



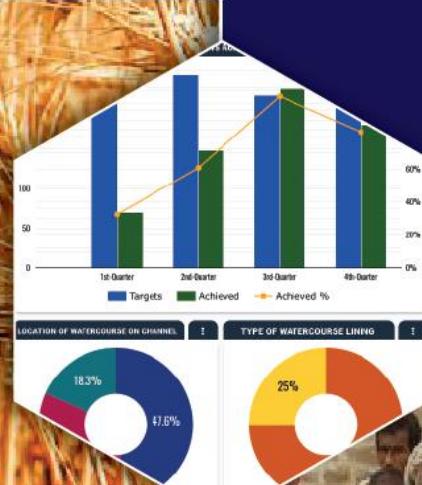
FEDERAL PROJECT MANAGEMENT UNIT
FEDERAL WATER MANAGEMENT CELL
MINISTRY OF NATIONAL
FOOD SECURITY & RESEARCH
ISLAMABAD - PAKISTAN

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

MONITORING, EVALUATION AND IMPACT EVALUATION CONSULTANTS

MONTHLY MONITORING REPORT

MAY 2023



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



In Association with 



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
MAY 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 May 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), Balochistan and Gilgit Baltistan (GB), Azad Jammu & Kashmir (AJ&K) as well as Islamabad Capital Territory (ICT). The present project is beneficial for the country.

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

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

Chapter-2 elaborates the objectives and scope of work of the ME&IE Consultants for the project. Since the ME&IE Consultants are 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 1st May 2023 to 31st May 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 April 2023.
- Preparation of Baseline survey Phase-I&II Consolidated Report
- Preparation of Midterm Impact & Validation of Baseline Survey (updation of MTs & Field staff trainings)
- Regular Monitoring of Interventions in the Field
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Data entry, cleaning, validation and reporting

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

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

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

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

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

No.	Activities Planned for the Reporting Quarter		Status
1	Pre-Field Activities		
1.1	Preparation for 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 Surveys		In Progress
2	Field Activities:		
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 III		Preparation in Progress
2.4	Online data entry in android-based application		In Progress
3	ICT Assignment:		
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
4	Coordination		
4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues		Meetings conducted on regular basis
4.2	Meeting of DTLs with respective DTL of NWMC		Meetings conducted on regular basis
4.3	Internal Meetings of ME&IE Consultants		Weekly meetings conducted on regular basis
5	Deliverables:		
5.1	Monthly Monitoring Reports (MMRs)	28 th MMR (April 2023)	Submitted
		29 th MMR (May 2023)	Report in -hand
5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Jan-March 2023	Submitted
5.3	Consolidation Report of Baseline Survey Phase-1&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, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)
Sponsoring Agency	Ministry of National Food Security & Research
Executing Agencies (EAs):	Following are different EAs: Federal Project Management Unit (FPMU), i. DGA OFWM Punjab ii. DG OFWM KP iii. DGA OFWM Baluchistan iv. Director Irrigation and Small Dams, AJ&K v. Director WM, GB vi. Director Agriculture Extension Services (AES) ICT
Project Period:	5 Year (2019-2024)
Total Project Cost:	Rs. 154,542.355 million (Umbrella PC-1, including Sindh)
ME&IE Consultancy Period:	4 years
ME&IE Consultant:	JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD), ADA Consultants Inc. Canada, and S&S Associates.
ME&IE Consultant Mobilized:	November 20, 2020

1.2 PROJECT DESCRIPTION

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

1.2.1 Project Development Objectives

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

1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

1) General Objectives:

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

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

2) Quantitative Objectives' Outputs and Impacts:

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

Project outputs

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

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

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

Project impacts

iv) Reduction in Water Logging and salinity in project areas to the extent of 10%.

v) Cropping intensity is expected to increase by 5-20%.

vi) Crop's yield is estimated to increase by 10-15%.

vii) Equity in water distribution increased by about 30%.

viii) Reduction in water disputes/thefts and litigation amongst the Farmers over water distribution by about 80%.

ix) Help poverty reduction through generation of employment.

x) Self-sufficiency in food through utilization of water saved including edible oil seed production.

Project indirect benefits to industry/economic activities

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

Awareness support to farmers

xii) Motivating farmers through an awareness campaign for watercourse improvement.

xiii) Providing technical material to farmers for optimal utilization of water resources in the shape of technical manual and operational guidelines.

1.2.3 Project Beneficiaries

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

the farmers benefiting from the activity comes to 1.655 million. The same number will be benefited due to Water Users' Associations (WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 farmers will be directly benefited from Water Storage Tanks and 11,620 as recipients of Laser Land Leveling Units. Thus, total gross direct beneficiaries are expected to be around 3.336 million households. However, net beneficiaries are expected to be 1.668 million.

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

1.2.4 Project Components

The NPIWC-II project comprises four components.

C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:

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

- i) Provide right of way for constructing watercourse,
- ii) Arrange skilled and unskilled labor required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,
- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of 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) 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
- iv) Regulate the flows so that it can be used efficiently when needed at large flow rates.

C4: PROVISION OF LASER LAND LEVELING UNITS:

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

1.2.5 Project Targets

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

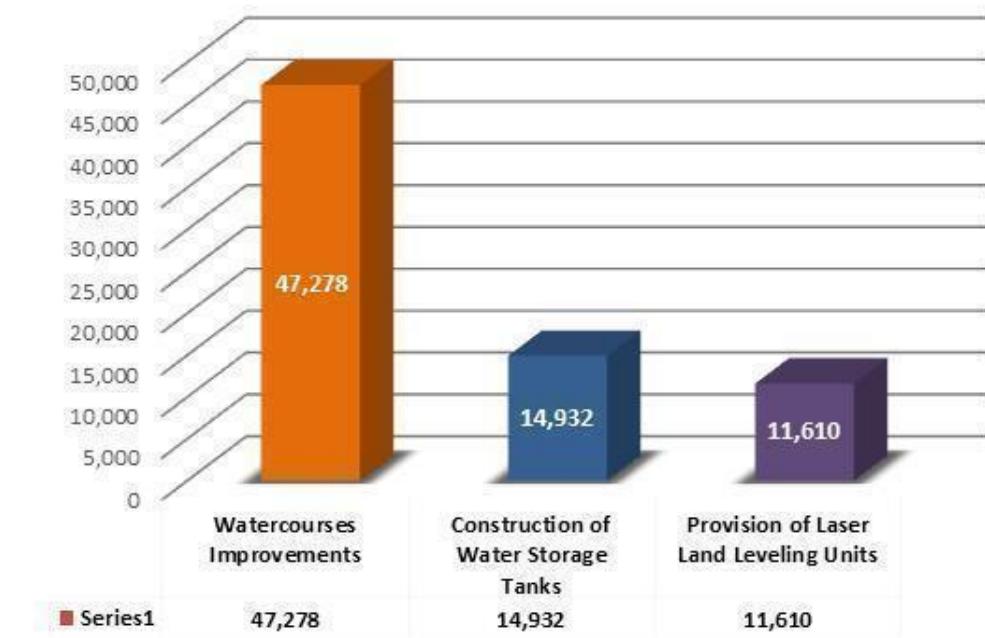


Figure-1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

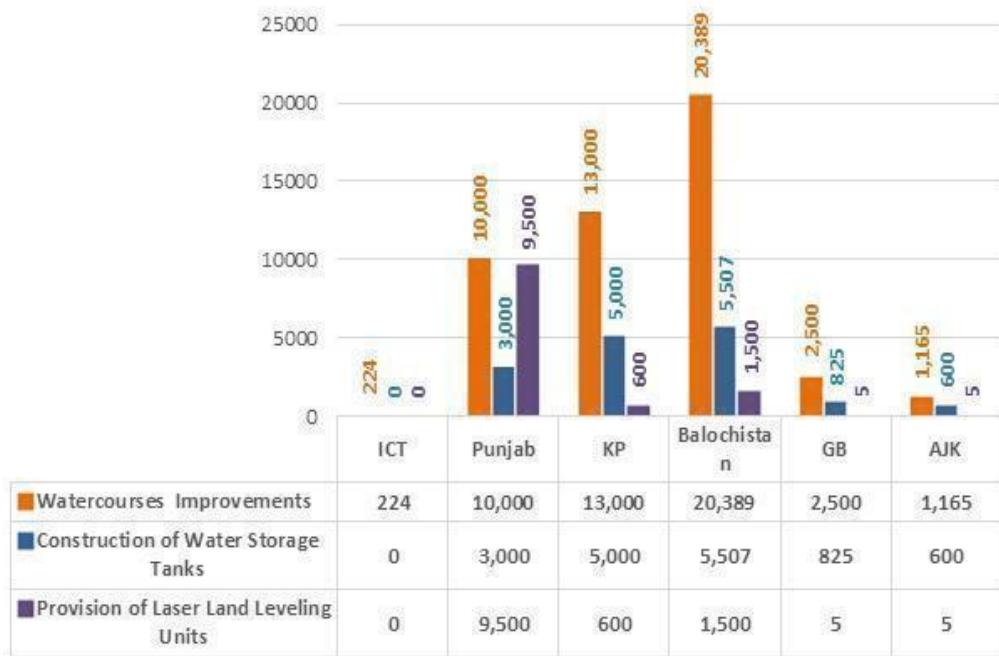


Figure-1.2: Zone-Wise WCs Improvement, WSTs, and LLL Target

CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS

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

2.1 OBJECTIVES OF CONSULTING SERVICES

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

2.2 SCOPE OF CONSULTING SERVICES

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

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

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

The said requirement is based on the following functional features:

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

2.3 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"> Baseline and impact surveys will be carried out on a sample basis. Data will be collected by field teams on pre-designed data collection tools through an android application on TABs. Baseline and impact surveys will be carried out in phases as target watercourses are not preselected. Baseline will be carried out before launching of the interventions and the impact one year (two crop seasons) after the completion of the intervention. The midterm study will review the project progress in the middle of the project implementation. The end line study will assess the impact of the project interventions.
2	Reporting	All core team members	<p>Following periodic reports will be prepared and submitted:</p> <ul style="list-style-type: none"> Draft Inception Report 45 days after the agreement, Final Inception Report one week after the issuance of comments by the client on the draft, Monthly Monitoring Report on 10th of following month, Quarterly Monitoring Report on 10th of the first month of the following quarter, Annual Monitoring and Evaluation Report during first month of the following year, Baseline Survey Reports (in three phases), First Phase Baseline Survey report will be submitted within the four months after the start of the assignment i.e., Submission of final inception report/Beginning of field activities. Impact Survey Reports (in phases) – two months after the data collection completion for the impact phase, Midline report in the middle of the assignment, Endline Report at the end of end line Survey, Draft Assignment Completion Report at completion of the physical works, Final Assignment Completion Report at completion of works and financial transactions. It will also include the full economic benefit of the project (NPIWC-II) on agriculture sector as well as on the GDP of Pakistan, Special Reports, as and when asked by the client.
3	Water saving assessment	Irrigation Agronomist, Field Team/ Engineers	<p>Water Saving on Watercourses:</p> <ul style="list-style-type: none"> Water flow will be measured on sample watercourses selected for the baseline and impact surveys The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach

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

	the economy	Economist and Socio-Economic Expert	<ul style="list-style-type: none"> Additional food produced due to the project will be estimated. It is benefitted towards food security Project costs and benefits will be compared in economic and financial terms to carry out economic and financial analysis. Parameters like IRR, NPV and BCR will be estimated.
7	Impact evaluation-on the stakeholders	Team Leader, Agricultural Economist and Socio-Economic Expert	Analysis as in serial 6 will be carried out with reference to various stakeholders, like community, government, farmers, etc.
8	Spot checking	Team Leader, Deputy Team Leaders & Field teams/Engineers .	During the field visits for WUAs baselines impacts of Watercourses, WSTs and laser land leveling units, the interventions will be spot checked for quality of construction, material, functioning and beneficiaries' satisfaction, etc.
9	Process monitoring	Field Teams of Agriculture Deptt., Project Consultants, ME&IE Consultants & ICT/Technology Specialist	<ul style="list-style-type: none"> The processed data for all the interventions will be fed to the MIS/GIS database. Client's field staff and field teams of consultants will furnish data of their activities. The ME&IE will assist in developing mobile application for this purpose From this data reports will be generated for process monitoring All interventions will be fully (100%) covered.
10	Project website and MIS/GIS dashboard development	ICT / Technology Specialist (Including all other core team staff will also coordinate in completing data for the MIS/GIS	<ul style="list-style-type: none"> The State-of-the-art MIS / Progress Monitoring Model will be developed for NPIWC-II. Customized forms will be developed to collect data from the implementing teams on-site for progress monitoring These forms will be made available to the teams on smart phones through an android application The teams will be adequately trained to use the application Data on physical and financial stages with dates will be fed to the system for process monitoring GIS coordinates for watercourses, WSTs, laser units (if available) and WUAs offices will be uploaded to the system and could be viewed / reached by the management online The system will be maintained on GOOGLE server so that it is accessible by the management from anywhere in Pakistan and abroad Custom reports will be possible as the user demands / desires The results could be displayed on small as well as large screens.
11	Development of Android based application	ICT / Technology Specialist	All the data collection forms / tools will be executed through customized developed Android based applications accessible with smart phones / TABs.

2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

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

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

CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH

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

3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)

As per contractual obligation, the consultants have submitted twenty eighth MMR (April 2023) in the 2nd week of May 2023. While the twenty ninth MMR (the Report in hand) for the month of May 2023 (1st May 2023 to 31st May 2023) will be submitted in stipulated time i.e., in the 1st week of the current month.

Monthly Monitoring Report (MMR) explains the understanding towards all activities to be carried out as per TORs of ME&IE consultants' assignment and their completion within stipulated time frame. The activities include but are not limited to pre-field/ in-house activities, field monitoring activities i.e., monitoring of project interventions, ICT assignments including monitoring of online data collection in the field, and development / improvement of project dashboard and website etc. Consultants of ICT Team also remained in contact with 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 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 bad weather conditions 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 – May 2023

3.4.1 Overall Progress:

Following are the main tasks that ME&IE consultants, ICT-Unit, completed during the current month:

- The tentative survey plan for Impact survey and validation of Baseline survey was reviewed in anticipation that a sampling frame list would be intimated to the National Project Coordinator (NPC) Office, Islamabad by the National Engineering Services Pakistan (NESPAK) enabling the ME&IE consultants to collect primary information from the targeted schemes' households over the ensuing dates.
- Held regular meetings with the Coordinating/Client, cooperating, and internal technical professionals, as well as the Administration and Finance departments of the Zonal and National Offices, as and when necessary to address the respective deliverables timely.
- Professionally edited and vetted the integrated MMR report for the month of April-May, 2023, and submitted/in-process towards its final processing and distribution amongst the concerned stakeholders.
- Supervised and looked after the Admin and Financial liabilities manned through the overall supervision of Team Leader of the Project and Deputy Team Leader of the ICT-Zone in addition to the duties of the National Office, Islamabad.
- Compiled and finalized the second quarterly work plan i.e., April-June 2023.
- Comments conveyed for the improvement of outline on "Grievances Redressal Mechanism (GRM)" developed by S&G Specialist of NPIWC-II project.
- Comments prepared and conveyed to the FTI, ICT-Unit on a preliminary log documented,

“Diversity-Equity-Inclusion: In line Role of Gender”.

- Work in progress on the write-up of on-going case study

The overview of the past up-to-date progress of the targeted schemes / interventions / Regular monitoring and spot checking is presented herewith in graphical mode. The ME&IE Consultants, Islamabad Unit had completed the Baseline-II surveys of the targeted interventions including improvement of WCs plus midline impact survey (i.e., 40) and construction of WSTs plus midline impact surveys (i.e., 23) as well as drafted and submitted the respective reports to the client for seeking the input from the provincial cooperating professions in order

to fulfill the requirements towards its finalization. Moreover, regular monitoring/ spot checking was conducted by the team of ME&IE consultants on both of the interventions including improvement of WCs (i.e., 13) and WSTs (i.e., 14) in order to understanding the quality of work as well as to appraise the status of operational and maintenance of the developed schemes against the given targets as well as the good practices chalked out in design and agreements. The status of these interventions may be viewed for the respective targeted areas falling under the jurisdiction of ICT-Zone and Punjab Potohar tract in Figure 1 and 2. The cumulative picture (i.e., 90 visits) of these interventions (i.e., WC and WST) and its development along with the regular monitoring and spot checking may be seen from Figure 3.

Updates about the ICT-Zone's Field Activities in Graphic Mode for the targeted Districts in the Project:

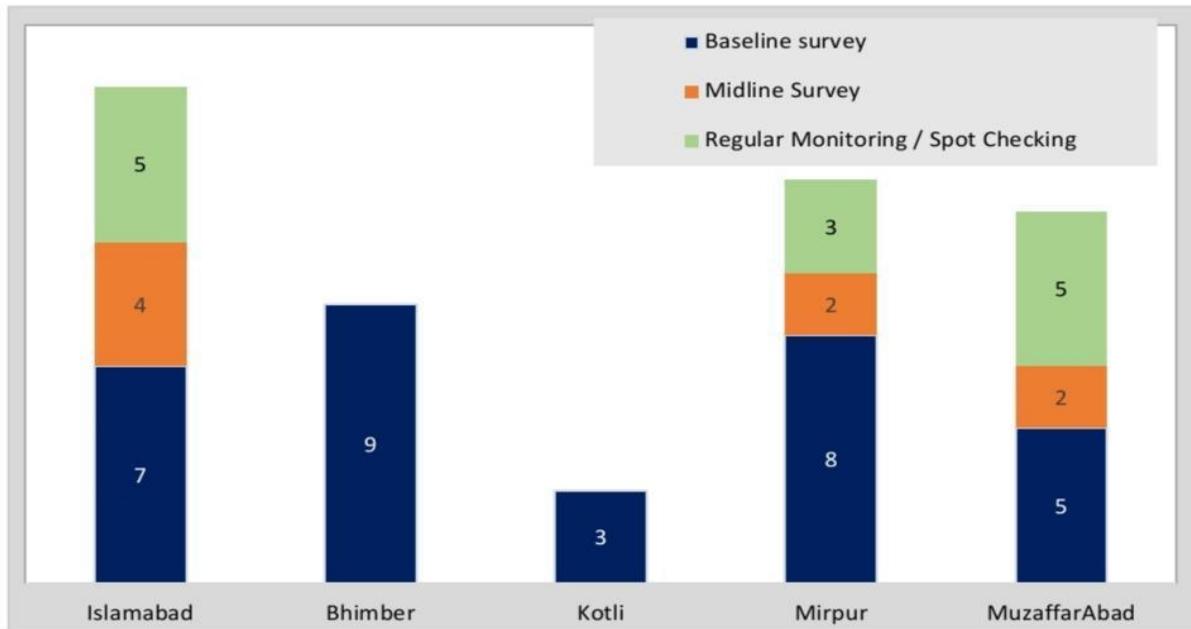


Figure-3.3: Total No. of Watercourses visited in ICT & AJK Areas

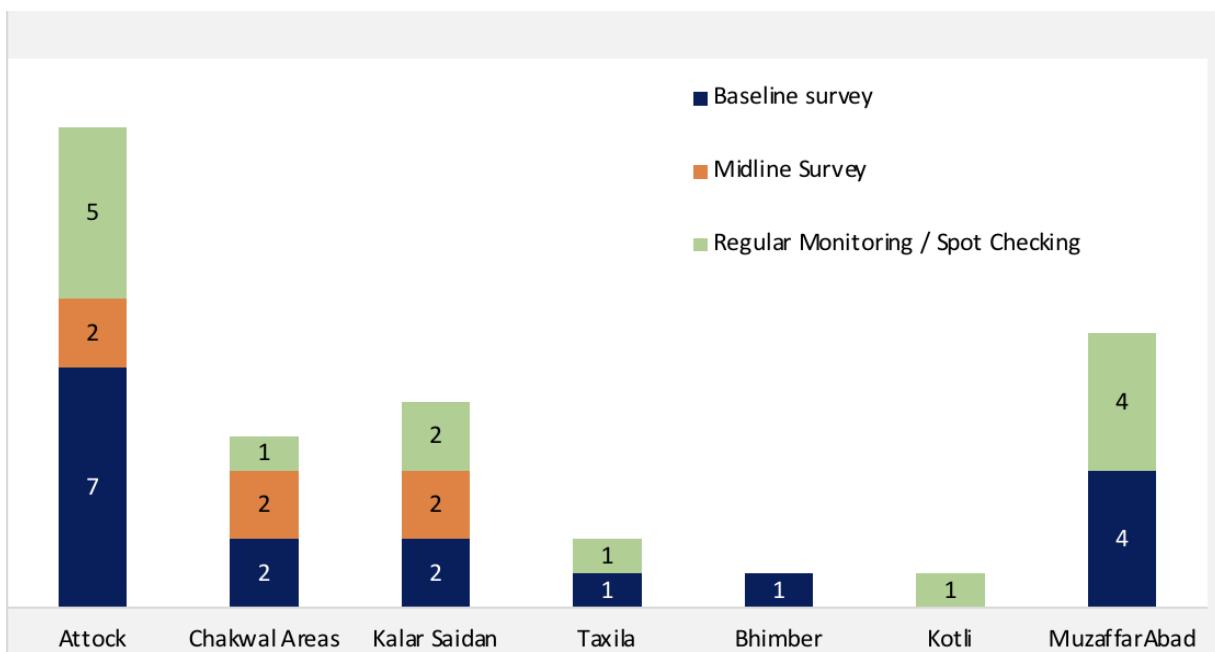


Figure-3.4: Total visits of Water Storage Tanks in ICT, Barani-Punjab & AJK Areas

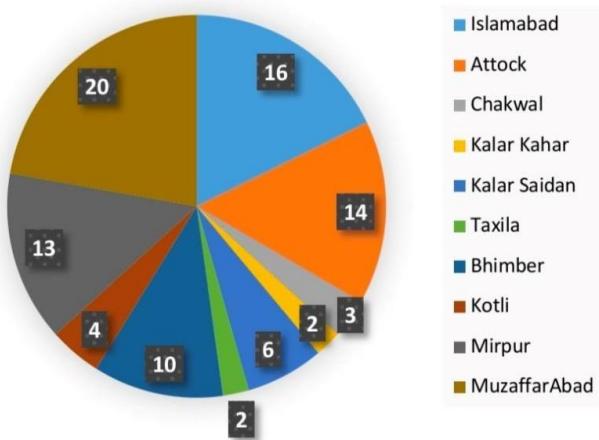


Figure-3.5: Total Visited Interventions Plus Regular Monitoring/ Spot Checking of the Schemes (WCs & WSTs) in ICT Zone

3.4.1 Quarterly Visit Plan – Islamabad Capital Territory (ICT) Unit

As under, the tentative quarterly field plan was prepared by the team of ME&IE consultants and duly approved by the competent authorities for conducting Baseline-III survey out of the sample targeted households subject to availability of list of sampling frame about the targeted schemes of WC, WST and provision of Laser Land Levelers from NESPAK through the client office (Table-1). The sample size will be determined from the given

sampling frame list in consultation with ToRs specified in the inception report as well as cooperating departments/Client office. In reality the above-mentioned quarterly work plan didn't work mainly due to non-provision of sampling frame list by the concerned stakeholders. Since, the teams of consultants have also prepared the required financial and logistic arrangements to be provided for conducting the survey, and submitted to the Financial Advisor for its implementation. It is still lying idle due to non-provision of sampling framework as well as required finances.

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.

3.4.2 Quarterly Visit Plan – Islamabad Unit

Field visit plan for baseline-III as well as monitoring visit plans with respect to regular monitoring and spot checking of water courses, water storage tanks and provision of laser land levelers was prepared according to the guidelines spelled out in the project document. Henceforth, the field activities are suspended till the provision of a list of sampling frames for the targeted schemes (i.e., WC, WST and Land leveler) as well as availability of finances to cover the TA/DA and vehicle operational expenses. Therefore, under the prevailing situation the given field work plan is not valid subject to the above-mentioned bottlenecks.

Please see the details in Table-1 and Annexure-A covering period from April-June 2023

Table 3.3: Tentative Quarterly District Wise Visit Plan of the ME&IE Consultants of ICT-Unit 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	Rawalpindi	WST
22-May-23	Punjab	Rawalpindi	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
5-Jun-23	ICT	ICT	WC
7-Jun-23	Punjab	Rawalpindi	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-June-23	AJK	Jhelum	WC & WST
27-June-23	AJK	Jhelum	WC & WST
3-Jul-23	AJK	Kotli	WC & WST
4-Jul-23	AJK	Kotli	WC & WST
10-Jul-23	AJK	Poonch	WC & WST

Date	Zone	District	Scheme
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

Date	16-05-2023
Venue	National Office, Islamabad
Participants	
1. Dr. Ikram Saeed, DTL, ICT- Zone	
2. Mr. Rasheed Ahmed Zehri, FTI, ICT.	
3. Ms. Sana Gull, ME & IE Officer, ICT.	
4. Ms. Hafiza Maryam Iqbal, ME & IE Officer, ICT.	
5. Mr. Amir Habeeb, Sr. Manager, Admin & Finance, National office.	
Meeting Agenda/Points discussed:	
Discussion on Financial and Logistic support for Office and Field activities	
Discussion on field visit plan for looking after four main purposes:	
<ul style="list-style-type: none"> • Baseline-III • Regular Monitoring • Spot Checks, and • Potential Case Studies 	
Revisiting field visit estimates in accordance to the site of the prospective scheme as well as manpower strength employed to conduct the field surveys.	
Progress Review meetings of the Project and discussed the strategies to efficient utilization of financial and manpower resources during the slack period, not much work in the field, etc.	
	
Figure-3.6: ME&IE Consultants and Admn. & Finance Meeting in the National Office, Islamabad	

Meetings/Coordination ICT-Unit

Frequent in-house planning meetings held under the leadership of DTL, as well as, addressed the best use of the slack time in terms of personal professional capacity building by working on back lock clearance through preparing promising case studies. Hereafter, a few meetings were attended under the overall umbrella of Team Leader, NPIWC-II to discuss and explore the best avenues for the utilization of slack time for the betterment of the project.

Date	26-05-2023
Venue	National Office, Islamabad
Participants	
1. Mr. Saifullah Ijaz, Authorized Director JV G3 Consultants. 2. Dr. Usman Mustafa, TL, NPIWC-II Project 3. Dr. Ikram Saeed, DTL, ICT- Zone, Islamabad 4. Mr. Rasheed Ahmed Zehri, FTI, ICT-Zone, Islamabad 5. Ms. Abida Munir S&G Specialist, NPIWC-II Project 6. Ms. Hafiza Maryam Iqbal, ME & IE Officer, ICT-Zone, Islamabad 7. Ms. Sana Gul, ME & IE Officer, ICT-Zone, Islamabad	
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none">Guidelines given regarding day-to-day administration, other than planning and implementation of field activities.Discussion on the individual grievances and difficulties being faced by the consultants/staff.Financial matters discussed.Suggestions given to enhance performance of consultants and supporting staff.A topic on “Diversity Equity and Inclusion” assigned to both FTI (ICT-Zone) and Social and Gender Specialist for presentation in the upcoming workshop proceedings.	

Meetings/Coordination ICT-Unit

Comprehensive guidelines were given to the participants other than planning and implementation of field activities with the special focus pertaining to interpersonal communication and dealings at work place as well as at other get together places during the course of life to maintain good practices of day to

day administrative and disciplinary matters. The individual grievances and difficulties of consultants/staff were also being addressed by the Authorized Representative of the JV- G3 company. The financial team was advised to bring more transparency and accuracy in keeping all records and accounts.

The team leader gave his suggestions to enhance performance of consultants and supporting staff, it was also endorsed and appreciated by the worthy Director of the company.

Regular and frequent meetings proposed to evaluate the overall progress/ outcome of the Zonal and National offices.

The good offices of the Chair advised all concerned staff/ officials to fulfill the desired requirements pertaining to the field and office staff with the aim to achieve optimum level of performance.

ME&IE Consultants' Forum at ICT-Unit

Salient Challenges Faced & Measures Suggested:

Field visit Plans could not meet as proposed due to financial crunch prevailed as well as Non provision of sampling frame list by the client office.

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

There should be a good conditioned with all the proper gadgets in placed for conducting field activities – assurance of field vehicle along with experienced driver available to conduct safe field survey visits, timely,

Availability of advances for performing the field tours,

First aid box, and basic necessities like, umbrella, water with cooler must be provided to the field teams in order to facilitate under upcoming hardships,

Tablet must be provided for the facilitation of data bank handling efficiently and accurately, and

Each member of the field team should have their official identity card to show their identity where and when required by any authority for assurance of safety and running of the targeted activities of the project amicably.

3.5 ACTIVITIES PUNJAB ZONE – MAY 2023

3.5.1 Consultant's Activities During the Reporting Month

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 “inhouse” 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-3.7: Meeting of Deputy Team Leader with Field Team



Figure-3.8: 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

- 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.

3.5.2 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-3.9: 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.

3.5.3 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, midline 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.

3.5.4 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 3.4: 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
Irrigated (Mixed Zone)	Sahiwal
	Pakpattan
	Faisalabad
	Jhang
	Chiniot
	Toba Tek Singh
	Khushab
Irrigated (Cotton Zone)	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.

3.5.5 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.

3.5.6 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 3.5: Ecological Zones / Districts Wise Priority for Field Survey (Provider of Laser Land Leveler)

Ecological zone	District
Barani	-
Partially Barani Zone	Mianwali
Irrigated (Rice Zone)	Gujranwala
	Hafizabad
	Gujrat
	Narowal
	Sialkot
	Mandi Bahu Din
	Lahore
	Sheikhupura
	Sahiwal

Ecological zone	District
Irrigated (Mixed Zone)	Pakpattan
	Okara
	Faisalabad
	Jhang
	Chiniot
	Toba Tek Singh
	Sargodha
	Khushab
Irrigated (Cotton Zone)	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.

3.5.7 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 the stakeholders are kept through telephonic conversations followed by emails and ultimately physical meetings.

3.6 ACTIVITIES KP ZONE – MAY 2023

3.6.1 Summary of Activities KP Zone – May, 2023

As the management is well aware that due to the stoppage of funds from the main pool the ME&IE consultants could not extend their activities outside provincial capital Peshawar during the Month of May 2023, were as under.

Major activities of ME&IE Consultants, KP Zone includes;

- A number of meetings both physically and telephonically were held with OFWM Officials for collection of relevant information of undergoing schemes. As per the ME&IE discussions with the OFWM Department official, it was found that schemes were mostly completed under the NPIW-II program. New schemes for construction/improvement of watercourses and water storage tanks will be initiated after the release of funds by the authorities.
- Monitoring of data entry by the ICT Manager KP zone for the Dashboard of OFWM official of the various districts of KP
- NPIWC-II KP all watercourse, and water storage tank schemes coordinate verification through Google Earth and identification of incorrect coordinates.
- Drafted KP MMR report for the month of April 2023.

3.6.2 Updated Progress of ME&IE Consultants – KP Zone

Meetings: Close contacts through meetings/Telephone calls with different cadre officials of OFWM department regarding the ongoing activities under the NPIW-II during the current reporting month. 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 OFWM Department officials and

of the farmers about these schemes. As per the OFWM Departments officials most of the farmers were satisfied with the benefits of these schemes in terms of increase of crop productivity, cropping intensities and time saving.

Field Surveys: 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 surveys are carried out from time to time as a part of regular activity of ME&IE Consultants. Therefore, the ME&IE consultants have confined themselves to internal staff meetings and with the OFWM Department officials. As soon as the funds are released the field surveys will be launched in different zones of KP as per sampling frame already in hand.

Data Entry and GPS validation: During the month of May 2023, KP Teams entered and validated the GPS locations for hundreds of schemes of Balochistan 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 OFWM staff on Android Application

Various training on android application have been imparted by the ME&IE Consultants from time to time to the officials of OFWM in Southern, Central and Northern zones. Now they are able to enter the data directly to the dashboard from their offices. However, when they face any hurdle the ME&IE continuous support was provided to OFWM officials on telephone for any issue while operating the android-based system and/or data collection process. The IT team carried out various visits to the Directorate of OFWM KP and assessed the understanding of field staff for utilization of android based apps 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 Limitations / Hurdles of ME&IE Consultants Facing in Achieving the Required Targets.

All the staff members are very devoted and hard-working towards fulfilling their responsibilities. Similarly, the OFWM staff is extending all possible help and cooperation towards the ME/IE Consultant KP Zone in providing the required information. But sorry to say that the Consultants failed in achieving the required targets because of Lack of financial resources from the main pool of funds from the National Office Islamabad.

Moreover, despite raising the issue by the DTLs in their respective meetings with the management, still the field staff are not equipped with the required android sets/tablets.

The KP zonal office has been provided with only one Pigmy meter for three field teams. Which I understand is not sufficient and may delay the field activity.

3.6.4 Key Challenges

As already reported in the MMR of April 2023, certain limitations were noted during meetings with OFWM staff members. These are:

- 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.
- OFWM KP Directorate remains involved in implementation of other funded projects with the NPIW-II. So, some- times they cannot spare their staff for ME&IE Consultants

Recommendations:

In order to meet the targets well intime following recommendations are forwarded.

- Quarter planning for 3rd baseline is still pending thus teams did not move for field activities. This should be materialized along with the required funds for the above-mentioned baseline survey,
- 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 (umbrella) 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 – MAY 2023

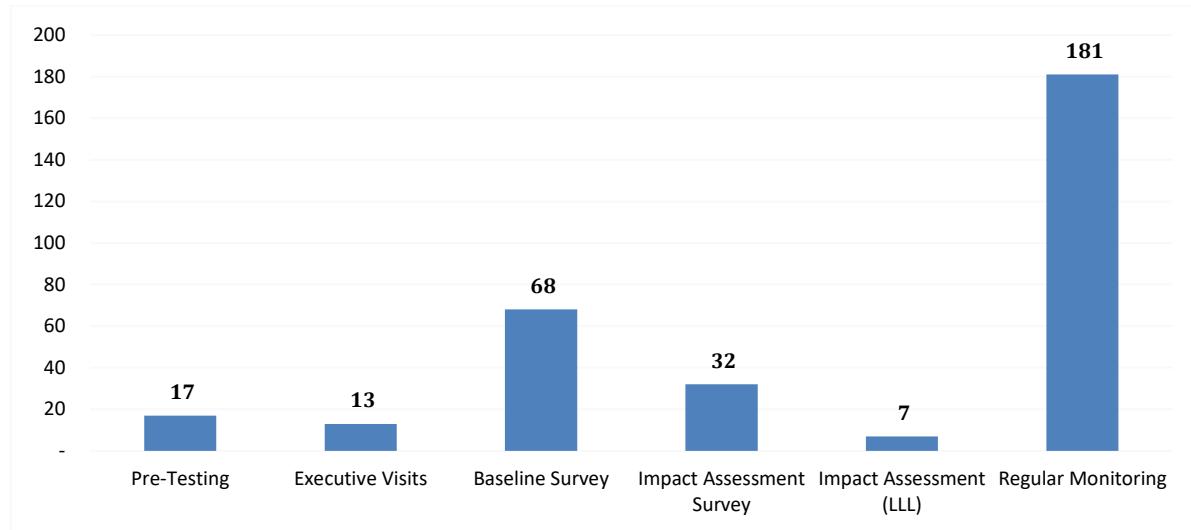
The following activities were carried out during the Reporting Month.

- Updated progress of ME&IE Consultants, Balochistan by May 2023.
- Targets of F.Y. 2022-23
- Updated status of Data Validation – Dashboard Balochistan.
- Meetings
- Tentative Work Plan, Balochistan Zone.

3.7.1 Updated Progress of ME&IE Consultants – Balochistan

The ME&IE Consultants, Balochistan have monitored 17 sites during the pre-testing of Monitoring Tools in different months. A total of 13 sites were monitored during executive visits with high officials. The ME&IE Consultants, Balochistan have conducted two baseline surveys, the first was conducted in the Month of June 2021 and the second was conducted in two parts (first in March 2022 and second in June 2022). A total of 68 sites were monitored during the baseline surveys i.e., 17 Watercourses and 51 Water Storage Tanks. The ME&IEC, field teams monitored 07 sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. The Impact Assessment Survey was conducted in the month of November 2022 in which 32 sites have been monitored so far. Regular monitoring/spot-checking is another important activity of ME&IE Consultants in which 181 sites of different districts have been monitored until 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:

Table 3.6: 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.

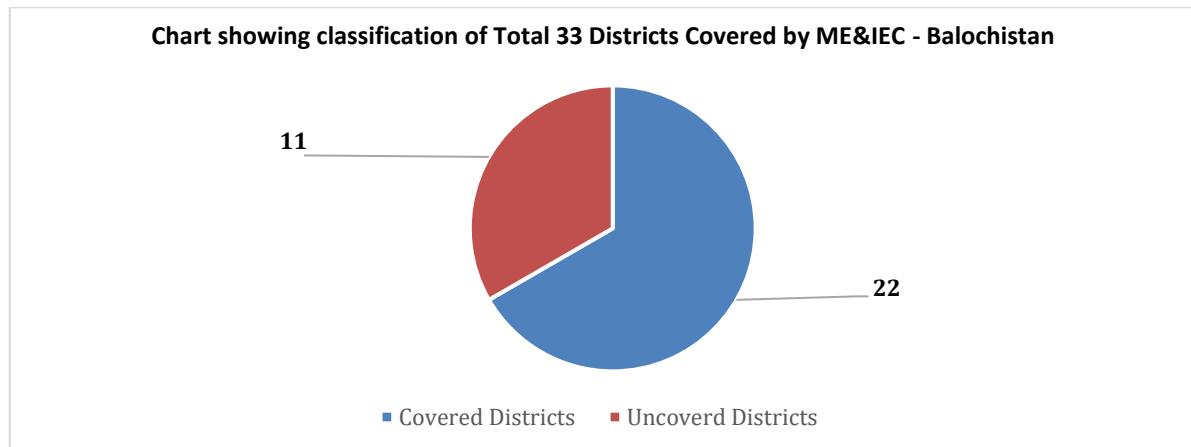


Table 3.7: Summary of Field Activities, District-Wise

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

3.7.2 Targets of F.Y. 2022-23, Balochistan Zone:

A meeting was held with the Focal Person of OFWM, Balochistan, to discuss the beneficiaries' list for the fiscal year 2022-23. During the meeting, the Focal Person handed over the targets for the fiscal year 2022-23 to DTL, Balochistan, and emphasized the importance of achieving them in due time of course. The Focal Person mentioned that the tendering process has been completed in various districts, while it is still ongoing in some districts. The DTL, Balochistan, brought the Focal Person's attention to a letter # ME&IEC/NPIWC-II/BZ/60 dated 31st March 2023. The letter requested all Deputy Directors to upload the finalized beneficiary data for the fiscal year 2022-23 on the Dashboard through the Android Data Application. This action is necessary to initiate the sampling for the 3rd Baseline-III.

As per the targets for the fiscal year 2022-23, a total of 99 watercourses, 820 PVC/RCC pipes, and 630 water storage tanks were distributed in 33 districts throughout Balochistan.

The detail of targets component-wise are list below:

Watercourses:

Sr. #	Districts	WC (Barani)	WC (Canal)	Total
1	Kalat	1	0	1
2	Mastung	0	0	0
3	Khuzdar	1	0	1
4	Pishin	2	0	2
5	Loralai	1	0	1
6	Killa Saifullah	1	0	1
7	Killa Abdullah	1	0	1
8	Zhob	1	0	1

Sr. #	Districts	WC (Barani)	WC (Canal)	Total
9	Lasbella	1	0	1
10	Kachi	0	0	0
11	Kech	8	0	8
12	Panjgur	1	0	1
13	Awaran	1	0	1
14	Chagai	0	0	0
15	Nushki	0	0	0
16	Musa Khail	1	0	1
17	Barkhan	1	0	1
18	Quetta	1	0	1
19	Kohlu	1	0	1
20	Jhal Magsi	1	2	3
21	Kharan	1	0	1
22	Washuk	1	0	1
23	Surab	1	0	1
24	Duki	1	0	1
25	Sheerani	1	0	1
26	Ziarat	1	0	1
27	Sibi	1	2	3
28	Harnai	1	0	1
29	Gwadar	1	0	1
30	Naseerabad	0	17	17
31	Jaffarabad	0	17	17
32	Sohbatpur	0	21	21
33	Dera Bugti	2	5	7
Total		35	64	99

PVC / RCC Pipes:

Sr. #	Districts	PVC 4" (300)	PVC 3" (300)	RCC Pipe (16)	Total
1	Kalat	10	5	0	15
2	Mastung	36	21	1	58
3	Khuzdar	36	21	0	57
4	Pishin	9	31	0	40
5	Loralai	29	27	0	56
6	Killa Saifullah	3	2	0	5
7	Killa Abdullah	10	10	0	20
8	Zhob	44	6	0	50
9	Lasbella	68	2	0	70
10	Kachi	60	20	0	80
11	Kech	0	0	0	0
12	Panjgur	17	6	0	23
13	Awaran	17	16	2	35
14	Chagai	7	1	1	9
15	Nushki	14	14	3	31

Sr. #	Districts	PVC 4" (300)	PVC 3" (300)	RCC Pipe (16)	Total
16	Musa Khail	10	10	0	20
17	Barkhan	14	13	0	27
18	Quetta	5	16	0	21
19	Kohlu	18	0	0	18
20	Jhal Magsi	14	0	0	14
21	Kharan	11	18	1	30
22	Washuk	6	6	0	12
23	Surab	4	4	0	8
24	Duki	6	13	0	19
25	Sheerani	7	3	0	10
26	Ziarat	11	11	0	22
27	Sibi	13	1	0	14
28	Harnai	13	14	0	27
29	Gwadar	9	9	0	18
30	Naseerabad	0	0	0	0
31	Jaffarabad	0	0	0	0
32	Sohbatpur	0	0	0	0
33	Dera Bugti	6	4	1	11
Total		507	304	9	820

Water Storage Tanks:

Sr. #	Districts	WST 60x60	WST 50x50	WST 40x40	WST 30x30	Total
1	Kalat	8	14	13	0	35
2	Mastung	4	4	6	0	14
3	Khuzdar	5	3	6	0	14
4	Pishin	6	8	8	0	22
5	Loralai	6	4	4	0	14
6	Killa Saifullah	10	15	20	0	45
7	Killa Abdullah	10	14	10	0	34
8	Zhob	11	0	0	4	15
9	Lasbella	6	0	0	0	6
10	Kachi	0	0	0	0	0
11	Kech	9	14	11	3	37
12	Panjgur	16	17	9	8	50
13	Awaran	10	5	5	4	24
14	Chagai	12	14	10	0	36
15	Nushki	6	8	4	2	20
16	Musa Khail	9	7	4	0	20
17	Barkhan	7	7	4	0	18
18	Quetta	6	6	4	4	20
19	Kohlu	8	9	4	1	22
20	Jhal Magsi	8	6	6	2	22

Sr. #	Districts	WST 60x60	WST 50x50	WST 40x40	WST 30x30	Total
21	Kharan	6	4	5	2	17
22	Washuk	4	5	5	1	15
23	Surab	7	8	7	1	23
24	Duki	5	2	3	0	10
25	Sheerani	5	4	5	1	15
26	Ziarat	3	2	3	2	10
27	Sibi	4	2	4	3	13
28	Harnai	4	2	2	2	10
29	Gwadar	5	3	4	0	12
30	Naseera-bad	2	2	0	0	4
31	Jaffarabad	2	2	0	0	4
32	Sohbatpur	2	2	0	0	4
33	Dera Bugti	10	7	7	1	25
Total		216	200	173	41	630

3.7.3 Updated Status of Dashboard Balochistan.

In the meeting with Focal Person, OFWM, Quetta also revolved around the challenges faced in the data collection and validation process for the dashboard. Unfortunately, progress in this area had been significantly delayed due to the weak response from

some districts. In the last progress review meeting held in the good office of DG, OFWM, Balochistan, the DG urged all DDs to prioritize data validation including feeding of missing data to complete the Dashboard, Balochistan on immediate basis. Various other issues concerning different officials were addressed and steps were taken to resolve them effectively. The meeting provided an opportunity for open dialogue and strategic planning, setting the stage for a successful implementation of this fiscal year's goals.

Progress of data validation / feeding, uploading of missing data was quite slow last month. It is worth mentioning here that some districts progress is nil i.e., Barkhan, Gwadar, Jhal Magsi, Killa Abdullah. The Department is requested to take necessary action in this regard.

The updated progress of Dashboard, Balochistan, district-wise is stated below:

Table 3.8: District-wise Progress of Dashboard, Balochistan (Watercourses)

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	140	76	22	22	0	0	162	98
Kalat	Kalat	97	0	28	28	158	123	283	151
Kalat	Khuzdar	139	0	17	0	9	6	165	6
Kalat	Lasbela	110	0	35	0	44	35	189	35
Kalat	Mastung	102	93	30	1	66	60	198	154
Kalat	Surab	20	20	11	11	11	11	42	42
Total		608	189	143	62	288	235	1039	486
(%)		31%		43%		82%		47%	
Loralai	Barkhan	61	0	0	0	3	0	64	0
Loralai	Duki	27	27	15	15	1	1	43	43
Loralai	Loralai	158	157	47	43	132	130	337	330
Loralai	Musakhail	100	99	86	44	1	0	187	143
Total		346	283	148	102	137	131	631	516
(%)		82%		69%		96%		82%	
Makran	Gwadar	12	0	11	0	0	0	23	0
Makran	Kech	68	68	20	20	44	44	132	132
Makran	Panjgur	124	73	25	25	5	5	154	103
Total		204	141	56	45	49	49	309	235
(%)		69%		80%		100%		76%	
Nasirabad	Jaffarabad	53	53	32	32	56	56	141	141
Nasirabad	Jhal Magsi	16	0	6		5		27	0
Nasirabad	Kachi	81	81	18	18	3	3	102	102

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Nasirabad	Nasirabad	52	0	35	35	82	82	169	117
Nasirabad	Sohbatpur	14	14	20	20	45	41	79	75
	Total	216	148	111	105	191	182	518	435
	(%)	69%		95%		95%		84%	
Quetta	Killa Abdullah	106	0	2	0	2	0	110	0
Quetta	Pishin	99	97	39	2	52	52	190	151
Quetta	Quetta	41	25	10		33	26	84	51
	Total	246	122	51	2	87	78	384	202
	(%)	50%		4%		90%		53%	
Rakhshan	Chaghi	49	49	28	28	0	0	77	77
Rakhshan	Kharan	23	23	3		55	55	81	78
Rakhshan	Nushki	38	38	25	25	40	39	103	102
Rakhshan	Washuk	18	0	2	2	0	0	20	2
	Total	128	110	58	55	95	94	281	259
	(%)	86%		95%		99%		92%	
Sibi	Dera Bugti	34	0	0	0	65	65	99	65
Sibi	Harnai	23	0	19	15	0	0	42	15
Sibi	Kohlu	41	41	17	17	0	0	58	58
Sibi	Sibi	33	33	6	6	25	25	64	64
Sibi	Ziarat	54	54	17	15	2	2	73	71
	Total	185	128	59	53	92	92	336	273
	(%)	69%		90%		100%		81%	
Zhob	Killa Saifullah	158	124	38	38	39	39	235	201
Zhob	Sherani	19	18	8	8	39	38	66	64
Zhob	Zhob	55	55	23	20	3	1	81	76
	Total	232	197	69	66	81	78	382	341
	(%)	85%		96%		96%		89%	
	GRAND TOTAL	2165	1318	695	490	1020	939	3880	2747
	(%)	61%		71%		92%		71%	

Table 3.9: District-Wise Progress of Dashboard, Balochistan (Water Storage Tanks)

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	12	12	27	27	48	0	87	39
Kalat	Kalat	20	2	32	32	127	65	179	99
Kalat	Khuzdar	20	0	30	0	89	68	139	68
Kalat	Lasbela	20	0	24	0	106	45	150	45
Kalat	Mastung	20	18	32	2	55	12	107	32
Kalat	Surab	3	3	9	9	17	17	29	29
Total		95	35	154	70	442	207	691	312
(%)		37%		45%		47%		45%	
Loralai	Barkhan	15	0	0	0	39	6	54	6
Loralai	Duki	7	7	9	9	13	13	29	29
Loralai	Loralai	22	22	32	3	59	59	113	84
Loralai	Musakhail	11	11	16	16	0	0	27	27
Total		55	40	57	28	111	78	223	146
(%)		73%		49%		70%		65%	
Makran	Gwadar	3	0	4	0	0	0	7	0
Makran	Kech	29	18	24	0	46	46	99	64
Makran	Panjgur	18	18	29	25	122	105	169	148
Total		50	36	57	25	168	151	275	212
(%)		72%		44%		90%		77%	
Nasirabad	Jaffarabad	0	0	8	8	9	9	17	17
Nasirabad	Jhal Magri	7	0	0	0	23	0	30	0
Nasirabad	Kachi	18	18	24	24	40	40	82	82
Nasirabad	Nasirabad	0	0	8	8	9	9	17	17
Nasirabad	Sohbatpur	4	4	8	8	2	1	14	13
Total		29	22	48	48	83	59	160	129
(%)		76%		100%		71%		81%	
Quetta	Killa Abdullah	22	0	34	0	0	0	56	0
Quetta	Pishin	22	22	36	33	61	61	119	116
Quetta	Quetta	9	9	17		50	32	76	41
Total		53	31	87	33	111	93	251	127
(%)		58%		38%		84%		51%	
Rakhshan	Chaghi	10	10	23	23	14	14	47	47
Rakhshan	Kharan	3	3	12		14	14	29	17
Rakhshan	Nushki	9	9	23	23	30	30	62	62
Rakhshan	Washuk	4		10	10	0	0	14	10
Total		16	12	45	33	44	44	152	136
(%)		75%		73%		100%		89%	
Sibi	Dera Bugti	11	11	0	0	28	28	39	39
Sibi	Harnai	3	3	6	6	12	0	21	9
Sibi	Kohlu	9	9	18	18	0	0	27	27
Sibi	Sibi	8	8	5	5	10	5	23	18
Sibi	Ziarat	4	4	6	6	11	11	21	21
Total		35	35	35	35	61	44	131	114
(%)		100%		100%		72%		87%	
Zhob	Killa Saifullah	30	20	32	32	56	56	118	108
Zhob	Sherani	4	4	6	6	15	15	25	25
Zhob	Zhob	15	10	24	24	46		85	34
Total		49	34	62	62	117	71	228	167
(%)		69%		100%		61%		73%	
GRAND TOTAL		382	245	545	334	1137	747	2111	1343
(%)		64%		61%		66%		64%	

Figure-3.10:: Division-Wise Graphical Progress of Dashboard, Balochistan (Watercourses)

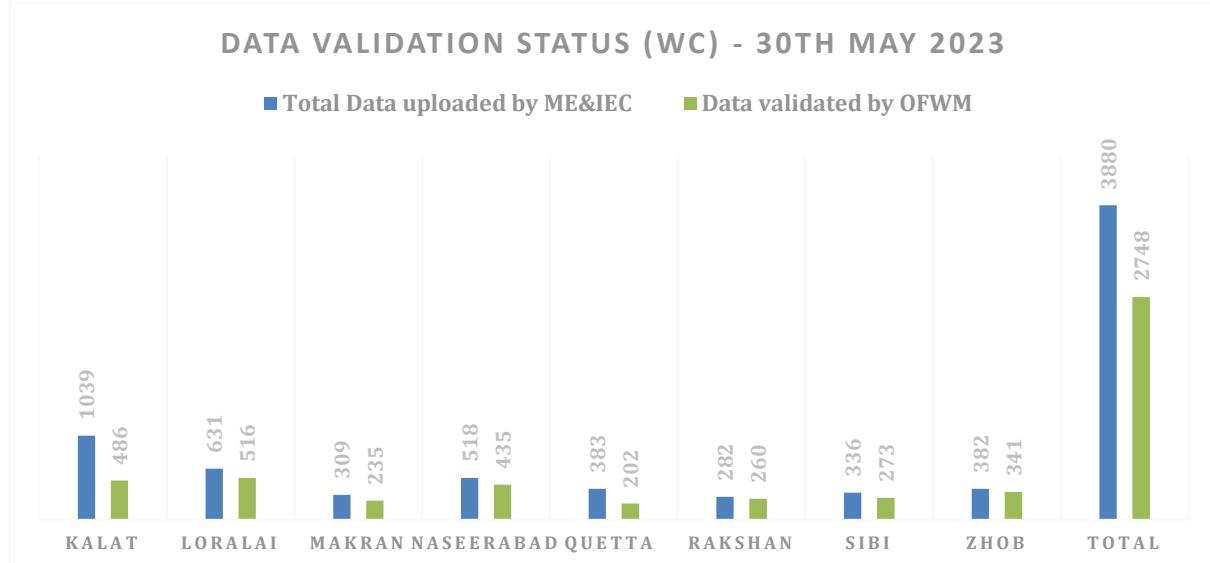
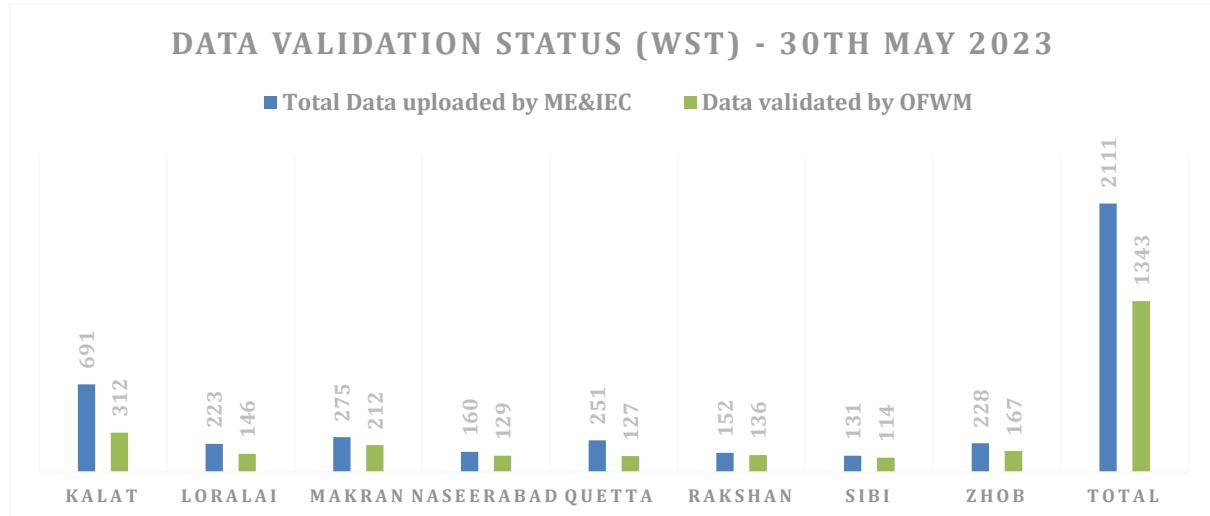


Figure-3.11: Division-Wise Graphical Progress of Dashboard, Balochistan (Water Storage Tank)



3.7.4 Meetings:

Date	5 th May 2023
Venue	ME&IE Consultants Office, Arbab Karam Khan Road, Marri Street, Quetta
Participants	
i.	Mr. Rizwan Ahmed, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
ii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants, NPIWC-II, Balochistan
iii.	Mr. Naseeb Jan, FTI / M&E Expert, ME&IE Consultants, NPIWC-II, Balochistan

- iv. Mr. Basit Kakar, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan
- v. Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan
- vi. Mr. Arsalan, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan
- vii. Mr. Saleem Abro, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan
- viii. Mr. Umair, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan
- ix. All Support Staff ME&IE Consultants, NPIWC-II, Balochistan, Quetta

Meeting Agenda/Points discussed:

- The planning, strategy, and sampling size for Baseline – III were discussed.
- The FTIs shared an updated status regarding the Dashboard in Balochistan. The problems and hurdles regarding data uploading and validation of the Dashboard in Balochistan were also discussed in detail.
- The DTL shared a mechanism to maintain office decorum. All staff agreed and ensured their cooperation and compliance.



Figure-3.12: View of Internal Meeting Held at Zonal Office, Quetta.

- The beneficiary list of F.Y. 2022-23 were discussed.

- The DTL shared / discussed the updated states and issues of Dashboard, Balochistan.



Figure-3.13: Meeting with Focal Person, OFWM, Agriculture Deptt, Balochistan, Quetta.

Date 25th May 2023

Venue Agriculture Office, Rani Bagh, Sariab Road, Quetta

Participants

- I. Mr. Pir Muhammad, DD, OFWM, District, Sherani,
- II. Mr. Naseeb Jan, FTI / M&E Expert, ME&IE Consultants.

Meeting Agenda/Points discussed:

- The data being found missed in terms of validation & feeding for Dashboard, Balochistan have been discussed
- Requested the DD, Sherani to provide beneficiary list for FY 2023-24 for upcoming Baseline
- Regular monitoring of WC & WST also came into discussion.



Figure-3.14: Meeting with DD, Sherani, OFWM, Balochistan

Date 23rd May 2023

Venue Agriculture Office, Rani Bagh, Sariab Road, Quetta

Participants

- I. Mr. Behram Mulghani, Focal Person, OFWM, Agriculture Deptt, Balochistan, Quetta.
- II. Mr. Rizwan Ahmed, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta

Meeting Agenda/Points discussed:

- The focal person gave district wise targets of NPIWC-II (F.Y. 2022-23) to DTL, Balochistan.

Date	26 th May 2023
Venue	Agriculture Office, Rani Bagh, Sariab Road, Quetta

Participants

- I. Mr. Ali Raza Jamali, Director General, OFWM, Agriculture Department, Balochistan, Quetta.
- II. Mr. Manzoor Kasi, FTI / M&E Expert, ME&IE Consultants.

Meeting Agenda/Points discussed:

- The beneficiary list of FY 2022-23 was discussed in detail.
- The progress of data validation and uploading of Dashboard, Balochistan by DDs were discussed.
- The DG, OFWM updated by Focal Person about the updated progress of ME&IE Consultants.



Figure-3.15: Meeting with Ali Raza Jamali, Director General, Agriculture, OFWM, Balochistan, Quetta.

Date	29 th May 2023
Venue	Agriculture Office, Rani Bagh, Sariab Road, Quetta

Participants

- I. Mr. Habib Ullah, WMO, OFWM, District Zhob.
- II. Mr. Naseeb Jan, FTI / M&E Expert, ME&IE Consultants.

Meeting Agenda/Points discussed:

- The FTI shared updated progress of field activities of the Division.
- The FTI requested the OFWM staff to provide beneficiary list of FY 2023-24 for upcoming Baseline
- The missing data regarding Dashboard, Balochistan (Zhob Division) was discussed in detail



Figure-3.16: Meeting with WMO, OFWM, Zhob district

Month	May 2023
The DTL Balochistan, ME&IE Consultants met / contacted with multiple OFWM officials as list below:	
I. Mr. Abdul Wali, Deputy Director, Technical, OFWM, Agriculture Department, Quetta	
I. Mr. Asif, DD, OFWM, Agriculture Department, District Kharan	
I. Mr. Noor Ahmed, DD, OFWM, Agriculture Department, District, Quetta	
Points discussed:	
<ul style="list-style-type: none"> • The Grievances Redressal Mechanisms (GRM) for NPIWC-II were discussed. • The progress of data validation and uploading of Dashboard, Balochistan by DDs were discussed. • The DG, OFWM updated by Focal Person about the updated progress of ME&IE Consultants. 	

Month	May 2023
The Focal Person, ME&IE Consultants met / contacted with multiple OFWM officials as list below:	
I. Mr. Yahya, DD, OFWM, OFWM, Agriculture Department, District, Duki	
II. Mr. Shahid Ronjha, DD, OFWM, OFWM, Agriculture Department, District Lasbella	
III. Mr. Imdad, DD, OFWM, OFWM, Agriculture Department, District Sohbatput.	
IV. Mr. Inam, DD, OFWM, OFWM, Agriculture Department, District Dera Bugti.	
V. Mr. Lal Jan Kethran, DD, OFWM, OFWM, Agriculture Department, D. M. Jamali	
VI. Mr. Muhammad Saeed, DD, OFWM, OFWM, Agriculture Department, Usta Muhammad.	
VII. Mr. Sanaullah Badini, DD, OFWM, OFWM, Agriculture Department, District Nushki,	

VIII. Mr. Zaman, DD, OFWM, OFWM, Agriculture Department, District Panjgur
IX. Mr. Chakar Khan, OFWM, OFWM, Agriculture Department, District Gwadar

Points discussed:

- The beneficiary list of FY 2022-23 was discussed in detail.
- The progress of data validation and uploading of Dashboard, Balochistan by DDs were discussed.
- The DG, OFWM updated by Focal Person about the updated progress of ME&IE Consultants.

3.8 SOCIAL & GENDER COMPONENT

3.8.1 Major Activities

The major activities conducted by Social & Gender team during the current month were:

- Draft outline on “Grievance Redressal Mechanism” (GRM) is prepared to seek the feedback from the Provincial/Zonal ME&IE consultants, cooperating departments, client and WUAs in order to sharpen the document and ultimately feeding its contribution towards the fulfillment of the project’s ToRs in line G&S activities manned in the NPIWC-II project.
- Social & Gender Specialist is in the process of drafting the outline on “Diversity Equity Inclusion” (DEI) at work place.
- The Social and Gender team is working on “GENDER’s ROLE IN CANAL WATER MANAGEMENT” and currently engaged in drafting a report towards its finalization, and it will be shared soon after collation, analysis and reporting, accordingly.
- Held regular meetings in respect of progress review, planning and strategizing to embark upon the targeted activities of the Project under the guidance and supervision of TL, DTL, and Social and Gender expert, as well as, occasional meetings on need based.

3.8.2 Condition of Landless Farmers

Social and Gender Specialist visited various areas in the Punjab and KPK. She found that there is a vulnerable group of people comprising landless farmers and they are one of the stakeholders on ground. It is suggested that Decision makers should also consider their opinion in the decision-making process.

NPICW 11, Intervention / project activities will enable the small farmers for efficient and productive agriculture activities. In parallel to this development local landless workforces including women and tenant community conditions in project areas are very pathetic and they consider all new interventions in agriculture and irrigation systems as enemies of their livelihood.

According to these vulnerable groups they feel insecurity of livelihood loss because progressive development in new agriculture. Such insecurity of landless labor forces regarding their livelihood needs to be addressed on a sustainable basis and should be the part of any activity that leads towards the loss of livelihood of vulnerable groups particularly. Women play an active role in almost every sphere of agriculture in developing countries like Pakistan agricultural activities are primarily performed by female labor force. Female involvement in agriculture is a mushroom phenomenon, within which she performs numerous other activities that are basic or supplementary to agricultural productivity enhancement.

In the project area, there is a significant labor force of landless women attached to the agriculture profession with manual seeding / sowing, harvesting and post harvesting practices. The major and single source of income of these working ladies is on the farms of the farmers on a daily basis. All the time, they remain busy in plantation/seeding, harvesting and post harvesting activities throughout the year. They also work at the homes of farmers (land owners). They live in a house made of mud on land allowed by their farmers (owners of land). Landless families live very simple and difficult lives. They have no alternate source of income to meet their basic needs except the peak plantation, harvesting and post harvesting seasons. This duration is not more than 120-150 days in a year.

Women of the areas are more vulnerable groups and their lives are more complex and demanding as influenced by the accelerated rate of their male's migration to urban areas in search of jobs and other earning opportunities. This trend badly affects rural families (women & children) in terms of increased out-migration by men and by leaving behind all the family responsibilities upon women, particularly the farm work. Therefore, serious and sustainable attention towards long term livelihood planning of this vulnerable group is required both for women and men in the areas so not only they could not leave their families and can work together for their survival.

Landless farmers and their families are the most vulnerable segment of the rural society due to the lack of access to resources. The increasing economic Pressures in terms of past sum unpaid, role of middleman and unwritten contracts all made them sell their lands. Weather conditions sometimes make it more vulnerable. Landless farmers have no direct access to banks and cooperatives, resulting in more trapping in the poverty circle. This supports the generally held view that the benefits of millions of rupees financed in irrigation, tube wells, fertilizers etc. have gone to the big farm holders whereas small farmers were ignored and over all living conditions of small farmers are very poor, socially and culturally they are deprived segment.

Moreover, successful intervention of and induction of new technologies on implementation of successful NPICW 11 projects. There will be a need to ensure for women and landless groups to credit schemes; training on use of extension services. Ideas for improvements include:

- livestock training management training and financial support,
- Agriculture and training on laser land leveling
- vocational training and skills development like food and seed preservation

The skills and capacity of landless laborers can be enhanced and strengthened providing them induction and training about new technologies for harvesting and post harvesting activities. In this way the role of landless and sons of farmers will be increased after new agricultural technology as their number of days of work would increase due to multi cropping and new skills they will learn and it will help them to earn more. Replacement with technology will affect but later on due to new horizons they will earn more, new skills will be learnt and in long run it will be good for their livelihood.

3.8.3 Key Problems of Agriculture Sector:

Points to be taken care off from the policy makers and all stakeholders

The agriculture sector is facing problems because of frequent issues such as a water shortage, shrinking of the area under cultivation and higher costs of inputs.

Following are the main issues that cause decline in agriculture:

1. The farmers of our motherland are mostly uneducated and lack technical knowledge. They are incapable of understanding the modern scientific methods of agriculture and often remain ignorant of good means to protect and increase their yield. So, the production is low.
2. Most of our farmers are unlucky, and they habitually live in a hand to mouth position. Most of them are always under heavy loads of debts. So due to lack of capital they cannot have enough money to purchase modern technical implements, organic manures, improved types of seeds etc. Hence, they cannot attain the required standards.
3. ***Most of our farmers are still stuck to the deep-rooted traditions of their forefathers. The settings have forced them to use the makeshift implements, due to small holdings of land and poverty they are unable to gain and use modern scientific methods. That is why their standard is lower than that of cultivators in developed countries. Ref. Agriculture reports of lower bari doab project***
4. Due to undue use of canal water, most of our cultivated lands have become losses of these two dangerous conditions. Salinity and waterlogging.
5. Law of inheritance affected our farmers very severely; they inherited very small pieces of land which proved to be expensive. A farmer cannot afford tractors and other machineries for a small piece of land and their incomes are low. Hereafter his interest is changed to some other sector.
6. Our agriculturalists have to face many issues due to scarcity of water which is one of our major problems. Large tracts of land estimated to be about 22 million acres are lying uncultivated due to shortage of water. Rainfall is uncertain and the existing irrigation facilities in our country are quite insufficient and need to be extended.
7. The land tenure system of Pakistan has created a chain of intermediaries in between the state land owners and the tenants. The system, instead of being conducive to agricultural development, stands in the way of its improvement.
8. In some areas, the upper fertile soil is being eroded by different agents of change. the fertility is getting poor, and soils are becoming less productive as compare to last decade
9. *The marketing facilities for agricultural products in Pakistan are still far from satisfactory. Our cultivators cannot get just prices for their produce due to defective marketing organization. Moreover, the chain of middlemen between the producers and ultimate consumers takes a heavy share of their produce. Thus, the cultivators do not take much real interest in increasing their product 9.REF Pakistan economic and social review Rural poverty in Pakistan*
10. Due to lack of latest agricultural information /education and methods of modern time, our farmers cannot control the innumerable diseases of crops and attacks of pests and insects. The result is low yields.
11. Most of our villages have poor road or railway links with our markets. So, farmers have to face countless hardships to sell their products. It decreases farmer's interest in their profession and production suffers.
12. Lack of credit facilities, the resources required for agricultural operation are land, layout, livestock, farm equipment, seeds, fertilizers, irrigation, transport etc. For the convenient and timely procurement of these resources the farmers must have easy access to credit. Which is not available for land-less farmers Zarai taraqiati and commercial banks provide loans to the farmers which are insufficient and interest rate is high.

Agriculture may not grow at a sustainable high rate unless the problem is addressed, prices shooting up every month, prices of agricultural inputs, including seeds and fertilizers, continue to increase.

Water shortages may become more acute as no initiative has been taken in the past eight months for building small dams and rainwater reservoirs.

3.8.4 Grievance Redressal Mechanism (GRM)

The Grievance Redressal Mechanism (GRM) in the OFWM, Agriculture Department, Balochistan are institutional mechanisms that aim to address and resolve grievances, complaints, and disputes related

to agriculture-related matters. These mechanisms ensure that individuals, farmers, and stakeholders have a platform to voice their concerns, seek redress, and receive appropriate solutions within the agriculture sector.

Purpose and Objectives

- i. Provide a formal channel for farmers and stakeholders to raise complaints and grievances regarding agricultural services, policies, or programs.
- ii. Facilitate fair and timely resolution of grievances, ensuring access to justice and accountability within the agriculture sector.
- iii. Improve transparency, trust, and communication between farmers, stakeholders, and the agriculture department.

Grievance Submission

The DG, OFWM, Balochistan may be designated as head for grievance submission process. It may involve filling out a specific form, writing a complaint letter, or using an online portal.

Grievances can be related to issues such as crop damage, input quality, subsidy delays, agricultural extension services, land-related disputes, or any other relevant matter.

Grievance Handling and Processing:

- i. Upon receiving a grievance, the GRM unit or department acknowledges the complaint and assigns it a unique reference number for tracking purposes.
- ii. The grievance is then reviewed and categorized based on its nature and severity.
- iii. Depending on the complexity of the issue, the GRM unit may conduct investigations, consult with relevant experts, or seek additional information from the concerned parties.

Resolution and Redress

- i. Once the investigation is complete, the GRM unit works towards resolving the grievance. This may involve mediation, negotiation, or direct intervention.

- ii. In some cases, the GRM unit may coordinate with other departments, agencies, or organizations to address the issue effectively.
- iii. The resolution may include compensatory measures, corrective actions, policy changes, or any other appropriate steps to rectify the problem.

Communication and Feedback

- i. Throughout the grievance redressal process, the GRM unit maintains communication with the aggrieved party, keeping them informed about the progress and expected timelines.
- ii. After resolving the grievance, the GRM unit seeks feedback from the concerned party to ensure satisfaction with the redressal process.
- iii. The feedback received helps identify areas for improvement and enhances the effectiveness of the GRM in the future.

Monitoring and Evaluation

- i. GRMs often have monitoring and evaluation mechanisms in place to assess the performance and effectiveness of the grievance redressal process.
- ii. Regular data collection, analysis, and reporting enable the identification of patterns, recurring issues, and opportunities for system improvements.
- iii. It is important to note that the specific details and procedures of the GRM in the Agriculture Department can vary depending on the country, region, or state. Therefore, it is recommended to consult the official agriculture department website or relevant government documents of your specific location to obtain accurate and up-to-date information about the GRM in agriculture.

Grievance Registration

- i. Grievance submission form: A standardized form to capture essential details such as the complainant's name, contact information, nature of grievance, date of occurrence, and any supporting documents.
- ii. Grievance channels: Specify multiple channels for registering grievances, including an online portal, dedicated email address, helpline number, or physical grievance drop off points.

Grievance Handling

- i. Grievance acknowledgment: A system to acknowledge receipt of the grievance within a

specified timeframe, providing the complainant with a unique reference number for future correspondence.

ii. Grievance categorization: Classify grievances based on their nature, urgency, and severity to prioritize resolution and allocate appropriate resources.

iii. Grievance investigation: Assign a dedicated team or responsible officer to thoroughly investigate the grievance, gathering necessary evidence and conducting site visits, if required.

iv. Grievance resolution timeframe: Define a reasonable timeframe for resolving grievances and communicate it to the complainant during the acknowledgment stage.

v. Interim measures: In cases where immediate action is necessary, outline provisions for taking interim measures to mitigate the impact of the grievance while the investigation is underway.

vi. Stakeholder involvement: Ensure consultation and engagement with relevant stakeholders, including the complainant, government officials, community representatives, and subject matter experts, to facilitate a fair and transparent resolution process.

Grievance Redressal

i. Decision-making process: Establish a clear decision-making process to address the grievance and determine the appropriate course of action, ensuring it is aligned with relevant policies and regulations.

ii. Communication with complainants: Provide regular updates to the complainant regarding the status of their grievance, including investigation progress, decisions, and actions taken for resolution.

iii. Remedial actions: Identify and implement appropriate remedial actions, such as compensation, corrective measures, policy changes, or capacity building initiatives, as necessary.

iv. Feedback mechanism: Offer a feedback mechanism for complainants to provide their input on the grievance handling process and suggest improvements.

Grievance Database and Reporting

i. Grievance tracking system: Maintain a secure and confidential database to record all grievances, their status, actions taken, and outcomes for effective tracking and future reference.

ii. Regular reporting: Generate periodic reports highlighting the number and types of grievances received, resolution rates, key challenges, and recommendations for improvement. These reports will serve as a valuable tool for project monitoring and decision-making.

Capacity Building and Awareness

i. Training programs: Conduct training sessions for project staff and stakeholders involved in the GRM to enhance their understanding of grievance handling principles, communication skills, and conflict resolution techniques.

ii. Awareness campaigns: Develop informative materials, such as brochures, posters, and social media campaigns, to raise awareness about the GRM and inform stakeholders about their rights and responsibilities.

3.9 ICT TEAM ASSIGNMENTS

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 reported month, activities completed by the ICT Team are summarized below.

3.9.1 Development of Customized Android Based Applications

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

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

3.9.2 Data Collection of Interventions in MIS/GIS Database

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

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

3.9.3 Implementation of MIS Dashboard

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

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

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

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

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

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

KP Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur Agency	3	19	40	18	80
Bannu	75	35	94	28	232
D.I Khan	431	14	105	0	550
Hazara	86	71	152	46	355
Khyber Agency	6	13	7	0	26
Kohat	98	41	57	9	205
Kurram Agency	3	5	3	0	11
Malakand	179	178	467	21	845
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	141	90	95	10	336
S.W Agency	3	12	15	2	32
Overall	1136	575	1149	142	3002

KP zone currently has 3002 total watercourse data live on Dashboard and by which 2579 schemes have

been completed and 416 schemes are under progress. Due to the unwillingness of farmers 07 Schemes work order has been canceled till to date. Detailed Summary attached as **Annex-I**.

KP Zone - WST Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	1	10	9	1	21
Bannu	13	10	23	2	48
D. I. Khan	81	6	19	0	106
Hazara	28	47	85	7	167
Khy. Agency	1	9	12	0	22
Kohat	29	17	32	1	79
Kurram Agency	1	1	0	0	2
Malakand	74	94	177	3	348
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
Overall	281	289	475	25	1070

KP zone currently 1070 total WST data live on Dashboard and by which 892 schemes have been completed and 178 WSTs are under progress. Detailed Summary attached as **Annex-J**.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The ME&IE Consultants' activities initiating during the 1st Quarter of the year 2023 (1st January 2023 to 31st March 2023) are listed below. A tentative Work Plan for 4th Quarter of the year 2022 (1st April 2023 to 30th 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 III Surveys

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 under implementation by field staff.
- iv) Data collection of interventions in MIS/GIS database
- v) Capacity Building Trainings / Refresher of Departments
- vi) Data Cleaning, Development & Launching of Dashboard for Client Offices.

Coordination

- i) Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- ii) Meeting of DTLs with respective DTL of 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)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Annual Monitoring & Evaluation Report (1 st)	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

Document	Status	Document	Status
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	submitted within stipulated time	Monthly Monitoring Report-Twenty Fifth (JANUARY 2023)	Submitted
Monthly Monitoring Report-Fourteenth (MARCH 2022)	submitted within stipulated time	Monthly Monitoring Report-Twenty Sixth (FEBRUARY 2023)	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	submitted within stipulated time	Monthly Monitoring Report-Twenty Seventh (March 2023)	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	submitted within stipulated time	Monthly Monitoring Report-Twenty Seventh (April 2023)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	submitted within stipulated time	Monthly Monitoring Report-Twenty-Eight (May 2023)	Under preparation
Monthly Monitoring Report-Seventeenth (MAY 2022)	submitted within stipulated time	Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (JAN – MAR 2023)	Submitted
Monthly Monitoring Report-EIGHTEENTH (JUNE 2022)	Submitted within stipulated time	Baseline Survey Report -I	Submitted
Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2022 (APRIL – JUNE 2022)	submitted within stipulated time	Baseline Survey Report -II	Submitted
Annual Monitoring & Evaluation Report (2 nd) Jul 2021-June 2022	Submitted within stipulated time	Baseline Survey Report-II (Updated version WC)	Submitted
Monthly Monitoring Report-Nineteenth (JULY 2022)	Submitted within stipulated time	Baseline Survey Report -II (Draft version of WSTs)	Submitted
Monthly Monitoring Report-Twentieth (AUGUST 2022)	Submitted within stipulated time	Baseline Survey Report -II (LLS)	Submitted
Monthly Monitoring Report-Twenty First (SEPTEMBER 2022)	Submitted within stipulated time	Mid-Line Monitoring & Impact Evaluation Report	Submitted
Quarterly Monitoring & Evaluation Report-3 rd Quarter year 2022 (JUL – SEP 2022)	Submitted within stipulated time	Survey Manual (Final version) (Special Reports)	Submitted
Monthly Monitoring Report-Twenty Second (OCTOBER 2022)	Submitted within stipulated time	Special Reports submitted:	
Monthly Monitoring Report-Twenty Third (NOVEMBER 2022)	Submitted within stipulated time	1) Monitoring Tools	
Monthly Monitoring Report-Twenty Fourth (DECEMBER 2022)	Submitted	2) Survey Manual	
		3) PAM	
		4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard.	
		5) Baseline-Endline Manual Survey Manual	
		6) Android Application PMIS Dashboard Manual	
		Deliverables/Reporting Requirements are placed at Annex-D.	
		Matrix of Responsibilities	
		The Matrix of Responsibilities is placed at Annex-B.	

CHAPTER 5: ISSUES / BOTTLENECKS

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

Due to non-availability of NWMC (NESPAK) deliverables/reports, ME&IE Consultants are facing problems to monitor & evaluate the working of NWMC. In this regard the cooperation and coordination of NWMCs as well as the relevant Directorates are required.

Non availability of Technical Sanctions of the watercourses i.e., required for performing baseline surveys – III, as well as the required obligatory surveys including Midline and end line

Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments (OFWM) & NWMCs (NESPAK) till to date.

Irregularity in the fund releases is also one of the key difficulties in the completion of the required project assignments / tasks, on time.

ANNEXES A to P

ANNEX-A: TENTATIVE WORK PLAN

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		
1	1 Pre-Field Activities														
	1.1 Preparation for Impact Survey & Validation of Baseline Survey (Finalization of MTs)														
	1.2 Internal Meetings of ME&IE Consultants' Zonal Offices for Methodology Baseline III Survey														
2	1.3 Training of Field Staff for Impact Survey & Validation of Baseline Survey														
	2 Field Activities														
	2.1 Regular Monitoring of Interventions in the Field														
	2.2 Data collection of the interventions in the field														
3	2.3 Preparation of Baseline Survey stage - 3														
	2.4 Online data entry via Android based Application														
	3 ICT Assignment														
	3.1 Development / Improvement of website of NPIWC-II														
	3.2 Monitoring online data collection														
	3.3 Monitoring Android based Mobile Application														
4	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														
5	4 Coordination														
	4.1 Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues														
	4.2 Meeting of DTLs with respective DTL of PC & concerned OFWM Departments														
5	4.3 ME&IE Consultants Internal Meetings														
	5 Deliverable														
	5.1 Monthly Monitoring Report														
5	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 4th Quarter of 2022-23 (April- June 2023)													
				Legend									
				Activity starts									
				Activity ends									
				Activity span									
No.	Activities	3 Month, year 2023 (weeks)											
		April				May				June			
1.	Pre field activities	Wk 1	Wk 2	Wk 3	Wk. 4	Wk. 1	Wk. 2	Wk. 3	Wk. 4	Wk. 1	Wk. 2	Wk. 3	Wk. 4
1.1	Preparation of field activities												
1.2	Strategy for collection of basic data on various interventions												
2	Field activities												
2.1	Regular monitoring of intervention												
2.2	Baseline data collection												
3	Coordination												
3.1	ME&IE consultant's meeting with OFWM												
3.2	Meeting of TL and DTLs with NPC, and field team												
3.3	Internal/ zoom meetings of ME&IE consultants												
4	Post field activities												
4.1	Validation of field data of interventions on android-based application												
5	Deliverables												
5.1	Monthly monitoring report												
5.2	Quarterly monitoring report												
5.3	Annual monitoring report												

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

S. No	Deliverables /Activity	2023											
		April				May				June			
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
1	Coordination with OFWM & PMU by DTL												
1.1	Collection of completed data of 2022-23 WC/WST												
1.2	Coordination for TS Data with Director Office												
1.3	Coordination for field visits through emails												
2	Team 1 - KP Baseline												
2.1	Water courses			5	9			5	9	7			
2.2	Water Storage Tanks			3				2					
2.3	Laser Land Levelling												
3	Team 2 - KP Baseline												
3.1	Water courses			5	9			5	9	7			
3.2	Water Storage Tanks			3				2					
3.3	Laser Land Levelling												
4	Team 3 - KP Baseline												
4.1	Water courses			5	9			5	9	7			
4.2	Water Storage Tanks			3				2					
4.3	Laser Land Levelling												
5	Reporting												
5.1	Daily Monitoring and Reporting			15	12	12	12	21	15	12	7	7	7

5.2	Progress review and planning meetings			2		2		2		2		2
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											1

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

TENTATIVE WORK PLANNED FOR the 4th QUARTER of 2022 - 23													Legend	
No.	ACTIVITIES	April - June 2023												
		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													
	Field teams with DAs and ADAs OFWM in respective Districts													
	3.2 Meeting of ME &IE DTLs with respective DTLs of NW MC													
	3.3 Internal / Zoom Meetings of ME &IE Consultants													
4	Post Field Activities													
	4.1 Validation on Android Based Field Data on Various Intervention													
5	Deliverable													
	5.1 Monthly Monitoring report													
	5.2 Quarterly Monitoring Report													
	5.3 Annual Monitoring Report													

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

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

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

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

ANNEX B: MATRIX OF RESPONSIBILITIES

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

LEGEND				
NPC-FPMU	Agriculture Dept. (CEWML)	Project Consultants	ME&IE	Consultants
○	●	-	-	-
○	○	●	-	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-
-	-	-	●	-

ANNEX C: MONITORING LOG-FRAME

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
C1: Organization of Water Users' Associations (WUAs)	Reactivation of existing / organization of water users' associations. Ensuring one on each target watercourse. Total WUAs ensured 47,278.	a) Community mobilization at 47,278 watercourses	a) Total 47,278 WUAs reactivated / established/registered	a) Right of way of 47,278 watercourses available b) Skilled and unskilled labor required for watercourse improvement available c) Construction material for civil works of watercourses procured d) Alternative 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
C2: Watercourses Improvements	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"> a) Establishment of 47,278 Water users' associations (WUAs); b) Registration of 47,278 WUAs; c) Improvement and realignment of earthen section of 47,278 watercourses; d) Lining of up to 50% length of 47,278 watercourses either by: <ul style="list-style-type: none"> • Precast concrete parabolic lining (PCPL) segments, or • Rectangular brick masonry, or any other method as 	<ul style="list-style-type: none"> a) 47,278 WCAs established; b) 47,278 WCAs registered; c) 47,278 watercourses improved and lined; 	<ul style="list-style-type: none"> a) Conveyance losses for improved watercourses decreased by about 15 percentage points. b) 1.654 million households benefited from the activity; c) 11.347 million acres served with improved watercourses 	<ul style="list-style-type: none"> a) Increase in cropping intensity on improved watercourses by 5-24%; b) Increase in crop yields. c) Increase in irrigated area d) Increase in agriculture output per unit of water by about 37% 	<ul style="list-style-type: none"> a) Increase in farm income; b) Increase in employment for farm labour; c) Reduction in poverty; d) Enhanced food security for the country. 	<ul style="list-style-type: none"> a) The water flow measurements will be carried out at before and after watercourse improvement on 2-5% sample basis; b) Agriculture survey before and after watercourse improvement on 2-5% sample basis; c) The survey will determine: <ul style="list-style-type: none"> • Cropping pattern before and after the improvement; • Cropping intensities before and after improvement;

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"> • Before and after crop yields; • Before and after employment; 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.
C3: Construction of Water Storage Tanks (WSTs)	a) Construction of 14,932 water storage tanks	a) 14,932 small farmers mobilized to construct water storage tanks for irrigation b) They agree to contribute 40% of the cost	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 saving due to WSTs

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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
							<p>b) 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery</p> <p>c) The unit will be verified</p> <p>d) Area treated during the year will be collected</p> <p>e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</p>

ANNEX D: DELIVERABLES/REPORTING REQUIREMENTS

Deliverables/Reporting Requirements

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

ANNEX E: CORRESPONDENCE REGARDING DASHBOARD ACTIVITIES IN BALOCHISTAN



MONITORING, EVALUATION & IMPACT EVALUATION CONSULTANTS

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

Ref: ME&IEC/NPIWC-II/BZ/60

Dated: 31st March 2023

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

Sub: REQUEST FOR BENEFICIARY LIST/DATA OF (F.Y. 2022-23), NPIWC-II, BALOCHISTAN COMPONENT.

Dear sir,

I hope this letter finds you well. The ME&IE Consultants, Balochistan zone are planning to conduct Baseline Survey Phase-III as soon as possible. For this purpose, we require the beneficiary list / data for F.Y. 2022-23.

We understand that time is short, and we are reaching out to you to kindly provide us with the necessary data at your earliest convenience. This will enable us to initiate the survey process and ensure that we meet our project deadline.

We appreciate your assistance in this matter and look forward to your prompt response. We request that you provide necessary directives to all Deputy Directors to upload the finalized beneficiary data of F.Y. 2022-23 on the Dashboard through the Android Data Application too. If they have any questions or concerns, please do not hesitate to reach out to us.

Thank you for your continued support, and we look forward to hearing from you soon.

Assuring you of our best services at all times.

Sincerely,

Rizwan Ahmed, 31/3
Deputy Team Leader
ME&IE Consultants for NPIWC-II
Balochistan, Zonal Office, Quetta.

CC:

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

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



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



In Association with

ANNEX F: METHODOLOGY OF MEASUREMENT OF WATER FLOW

PYGMY CURRENT METER:

Working principle:

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

SEGMENTAL AREA:

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

Specifications:

Model 1205

Flow Velocity – feet per second (meter per second)

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

Weight – Pounds (kilograms) .25 lb (.11kg) Suspension Means - Wading Rod

Field Observations:

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

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

Average Discharge = 2.57 Cuses

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

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

ANNEX G: WATERCOURSES DATA SUBMISSIONS

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

ANNEX H: WST/WHS DATA SUBMISSIONS

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

ANNEX I: KP - WATERCOURSE DATA SUBMISSION – SUMMARY

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

ANNEX J: KP - WST DATA SUBMISSION – SUMMARY

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

ANNEX K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION – SUMMARY

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

ANNEX L: BALOCHISTAN - WST DATA SUBMISSION – SUMMARY

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

ANNEX M: PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY

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

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

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

ANNEX O: GB – WATERCOURSE DATA SUBMISSION – SUMMARY

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

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

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