



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

APRIL 2023



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



In Association with S&S Associates



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

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

**MONTHLY MONITORING REPORT**  
**APRIL 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 In charge
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 April 2023” comprises 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 the purpose of the Monthly Monitoring Report (MMR). This current MMR covers the period from 1<sup>st</sup> April 2023 to 30<sup>th</sup> April 2023.

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

- Submitted the MMR for the Month of March 2023.
- Submission of Quarterly Monitoring Report (Jan-March 2023)
- Preparation of Baseline survey Phase-I&II Consolidated Report
- Regular Monitoring of Interventions in the Field
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Data entry, cleaning, validation and reporting

**Chapter-4** highlights the quarterly work plan for the period from 1<sup>st</sup> April, 2023 to 30<sup>th</sup> April, 2023. The work plan consisting of the following activities:

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

The detail time span for 2<sup>nd</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**

No.	Activities Planned for the Reporting Quarter		Status
<b>1</b>	<b>Pre-Field Activities</b>		
1.1	Preparation for Impact Survey and Validation of Baseline Survey (Finalization of MTs)		In Progress
1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for Methodology Baseline III Survey		In Progress
1.3	Training of Field Staff for Impact Survey and Validation of Baseline Survey		In Progress
<b>2</b>	<b>Field Activities:</b>		
2.1	Regular Monitoring of Interventions in the field		In Progress
2.2	Data collection of the interventions in the field		In Progress
2.3	Preparation of Baseline Survey stage - 3		Preparation In Progress
2.4	Online data entry in android-based application		In Progress
<b>3</b>	<b>ICT Assignment:</b>		
3.1	Development / Improvement of website of NPIWC-II		In Progress
3.2	Monitoring online data collection and Data entry		In Progress
3.3	Monitoring Android based Mobile Application under implementation by field staff.		In Progress
3.4	Data collection of interventions in MIS/GIS database		In Progress
3.5	Capacity Building Trainings / Refresher of Departments		In Progress
3.6	Data Cleaning, Development & Launching of Dashboard for Client Offices		In Progress
<b>4</b>	<b>Coordination</b>		
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 PC & concerned OFWM Departments		Meetings conducted on regular basis
4.3	Internal Meetings of ME&IE Consultants		Weekly meetings conducted on regular basis
<b>5</b>	<b>Deliverables:</b>		
5.1	Monthly Monitoring Reports (MMRs)	27 <sup>th</sup> MMR (March 2023)	Submitted
5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Jan-Mar 2023	Under preparation
5.3	Consolidation Report of Baseline Survey-I&II		Under preparation

## 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 (CSRD), ADA Consultants Inc. Canada, and S&S Associates.

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

### 1.2 PROJECT DESCRIPTION

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

#### 1.2.1 Project Development Objectives

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

#### 1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

##### 1) General Objectives:

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

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

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

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

##### Project outputs

- i) Mobilization through capacity building of Water Users Associations/Farmers Organizations in improved water management techniques and their registration under On-Farm Water Management and Water User Associations Ordinance [Act] 1981 and organization of 47,278 WUAs.
- ii) Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete earthen renovation, partial lining of critical reaches (50% of the total watercourse length as

decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).

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

#### **Project impacts**

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

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

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

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

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

#### **1.2.3 Project Beneficiaries**

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

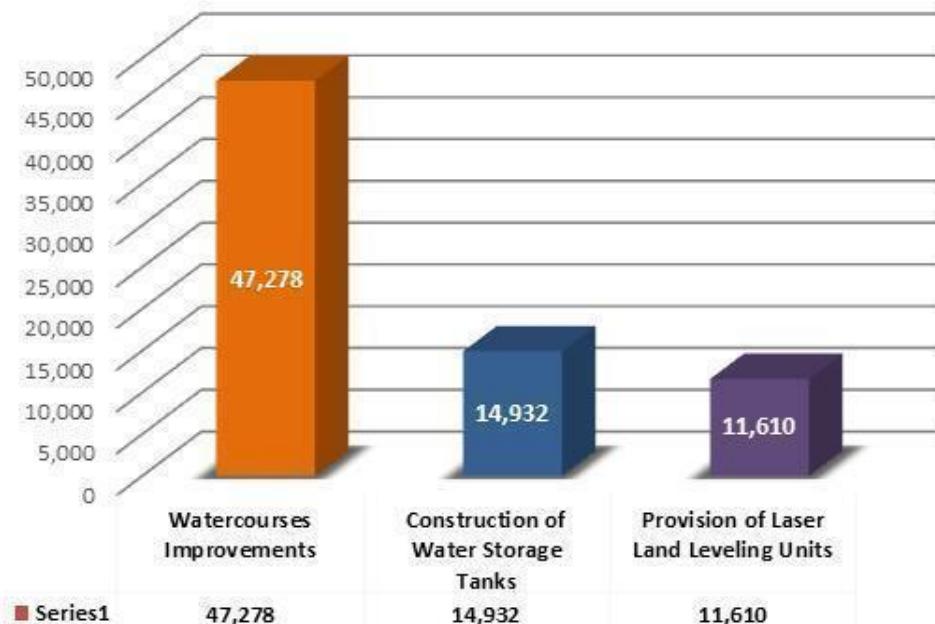


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

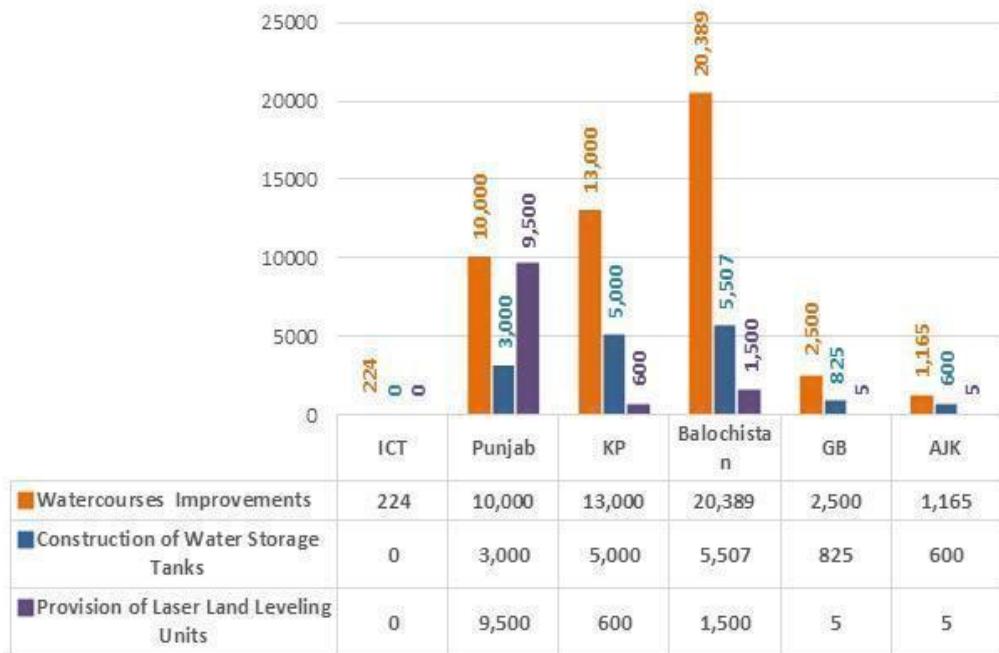


Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target

## 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),
- xii) 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.*

### 2.3 MONITORING STRATEGY OF CONSULTANTS

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in **Table-2.2**. However, detailed methodology and procedures to

carry out the ME&IE of the project interventions were explained in Chapter 6 of Inception Report.

**Table 2.2: Monitoring Strategy for ME&IE Activities**

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
1	Baseline, midline and endline surveys	Team Leader, Socio-Economic Expert, Agricultural Economist and Deputy Team Leader of the respective Province/Unit.	<ul style="list-style-type: none"> <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 pre-selected.</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/ Engineers	<p><b>Water Saving on Watercourses:</b></p> <ul style="list-style-type: none"> <li>Water flow will be measured on sample watercourses selected for the baseline and impact surveys</li> <li>The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach and tail reach.</li> <li>The measurements will be done through current meters.</li> <li>Based on water savings on sample watercourses, total water</li> </ul>

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
			<p>savings will be estimated for all project watercourses. The savings will be reported per watercourse, per annum and aggregate for the project in LPS and Acre feet.</p>
			<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>
			<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.</p>
4	Community mobilization	Social and Gender Specialist and Socio-Economic Expert	<p>The extent of community mobilization will be assessed by investigating whether:</p> <ul style="list-style-type: none"> <li>WUAs is functional</li> <li>Holds regular meetings and keep record of them</li> <li>Makes decisions democratically</li> <li>The participation in the organization is voluntary</li> <li>It is financially and administratively sustainable</li> <li>Takes steps and ensures maintenance of watercourses, WSTs and laser land leveler</li> </ul>
5	Economic benefits assessment for agriculture	Team Leader, Socio- Economist and Agricultural Economist	<ul style="list-style-type: none"> <li>As indicated at serial No. 1, Agriculture data will be collected before (baseline) and after (impact) the watercourse improvement and WSTs construction.</li> <li>In both the surveys same forms will be used and same sampled farmers will be interviewed</li> <li>Data on variables such as crop yields, irrigated area, cropping pattern, cropping intensity, farm income and employment will be collected and analyzed</li> <li>The difference between before and after situations minus natural growth will be assumed as economic benefits to the agriculture</li> </ul>
6	Impact evaluation-on the economy	Team Leader, Agricultural Economist and Socio-Economic	<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> </ul>

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
		Expert	<ul style="list-style-type: none"> <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 improvement of indicators is a continuous process throughout the project implementation in the light of real and on ground situations.

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.

## 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 seventh MMR (March 2023) on the 2<sup>nd</sup> week of April 2023. While the twenty eighth MMR (the Report in hand) for the month of April 2023 (1<sup>st</sup> April 2023 to 30<sup>th</sup> April 2023) will be submitted in stipulated time i.e., in the 2<sup>nd</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 BASELINE SURVEY PHASE-I&II CONSOLIDATED REPORT

In the light of the Client's comments on Baseline Phase-I & II Reports, the Consolidated Report of Baseline Phase-I&II is under preparation.

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

Routine/regular monitoring of the interventions remained in progress during the reporting month. However, due to heavy rains and devastating floods

in most of the regions of the Punjab, Baluchistan and KP, the field activities were affected. Detail of data collection and regular field monitoring by field teams of Zonal Offices is given Zone wise as below.

### 3.4 ACTIVITIES ICT UNIT – APRIL 2023

#### 3.4.1 Overall Progress:

The main activities accomplished during the current month by the ME&IE consultants, ICT-Unit are summarized as under:

Prepared Tentative plan for conducting Impact survey & validation of Baseline survey in speculation of sampling frame list will be supplied by NESPAK to the NPC office for the implementation of survey schedule by the team of consultants during the upcoming dates.

Compiled four months' progress reports (i.e., December 2022 through March 2023) of each field team member including Deputy Team Leader, ICT-Zone/ National Office, Islamabad, as well as, submitted to the quarter concerned for the processing of NPC, office.

Arranged and managed regular meetings as needed with the Coordinating/Client, cooperating departments as well as in- house myriad technical professionals, Admin & Finance departments of the Zonal/ National Offices.

Professionally edited and vetted the integrated MMR report for the month of April 2023, and submitted for its processing towards final printing and distribution amongst the concerned stakeholders.

Looked after and supported the Admin and Financial liabilities entrusted under the supervision of Team Leader and Deputy Team Leader of the ICT-Zone along with the National Office, Islamabad.

Preparation of second quarterly work plan i.e., April-June 2023.

Earlier the ME&IE Consultants, Islamabad Zone had conducted Baseline-II survey comprised of 26 Watercourses and 15 WST during the months of August and September 2022. Impact survey treated as Midline Monitoring Evaluation was carried out based on data set of entire first Baseline and partly second Baseline surveys during the months of September through November 2022. There was a

total of 8 interventions were visited during first Baseline while 41 total interventions visited in second Baseline.

ME&IE consultants of ICT-Zone had completed the targets pertaining to Baseline-I and Baseline-II surveys. The impact/ midline survey for Baseline-I had also completed. The consultants had completed and submitted the draft Midline Impact Evaluation report to the client against the completed by using the data sets from Baseline-I and partly from Baseline-II through adopting the criterion of the interventions that have completed at least two crop seasons at the point in time of arresting the middle of the project. The ME&IE consultants' coordinated effort belonging from all zones of the project produced the midline impact evaluation report.

**Updates About the ICT-Zone's Field Activities According to District-Wise:**

Table 3.3: Total Activities, District-Wise:

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

### 3.4.2 Quarterly Visit Plan – Islamabad Zone

The tentative field visit plan was designed and developed to carryout Baseline-III survey from sample targeted households subject to availability of finished list of sampling frame about the targeted schemes of WC, WST and provision of Laser Land Levelers from NESPAK through the client office. Most probably the list of sampling frame will be available during the upcoming months, as well as, subject to provision of financial and logistic arrangements. A detailed tentative Quarterly Work Plan of the field team to carry out Baseline-III survey during the upcoming quarter is presented in Table-2. A memorandum in respect of its implementation along with the duly approved budgets, tour program and logistics arrangements has already been served to the Authorities of the company by the ME&IE consultants to assure its implementation in letter and spirit.

### 3.4.3 Quarterly Work Plan of ICT-Unit: District Wise

Field work plan for baseline-III as well as monitoring plans with respect to regular monitoring and spot checks of water courses, water storage tanks and provision of laser land levelers was duly verified by the respective ME&IE Consultants in accordance to initiate the targeted baseline. However due to some limitations mainly non-provision of list of the targeted schemes (i.e., termed as sampling frame) as well as severe financial crunch prevailed, the tentative work plan could not yet initiate. Since, the current situation is forcing us to revisit the given field work schedule and hence the work plan for the ongoing quarter, i.e., April-June 2023 accordingly.

**Table 3.4: Tentative Quarterly Visit Plan of the ME&IE Consultants of ICT- Zone for the Targeted Schemes According to District Wise**

Date	Zone	District	Scheme
15-May-23	Punjab	Attock	WST
16-May-23	ICT	ICT	WC
17-May-23	ICT	ICT	WC
18-May-23	Punjab	Rwp	WST
22-May-23	Punjab	Rwp	WST
24-May-23	AJK	Mirpur	WC & WST
25-May-23	AJK	Mirpur	WC & WST
29-May-23	AJK	Bhimber	WC & WST
30-May-23	AJK	Bhimber	WC & WST

Date	Zone	District	Scheme
5-Jun-23	ICT	ICT	WC
7-Jun-23	Punjab	Rwp	WST
8-Jun-23	Punjab	Attock	WST
12-Jun-23	Punjab	Hassan Abdal	WST
14-Jun-23	AJK	Muzaffarabad	WC & WST
15-Jun-23	AJK	Muzaffarabad	WC & WST
19-Jun-23	ICT	ICT	WC
26-Jun-23	AJK	Jehlum	WC & WST
27-Jun-23	AJK	Jehlum	WC & WST
3-Jul-23	AJK	Kotli	WC & WST
4-Jul-23	AJK	Kotli	WC & WST
10-Jul-23	AJK	Poonch	WC & WST
11-Jul-23	AJK	Poonch	WC & WST
17-Jul-23	AJK	Bhimber	WC & WST
18-Jul-23	AJK	Bhimber	WC & WST
20-Jul-23	Punjab	Hassan Abdal	WST
24-Jul-23	AJK	Muzaffarabad	WC & WST
25-Jul-23	AJK	Muzaffarabad	WC & WST
27-Jul-23	ICT	ICT	WC

Work Plan for the Second Quarter, April – June 2023 of the ME&IE Consultants may be viewed at **Annexure A(i).**

### Meetings/Coordination ICT-Zone

In addition to in-house planning meetings under the leadership of DTL, as well as, to address the progress of the Project under the prevailing shortfalls of financial resources, lack of sampling frame data bank restricting us to draw targeted representative sample size (viz., a major hurdle to meet the targeted schemes' data collection for Baseline-III), as well as, a few meetings attended under the overall umbrella of Team Leader, NPIWC-II in order to appraise the prevailing limitations and in lieu to strategize by overcoming the above mentioned bottlenecks;

Some of the discussions were made during the progress review meetings about the project as well as to answer the comments raised during the past proceedings of Project review professional committees/Project Board of Management in respect of the quality and quantity improvement of Baselines, Midline/ Impacts and End line project reports; and the petty issues and opportunities were also brought in the proceedings of the meetings.

<b>Date</b>	12-04-2023
<b>Venue</b>	National Office, Islamabad
<b>Participants</b>	
1. Dr. Ikram Saeed, DTL, ICT-Unit 2. Ms. Sana Gull, ME & IE Officer, Islamabad. 3. Ms. Hafiza Maryam Iqbal, ME& IE Officers, Islamabad.	
<b>Meeting Agenda/Points discussed:</b>	
<ul style="list-style-type: none"> <li>○ Discussion on field visit plan for four main purposes:               <ul style="list-style-type: none"> <li>i. Baseline-III</li> <li>ii. Regular Monitoring</li> <li>iii. Spot Checks, and</li> <li>iv. Potential Case Studies</li> </ul> </li> <li>○ Opportunity Sampling of watercourses and water storage tanks for Baseline-III survey.</li> <li>○ Revisiting field visit estimates in accordance to the site of the prospective scheme as well as manpower strength employed to conduct the field surveys.</li> <li>○ Project Progress Review meetings and development of strategies to overcome the hindrances in the way of smooth running of the targeted project targets, etc.</li> </ul>	



Figure 3.3: One Sample Shot Proceeds of the ME&IE Consultants' Meeting in the National Office at Islamabad

#### 3.4.4 Key Challenges & Mitigation Measures Adopted

##### Some Limitations as Follows:

- Field visits were not followed as per scheduled plans and were cancelled repeatedly due to certain reasons:
  - ✓ Non provision of sampling frame list by the client office from the NESPAK.

#### Following are the main Suggestions for Smooth Operation of Field as well as HQs. Activities:

- a) There must be a well maintained and well equipped proper field vehicle along with experienced driver available to conduct safe field survey visits, timely,
- b) Availability of sampling frame list to work out feasible sample size about the targeted interventions for the schemes including WCs and WSTs as well as LLLs from the Client Office,
- c) First aid box, and basic necessities like, umbrella, water with cooler must be provided to the field teams in order to face any emergency situation,
- d) Tablet must be provided at least 2-3 days prior to the targeted visits, and
- e) Each member of field team must have their official identity card to prove their identity when and where needed in order to smooth running of the targeted activities of the project schemes as well as data collection.

#### 3.5 ACTIVITIES PUNJAB ZONE – APRIL 2023

During the period under review limited field activities were carried over in the light of ground realities. The fieldwork of OFWM Punjab (target for the current financial year) remained very slow. The ME&IE Consultants also have certain other issues like financial constraints. Under this scenario, the Consultants in Punjab zonal office were more occupied with “in-house” activities rather than “outside” (field) activities.

The in-house activities were mainly confined to internal meetings of the field team member with the Deputy Team leader from time to time in the office.



Figure 3.4: Meeting of Deputy Team Leader with Field Team



Figure 3.5: Deputy Team Leader Discussing Various Issues with FTI

The main objective of the meetings was the assessment of the past operational performance of the zonal office and planning a way forward to carry out activities in the near future,

As a review of the operational performance of the Punjab components the team members showed overall satisfaction regarding the following:-

- Conduction of field survey
- Meeting with the stakeholders

The performance/progress of all field activities has already been reported in the respective report (MMR and QMR)

The main conclusions/ observations of different meetings/ discussions are summarized as under.

### 3.5.1 Pre-Post Field Activities

Almost all the field team members were fully satisfied with the data collection/validation of intervention viz improvement of water course and construction of the water storage tanks/ ponds in Punjab. This was a regular and continuous process. The team worked during the whole month.



Figure 3.6: Field Team Members Engaged in Data Collection /Validation under the Supervision of an FTI

Still, the data collection/validation on laser land leveler units Intervention is under the process of transmission from OFWM to ME&IE Consultants. The processing at the consultant's end is underway and expected to be completed very soon.

### 3.5.2 Field Activities

The field activities under discussion pertained to the followings:

- i) Visit to site of improvement of watercourses intervention for monitoring, collection of data, working for baseline survey, mid line survey, and impact survey.
- ii) Construction of water storage tanks/ponds to monitor and collect relevant field data.
- iii) Survey of provision of laser land leveler intervention.
- iv) Coordination / Meetings with stakeholders/Beneficiaries of the project interventions.

#### 3.5.2.1 Improvement of Watercourses

In the earlier survey carried out, it was not possible to cover all the ecological zones/districts in relation to this intervention. In the next upcoming surveys, it is necessary rather than compulsory components to give representation to the left-over ecological zones/district to properly represent the entire province area.

In this regard, a district priority list has been prepared as shown in table 3.1. In the end, the entire Punjab will have an adequate representation of the interventions.

Table 3.5: Ecological Zones / Districts Wise Priority List for Field Survey (Improvement of Watercourses)

Ecological zone	District
Barani	-
Partially Barani	Mianwali
Irrigated (Rice Zone)	Gujrat
	Narowal
	Sialkot
	Lahore
	Nankana Sahib
	Sahiwal
Irrigated (Mixed Zone)	Pakpattan
	Faisalabad
	Jhang
	Chiniot
	Toba Tek Singh
	Khushab

<b>Irrigated (Cotton Zone)</b>	Multan
	Vehari
	Lodhran
	Khanewal
	Bahawalpur
	Rajanpur
	Layyah

**Note:** - The sample size/numbers of watercourses to be visited will be determined by the availability of targets/population data from OFWM, Punjab.

There are more than 40 Pre-cast Concrete Parabolic Lining factories scattered all over Punjab. Visit/survey of such factories will be necessary to study their "forward" and "backward" linkages in the rural economy, particularly labor utilization with the intervention.

It was decided to have about 10-15% samples of the PCPL segment factories scattered in Punjab.

### 3.5.2.2 Construction of Water Storage Tanks /Ponds

The major part of the survey work on the construction of a water storage tank/pond has been already completed. During the upcoming surveys only, any abnormality is realized in any ecological zone/district, it will be removed while surveying additional units of this intervention.

This intervention also exists in the Barani zone (Rawalpindi division). Being looked after by our zonal office in Islamabad. During the field activities of this intervention, close coordination is maintained between the two zonal offices.

### 3.5.2.3 Provision of Laser Land Leveler

In addition to monitoring/ Physical verification of laser units, data are also obtained from service providers/beneficiaries/farmers.

In order to have a proper sampling representation of all the zones/districts a district-wise priority list is also prepared. As shown in Table 3.2

**Table 3.6: Ecological Zones / Districts Wise Priority for Field Survey (Provider of Laser Land Leveler)**

<b>Ecological zone</b>	<b>District</b>
<b>Barani</b>	-
<b>Partially Barani Zone</b>	Mianwali
<b>Irrigated (Rice Zone)</b>	Gujranwala
	Hafizabad
	Gujrat

<b>Irrigated (Mixed Zone)</b>	Multan
	Vehari
	Lodhran
	Khanewal
	Bahawalpur
	Rajanpur
	Layyah

**Note:** - The sample size/numbers of Service Providers to be visited will be determined by the availability of targets/population data from OFWM, Punjab.

The laser land leveler in the project area is one of the best interventions for "water saving". The local industry in Punjab is also making certain parts of the unit at the local level. It provides "backward" and "forward" linkages to this: "intervention" during its application in the field.

In these small industrial units, local labor is being used. There are more than 20 units engaged in the manufacturing of such units. In the Punjab the waste linkages of this intervention and labor utilizations.

### 3.5.3 Coordination / Meetings with Stakeholders / Farmers

The coordination/meetings with stakeholders of the project were necessary to have a close linkage and are regular. Such stakeholders included officers in various directorates and fields of OFWM.

It was observed that such close relations act as catalysts in carrying out the field activities the contacts between with the stakeholders are kept through telephonic conversations followed by emails and ultimately physical meetings.

### 3.6 ACTIVITIES KP ZONE – APRIL 2023

#### 3.6.1 Summary of Activities KP Zone – April 2023

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

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

- Meetings were carried out with OFWM Officials for collection of relevant information of undergoing schemes. However, it was found that schemes were mostly completed under the NPIW program. New schemes will be initiated when the Govt. may allocate a budget.
- NPIWC-II KP all watercourse, and water storage tank schemes coordinate verification through Google Earth and identification of incorrect coordinates.
- Preparation of KP MMR report for the month of March 2023.

#### 3.6.2 Updated Progress of ME&IE Consultants - KP.

##### 3.6.2.1 Overall Progress:

**Meetings:** During the current reporting month, coordination and meetings have been carried out with OFWM department of KP. The purpose of these meetings was to collect the GPS location-based data for dashboard completion and visits of teams to different destinations for baseline surveys. The OFWM directorate extended their usual support and provided all the relevant information. The ME&IE Consultants, KP made frequent visits to the directorate of OFWM for acquainting their-selves about the on-going schemes under the NPIW-II by the concerned department. During these meetings general discussions were also made about the perceptions of the farmers about these schemes. As per the OFWM Departments officials more than ninety percent of the farmers were satisfied with the benefits of these schemes in terms of increase of crop productivity, cropping intensities and time saving.

**Field Activities:** 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. But due to lack of financial resources no field activities were carried out in the month of April 2023. Therefore, the ME&IE consultants have confined their-selves to internal staff meetings and with the OFWM Department official. As soon as the funds are released the field survey will be launched in different zones of KP as per sampling frame already in hand.

**Data Entry and GPS validation:** During the reported months KP Teams entered and validated the GPS locations for hundreds of schemes of Baluchistan and KP province. The activity was distributed among different team members with help from the ICT team of KP. The OFWM directorate extended their usual support and provided all the relevant information.



Capacity Building of ME&IE Consultants and OFWM staff on Android Based Application

During the current reporting month, in-formal training was imparted to OFWM officials. However, continuous support was provided to OFWM officials on telephone for any issue while operating the android system and/or data collection process. The IT team carried out various visits to the Directorate of NFWM KP and assessed the understanding of field staff for utilization of android based application to collect the data of GPS coordinates. It was found that there was some negligence from staff of OFWM in the collection of GPS coordinates, which was planned to overcome.

The gaps were filled in the understanding of the field teams of OFWM and ensured that they may follow the principles of the data collection in near future for better data gathering.

### 3.6.3 Justification for not Meeting the Targets.

Lack of financial resources was the main hurdle in meeting the targets well in time.

### 3.6.4 Key Challenges & Mitigation Measures Adopted.

#### Some Limitations:

There were Certain Limitations noted during meetings with OFWM staff members.

- Release of funds for implementation of project activities for NPIW-II have been suspended till further order due to shortage of funds with Govt. of Pakistan.
- The Directorate remains involved in implementation of other funded projects with the NPIW-II. So, they are not able to give much time to ME&IE Consultants

#### Suggestions:

- For the Smooth operations of field activities following suggestions are forwarded.
- Quarter planning for 3rd baseline is still pending thus teams did not move for field activities other than LLL.
- In order to meet the daily expenses, timely payments of salaries will be ensured for all the staff members (?).
- Equipment is needed for measuring flow of water and recording the data on the tool.
- First aid box, basic necessities (umbrellas) must be provided to the field team in order to meet any emergency situation.
- Tablet must be provided at least 2-3 days' prior field visit.
- The assurance of funds availability for conducting field surveys must be ensured in advance so they can execute their planning well on time without hindrance.

### 3.6.5 Quarterly Work Plan – KP Zone

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

A comprehensive tentative Quarterly Work Plan for next quarter is due until the targets may be assigned by the Team Leader for baseline 3 survey.

## 3.7 ACTIVITIES BALOCHISTAN ZONE – APRIL 2023

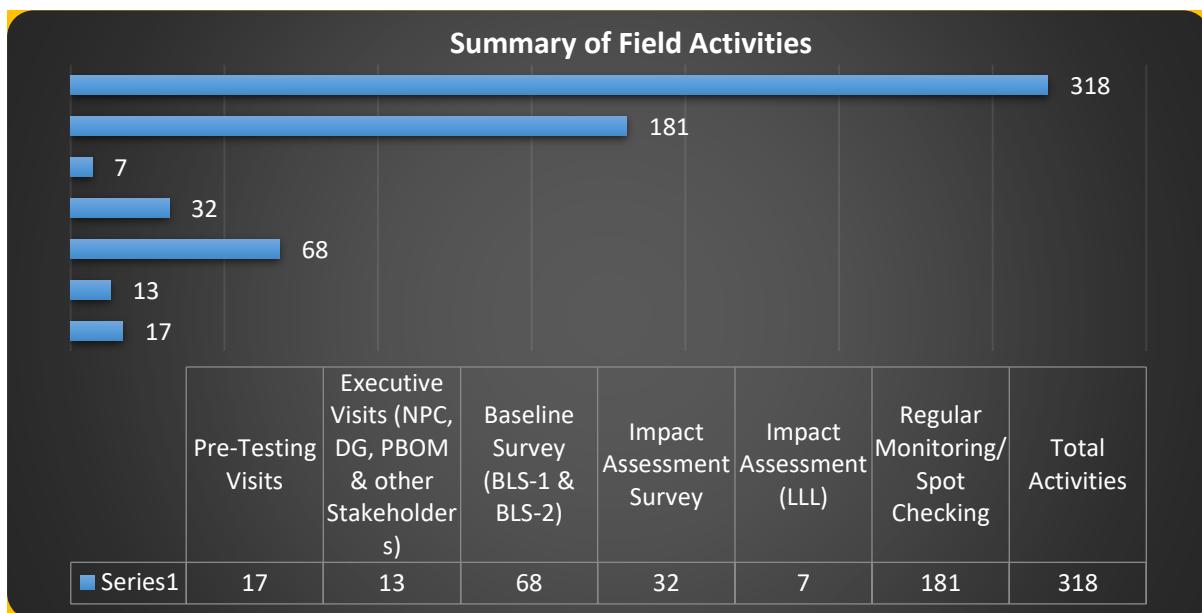
### 3.7.1 Summary of Activities

- Updated progress of ME&IE Consultants, Balochistan by April 2023.
- Field Activities.
- Success Story.
- Updated status of Data Validation – Dashboard Balochistan.
- Tentative Work Plan, Balochistan Zone.

### 3.7.2 Updated Progress of ME&IE Consultants – Balochistan

The ME&IE Consultants, Balochistan have monitored 17 sites during the pre-testing of Monitoring Tools in different months. A total of 13 sites were monitored during executive visits with high officials. The ME&IE Consultants, Balochistan have conducted two baseline surveys, the first was conducted in the month of June 2021 and the second was conducted in two parts (first in March 2022 and second in June 2022). A total of 68 sites were monitored during the baseline surveys i.e., 17 Watercourses and 51 Water Storage Tanks. The ME&IEC, field teams monitored 07 sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. The Impact Assessment Survey was conducted in the month of November 2022 in which 32 sites have been monitored so far. Regular monitoring/spot-checking is another important activity of ME&IE Consultants in which a total of 181 sites of different districts have been monitored till the reporting month. In regular monitoring, ME&IE Consultants monitored ongoing / completed sites covering all financial years i.e., 2019-20, 2020-21, and 2021-22. The Balochistan field teams have so far monitored 77 Watercourses and 101 Water Storage Tanks in regular monitoring. The Department's beneficiaries list of F.Y. 2022-23 is in progress. As soon as the Department initiates the works on F.Y. 2022-23 and finalizes the beneficiaries' lists, the ME&IEC, Balochistan will start the "Baseline Survey – 3" activities accordingly. The updated status of the total activities done is given in the below graph:

Table 3.7: Summary of Field Activities



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

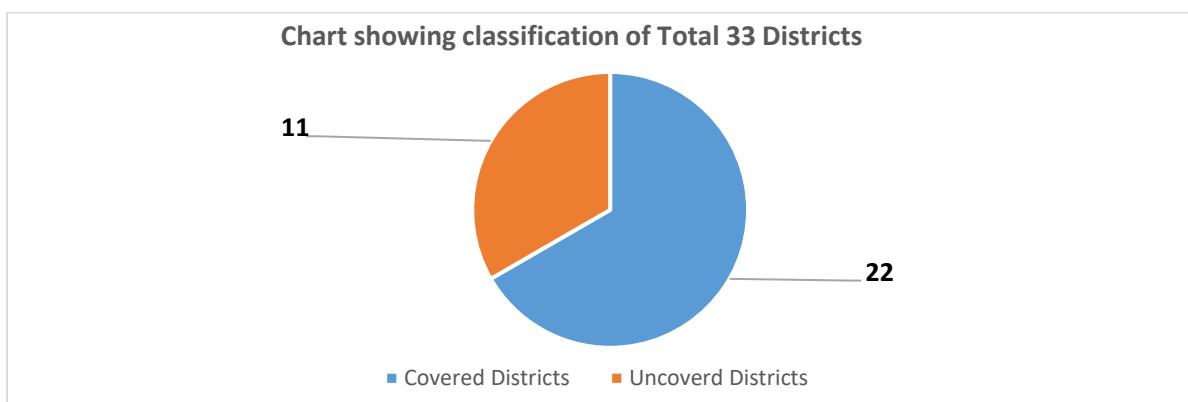


Table 3.8: Summary of Field Activities, District-Wise

Sr. #	District	Pre Testing		Executive Visits		Baseline Survey		Impact Assessment Survey		Impact Survey (LLL)	Regular Monitoring / Spot Checking		Total
		WC	WST	WC	WST	WC	WST	WC	WST		WC	WST	
1	Quetta	3	3	1	1	-	6	-	4	-	7	16	41
2	Pishin	3	1	2	5	-	8	-	4	-	2	9	34
3	Killa Abdullah	-	-	-	-	1	1	1	1	-	5	2	11
4	Ziarat	-	-	-	-	-	3	-	-	-	2	4	9
5	Mastung	-	-	1	1	1	5	1	2	-	5	8	24
6	Nushki	1	2	1	-	-	-	-	-	-	2	1	7
7	Sibi	-	-	-	-	-	-	3	-	-	1	3	7
8	Jhal Magsi	-	-	-	-	1	4	-	-	-	1	4	10
9	Kachhi	-	-	-	-	-	8	-	-	-	1	10	19
10	Naseerabad	-	-	-	-	2	4	3	4	-	14	6	33
11	Jaffarabad	1	1	-	-	-	-	-	-	4	3	-	9
12	Sohbatpur	-	-	-	-	7	-	-	-	3	14	-	24
13	Loralai	-	-	-	-	1	2	1	2	-	2	6	14
14	Duki	-	-	-	-	-	-	-	-	-	2	1	3
15	Zhob	1	1	-	-	-	-	-	-	-	2	1	5
16	Kila-Saifullah	-	-	-	-	2	1	3	1	-	6	7	20
17	Musa khel	-	-	-	-	-	-	-	-	-	1	1	2
18	Sherani	-	-	-	-	-	-	-	-	-	2	2	4
19	Khuzdar	-	-	-	-	1	6	-	-	-	2	7	16
20	Kalat	-	-	-	1	1	3	1	1	-	4	4	15
21	Turbat	-	-	-	-	-	-	-	-	-	-	7	7
22	Pangur	-	-	-	-	-	-	-	-	-	1	3	4
Sub-Total		9	8	5	8	17	51	13	19	7	79	102	318

### 3.7.3 Field Activities:

Field monitoring visits detail of 3 sites in Quetta Balochistan Zone

Monitored by  
 Rizwan Ahmad, DTL Balochistan  
 Naseeb Jan, FTI / M&E Expert.

1) Field Visit Date – 28/04/2023

Scheme	Water Storage Tank (WST)
Farmer Name	Wasimullah Khan
Name of village:	Mustafabad
Union council:	Chiltan
Chairman WUA:	Waseemullah Khan
District:	Quetta
Tehsil	Chiltan
Coordinates	30.147519 66.952881

Source of irrigation:	Tube Well
Shape of water storage tank:	Squire
Size of water storage tank:	60'x60'
Depth of WST:	4'.75"
Year	F.Y. 2020-21
Command area of water storage tank:	10 Acre
No of beneficiaries:	5
Quality of work	Satisfactory
Cropping intensity increased	Yes
Crops yield increased	Yes
Poverty reduction through generation of employment.	Yes

Cement industry, bricks Killen, Precast Structures Industry and other related industries' production is pick up.	<ul style="list-style-type: none"> <li>To some extent.</li> </ul>
Overall feedback of Farmer / Beneficiary	<ul style="list-style-type: none"> <li>It has become easier for the farmer to manage the water which helps to avoid unnecessary water loss.</li> <li>Due to WST farmer has become in a position in setting up a tunnel-based farming and getting more sufficient profit.</li> <li>Due to this WST, farmers able to utilize water with better management.</li> </ul>
General Observations	<ul style="list-style-type: none"> <li>Water tank need to be proper maintenance and cleaning.</li> <li>Farmer was optimistic for such intervention and taking enormous benefits.</li> <li>Government should ensure provision of agricultural items in subsidized rate keeping in view the current inflation prevailing in the country.</li> </ul>
	 

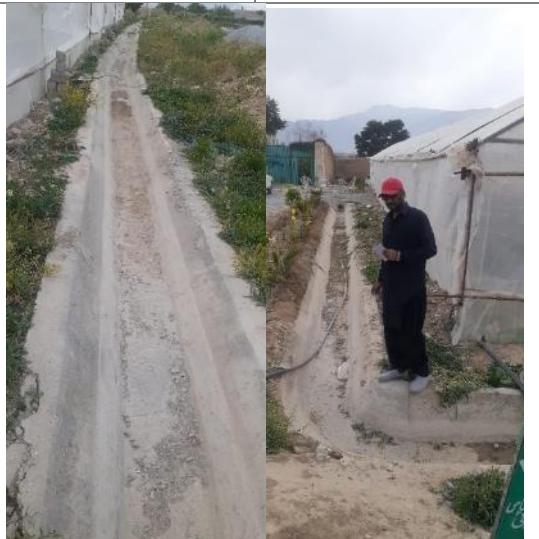


Figure 3.7: View of WST and Tunnel farming of Waseemullah, WC, District Quetta

Monitored by  
Rizwan Ahmad, DTL, Balochistan  
Naseeb Jan, FTI/M&E Expert

## 2) Field Visit Date – 28/04/2023

<b>Scheme</b>	Watercourse (WC)
<b>Farmer Name</b>	Saifullah Khan
<b>Name of village:</b>	Mustafabad, Western Bypass
<b>Union council:</b>	Chiltan
<b>Chairman WUA:</b>	Saifullah Khan
<b>District:</b>	Quetta
<b>Tehsil</b>	Chiltan
<b>Coordinates</b>	30.14733 066.9532
<b>Source of irrigation:</b>	Tube well
Length of WC	1000 rft
<b>Total Cultivated Area</b>	15
<b>No of beneficiaries:</b>	4
<b>Year</b>	2020-21
<b>Discharge of WC (Cusic)</b>	0.75
<b>Quality of work</b>	Satisfactory
<b>Total beneficiaries</b>	07
<b>Cropping intensity increased</b>	Yes
<b>Crops yield increased</b>	Yes
<b>Reduction in water disputes/thefts</b>	There is no theft of water
<b>Poverty reduction through generation of employment.</b>	Yes
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>Water Losses decreased BY 50%.</li> <li>Cultivated area increased from 10 acre to 15 acre.</li> </ul>

<p><b>General Observations</b></p> <ul style="list-style-type: none"> <li>• Government must ensure subsidized agricultural items to them.</li> <li>• Farmer was happy with such intervention aimed at boosting up crop productions</li> <li>• WC need to be proper maintenance and cleaning.</li> </ul>	
	
	

**Figure 3.8: View of WC of Saifullah Khan, Western Bypass, Quetta**

Monitored by  
Rizwan Ahmad, DTL Balochistan  
Naseeb Jan, FTI/M&E Expert

3) Field Visit Date – 28/04/2023

<b>Scheme:</b>	Watercourse (WC)
<b>Name of Farmer:</b>	Ghulam Farooq
<b>Name of village:</b>	KilliKhali
<b>Union council:</b>	Shadinzai
<b>Chairman WUA:</b>	Ghulam Farooq
<b>District:</b>	Quetta
<b>Tehsil</b>	Chiltan

<b>Coordinates</b>	30.150811 66.954508
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	6000Rft
<b>Estimated length of lining:</b>	2000Rft
<b>Command area of watercourse:</b>	30 Acre
<b>Total Cultivated Area</b>	15 Acre
<b>Financial Year</b>	2019-20
<b>No of beneficiaries:</b>	6
<b>Quality of Work</b>	Satisfactory
<b>Cropping intensity increased</b>	Yes
<b>Crops yield increased</b>	Yes
<b>Equity in water distribution increased</b>	Yes
<b>Reduction in water disputes/thefts</b>	There is no theft of water
<b>Overall feedback of Farmer / Beneficiary</b>	<ul style="list-style-type: none"> <li>• Laboure expenses decreased due to WC.</li> <li>• Farmer optimistic for such interventions.</li> <li>• Farmer was demanding WST.</li> </ul>
<b>General Observations</b>	<ul style="list-style-type: none"> <li>• The farmer was very happy and its fertile land properly. Demanded more schemes.</li> <li>• Due to this scheme that farmer irrigated his land for rice crops and vegetables as well.</li> <li>• WUA formed but not active</li> </ul>

**Figure 3.9: View of WC and Washing Pad, Scheme Ghulam Farooq, Killi Khali, District Quetta**





**Figure 3.10: View of WC, command area and Nakkas of Scheme Ghulam Farooq, District Quetta**

### 3.7.4 SUCCESS STORY.

#### Success Story of Intervention under the Project

“National Program for Improvement of Watercourses in Pakistan, Phase-II (NPIWC-II)”

**Construction of Water Storage Tank, F.Y. 2020-21, Scheme Waseemullah Khan, Killi Qambrani, District Quetta, Balochistan**



Balochistan has been blessed with all types of ecological zones; the only limiting factor is water. By using water storage tanks, farmers can efficiently store and utilize water for irrigation, ensuring that water is not wasted. With a water storage tank, farmers have greater flexibility in when they water their crops. They can store water during times when it is plentiful and use it during times when it is scarce, providing greater control over their irrigation schedule. Overall, the use of water storage tanks can help farmers maximize their crop yields and improve the sustainability of their agricultural practices, while also conserving valuable water resources.

There was a farmer named Waseemullah Khan who lived in a village called Mustafabad, Killi Qambrani, in District Quetta. He had been cultivating cucumbers on 16 tunnel farms for a long time. However, due to the limited availability of water, he could not expand his farm or increase production. Tunnel farming isn't quite as simple; fertilizers and sprays needed for tunnel farming are more in quantity compared to those needed for conventional farming. In tunnel farming, hybrid seeds are used which need high fertilization and high-water management to achieve maximum yield. He used to get water from his own tube well.

One day, he heard about the NPIWC-II project, which provided water storage tanks to farmers on a cost-sharing basis, with the farmer contributing 25% and the government contributing 75%. He immediately applied to avail of this facility and contacted the concerned officials of OFWM, Balochistan. After fulfilling the formalities, his scheme was approved by the department and a water storage tank of 60'x60' was sanctioned. Mr. Waseem was quite optimistic that with the help of the water storage tank, he would be able to irrigate his farm properly and increase the number of tunnel farms too.



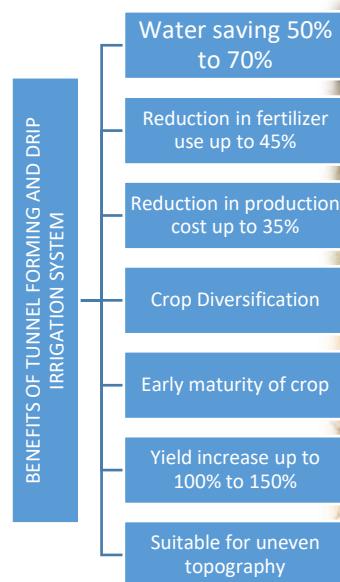
After the construction of the WST, Muhammad Waseem started to see the results of this intervention. With the better management of water, his cucumber plants had grown significantly, and the yield had increased too.

The quality of the cucumbers was also better, which helped him fetch a higher price in the market. **Now the number of tunnels has increased from 16 to 29, and cucumber production has increased by 45%.**



#### Impact on Livestock:

After the provision of the WST, the farmer got a water-drinking facility for cattle and buffaloes. Now the farmer is raising fodder for livestock instead of relying on wild and native bushes to feed their animals. These activities will improve the nutritional status of all family members in general, and specifically in females and kids. The pure fresh milk and other dairy items are also available for the whole family. The farmer is planning to increase livestock in the upcoming days.



#### Drip Irrigation System:

He also installed a drip irrigation system, which helped him save water and ensured that the plants received the required amount of water. In drip irrigation, the soil is always kept at "field capacity," which enables the crop to easily absorb required water and nutrients and grow healthier. Besides, each plant gets an equal share of water and fertilizer, resulting in uniform growth of plants and enhanced quality of produce. Explaining the advantage of drip irrigation, 50 to 70 percent of irrigation water is being saved by the farmer through this technology. The technology also helps in the efficient utilization of fertilizer, and yield increases by up to 45 percent, with water application uniformity reaching over 90 percent.

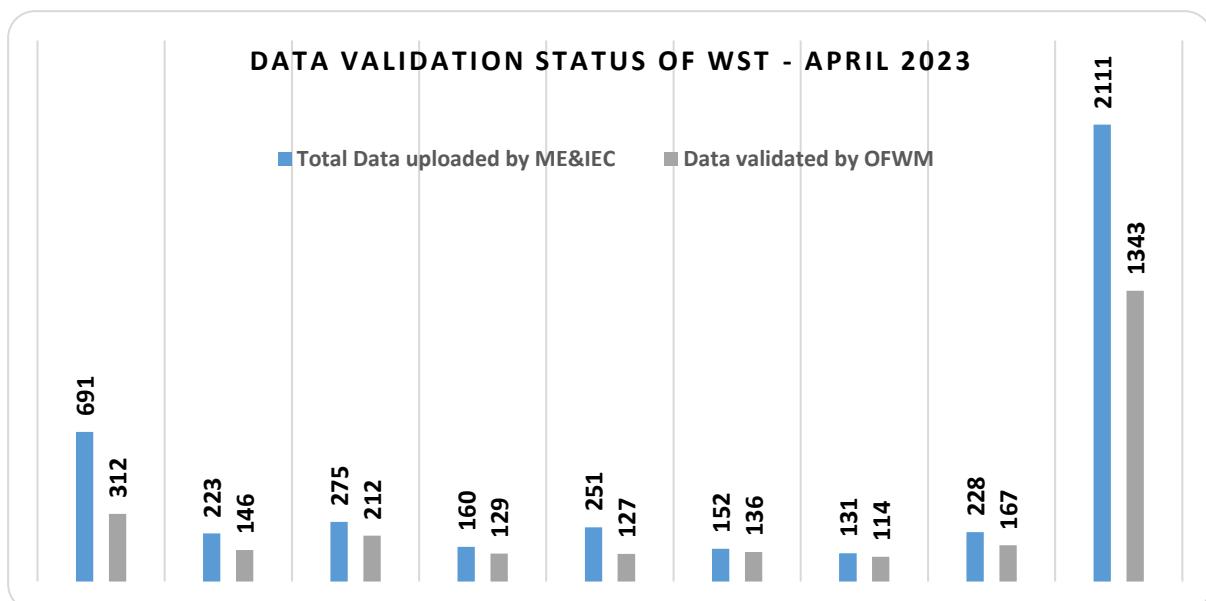
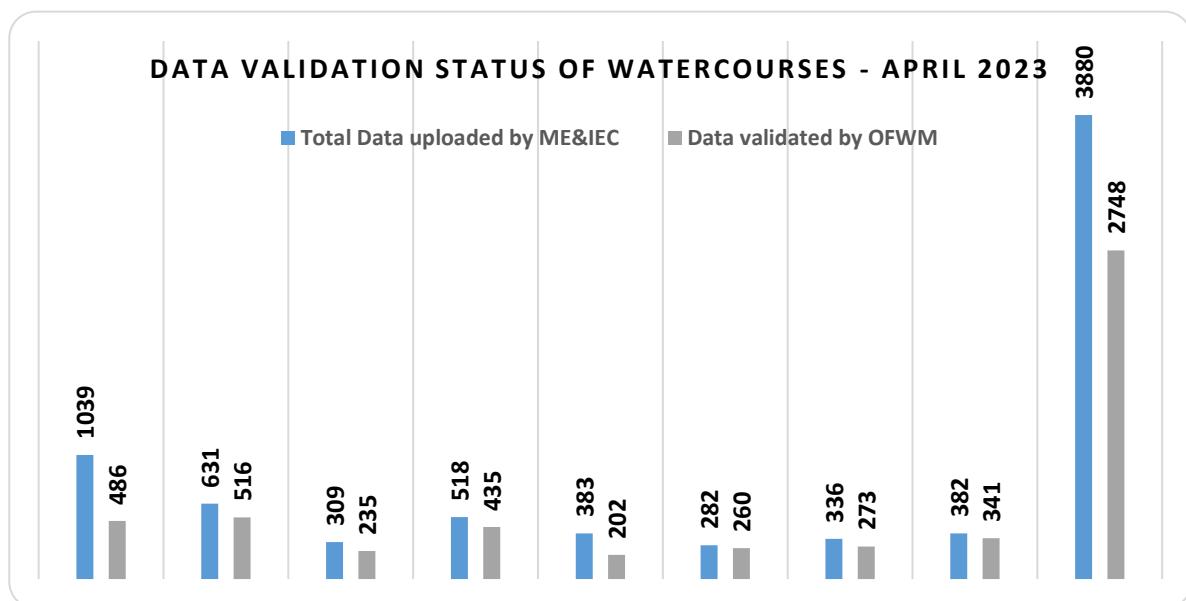


**As a result of this intervention, Muhammad Waseem's income had doubled, and he was able to provide a better life for his family. The increased production also helped create employment opportunities.**

### 3.7.5 Updated Status of Dashboard Balochistan.

The ME&IEC of Balochistan visited all Divisional Headquarters in January and April 2023 to facilitate and provide assistance to OFWM staff for data uploading through the Android Database Application. In response to the ME&IEC visits, OFWM staff had validated 71% of Watercourses and 64% of Water Storage Tanks data by April 2023. The data validation

process is still ongoing by OFWM staff. The Director General of OFWM is requested to address the administrative issues pointed out by some Deputy Directors that create hurdles in the data validation process. The progress of data validation by OFWM staff is slow and needs to be expedited so that this Balochistan Dashboard may be completed as soon as possible.



### 3.8 SOCIAL & GENDER COMPONENT

#### 3.8.1 Grievance Redressal Mechanism

NPIWC-II is a flagship program benefiting huge number of farmers and ultimately helping GOP in achieving Sustainable development goals .in huge programs so many stakeholders are involved i.e., Government departments, implementing consultants, and communities and actual users like farmers. In huge projects sometimes project activities affect the stakeholders in different ways which ultimately leads to dispute or complaint voiced by any person who feels they have been or will be negatively impacted by someone else's actions. It often marks the beginning of a dispute between them. To Answer or resolve the issues projects have an in-built system, mostly donors use the term Grievance Redressal mechanism for this. Projects with large numbers of beneficiaries or affected persons and all donors and implementing agencies recommend having a built system to resolve all grievances.

**A Grievance Redress Mechanism (GRM) is a locally based, formalized way to accept, assess, and resolve community feedback or complaints.<sup>1</sup> It should offer an accessible point for complaints to be received and a predictable process and timeline for communities to obtain a response. Its fairness and effectiveness will determine its credibility with users.** (World Bank)

NPIWC-II is a program which is implemented in different provinces under National program coordinator and in provinces under DG OFWM, Cultural and terrain is diverse in different provinces with few dissimilarities. In this program stakeholders are following:-

- Government Of Pakistan
- Provincial Governments Agriculture Department
- Implementing Consultants
- Monitoring And Evaluation Consultants
- Communities And Farmers.

Before we start working on GRM and establishing it, there is dire need to review the existing rules, regulations and policies of the department and build the capacity of the organizations involved in this program. An assessment should be carried out on how it should be designed after discussions with all stakeholders. Before making a framework, and a few

practical suggestions are to look into capacity of the organization, first point of contact, it is recommended to build the capacity of an organization (with an emphasis on its employees) to accomplish an effective grievance redress mechanism.

**Important elements contribute to a mechanism's overall capacity, including orientation, knowledge, processes, skills, credibility, and tools. (ADB)**

**Following steps are recommended to be adopted for implementing any GRM.**

- Mapping of various GRMs' available and effective coordination, communication, and record keeping.
- Rules and Regulations
- Awareness raising
- Documentation
- Focal point nominations.
- Coordination among departments, implementing and monitoring consultants to review and resolve the issues
- Risk management
- Communication
- Tools. (Feedback form)

Detailed GRM will be prepared after consultation with clients and other stakeholders, outline of contents is as under through review, and after consultation internally and externally GRM will be finalized (**all DTLS and specialists are requested for their input according to their provincial and national scenario contents are written after mapping on going GRMS.**)

1. Introduction
2. Definition of GRM
3. GRM Management
4. Scope Users Owners Criteria.
5. Procedures
6. Complaint
7. Channels
8. Complaint Information
9. Confidentiality
10. Collection and Sorting of complaints.
11. Recording and logging.
12. Notification to the complainant Investigation
13. Possibility to Appeal...
14. Publication.
15. Awareness-building...
16. Information provided in an accessible format  
Proactive advertisement/regular public information campaign

17. Staffing and capacity-building (if funding is available)

Roles and responsibilities of Social Safeguard Specialist.

- Capacity-building.
- Transparency, monitoring, and reporting
- Transparency
- Regular internal monitoring and reporting.
- Reporting in quarterly and annual progress reports submitted to the client.
- Oversight and review

### 3.9 ICT Assignment

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

#### 3.9.1 Development of Customized Android Based Applications

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

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

#### 3.9.2 Data collection of Interventions in MIS/GIS Database

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

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

#### 3.9.3 Implementation of MIS Dashboard

The Dashboard has been implemented in AJK, and the progress of Interventions is live on the Dashboard since the 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	21	174
Mirpur	38	107	86	49	280
Overall	107	241	238	86	672

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

AJK Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	35	61	83	5	184
Poonch	13	48	142	99	302
Mirpur	2	16	44	21	83
<b>Overall</b>	<b>50</b>	<b>125</b>	<b>269</b>	<b>125</b>	<b>569</b>
	<b>Overall</b>	<b>275</b>	<b>283</b>	<b>448</b>	<b>25</b>
					<b>1031</b>

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

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	19	40	18	80
Bannu	74	35	93	27	229
D.I Khan	431	14	105	0	550
Hazara	82	66	149	40	337
Khyber Agency	6	13	7	0	26
Kohat	98	41	57	6	202
Kurram Agency	3	5	3	0	11
Malakand	174	178	459	12	823
Mardan	105	67	96	7	275
M. Agency	4	26	13	0	43
N.W Agency	2	3	5	1	11
Orakzai Agency	0	1	0	0	1
Peshawar	131	90	95	10	326
S.W Agency	3	12	15	2	32
<b>Overall</b>	<b>1116</b>	<b>570</b>	<b>1137</b>	<b>123</b>	<b>2946</b>

KP zone currently 2946 total watercourses data live on Dashboard and by which 2533 schemes have been completed and 406 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-G**.

KP Zone - WST Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	1	10	9	1	21
Bannu	13	10	23	2	48

D. I. Khan	81	6	19	0	106
Hazara	23	41	58	7	129
Khy. Agency	1	9	12	0	22
Kohat	29	17	32	1	79
Kurram Agency	1	1	0	0	2
Malakand	73	94	177	3	347
Mardan	16	9	26	4	55
M. Agency	1	36	4	0	41
Orakzai Agency	0	2	0	0	2
Peshawar	36	25	65	6	132
S.W Agency	0	15	15	0	30
N.W Agency	0	8	8	1	17
<b>Overall</b>	<b>275</b>	<b>283</b>	<b>448</b>	<b>25</b>	<b>1031</b>

KP zone currently 1031 total WST data live on Dashboard and by which 853 schemes have been completed and 178 WSTs are under progress. Detailed Summary attached as **Annex-H**.

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

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

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

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

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

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

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-K**.

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-L**.

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-M**.

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-N**.

## CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (APR 2023 TO JUNE 2023)

The ME&IE Consultants' activities initiating during the 2nd Quarter of year 2023 (1<sup>st</sup> April 2023 to 30<sup>th</sup> June 2023) are listed below. A tentative Work Plan for 2<sup>nd</sup> Quarter of the year 2023 (1<sup>st</sup> April 2023 to 30<sup>th</sup> June 2023) showing time span detail is given as **Annex-A**.

### Pre Field-Activities

- i) Preparation for Impact Survey and Validation of Baseline Survey (Finalization of MTs)
- ii) Internal Meetings of ME&IE Consultants' Zonal Offices for Methodology Baseline III Survey
- iii) Training of Field Staff for Impact Survey and Validation of Baseline Survey

### Field Activities

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

### ICT Assignment

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

### Coordination

- i) Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- ii) Meeting of DTLs with respective DTL of P C & concerned OFWM Departments
- iii) M E & IE Consultants Internal Meetings

### Deliverables

- i) Monthly Monitoring Report
- ii) Quarterly Monitoring Report (January-March 2023)
- iii) 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 2021)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Annual Monitoring & Evaluation Report (1 <sup>st</sup> -November 2020 to June 30 <sup>th</sup> 2021)	Submitted
Baseline Survey Report -I	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Third (JULY - SEPTEMBER 2021)	Submitted
Monthly Monitoring Report-Tenth (OCTOBER 2021)	Submitted
Monthly Monitoring Report-Eleventh (NOVEMBER 2021)	Submitted
Monthly Monitoring Report-Twelfth (DECEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021)	Submitted
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	submitted within stipulated time

Document	Status	Document	Status
Monthly Monitoring Report-Fourteenth (MARCH 2022)	submitted within stipulated time	Quarterly Monitoring & Evaluation Report-1 <sup>st</sup> Quarter year 2023 (JAN – MAR 2023)	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	submitted within stipulated time	Baseline Survey -II Report	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	submitted within stipulated time	Baseline Survey Report Phase-II (First Draft)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	submitted within stipulated time	Baseline Survey -II Report (Updated version WC)	Submitted
Monthly Monitoring Report-Seventeenth (May 2022)	submitted within stipulated time	Baseline Survey -II Report (Draft version of WSTs)	Submitted
Monthly Monitoring Report-EIGHteenth (June 2022)	Submitted within stipulated time	Baseline Survey -II Report (Draft version of LLL)	Submitted
Quarterly Monitoring & Evaluation Report-2 <sup>nd</sup> Quarter year 2022 (APRIL – JUNE 2022)	submitted within stipulated time	Midterm Impact Survey Report (Draft)	Submitted
Annual Monitoring & Evaluation Report (2 <sup>nd</sup> ) Jul 2021-June 2022	Submitted within stipulated time	Survey Manual (Final version) (Special Reports)	Submitted
Monthly Monitoring Report-Nineteenth (July 2022)	Submitted within stipulated time	Special Reports submitted:	
Monthly Monitoring Report-Twentieth (August 2022)	Submitted within stipulated time	1) Monitoring Tools	
Monthly Monitoring Report-Twenty First (September 2022)	Submitted within stipulated time	2) Survey Manual	
Quarterly Monitoring & Evaluation Report-3 <sup>rd</sup> Quarter year 2022 (JUL – SEP 2022)	Submitted within stipulated time	3) PAM	
Monthly Monitoring Report-Twenty Second (October 2022)	Submitted within stipulated time	4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard.	
Monthly Monitoring Report-Twenty Third (November 2022)	Submitted within stipulated time	5) Baseline-Endline Survey Manual	
Monthly Monitoring Report-Twenty Fourth (December 2022)	Submitted	6) Android Based Application Manual PMIS Dashboard Manual	
Monthly Monitoring Report-Twenty Fifth (January 2023)	Submitted		
Monthly Monitoring Report-Twenty Sixth (February 2023)	Submitted		
Monthly Monitoring Report-Twenty Seventh (March 2023)	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 facing limitations and constraints for timely initiating the activities:

- Due to non-availability of NWMC (NESPAK) deliverables/reports, ME&IE Consultants are facing obstacles to evaluate working of NWMC. In this regard the cooperation of NWMCs and respective Directorates is obligatory.
- Non availability of Technical Sanctions of the watercourses required for performing the baseline surveys -III as well as the required necessary 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) is needed
- Irregularity in the fund releases is also one the key hurdles towards the completion of the required tasks of the project (NPIWC-II) for timely completion.

# ANNEXES A to N

**ANNEX A: TENTATIVE QUARTERLY WORK PLAN (APRIL TO JUNE 2023)**

TENTATIVE WORK PLANNED FOR THE QUARTER (April 2023 to June 2023)												Legend						
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)																
		April				May				June								
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	Activity starts		Activity Ends		Activity Span
<b>1</b>	<b>Pre-Field Activities</b>																	
	1.1 Preparation for Impact Survey and Validation of Baseline Survey (Finalization of MTs)																	
	1.2 Internal Meetings of ME&IE Consultants' Zonal Offices for Methodology Baseline III Survey																	
	1.3 Training of Field Staff for Impact Survey and Validation of Baseline III Surveys																	
<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 Preparation of Baseline Survey stage - 3																	
	2.4 Online data entry via 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																	
	3.3 Monitoring Android based Mobile Application																	
	3.4 Data collection about interventions and Data Storage 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 (January-March 2023)																	
	5.3 Consolidation of Baseline Survey I & II Reports																	

## ANNEX -A (i): TENTATIVE QUARTERLY WORK PLAN OF ICT UNIT

Tentative Work Plan for the Fourth Quarter of 2022-23(April- June2023)													
No.	Activities	Legend											
		Activity starts				Activity ends							
		Activity span											
		3 Month, year 2023 (weeks)											
		April			May			June					
1.		Wk1	Wk2	Wk3	Wk4	Wk1	Wk2	Wk3	Wk4	Wk1	Wk2	Wk3	Wk4
1.1	Pre field activities	Preparation of field activities	Activity starts	Activity ends							Activity span		
1.2	Strategy for collection of basic data on various interventions	Strategy for collection of basic data on various interventions	Activity starts	Activity ends							Activity span		
2	Field activities												
2.1	Regular monitoring of intervention	Regular monitoring of intervention	Activity starts	Activity ends							Activity span		
2.2	Base line data collection	Base line data collection	Activity starts	Activity ends							Activity span		
3	Coordination												
3.1	ME&IE consultant's meeting with OFWM	ME&IE consultant's meeting with OFWM	Activity starts	Activity ends							Activity span		
3.2	Meeting of TL and DTLs with NPC, and field team	Meeting of TL and DTLs with NPC, and field team	Activity starts	Activity ends							Activity span		
3.3	Internal/ zoom meetings of ME&IE consultants	Internal/ zoom meetings of ME&IE consultants	Activity starts	Activity ends							Activity span		
4	Post field activities												
4.1	Validation of field data of interventions on android based application	Validation of field data of interventions on android based application	Activity starts	Activity ends							Activity span		
5	Deliverables												
5.1	Monthly monitoring report	Monthly monitoring report	Activity starts	Activity ends							Activity span		
5.2	Quarterly monitoring report	Quarterly monitoring report	Activity starts	Activity ends							Activity span		
5.3	Annual monitoring report	Annual monitoring report	Activity starts	Activity ends							Activity span		

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

S. No	Deliverables /Activity	3 Month, year 2023 (weeks)											
		April				May				June			
		WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4
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 Storage Tanks			3			2						
2.3	Laser Land Leveling												
3	<b>Team 2 - KP Baseline</b>												
3.1	Water courses		5	9			5	9	7				
3.2	Water Storage Tanks			3			2						
3.3	Laser Land Leveling												
4	<b>Team 3 - KP Baseline</b>												
4.1	Water courses		5	9			5	9	7				
4.2	Water Storage Tanks			3			2						
4.3	Laser Land Leveling												
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 PLAN FOR the 4th QUARTER of 2022 - 23													Legend
April - June 2023													
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)											
		April			May			June					
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4
1	Pre-Field Activities												
	1.1 Preparation of Filed Activities		■								■		
	1.2 Strategy For collection of basic data on various interventions		■								■		
2	Field Activities					■							
	2.1 Regular Monitoring of interventions in the Field			■									
	2.2 Data Collection on Baseline of interventions			■									
	2.3 Basic Data Collection on Various Intervention(PMIS Dashboard) at Divisional Level			■				■					
3	Coordination												
	3.1 Meeting of ME & IE Consultants with Stakeholders regarding project progress / issues												
	3.1 DTL with DG. Agri. OFWM / Director Agri. OFWM		■										
	3.1 Field teams with DDAs and ADAs OFWM in respective Districts												
	3.2 Meeting of ME & IE DTLs with respective DTLs of NWMC		■										
	3.3 Internal / Zoom Meetings of ME & IE Consultants		■										
4	Post Field Activities												
	4.1 Validation on Android Based Field Data on Various Intervention		■										
5	Deliverable												
	5.1 Monthly Monitoring report		■	■	■	■	■	■	■	■	■	■	
	5.2 Quarterly Monitoring Report		■	■	■	■	■	■	■	■	■	■	
	5.3 Annual Monitoring Report		■			■							

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

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

## ANNEX B: MATRIX OF RESPONSIBILITIES

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

## ANNEX C: MONITORING LOG-FRAME

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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
<b>C2: Watercourses Improvements</b>	Improvement of 47,278 watercourses on cost sharing basis: 40% farmers in terms of labour, and 60% funded by project.	<ul style="list-style-type: none"> <li>a) Establishment of 47,278 Water users' associations (WUAs);</li> <li>b) Registration of 47,278 WUAs;</li> <li>c) Improvement and realignment of earthen section of 47,278 watercourses;</li> <li>d) Lining of up to 50% length of 47,278 watercourses either by:                             <ul style="list-style-type: none"> <li>● Precast concrete parabolic lining (PCPL) segments, or</li> <li>● Rectangular brick masonry, or any other method as</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a) 47,278 WCAs established;</li> <li>b) 47,278 WCAs registered;</li> <li>c) 47,278 watercourses improved and lined;</li> </ul>	<ul style="list-style-type: none"> <li>a) Conveyance losses for improved watercourses decreased by about 15 percentage points.</li> <li>b) 1.654 million households benefited from the activity;</li> <li>c) 11.347 million acres served with improved watercourses</li> </ul>	<ul style="list-style-type: none"> <li>a) Increase in cropping intensity on improved watercourses by 5-24%;</li> <li>b) Increase in crop yields.</li> <li>c) Increase in irrigated area</li> <li>d) Increase in agriculture output per unit of water by about 37%</li> </ul>	<ul style="list-style-type: none"> <li>a) Increase in farm income;</li> <li>b) Increase in employment for farm labour;</li> <li>c) Reduction in poverty;</li> <li>d) Enhanced food security for the country.</li> </ul>	<ul style="list-style-type: none"> <li>a) The water flow measurements will be carried out at before and after watercourse improvement on 2-5% sample basis;</li> <li>b) Agriculture survey before and after watercourse improvement on 2-5% sample basis;</li> <li>c) The survey will determine:                             <ul style="list-style-type: none"> <li>● Cropping pattern before and after the improvement;</li> <li>● Cropping intensities before and after improvement;</li> </ul> </li> </ul>

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		approved by the project					<ul style="list-style-type: none"> <li>• Before and after crop yields;</li> <li>• Before and after employment;</li> </ul> <p>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.</p>
<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	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	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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		40% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 40% on issuance of FCR		c) Flexibility achieved for irrigation			saving due to WSTs c) The forms used for baseline and impact surveys in case of watercourses will also be used for WSTs d) Same data 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	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	a) Water application efficiency increased at field level; b) Even germination of seed. c) Field application losses reduced by 10	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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
	50% by the project.			by 11,610 units.	percentage points d) Water productivity increased by 24%		will be reflected in agriculture sample surveys. b) 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery c) The unit will be verified d) Area treated during the year will be collected e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.

## ANNEX D: DELIVERABLES / REPORTING REQUIREMENTS

### Deliverables/Reporting Requirements

Sr. No.	Document	Copies	Due
1	Draft Inception Report	8	45 days after the effectiveness of the Consulting services Agreement.
2	Final Inception Report	15	One week after the issuance of comments by the Client on Draft Inception Report
3	Monthly Monitoring Report	10	10 <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: 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
<b>Muzaffarabad Total</b>		<b>116</b>	<b>17</b>	<b>19</b>	<b>8</b>	<b>40</b>	<b>18</b>	<b>218</b>
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
<b>Poonch Total</b>		<b>86</b>	<b>49</b>	<b>8</b>	<b>1</b>	<b>11</b>	<b>16</b>	<b>171</b>
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
<b>Mirpur Total</b>		<b>209</b>	<b>24</b>	<b>6</b>	<b>0</b>	<b>5</b>	<b>36</b>	<b>280</b>
<b>Overall</b>		<b>411</b>	<b>90</b>	<b>33</b>	<b>9</b>	<b>56</b>	<b>70</b>	<b>669</b>

## ANNEX F: 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
<b>Muzaffarabad Total</b>		<b>145</b>	<b>3</b>	<b>19</b>	<b>16</b>	<b>183</b>
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
<b>Poonch Total</b>		<b>112</b>	<b>66</b>	<b>39</b>	<b>77</b>	<b>294</b>
Mirpur	Mirpur	10	3	2	6	21
	Bhimber	11	0	0	8	19
	Kotli	27	12	1	3	43
<b>Mirpur Total</b>		<b>48</b>	<b>15</b>	<b>3</b>	<b>17</b>	<b>83</b>
<b>Overall</b>		<b>305</b>	<b>84</b>	<b>61</b>	<b>110</b>	<b>560</b>

## ANNEX G: 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>0</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 H: 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>		866	11	16	86	16	995

## ANNEX I: 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 Maghi	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 J: 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 K: 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 L: PUNJAB – WATER STORAGE TANK/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	Rajanpur	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 M: 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>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 N: GB – WST 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>