in data feeding, Dashboard, Baluchistan.</li> <li>The DD, OFWM shared some issues they faced with data uploading, which were promptly resolved by ME&amp;IEC team.</li> <li>The process of uploading data is ongoing.</li> </ul>	







Figure 3.196: ME&IE Team Balochistan is engaged with Ex DD OFWM Ziarat Mr Mukhtiar Ahmad Kakar in terms of Data feeding and Data Validation for Dashboard.

### 3.9 INTERNAL MEETINGS OF ME&IE CONSULTANTS

Date	Every Monday
Venue	Routine Weekly Zoom Meeting
Participants	
i.	Dr. Usman Mustafa, Team Leader, ME&IE Consultants, National Office, Islamabad.
ii.	Dr. Muhammad Abdul Quddus, Agricultural Economist, Lahore Office.
iii.	Ms. Muniza Bashir Tarar, Social & Gender Specialist, NPIWC-II, National Office, Islamabad.
iv.	Dr. Humayun, Deputy Team Leader, ME&IE Consultants, KPK.
v.	Mr. Yousaf Bhatti, Deputy Team Leader, ME&IE Consultants, Punjab.
vi.	Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Baluchistan.
vii.	Dr. Ikram Saeed, DTL, ICT-Zone, Islamabad
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>Follow-up of previous meeting.</li> <li>Midline Survey Report</li> <li>Status of available funds and further requirements.</li> <li>Meeting wrapped-up by the Team Leader with concluding remarks</li> </ul>	

### 3.10 ICT ASSIGNMENT

The ICT Team remained engaged in different activities related to the ME&IE assignment including development of Android based application, data collection for Dashboard and training of client staff on Dashboard / MIS for the project. During the Month of July 2022 activities completed by ICT Team are summarized below.

#### 3.10.1 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.

#### 3.10.2 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.

#### 3.10.3 Implementation of MIS Dashboard

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

AJK Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	32	96	74	16	218
Poonch	37	38	78	18	171
Mirpur	38	107	86	49	280
Overall	107	241	238	83	669

So far, Total 669 Watercourses data from AJK zone has been received and available live on Dashboard by which 411 Watercourse has been completed & 168 watercourses are under progress. Due to farmers' un-willingness 90 Work Orders have been cancelled till now. Detailed summary attached as **Annex-G**.

AJK Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	35	61	82	5	183
Poonch	13	48	142	91	294
Mirpur	2	16	44	21	83
Overall	50	125	268	117	560

560 Water Storage Tank data received from AJK zone and is available live on Dashboard by which 305 Water Storage Tank has been completed and 171 WSTs are under progress. Due to the unwillingness of farmers there 84 WST work orders have been cancelled till now. Detailed summary attached as **Annex-H**.

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

KP Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur Agency	3	18	30	28	79
Bannu	73	35	93	32	233
D.I Khan	417	13	103	0	533
Hazara	84	69	141	75	369
Khyber Agency	6	13	6	0	25
Kohat	98	39	57	12	206
Kurram Agency	3	5	4	0	12
Malakand	178	169	448	20	815
Mardan	102	60	94	14	270
M. Agency	4	26	13	0	43
N.W Agency	2	3	5	0	10
Orakzai Agency	0	1	0	0	1
Peshawar	136	85	98	16	335
S.W Agency	3	12	13	0	28
Overall	1109	548	1105	197	2959

KP zone currently 2959 total watercourses data live on Dashboard and by which 2488 schemes

have been completed and 464 schemes are under progress. Due to the unwillingness of farmers 07 Schemes work order has been cancelled till to date. Detailed Summary attached as **Annex-I**.

KP Zone - WST Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	1	9	6	1	17
Bannu	12	10	23	1	46
D. I. Khan	79	6	19	0	104
Hazara	28	42	80	6	156
Khy. Agency	1	9	6	0	16
Kohat	29	17	32	1	79
Kurram Agency	1	1	0	0	2
Malakand	73	89	147	1	310
Mardan	15	8	26	3	52
M. Agency	1	36	4	0	41
Orakzai Agency	0	2	0	0	2
Peshawar	36	25	61	6	128
S.W Agency	0	15	14	0	29
N.W Agency	0	8	5	0	13
Overall	276	277	423	19	995

KP zone currently 995 total WST data live on Dashboard and by which 866 schemes have been completed and 129 WSTs are under progress. Detailed Summary attached as **Annex-J**.

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

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

Balochistan Zone – Watercourses Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	538	132	158	828
Loralai	330	100	123	553
Makran	152	34	3	189
Nasirabad	193	106	174	473
Quetta	235	33	68	336
Rakhshan	124	57	49	230
Sibi	176	49	80	305
Zhob	195	64	73	332
Overall	1943	575	728	3246

Balochistan zone currently has 3246 total watercourses data live on Dashboard and by which 2058 schemes have been completed and remaining 1188 are under progress. Detailed Summary attached as **Annex-K**.

Balochistan Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	91	145	251	487
Loralai	50	56	103	209
Makran	48	56	102	206
Nasirabad	25	46	67	138
Quetta	52	51	76	179
Rakhshan	26	66	57	149
Sibi	25	19	61	105
Zhob	35	60	114	209
Overall	352	499	831	1682

Balochistan zone currently has 1842 total Water Storage Tank data live on Dashboard and by which 989 Water Storage Tanks have been completed and remaining 716 WSTs are under progress. Detailed Summary attached as **Annex-L**.

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

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

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

Punjab Zone currently has 989 total Water Storage Pond data live on Dashboard and all schemes are

completed. There's also data missing in some districts and the ICT team is in close coordination with the Punjab OFWM Department to fill the missing data from concerned districts. Detailed Summary attached as **Annex-N**.

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

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

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

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

### 3.10.4 KP Zone Refresher Capacity Building Trainings

The ICT Team conducted refresher training on 22 January 2023 at Abbottabad region OFWM staff to enhance their capability of data collection through the Android Based Application for rapid and validated data transmission. OFWM nominated staff members from Abbottabad, Battagram, Torghar, and Havelian Participated in this training. (Training details attached as **Annex Q**).



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

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

### Field Activities

- Regular Monitoring of Interventions in the Field
- Data collection of the interventions in the field for Baseline and Impact survey
- Baseline Survey stage - 3
- Online data entry in android-based application

### ICT Assignment

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

### Coordination

- Meetings of TL with NPC and OFWM Departments regarding Project Progress/Issues
- Meeting of DTLs with respective DTL of P C & concerned OFWM Departments
- ME & IE Consultants Internal Meetings
- Meetings of TL with NPC and OFWM

- Departments regarding Project Progress / Issues
- Meeting of DTLs with respective DTL of PC & concerned OFWM Departments
- ME&IE Consultants Internal Meetings

### Deliverables

- Monthly Monitoring Report
- Quarterly Monitoring Report (January-March 2022)
- Mid-Line Monitoring & Impact Evaluation Report
- Preparation of Baseline Survey Report 2nd-Phase
- Consolidation of Baseline Survey Phase-I & II Reports

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

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

Document	Status
Evaluation Report-Third (JULY - SEPTEMBER 2021)	
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
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 within stipulated time

Document	Status
Monthly Monitoring Report-Twenty Second (October 2022)	Submitted within stipulated time
Monthly Monitoring Report-Twenty Third (November 2022)	Submitted within stipulated time
Monthly Monitoring Report-Twenty Fourth (December 2022)	Submitted
Monthly Monitoring Report-Twenty Fourth (January 2023)	Report in hand to be submitted within stipulated time
Quarterly Monitoring & Evaluation Report-1 <sup>st</sup> Quarter year 2023 (JAN – MAR 2023)	Submitted
Baseline Survey Report Phase-II	Submitted
Baseline Survey Report Phase-II (First Draft)	Submitted
Baseline Survey Report Phase-II (Updated version WC)	Submitted
Baseline Survey Report Phase-II (Draft version of WSTs)	Submitted
Survey Manual (Final version) (Special Reports)	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. 5) Baseline-Endline Survey Manuals 6) Android Application Manual PMIS Dashboard Manual	Submitted

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 performing baseline surveys as well as the required obligatory followed surveys including Midline and end line
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments & NWMC (NESPAK) till to date.
- Irregularity in the fund releases are also one the key hurdles towards the completion of the required obligatory project assignments, timely.



# ANNEXES A to Q

## ANNEX-A: TENTATIVE WORK PLAN

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

TENTATIVE WORK PLANNED FOR THE QUARTER (January 2023 To March 2023)												Legend	
												Activity starts	↓
												Activity Ends	↓
												Activity Span	---
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)											
		January				February				March			
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4
<b>1</b>	<b>Pre-Field Activities</b>												
	1.1 Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)												
	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey												
	1.2 Phase Baseline Survey												
	1.3 Training of Field Staff for 3rd-Phase Baseline Survey												
<b>2</b>	<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 - 3												
	2.4 Online data entry in android based application												
<b>3</b>	<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 Capacity Building Trainings / Refresher of Departments												
	3.6 Data Cleaning, Development & Launching of Dashboard for Client Offices												
<b>4</b>	<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												
<b>5</b>	<b>Deliverable</b>												
	5.1 Monthly Monitoring Report												
	5.2 Quarterly Monitoring Report (Oct-Dec 2022)												
	5.3 Mid-Line Monitoring & Impact Evaluation Report												
	5.4 Preparation of Baseline Survey Report 2nd-Phase												
	5.5 Consolidation of Baseline Survey Phase-I & II Reports												

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

Sr. No.	Deliverables /Activity	ME&IE Targets	Start Date	End Date	ME&IE Activities for Field visits			2023											
					Baseline + Monitoring	Monitoring	Endline	Jan				Feb				Mar			
	Islamabad OFWM data							W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
	Kashmir OFWM data																		
	GB OFWM data																		
1	Coordination with OFWM by DTL				This coordination will be carried out by DTL with NPC and relevant Line Departments through one to one, 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-3	Monitoring	Endline												
2.1	Water courses	8	10-Jan	30-mar	6	6	2		1		1					2		2	2
2.2	Water Storage Tanks Rawalpindi	4	10-Jan	30-mar	4	4	-									3	1		
2.3	Laser Land Levelling	0																	
3	Kashmir Visits				Baseline-3	Monitoring	Endline												
3.1	Water courses	32	10 jan	30-mar	6	6	7		2	1	2		2			2	2		2
3.2	Water Stroage Tanks	12	10-mar	30-mar	6	6	2						2				3	3	
3.3	Laser Land Leveling (Progress is nil so far)																		



























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

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

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

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

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

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



## ANNEX - B: MATRIX OF RESPONSIBILITIES

### MATRIX OF RESPONSIBILITIES

SR. NO.	DELIVERABLE / ACTIVITIES	LEGEND			
		● Primary Responsibility	○ Secondary Responsibility	○ Assistance	
		NPC-FPMU	Agriculture Dept. (OEWM)	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	a) Establishment of 47,278	a) 47,278 WCAs established;	a) Conveyance losses for	a) Increase in cropping	a) Increase in farm income;	a) The water flow measurements

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
	watercourses on cost sharing basis: 40% farmers in terms of labour, and 60% funded by project.	<p>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>b) 47,278 WCAs registered;</p> <p>c) 47,278 watercourses improved and lined;</p>	<p>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>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>b) Increase in employment for farm labour;</p> <p>c) Reduction in poverty;</p> <p>d) Enhanced food security for the country.</p>	<p>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>

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							<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	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



Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		his/her own funds and then received subsidy at 40% on issuance of FCR					surveys in case of watercourses 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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							<p>units will be visited by ME&amp;IE Consultants teams after 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>

## 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: CORRESPONDENCE REGARDING DASHBOARD ACTIVITIES IN BALOCHISTAN

### **DIRECTORATE GENERAL AGRICULTURE ON FARM WATER MANAGEMENT**

#### **BALUCHISTAN QUETTA**

Ph # 081-9211873 Fax # 0819211874

*Our Faith, Corruption Free Pakistan*

Ref: # 6896-131/2-8/DG/OFWM

Dated Quetta the 13 <sup>rd</sup> December 2022

To,

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

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

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

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

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

*Director General Agriculture  
On Farm Water Management  
Balochistan Quetta*

#### **Copy to the:-**

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

*Director General Agriculture  
On Farm Water Management  
Balochistan Quetta*

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## MONITORING, EVALUATION & IMPACT EVALUATION CONSULTANTS

NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN: PHASE-II (NPIWC-II)  
Federal Project Management Unit (FPMU) | Ministry of National Food Security & Research, Islamabad | PAKISTAN  
www.npiw2.org.pk | info@g3jv.com

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

Dated: 26<sup>th</sup> January 2023

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

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

### DASHBOARD OF NPIWC-II, BALOCHISTAN COMPONENT.

Dear sir,

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

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

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

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

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

Assuring you our best services at all times.

Sincerely,

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

CC:

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

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



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

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## ANNEX - F: METHODOLOGY OF MEASUREMENT OF WATER FLOW

### PYGMY CURRENT METER:

#### Working principle:

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

#### SEGMENTAL AREA:

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

#### Specifications:

##### Model 1205

Flow Velocity – feet per second (meter per second)

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

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

Suspension Means - Wading Rod

#### Field Observations:

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

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

**Average Discharge = 2.57 Cusses**

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

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



## ANNEX - G: WATERCOURSES DATA SUBMISSIONS

AJK - Watercourses Data Submissions – Summary								
Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	71	5	2	5	13	12	108
	Jhelum	18	0	6	0	14	6	44
	Neelum	27	12	11	3	13	0	66
Muzaffarabad Total		116	17	19	8	40	18	218
Poonch	Poonch	34	10	4	1	2	2	53
	Bagh	24	14	1	0	4	6	49
	Haveli	6	9	2	0	4	8	29
	Sudhnoti	22	16	1	0	1	0	40
Poonch Total		86	49	8	1	11	16	171
Mirpur	Mirpur	71	2	0	0	4	23	100
	Bhimber	106	0	1	0	0	10	117
	Kotli	32	22	5	0	1	3	63
Mirpur Total		209	24	6	0	5	36	280
Overall		411	90	33	9	56	70	669

## ANNEX - H: WST/WHs DATA SUBMISSIONS

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

## ANNEX - I: KP - WATERCOURSE DATA SUBMISSION - SUMMARY

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



## ANNEX - J: KP - WST DATA SUBMISSION - SUMMARY

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

## ANNEX - K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION - SUMMARY

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

## ANNEX - L: BALOCHISTAN - WST DATA SUBMISSION - SUMMARY

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



## ANNEX - M: PUNJAB - WATERCOURSE DATA SUBMISSION - SUMMARY

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

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

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

## ANNEX - O: GB – WATERCOURSE DATA SUBMISSION – SUMMARY

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



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

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

## ANNEX - Q: ABBOTABAD – REFRESHER TRAINING SESSION

