



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

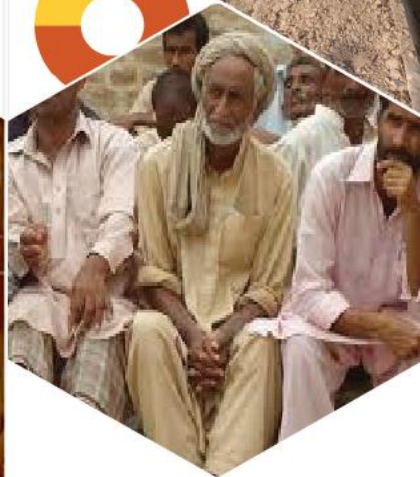
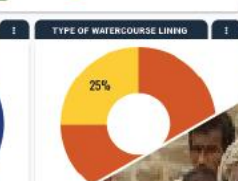
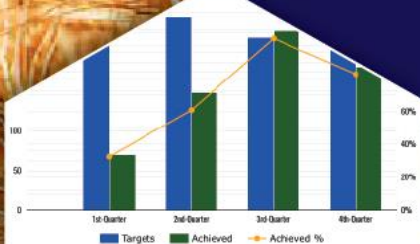
NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

MONITORING, EVALUATION AND IMPACT EVALUATION CONSULTANTS



MONTHLY MONITORING REPORT

NOVEMBER 2023



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



In Association with S&S Associates



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

Monitoring, Evaluation and Impact Evaluation (ME&IE) Consultants
For

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

MONTHLY MONITORING REPORT
NOVEMBER 2023

CONTENTS

EXECUTIVE SUMMARY	1
CHAPTER-1: PROJECT INTRODUCTION	3
1.1 PROJECT PROFILE	3
1.2 PROJECT DESCRIPTION	3
1.2.1 Project Development Objectives	3
1.2.2 Project Objectives – General & Quantitative	3
1.2.3 Project Beneficiaries	4
1.2.4 Project Components	4
1.2.5 Project Targets	5
CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS	7
2.1 OBJECTIVES OF CONSULTING SERVICES	7
2.2 SCOPE OF CONSULTING SERVICES	7
2.3 MONITORING STRATEGY OF CONSULTANTS	8
2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS	10
CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH	11
3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)	11
3.2 ACTIVITIES ICT UNIT – NOVEMBER 2023	11
3.2.1 Overall Progress:	11
3.2.2 Quarterly Work and Visit Plan – Islamabad Unit	12
3.2.3 Five Days Training on 'Planning and Management for Development Projects'	12
3.2.4 Brief Report of Training Course on "MANUAL FOR DEVELOPMENT PROJECTS"	17
3.2.5 Meetings / Coordination ICT-Zone	20
3.3 ACTIVITIES PUNJAB ZONE – NOVEMBER 2023	21
3.3.1 Pre-Field Activities	21
3.3.2 Field Activities	22
3.3.3 Post Field Activities	23
3.3.4 Coordination/Meetings with Stakeholders/Beneficiaries	23
3.3.5 Internal Meetings/ Capacity Building Sessions Date: 27 November 2023	24
3.4 ACTIVITIES KP ZONE – NOVEMBER 2023	24
3.4.1 Description of Progress:	25
3.4.2 Assisting / Guidance to the OFWM staff on Android Application	26
3.4.3 Limitations/Hurdles of ME/IE Consultants facing in achieving the required targets.	26

3.4.4	Key Challenges	26
3.4.5	Recommendations:	26
3.4.6	Quarterly Work Plan – KP Zone	26
3.4.7	Conclusions:	26
3.5	ACTIVITIES DONE BY BALOCHISTAN ZONE – NOVEMBER 2023	27
3.5.1	Updated Progress of ME&IE Consultants – Balochistan	27
4.1.1	Updated Status of Dashboard Balochistan.	28
4.1.2	Meetings:	32
4.2	SOCIAL & GENDER ACTIVITIES BALOCHISTAN ZONE – NOVEMBER 2023	33
4.2.1	Gender Action Plan	33
4.3	ICT TEAM ASSIGNMENTS	41
4.3.1	Implementation of MIS Dashboard	41
4.3.2	On-Going Data Validation & Cleaning	43
CHAPTER 4: QUARTERLY WORK PLAN-ACTIVITIES (OCTOBER 2023 TO DECEMBER 2023)		44
4.1	PRE-FIELD-ACTIVITIES	44
4.2	FIELD ACTIVITIES	44
4.3	ICT ASSIGNMENT	44
4.4	COORDINATION	44
4.5	DELIVERABLES	44
4.6	MATRIX OF RESPONSIBILITIES	45
CHAPTER 5: ISSUES / BOTTLENECKS		46

LIST OF ANNEXURES

ANNEXURE A:	TENTATIVE QUARTERLY WORK PLAN (OCTOBER TO DECEMBER 2023)	48
ANNEXURE B:	MATRIX OF RESPONSIBILITIES	49
ANNEXURE C:	MONITORING LOG-FRAME	50
ANNEXURE D:	DELIVERABLES / REPORTING REQUIREMENTS	55
ANNEXURE E:	PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY	56
ANNEXURE F:	PUNJAB - WSP DATA SUBMISSION - SUMMARY	57
ANNEXURE G:	PUNJAB - PLL DATA SUBMISSION - SUMMARY	58
ANNEXURE H:	KP - WATERCOURSE DATA SUBMISSION – SUMMARY	59
ANNEXURE I:	KP - WST DATA SUBMISSION - SUMMARY	61
ANNEXURE J:	KP - PLL DATA SUBMISSION - SUMMARY	63
ANNEXURE K:	BALOCHISTAN - WATERCOURSE DATA SUBMISSION - SUMMARY	64
ANNEXURE L:	BALOCHISTAN - WST DATA SUBMISSION - SUMMARY	65
ANNEXURE M:	BALOCHISTAN - PLL DATA SUBMISSION - SUMMARY	66
ANNEXURE N:	GB - WATERCOURSES DATA SUBMISSION - SUMMARY	67
ANNEXURE O:	GB - WST DATA SUBMISSION - SUMMARY	68
ANNEXURE P:	AJK - WATERCOURSES DATA SUBMISSIONS - SUMMARY	69
ANNEXURE Q:	AJK - WST/WHs DATA SUBMISSIONS - SUMMARY	70
ANNEXURE R:	ICT - WATERCOURSE DATA SUBMISSION - SUMMARY	71

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
IAAs	Implementing Agencies
ICR	Interim Completion Report
ICT	Islamabad Capital Territory
IRR	Internal Rate of Return
ICT	Information & Communication Technology
JV	Joint Venture
KP	Khyber Pakhtunkhwa
LLL	Laser Land Leveler
LPS	Liter per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring Evaluation and Impact Evaluation
MIS	Management Information System
MNFSR	Ministry of National Food Security and Research
MMR	Monthly Monitoring Report
MT	Monitoring Template

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

EXECUTIVE SUMMARY

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

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

The NPIWC-II comprises four components to be implemented in Punjab, KP, 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 November 2023 to 31st November 2023.

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

- Regular Monitoring of Interventions in the Field
- Preparation of remaining Baseline and Endline Impact survey Field visits
- 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
- Preparation for 3rd-Phase Baseline Survey
- Data entry, cleaning, validation
- Submitted the MMR for the Month of October 2023.
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues

Chapter-4 highlights the quarterly work plan for the period of 1st October 2023 to 31st December 2023. The work plan consists of following activities:

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

The detailed time span for the 4th 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-1: Compliance Status of Tentative Work Plan during Reporting Period

No.	Activities Planned for the Reporting Quarter		Status	
1	Pre-Field Activities			
	1.1	Refresher Training of Field Staff for Baseline and Endline Impact Survey	Completed	
	1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for endline impact Survey	Completed	
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	Baseline and Endline Impact survey Fild visits	Pending	
	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.	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)	33 rd MMR (Sep 2023)	Submitted
			34 th MMR (Oct 2023)	Submitted
			35 th MMR (Nov 2023)	Report in Hand
	5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Jul-Sep 2023	Submitted
5.3	Mid-Term Monitoring and Impact Evaluation Report (Consolidated)	Submitted		

CHAPTER-1: PROJECT INTRODUCTION

1.1 PROJECT PROFILE

This section covers the following detail of the project:

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

Project Areas: Punjab, Khyber Pakhtunkhwa, 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 07, 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:

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

- 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.
- 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).
- 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

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

Project indirect benefits to industry/economic activities

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

Awareness support to farmers

- i) Motivating farmers through an awareness campaign for watercourse improvement.
- ii) Providing technical material to 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 labour required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,
- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of Naccas, distribution of work, etc.
- v) Make alternate arrangements for conveyance of water during execution of improvement works,
- vi) Carry out civil works in accordance with standards and specifications under the supervision of OFWM field staff,
- vii) Regularly undertake O&M of improved watercourses after its construction.

C2: WATERCOURSE IMPROVEMENTS:

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

- i) New watercourses that are not yet improved under earlier programs / projects,
- ii) Reconstruction of more than 20 years old watercourses that outlived their economic / useful life,
- iii) Additional lining up to 50% of already improved watercourses.

C3: CONSTRUCTION OF WATER STORAGE TANKS:

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

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

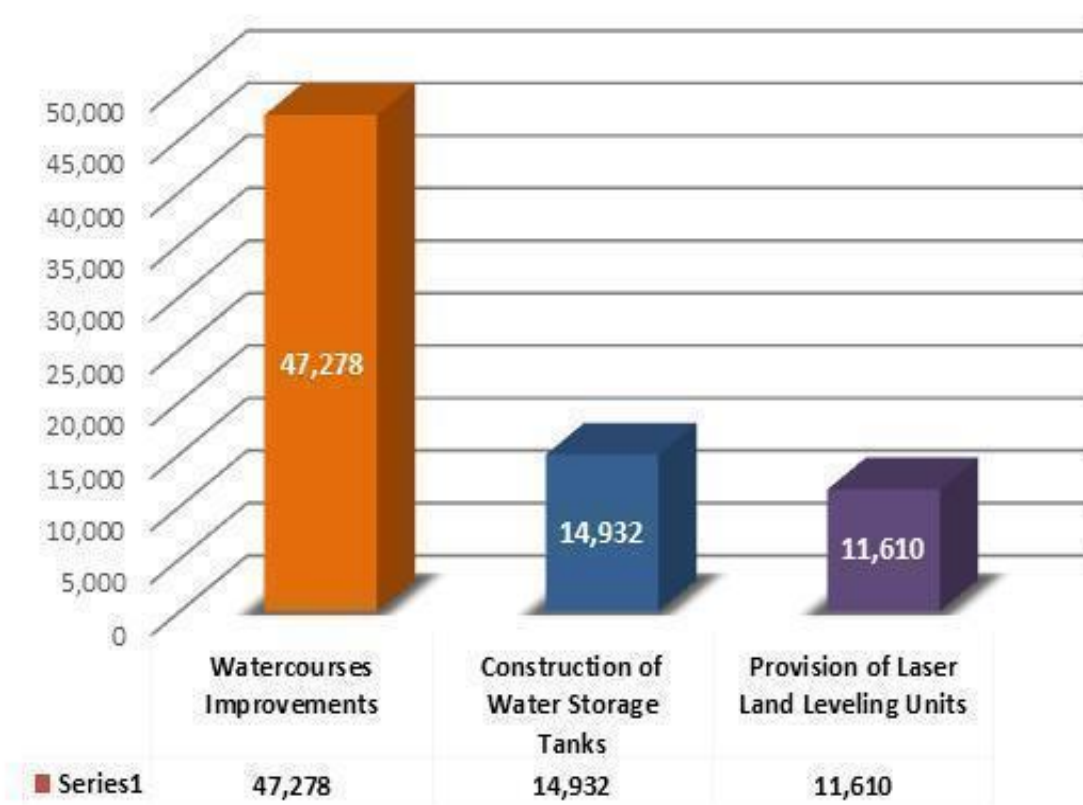


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

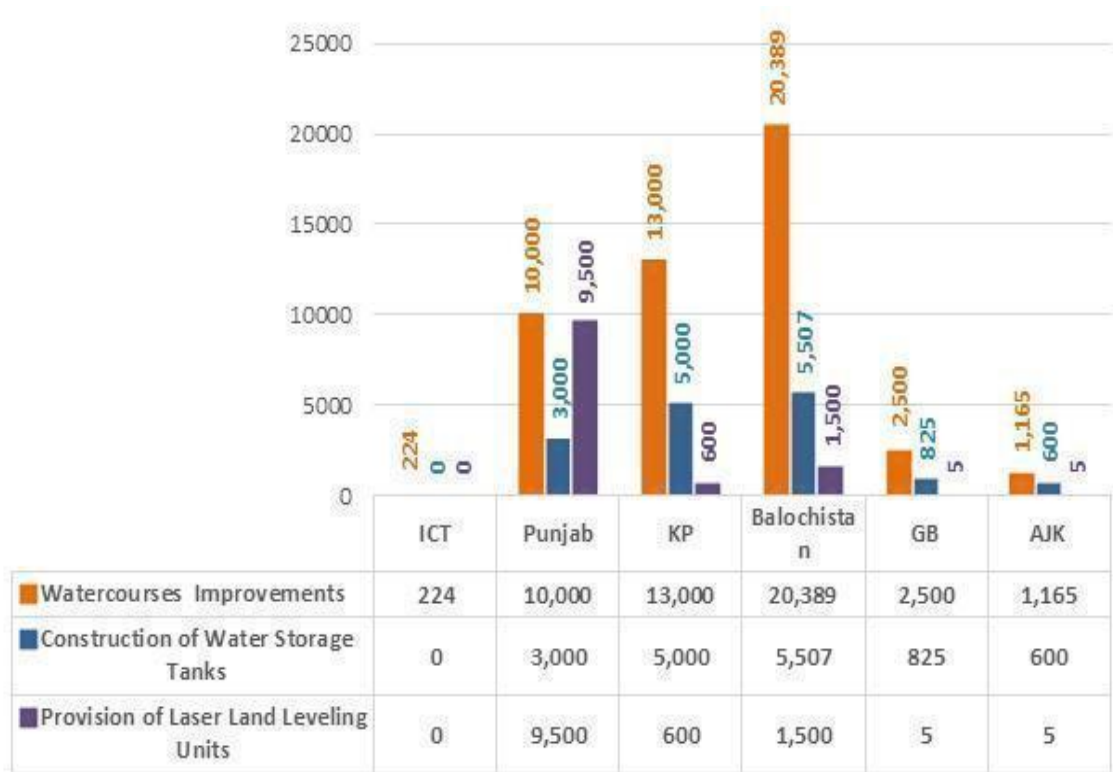


Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target

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 end line 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 End line 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 pre-selected. 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 and tail reach. The measurements will be done through current meters.

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

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
		Expert	<ul style="list-style-type: none"> 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. The 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 thirty fourth MMR (October 2023). While the thirty fifth MMR (the Report in hand) for the month of November 2023 (1st November 2023 to 30th November 2023) is being submitted.

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 ACTIVITIES ICT UNIT – NOVEMBER 2023

The report presented in the proceeding section provides a bird view of the salient activities being performed by the ICT-UNIT's ME&IE consultants during the above captioned monitoring month. The activities of ICT Unit were specially focused on the following diversified areas:

- Regular Monitoring and spot checking carried out at Tehsil "Hassan Abdal" of District Attock.
- Five- day training workshop on 'Planning and Management of Developmental Projects' and "Manual for development Projects' attended

by the ME&IE consultants in order to build their respective capacity/ refreshing knowledge and skills and attitude.

- Scheduled regular meetings were held with different stakeholders including Coordinating / Client, cooperating, and internal technical personnel, as well as the Administration and Finance departments of the Zonal and National Offices in order to ensure timely completion of targeted deliverables and facilitations for field activists.
- A special Meeting arranged under the chair of Director, G3 CO. Mr Saifullah Ejaz, in order to discuss the overall and up to date progress review status of the NPIWC-II project under the determined guidelines/ goals.
- Submitted the MMR Oct-2023 after editing, verifying, and processing through the documentation dept. of the company for deliverance to the respective stakeholders.
- Edited and Reviewed, "the Mid-term Impact Monitoring Report", and conveyed its technical comments to the respective stakeholders for adjusting towards its finalization and printing. Moreover, the review of the Gender Action Plan is under process.
- Admin and Financial liabilities were supervised by the Team Leader and Deputy Team Leader of the ICT-Unit as well as National Office at Islamabad.
- Other extracurricular activities attended by the professionals to build their capacity as well as subject matter knowledge and skills.

3.2.1 Overall Progress:

In respect to acquaint back run up dated activities of the ME&IE consultants, Islamabad Unit, they had completed the Baseline- I & II, Midline Impact survey as well as the routine regular monitoring and spot checking activities in collaboration with cooperating field operational departments, viz., OFWM, Water Users Associations and beneficiaries of the targeted schemes (i.e., WC, WST). Overall, from inception to date, the ME&IE Consultants ICT field team conducted baseline vis-a' vis impact surveys of **43** watercourses in AJK & ICT as well as baseline vis-a'-vis impact surveys of more than **18** water storage tanks in AJK and **13** in Potohar region of Punjab Zone. The details about those schemes have already been presented in the tabular and graphic forms in the previous MMRs.

3.2.2 Quarterly Work and Visit Plan – Islamabad Unit

The ME&IE consultants' ICT & AJK Units have revised the tentative visit schedule for planning and implementing the targeted Baseline-III survey, inclusive aforementioned ME&IE activities viz., regular monitoring, spot checking and impact surveys/case studies. These surveys will focus on sampled households and programs associated with WC, WST, and Laser Land Levelers. The fundamental information for identifying these programs has been acquired from the OFWM department in AJK and ICT. Whereas, the collected data from the respective Directors/ Deputy Directors of OFWM/ Agri. Departments of the AJK, ICT and Rawalpindi areas where NPIWC-II project's targeted activities are in vogue, the same was collated and forwarded the soft copy to the ICT-team for uploading on the android based dashboard. The information about each targeted area which has been shared with the ICT-Team was discussed in the last couple of MMR reports.

3.2.3 Five Days Training on 'Planning and Management for Development Projects'

OBJECTIVES & PURPOSE OF TRAINING:

A 05 days' training course from 13th to 17th Nov 2023 was conducted at Akhtar Hameed National Center for Rural Development titled, "Planning and Management for Development Projects".

The primary objective of a training program was to raise employees' performance and productivity by enhancing current skills and acquiring new ones. The purpose of training was to train participants on the concept of Participatory Planning and Development and its role in the government & private system. Training contents included various topics such as Participatory Development, Participatory Planning, Role of Local Government Representatives and various skills and traits required for effective participatory planning.

METHODOLOGY OF TRAINING:

The training methodology was interactive as the trainers ensured that knowledge was not only disseminated but accurately perceived and understood by the participants. In order to ensure this, trainers engaged participants in discussions and kept the forum open for feedback, queries and suggestions. Discussions and interactive sessions of

the training course were supported during training through power point presentations.

DAY 1:

Fundamentals of Planning and Management

- **Project:** A specific starting and ending points and intends to achieve specific objective (s);An investment while utilizing resources to create assets focused on desired output or results
- **Program:** Package of various projects focused on desired outcomes and benefits
- A Plan is a package of socio-economic policies expressed with quantified targets and objectives achieved during specific period.

Projects Fundamentals:

i. CONCEPTION AND INITIATION

- Concept Clearance Proposals (Concept Clearance Committee)
- Feasibility Study (PC-II)
- Risk Assurance

ii. CONCEPTION AND INITIATION

- Design: Project Document(PC-I)
- Scope, cost and time
- Approval process (Project Approving Fora: PDWP, DDWP,CDWP,ECNEC)

iii. EXECUTION

- Implementation within approved scope, cost and time.

iv. MONITORING

- Efficiency (Input versus Output)
- RBMIs/KPIs
- Quarterly and Annual Monitoring Report(PC-III)
- Risk Management

v. PROJECT CLOSURE

- Effectiveness (Input and output versus outcome)
- Project Completion Report(PC-IV)
- Annual Progress after Completion (PC-V).

Development Framework:

- Alignment of Development Plans / Projects / Annual Budget
- Pakistan Vision, 2025
- 12th Five Year Plan (2018-2023)
- 13th Five Year Plan (2023-2028)
- Manual for Development Projects,2021
- 5 E's Framework (i.e. Exports, Equity, Empowerment, Environment and Energy)

DAY:2

Part 1:

Project feasibility study, planning, scope and mode of financing:

Purpose of a feasibility study

- *To assess the viability of a proposed project*
- *To identify and mitigate potential risks*
- *To make informed decisions about whether to proceed with a project or not*

Conducting a feasibility study: How

- Data collection and analysis
- Risk assessment
- Financial modeling
- Presentation of findings and recommendations

Project identification:

- Needs assessment
- Opportunity Analysis
- Alignment with National and Global Development Agendas

Project feasibility assessment:

- Technical feasibility study
- Economic feasibility study
- Financial feasibility study
- Institutional feasibility study
- Environmental impact assessment (EIA)
- Social impact assessment (SIA)

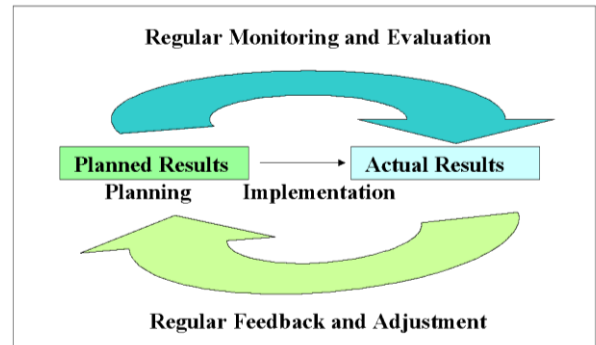
Project proposal components:

- Executive summary
- Problem statement
- Project objectives
- Project activities
- Project Timeline
- Project budget
- Project team

- Monitoring and evaluation plan

Part 2:

PROJECT MONITORING AND EVALUATION THROUGH LOGICAL FRAMEWORK:



M&E method:

- Performance indicators
- The logical framework (Log frame)
- Theory-based evaluation
- Formal surveys
- Rapid appraisal methods
- Participatory methods
- Public expenditure tracking surveys

Logical framework method:

The LOGFRAME uses a 16 box Matrix to lay out a program or project design, including:

- Each box contains specific information about the project.
- The boxes have a dynamic tension among them.
- Changes in one affect changes in others.
- The boxes concern people and interests so that these changes may require face to face re-negotiations of agreements.



Figure 1-2. Project Management Framework

Advantages of Logical framework:

- It ensures that fundamental questions are asked and weaknesses are analyzed in order to provide managers with better and more relevant information.
- It guides systematic and logical analysis of the interrelated key elements which constitute as well as designed projects.
- It facilitates common understating and other communication between decision makers, managers and other parties involved.
- It ensures continuity of approach in case the original staff is replaced.
- It is flexible, resource based, team work, demand driven and client based technique.

DAY 3:

Part 1:

- Project management is “the application of knowledge, skills, tools and techniques to project activities to meet project requirements.

Gantt chart:

- A Gantt chart is a popular tool of project management – Also known as Progress Chart
- Used for project scheduling
- It determines the duration of activities for implementation
- Vertical side = a list of the activities
- Horizontal side = Dates, bars/timelines
- Start date
- Duration, and
- End date.

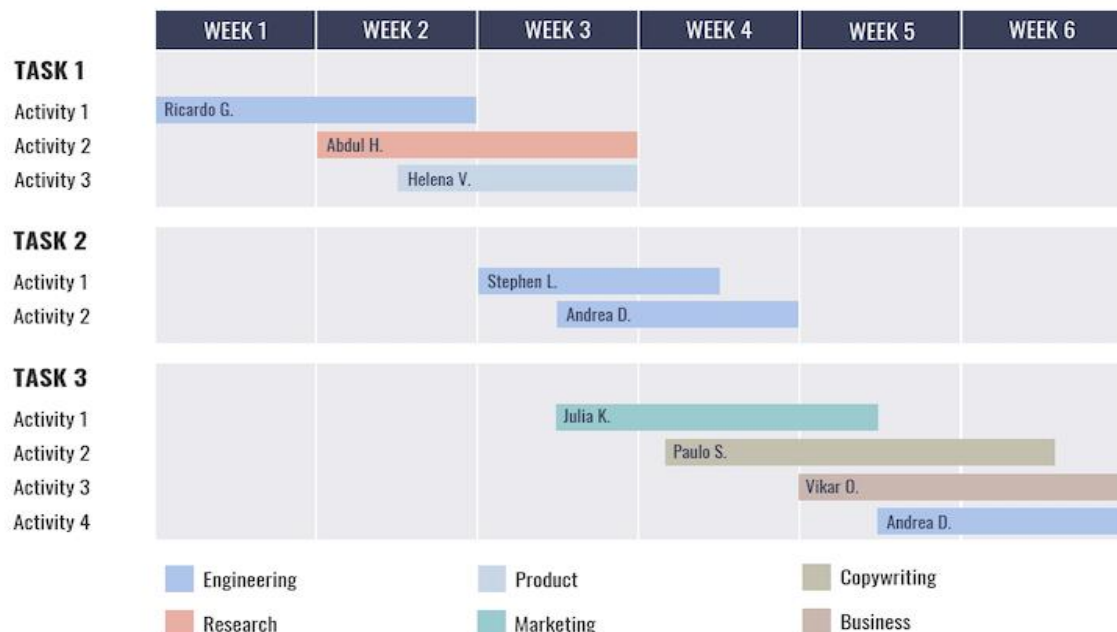
Gantt chart allows to see:

- What are the activities included in a project?
- When each activity will begin and end
- How long is each activity scheduled to last?
- Where activities overlap with other activities, and by how much
- The start and end date of the whole project

Figure-2 Format Gantt Chart

PROJECT STATUS

March 2023



Part 2:

Project Appraisal:

For any type of appraisal, basic task of project planner is to:

- Identify
- Quantify
- Value
- Relevant Costs and Benefits of the project for the Year in which they occur and enter these in cash flows.

Discounting Techniques:

Discounting technique is used to determine the present value of the future costs and benefits of the project so as to make them comparable in terms of a common denominator i.e., present Value. The formula for discounting is as under:

$$P = F / (1 + r)^n \text{ Or}$$

$$P = F (1 + r)^{-n}$$

Unit cost analysis:

Outputs of project –number of patients treated, students graduated, Kwh delivered, cu.m of water delivered.

Outcomes of the project –lives saved, years of life gained, improved jobs attained, etc.

Typical measure: annual unit cost of output or outcome (e.g., \$ per Kwh, \$ per added years of life gained and \$ per student).

Use - select lowest cost way of achieving output or outcome in allocating limited budget.

Limitations of Financial Analyses:

- i. True Economic Costs and Benefits: Problem here concerns transfer payments. From society's viewpoint, taxes borne by a project are part of the benefit rather than cost of the project. Subsidies by comparison represent a cost to society.
- ii. Public (Social) Goods: These are goods consumed collectively by members of society. Market prices cannot be used to value such goods. Use of Cost-Effectiveness Analysis is appropriate in such cases.

Day 4:

What does PM include?

- Setting goals
- Defining the scope of work
- Allocating resource
- Scheduling task

- Monitoring progress

PM knowledge area:

- Project management
- Schedule management
- Cost management
- Quality management
- Communication management
- Procurement management
- Risk management
- Stakeholder management
- Integrated management

Project analysis techniques

- Need analysis
- Logical framework analysis
- Project appraisal –
- Cost benefit analysis techniques etc...

Project planning techniques:

- WBS
- CPM

WBS: Construction Project:

- Purchase of land
- Identification
- Valuation
- Data Collection / Recent records
- Data Analysis
- Valuation
- Negotiation
- Payment / Transfer
- Designing
- Construction / Civil Work
- Finishing
- Furnishing

CPM

- Activity: A specific or set of tasks required by the project
- Event: Outcome of one or more activities
- Network: Combination of all activities and events
- Path: Series of connected activities or between any two events
- Critical path: Longest - Any delay would delay the project
- Slack/float: Allowable slippage for a path

DAY 5:

Risk management includes following steps:

3 Steps:

1. Identify Risks and Possibility of Occurrence
2. Analyze Impact

3. Develop a Management Plan

Key element of risk:

- Chances of Occurrence of Risk
- Impact of Risk

Stakeholder management:

The goal of a stakeholder management plan is to ensure effective communication and engagement with all stakeholders throughout the project.

1. Identify Stakeholders

Define project stakeholders. E.g., donors, government, partners, network members, community members.

2. Understand Roles and Objectives

Identify their roles, objectives and expectations.

3. Stakeholder Analysis

Run an analysis to map out project stakeholders.

4. Develop a Communication Plan

This includes a timeline to reach out to each stakeholder, What platform you'll use, What information to share

gained knowledge regarding the development management is the strategic planning, administration and controlling of a project during its development life cycle, from project planning through to construction completion and project exit.

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



Group activity process held at the training session



Lecture session in progress at NCRD Islamabad

Lesson learned:

At the end of training the participants shared their knowledge with the college in the training to recap the whole training course. Training programs are an ideal way to acquire project management knowledge; however, capturing and applying lessons learned is an excellent way to develop participants' gained knowledge regarding the development management is the strategic planning, a Participants

EVALUATION SESSION:

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

CONCLUSION:

In this training course, four ME&IE consultants including three female and one male participated from ICT-Unit Islamabad. However, the present training and development is considered a strategy for growth in every organization. It is adopted by the organization to fill the gap between skills and future opportunities. These training programs definitely enhance skills, improve efficiency, and productivity and growth opportunities for the employees/learners.



Five days training on Planning and Management of Development Projects

3.2.4 Brief Report of Training Course on “MANUAL FOR DEVELOPMENT PROJECTS”

Description

One ME&IE male consultant from ICT-Unit, Islamabad was nominated for a Five Day Training on **Manual for Development Projects**, at Pakistan Planning and Management Institute (PPMI) Islamabad from **Nov 13 to Nov 17 2023**. About 150 Participants from different Public and Semi Government entities from all over the Country were representing their Organizations in the training sessions. Top level speakers, having very good academic Qualifications and technical as well as administrative skills with vast experience of working on different positions in Planning Commission and relative Ministries of Pakistan were there for delivering lectures on the candid titles of Training.

After registration, the training session on its 1st day was started with Recitation from the Holly Qur'an. Introduction and wellcome note session was attended by the Director General, PPMI.

Schedule and Scope of Training

First Day: Monday 13th November 2023

- Overview of modern Project.
- Objective of Development Manual.
- Annual Plan/PSDP.

Second Day: Tuesday 14th November 2023

- Life cycle for managing Projects.
- Project Identification Process.
- Project financing.
- Key Components of PC-I & PC-II.
- PFM Act and its salient features.

Third Day: Wednesday 15th November 2023

- Project Appraisal and its steps.
- Risk Assessment.
- Procedure for approval of Projects, Program and Foreign Loans.

Fourth Day: Thursday 16th November 2023

- Project Implementation.
- Role of Sponsoring agencies.
- Project Evaluation and Impact assessment.

- Project monitoring.

Fifth Day: Friday 17th November 24, 2023

- Steps and procedure of Project closer.
- Certificate Award.

Objectives:

The objectives of the training were to apprise the participant's in-detail about history and different stages of evaluation of the **Project Manual** and the time to time amendments made in it. Information about different important clauses of **PFM Act**. Implementation of projects from PC-I to PC-VI under the guidelines of the **Project Manual**. Need of Manual, expected out comes, schematic framework of planning approaches Annual Plan/PSDP. To extend knowledge about Appraisal process and flaws during the appraisal stage. Financing and financial management of Foreign **Loans**. Need Assessment Execution Monitoring and Evaluation of the projects. To extend information about proper Closer process and steps of projects under directions of **Manual**.

Methodology:

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

Basic Features of the Course:

- Setting Project design through Need Identification Approaches.
- Project Cycle Management and different phases of Project Cycle.
- Project Monitoring and Evaluation through Logical Framework.
- Risk Management and Project Stakeholder Management.
- Preparation and revision of PC-I & II, and discussing key components of PC-I & II.
- Project approval process.
- Project appraisal process.
- Responsibilities of different positions and stakeholders during project closure.

The lectures were delivered by very distinguished and competent speakers. All speakers were professionals as well as academia conversant with the relevant knowledge and skills.

The training course was successfully ended with an auspicious Group Photo session and Certificate award ceremony on 7th November 2023.

Lessons Learned:

The skills and approaches learned were very helpful to me with special reference to my assignments and job description under NPIWC-II as ME & IE consultant. There were lot of major procedural steps and concepts about project designing, appraisal, execution, implementation, financial management and closure, which were either lacking or of less importance to my professional knowledge before going through Project Manual in such a training, and got highlighted and refreshed after this training. Gained sufficient knowledge about new methods and approaches towards Planning Management and Development of Projects as well as ME & IE.

As the part of a project/organization this training enhanced my capacity & knowledge. The relevant training, as of this kind, is very crucial for the capacity building of the employees/ learners especially who are at the infancy stage of their stage. Besides, getting technical knowledge this training gave me a good opportunity to have fruitful interactions and exchange of views with the participants from different ministries of the country.

Suggestions: In the light of the above report and its conclusions, I suggest more and frequent refreshing training for the capacity building of ME&IE consultants of National/ Zonal/ Units levels in the innovative areas of project management and its operational/ implementation mechanisms may be managed accordingly.

FTI ME & IE Consultant NPIWC-II



Training Session in Progress at PPMI, Islamabad



A Group Photo Session of the Participants of the Training at PPMI, Islamabad

Regular Monitoring and Spot Checking

Spot visit to Mozakholia tehsil Hasan Abdal of Mr. Javeed Akhtar Butt who has planted approximately 4000 fruit trees of seedless citrus and Sweet Lime ('Meethay' - sweet or Persian Lime) under the supervision of Deputy Director of OFWM, Attack. Along with the fruits, farmer is also growing vegetables for their domestic use. He has a 20 x 50 sq.ft. Water storage tank and he is extracting water from wells at the depth of 200 ft. He has a drip irrigation system in operation on 10.6 acres which is meeting the energy needs from the installed solar system. Citrus yields are affected by soil conditions, weather conditions, and water availability. Citrus plants are very sensitive to irrigation water shortages which include leave loss, reduction in CO₂ emissions, plant cell development decreases leading to plant growth inhibition and resultantly reproductive failure. According to farmer, to deal with irrigation water shortage and to use water properly it became necessary to use water resources used in agriculture in the most efficient way and to increase water use and irrigation water productivity which forced me to install drip irrigation system on my farm.

The site was located at 33.8210° N, 72.6800° E, having an altitude of 308 m. The weather conditions of the site are arid to semiarid with average annual rainfalls to the tune of 500 mm. A drip irrigation system was installed in the fields, manually. This system comprised of a main and sub main lines for

each set having 38 mm diameter pipe made of polyvinyl chloride (PVC), further attached to lateral lines having 16 mm diameter made of low-density polyethylene (LDPE) fitted with 0.006 m³/h two drip laterals. The drip laterals were placed 0.50 m far from the orange trees. The single drippers/plants were placed on the lateral line for fruit plants (citrus and 'meethay').

Conclusion:

Citrus is a leading fruit crop in Punjab province with 90% of its total production in the country. This fruit crop exhibits multiple processes of different value chain nodes/ modes realized in domestic as well as international markets. The local farmers have planted two main varieties of sweet orange (Ruby Red and Valencia Late). Despite this, the fruits were healthy but inadequate and improper fertilization practices noticed, may be one of the basic factors for poor productivity. Vegetative growth has a profound impact on the current reproductive growth of citrus because citrus bears on current season growth emerging from one-year-old branches. Pruning in time was another important issue which increased the plant canopy but may cause poor setting of fruits on tree branches for some periodical cycle of fruit bearing seasons.



Different Snapshots of Site at the Farm of Mr. Javeed Akhtar Butt, Mozakholia Tehsil Hasan Abdal, District Attock

Date	28-11-2023
Venue	National Office, Islamabad

Participants

1. Mr. Saifullah Ejaz Chaudhry, Director, G3 JV
2. Dr. Usman Mustafa, TL, NPIWC-II
3. Ms. Abida Munir, S&G Specialist
4. Mr. Rasheed Ahmed Zehri, FTI.
5. Ms. Sana Gull, ME & IE, Officer
6. Ms. Hafiza Maryam Iqbal, ME& IE, Officer

Meeting Agenda/Points discussed:

- Discussion on field visit plan for four main purposes:
 - i. Baseline-III
 - ii. Regular Monitoring
 - iii. Spot Checks, and
 - iv. Potential Case Studies
- Opportunity Sampling of watercourses and water storage tanks for Baseline-III survey.
- Revisiting field visit estimates in accordance to the site of the prospective scheme as well as manpower strength employed to conduct the field surveys.
- Project Progress Review meetings and development of strategies to overcome the hindrances in the way of smooth running of the targeted project targets, etc.



ME&IE Consultants' Meeting with CEO- G3 Co. in the National Office at Islamabad

3.2.5 Meetings / Coordination ICT-Zone

The status of project performance was brought under discussion especially from the viewpoint of the client as well as the Project Board of Management. Team Leader debriefed the technical progress briefly by narrating that nothing is pending on the part of ME&IE consultants' deliverance. For example, baseline I & II, as well as its clubbed baseline reports have been completed and handed

in to the client office. Moreover, a mid-term impact monitoring report has been completed and posted to the client office for their processing. So far, on these reports no comments/ feedback have been received. After waiting for the comments on the aforementioned reports, now we should proceed further by printing the final version of these reports. In this respect, the decision of the company authorities is warranted to act upon accordingly.

Additionally, some concerns and opportunities were brought up during the proceedings of the meeting, especially the financial crunch that is severely affecting the progress of the project targets including last baseline, and end-line impact evaluation surveys.

Some of the Challenges & Mitigation Measures Adopted Discussed as under

• Some of the Constraints are as Follows:

Field visits could not have been managed as per scheduled plans, and hence canceled with revised program as illustrated in earlier section of this report. Some of the bottlenecks illustrated as follows:

- Non release of funds to meet the field survey expenses, and
- Non provision of updated list of beneficiaries for the on-going and in-process schemes of the targeted interventions (to determine the sample size, the need of sampling frame is prerequisite).

Key Proposals to manage the suggested Field as well as HQs. Plans:

- Suitable field vehicle will be required to meet the targeted surveys including baseline and end line impact evaluation.
- Provision of required funds for financing the field surveys, etc.
- Availability of sampling frame list to determine the targeted sample size in order to address the targeted interventions for the given schemes including WCs and WSTs as well as LLLs from the respective stakeholders.
- First aid box, and basic necessities like, umbrella, water with cooler must be provided to the field teams to combat emergency situation,
- Tablet may be provided to the Field team members for facilitating on line data transfer.

3.3 ACTIVITIES PUNJAB ZONE – NOVEMBER 2023

During November 2023 due to certain unavoidable circumstances particularly the financial crunch, limited field activities were performed by the ME&IE consultants.

The consultants generally remained busy with the usual functions as under.

- Pre-Field Activities- Planning stage
- Field Activities-Collection of data / information from the project area.
- Post Field Activities-Review of accumulated data and its validation
- Meeting with Stakeholders/Beneficiaries
- Internal meetings / Capacity building sessions.

3.3.1 Pre-Field Activities

The main Pre-Field Activities were the review of the Consultant's past performance and designing strategy for the incoming field survey. A summary of the achievements / covered number of units of interventions surveyed during. Monitoring. The baseline surveys and impact of the project are shown below.

Achievement of ME&IE Consultants till August 31, 2023

Ecological (Zone)	No of Water course surveyed	No of Water storage tank covered
Barani	0	13
Partially Barani	3	5
Irrigated (Rice Zone)	48	13
Irrigated (Mixed Zone)	42	10
North Punjab Total	96	41
Irrigated (Cotton Zone)	69	19
South Punjab Total	69	19
Grand Total	165	60

As a result of a review of the table, it was concluded that in the partially Barani zone, irrigated Cotton Zone, more –emphasis -will be required on sampling in the next coming survey for proper representation of each area.

3.3.2 Field Activities

During the month under review, the field activities of the ME&IE consultants were limited. A field visit and a field meeting with OFWM field staff was conducted as under,

Field Visit and Meeting of Watercourse No. 38818/L,

Brief profile of Watercourse

Date of visit November 2, 2023

District	Faisalabad
Tehsil	Chak Jhumra
(Disty /Minor)	Burali Disty
Watercourse Number	38818/L
Village/Chak	24/JB Lahorain
UC (No)	2
PP (No)	97
NA (No)	101
Name of Chairman	Mr. Allah Ditta
Share Holders (Nos)	48
Moga Type	AOSM
Regular/Additional	Additional
Improvement Year	2023-24
Sanctioned Discharge	37 LPS
Design Discharge	100 LPS
Area (GCA)	472 Acres
Area (CCA)	412 Acres
Total Length of WC	3861 Meters
Length of Lining	1925 Meters
Lining Type	PCPS
Nakkas Installed (Nos)	50
Culverts Construction (Nos)	0
Drop Structure	0
Buffalo Bath	0
Other Structure (Nos)	1
Ground Water Quality (Fresh/Saline)	Saline



A VIEW OF Watercourse No. 38818 /L Chak 24 JB Lahorian Wala Chak Jhumra



Muhammad Yousaf Bhatti Team leader ME&IE Consultant discussing with MR, Allah Ditta Chairman of WUA and OFWM field team,



OFWM Field Supervision Mr. Aqib Ahmad and Mr. Arif Ali briefing DTL on the Status of Said Watercourse

As a result of a field visit of DTL. his discussions with chairman WUA and briefing by OFWM field staff, it could be concluded that.

- The watercourse construction work was satisfactory.
- The farmers as well as OFWM staff were quite happy and cooperative with each other
- Nominal patches of water logging and salinity were observed.
- Most of the farmers/beneficiaries were small, having an area of around 8 acres per farm.
- The main crops were wheat rice and sugarcane
- An Increase in water quantum was assessed by about 20-25%

The yield of existing major crops was at least 5-10%. Rather than any change in cropping the impact of an increase in water was an infarct increase,

I.

3.3.3 Post Field Activities

The attention of the field staff remained on missing / rectification of data. This exercise was carried out from the field offices through telephonic conversations/emails. However, ME&IE consultants closely monitored the status of the field operations

3.3.4 Coordination/Meetings with Stakeholders/Beneficiaries

The coordination meetings with stakeholders / beneficiaries of the project were necessary to know the operational Status of OFWM and collection of required information/data. It was a regular practice of ME&IE consultants, being followed every month.

During the month ME&IE consultants could be held following physical meetings with field staff of OFWM.

I Meeting held in Directorate General (OFWM)

Date: 16, November 2023

Venue: DG Office (OFWM) Lahore

Participants:

1. **Mr. Tahir Mehmood**
Focal Person of DGA OFWM/
DDA Climate Change
2. **Muhammad Yousaf Bhatti**
Deputy Team Leader ME&IE Consultants Punjab zone Lahore
3. **Mr. Muhammad Rizwan Suleman**
Focal Person to DGA OFWM, ME&IE Consultants Punjab Zone Lahore

Discussions/Decisions

- I The consultants briefed on current activities of the project,
- II The DDA also shared their status on project performance,
- III The ME&IE consultants requested for data regarding district-wise targets of various interventions for the year 2023-2034,
- IV Both side of the participants agreed to have next meeting in early December,



View of the Meeting held in Directorate General (Agri) OFWM Office Lahore

II Meeting held with Director General (OFWM) Lahore

Date: 27, November 2023

Venue: DG Office (OFWM) Lahore

Participants:

1. Mr. Malik Muhammad Akram D.G (OFWM) Lahore.
2. Hafiz Yaseen Qasir Director Headquarter (OFWM) Lahore.
3. Mr. Tahir Mehmood DDA (Climate Change) Lahore.
4. Dr. Uman Mustafa Team Leader (ME&IE Consultants) National Office Islamabad.
5. Mr. Muhammad Yousaf Bhatti Deputy Team Leader (ME&IE Consultants) Lahore.
6. Mr. Muhammad Rizwan Suleman Field Team Incharge (ME&IE Consultants) Lahore.

Discussions/Decisions



View of the Meeting held with Director General (Agri) OFWM LAHORE

1. Detailed discussions were held on ongoing activities of the project particularly achievements of the project in the Punjab
2. The ME&IE consultants briefed about the completed tasks in terms of nearly 5% of interventions completed by (OFWM)
3. The Deputy Director reported the nonfunctional dashboard installed in the DG office, Then Deputy Team leader consultants informed to make it operative soon.
4. It was further decided by the Director General and team leader ME&IE Consultants. to start the regular meeting again between the zonal office of consultants Lahore and (OFWM) Directorate,
- B. Although the ultimate beneficiaries/ stakeholders are the. Farmers in the Project area. ,their benefits should be highlighted in the impact as observed by the consultants, Moreover, the impact of social mobilization on the farm community should also be reported

3.3.5 Internal Meetings/ Capacity Building Sessions Date: 27 November 2023

VISIT OF JDC CONSULTANTS LAHORE

A team of international development consultants visited zonal office (NPIWC-II) Punjab Zonal Office Lahore, The Team was comprised of

1. Mr., Shaukat Ali shahid Social Development Specialist
2. MS Effat Umer Environment Specialist
3. Mr. Zafar Ahmad Social and Gender Specialist

They briefed and shared the activities of their projects while Deputy Team Leader ME&IE Consultants Muhammad Yousaf Bhatti also described the general position of the NPIWC project,

Then some senior staff members also joined the meeting. Both the consultants discussed the various aspects of field activities like data collection techniques. Data processing, such exchange of views and discussions provided a new insight experience to ME&IE consultants and the team learned a lot.

Date: 22 November 2023



Capacity building sessions with IDC Consultants Team

Discussions/Decisions



View of the Meeting in Punjab Zonal Office Lahore.

3 Dr. Usman Mustafa, Team Leader ME&IE consultants visited the Punjab Zonal Office in Lahore The Team Leader had a detailed session with the Deputy Team Leader and his Field team The Deputy Team Leader explained the Team

Leader on the field activities in Punjab. The Team Leader has shown satisfaction with the achievements/ performance of the zonal office. The Team Leader has provided certain "tips" to the field staff regarding the upcoming field survey phase iii

Dr. Usman Mustafa provided certain guidelines in this respect of finding the selection of the sampled respondents' data collection instruments interviewing the farmer etc.

He suggests certain measures to be taken while submitting data on ODK and the data validation. The zonal office should ensure the quality of data before submitting it for its field processing analysis by ICT.



Group Photo with Dr. Usman Mustafa on his visit to Zonal Office Punjab Lahore.

Visit of Team Leader ME &IE Consultants Islamabad

3.4 ACTIVITIES KP ZONE – NOVEMBER 2023

The Responsibility of the ME/IE consultants is to keep close liaison with all the stakeholders of the NPIWC-II in the KP and to get acquainted with the ongoing activities / schemes of the OFWM Department under the NPIWC-II. During November 2023, close contacts were made by the ME/IE Consultants KP zone with the OFWM Department KP. Due to the paucity of funds, the ME/IE Consultant's KP Zone activities were confined to telephonic / Digital communications with the OFWM Officials. However, where necessary, visits were also paid to the concerned departments. During the month under reference, the KP zonal office staff visited the OFWM Directorate in connection with the Dashboard data entry of various schemes launched under the NPIWC-II and meetings with the concerned staff of the OFWM department. The following activities were performed by the KP zonal office staff in Peshawar during November 2023.

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

- ❖ Meetings

- ❖ Monitoring of data
- ❖ Verification of WC and WSTs through Google Earth
- ❖ Writing of MMR of October 2023

- **Meetings:**

1. **Frequent routine meetings** were held with the OFWM Department relevant officials to discuss various issues raised from time to time to the ME/IE Consultants. This is the normal activity of every month. These meetings were held both physically and telephonically for the collection of relevant information about undergoing schemes. As per the ME&IE discussions with the OFWM Department official, it was found that schemes were mostly completed under the NPIWC-II program. New schemes for the construction / improvement of water courses and water storage tanks will be initiated after the release of funds by the authorities.

In addition to these, informal meetings were also held with the Focal Person NPIWC Mt. Hayat Khan, at OFWM Directorate to discuss various issues relating to the data entry to the Dashboard.

2. **Meeting with the Focal Person NPIWC-II.** A courtesy visit was made to the office of the Focal Person of NPIWC-II in November 2023. The following were present.

1. **Mr. Hayat Khan, Focal Person NPIWC-II**
2. **Dr. Humayun Khan, DTL ME/IE consultants KP Zone**
3. **Mr. Fawad Ahmad, Manager ICT ME/IE consultants KP Zone**

During this visit general discussion was made on the data entry by the OFWM officials to the dashboard. The ME/IE consultants offered their services to assist the concerned staff of the OFWM in data entry to the Dashboard. The meeting was adjourned with a vote of thanks by the Focal Person of the NPIWC-II project.

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

of completed schemes shared by the OFWM department with PMU, NWMC verified schemes, and the Dashboard.

Monitoring of data: The ME/IE Consultants have trained the officials of the OFWM Department for data entry to the Dashboard. Now they are directly entering the data on the Android application. The ICT Manager KP zone strictly monitors data entries and makes necessary rectifications by guiding the concerned staff of the various districts of KP. Also daily, Mr. Fawad Ahmad (ICT/Technology Specialist KP) shares the updated status of dashboard data/schemes with the Focal person Mr. Hayat Khan (OFWM-KP), and discusses the strategy to complete the data on the dashboard.

- **Verification of WC and WSTs through Google Earth:** ME/IE consultants KP zone made verification of all watercourse, and water storage tank schemes coordinated through Google Earth and identified incorrect coordinates.
- **Writing of MMR of October 2023:** Drafted KP MMR for July 2023.

3.4.1 Description of Progress:

The OFWM Department staff extended all possible help to the ME/IE consultants. Close contacts through meetings / Telephone calls with different cadre officials of the OFWM department were held regarding the ongoing activities under the NPIWC-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 to acquaint themselves with the ongoing schemes under the NPIWC-II by the concerned department. During these meetings, general discussions were also made about the perceptions of the OFWM Department officials and the farmers about these schemes. As per the OFWM Department's officials, most of the farmers were satisfied with the benefits of these schemes in terms of increase in crop productivity, cropping intensities, and time-saving.

FIELD ACTIVITIES:

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. From inception to date the KP field team of ME&IE Consultants conducted baseline vis-a-vis impact surveys of **152** watercourses in KP and **40** in GB. Moreover, the consultants had completed baseline vis-a-vis impact surveys of **56** water storage tanks in KP and **15** in GB. Impact assessment field visits of 05 PLL interventions were also carried out in KP. During December 2023 the following districts were visited for baseline and Impact survey of watercourses and water storage tanks

Data Entry and GPS validation: During November 2023, KP Teams entered and validated the GPS locations for hundreds of schemes of KP province. The activity was distributed among different team members with the help of the ICT team of KP. The OFWM directorate extended their usual support and provided all the relevant information.

3.4.2 Assisting / Guidance to the OFWM staff on Android Application

The ICT team of the ME/IE consultants' have trained the officials of OFWM in the Southern, Central, and Northern zones for entering data directly to the Dashboard through Android applications. Now they can enter the data directly to the dashboard from their offices. However, sometimes they get stuck somewhere in this exercise. The ME/IE Consultants' continuous support was provided to OFWM officials on the telephone for any issue while operating the Android system and/or data collection process. In this regard, the ICT team paid many visits to the Directorate of OFWM KP and assessed the understanding of field staff for the utilization of the Android application to collect the data of GPS coordinates. It was found that there was some negligence from the 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 soon for better data gathering.

3.4.3 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.

Moreover, despite raising the issue by the DTLs in their respective meetings with the management, still, the field staff are still 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.

3.4.4 Key Challenges

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

- Due to overall economic situation & liquidity crunches prevailing in the country currently, funds release delays were evident leading to slowing down progress of overall project.

3.4.5 Recommendations:

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

- Exposure of Dashboard with its broader perspective and application may present amongst the relevant authorities for its importance and further release of funds for the project activities.
- First aid box, basic necessities (umbrella) must be provided to field team in order to meet any emergency situation

3.4.6 Quarterly Work Plan – KP Zone

The ME&IE Consultants, KP is committed to accomplishing 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 the baseline 3 survey.

3.4.7 Conclusions:

With the existing resources the progress made so far is good. Only the field activities were not

3.5 ACTIVITIES DONE BY BALOCHISTAN ZONE – NOVEMBER 2023

3.5.1 Updated Progress of ME&IE Consultants – Balochistan

- 4 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 three baseline surveys, the first was conducted in 2021, the second was conducted in 2022 and the third was in 2023-24. A total of **149** sites were visited during the baseline surveys i.e., **61** Watercourses and **88** Water Storage Tanks. The ME&IEC, field teams visited **07** sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. The Impact Assessment Survey was conducted in the 2022-23 and 2023-24 in which **149** sites (**61** Watercourses and **88** Water Storage Tanks) have been visited so far. Regular monitoring/spot-checking is another important

activity of ME&IE Consultants in which more than **150** sites of **19** Districts have been visited/monitored till the reporting month. Balochistan field teams have monitored the sites of 19 districts out of 33, the remaining districts to be covered in upcoming months. The district wise updated status of the total baseline and Impact survey activities done is given in the table below.

Table-3.2 Summary of Field Activities, District-wise till 30th November 2023

Sr. #	District	Baseline Survey		Impact Assessment Survey		Impact Survey (LLL)
		WC	WST	WC	WST	
1	Jaffarabad	3	-	3	-	4
2	Jhal Magsi	1	4	1	4	-
3	Kachi	2	10	2	10	-
4	Kalat	3	4	3	4	-
5	Khuzdar	3	7	3	7	-
6	Killa Abdullah	3	2	3	2	-
7	Killa Saifullah	4	4	4	4	-
8	Loralai	3	7	3	7	-
9	Mastung	5	8	5	8	-
10	Musakhail	1	1	1	1	-
11	Nasirabad	9	6	9	6	-
12	Nushki	2	1	2	1	-
13	Pishin	2	9	2	9	-
14	Quetta	3	15	3	15	-
15	Sherani	2	2	2	2	-
16	Sibi	1	3	1	3	-
17	Sohbatpur	10	-	10	1	3
18	Zhob	2	1	2	1	-
19	Ziarat	2	4	2	4	-
Sub-Total		61	88	61	88	7

4.1.1 Updated Status of Dashboard Balochistan.

The DTL, Balochistan zone has diligently undertaken several visits to the DG, OFWM Office, and these efforts have attained positive results, with the OFWM staff responding positively and cooperatively.

Furthermore, the Office of Water and Flood Management (OFWM) staff has been extremely supportive, demonstrating a commendable level of responsiveness. Their cooperation has provided the necessary data, covering the fiscal year 2020-21 comprehensively.

This significant data forward in achieving our objectives for the Dashboard of Balochistan.

The worthy DG, OFWM, Balochistan is requested to direct the concerned officials to expedite the data validation process of the last three financial years i.e. 2019-20, 2020-21, and 2021-22, and provide the necessary support and resources they require. It is also requested give the necessary direction to all DDs and concerned staff to upload the beneficiary data on “Dashboard, Balochistan” through the Android Based data application of the current F.Y. 2022-23 so that the ME&IE Consultants could plan the field visits plan and start the 3rd Baseline surveys activities accordingly.

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

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	0	27	0
Nasirabad	Kachi	81	81	18	18	3	3	102	102
Nasirabad	Nasirabad	52	0	35	35	82	82	169	117
Nasirabad	Sohbatpur	14	14	20	20	45	41	79	75
Total		216	148	111	105	191	182	518	435
(%)		69%		95%		95%		84%	
Quetta	Killa Abdullah	106	0	2	0	2	0	110	0

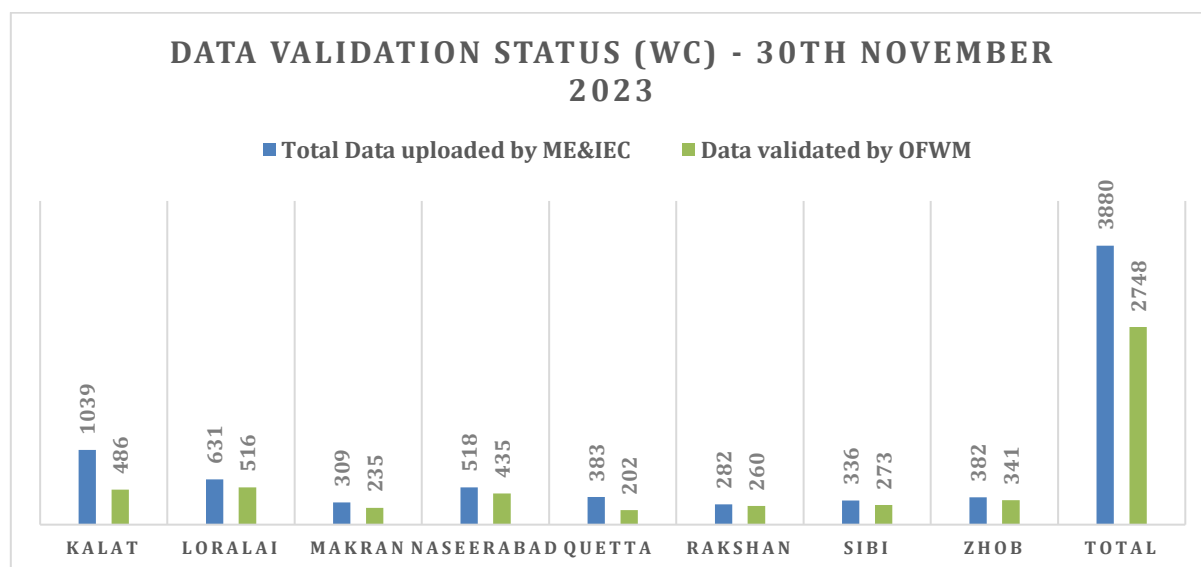
Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Quetta	Pishin	99	97	39	2	52	52	190	151
Quetta	Quetta	41	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%	

District-wise Progress of Dashboard, Balochistan (Water Storage Tanks)

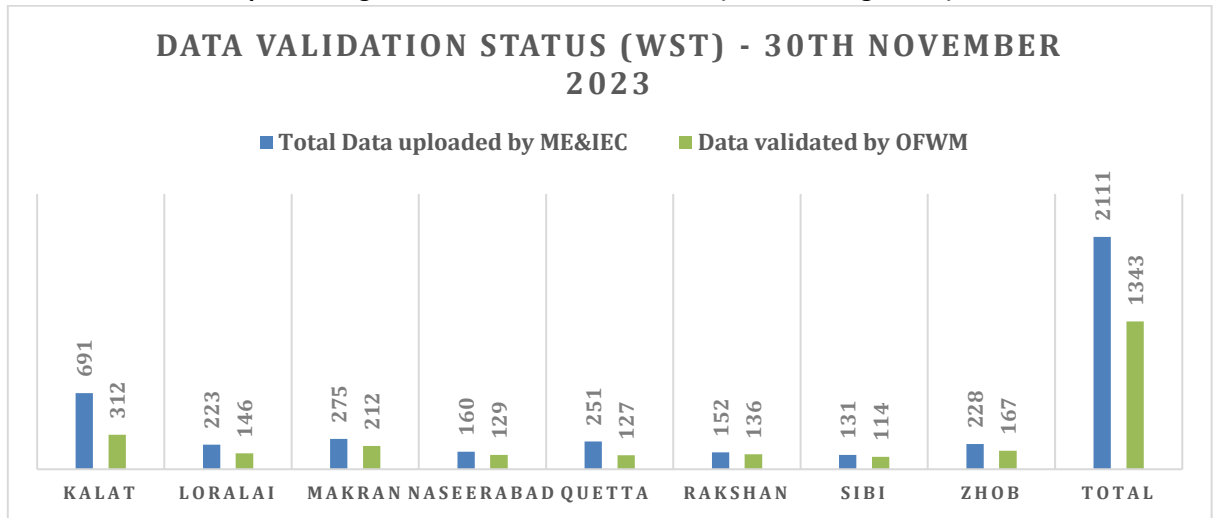
Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	12	12	27	27	48	0	87	39
Kalat	Kalat	20	2	32	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

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	Jhal Magsi	7	0	0	0	23	0	30	0
Nasirabad	Kachi	18	18	24	24	40	40	82	82
Nasirabad	Nasirabad	0	0	8	8	9	9	17	17
Nasirabad	Sohbatpur	4	4	8	8	2	1	14	13
Total		29	22	48	48	83	59	160	129
(%)		76%		100%		71%		81%	
Quetta	Killa Abdullah	22	0	34	0	0	0	56	0
Quetta	Pishin	22	22	36	33	61	61	119	116
Quetta	Quetta	9	9	17		50	32	76	41
Total		53	31	87	33	111	93	251	127
(%)		58%		38%		84%		51%	
Rakhshan	Chaghi	10	10	23	23	14	14	47	47
Rakhshan	Kharan	3	3	12		14	14	29	17
Rakhshan	Nushki	9	9	23	23	30	30	62	62
Rakhshan	Washuk	4		10	10	0	0	14	10
Total		16	12	45	33	44	44	152	136
(%)		75%		73%		100%		89%	
Sibi	Dera Bugti	11	11	0	0	28	28	39	39
Sibi	Harnai	3	3	6	6	12	0	21	9
Sibi	Kohlu	9	9	18	18	0	0	27	27
Sibi	Sibi	8	8	5	5	10	5	23	18
Sibi	Ziarat	4	4	6	6	11	11	21	21
Total		35	35	35	35	61	44	131	114
(%)		100%		100%		72%		87%	
Zhob	Killa Saifullah	30	20	32	32	56	56	118	108
Zhob	Sherani	4	4	6	6	15	15	25	25
Zhob	Zhob	15	10	24	24	46		85	34
Total		49	34	62	62	117	71	228	167
(%)		69%		100%		61%		73%	
GRAND TOTAL		382	245	545	334	1137	747	2111	1343
(%)		64%		61%		66%		64%	


Division-wise Graphical Progress of Dashboard, Balochistan (Watercourses)



Division-wise Graphical Progress of Dashboard, Balochistan (Water Storage Tank)



4.1.2 Meetings:


Date	3 rd Nov. 2023
Venue	Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta.
Participants	
I.	Mr. Abdul Wali, Deputy Director, Tech. OFWM, Quetta.
II.	Mr. Behram, Focal Person, NPIWC-II, OFWM, Quetta
III.	Mr. Manzoor Ahmed Kasi, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> The meeting commenced with a comprehensive review of the updated progress within the Balochistan zone. The DTL, Balochistan provided a detailed overview of the ongoing projects, highlighting achievements, challenges, and areas requiring immediate attention. The meeting was adjourned at 4:00 pm, acknowledging the constructive discussions and proposed actions for resolving the identified issues. 	
	
Figure-4.3: View of meeting with DD, OFWM at DG Office, Quetta	


Date	8 th Nov. 2023
Venue	Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta.
Participants	
I.	Mr. Ali Raza Jamali, Ex-DG, OFWM, GoB, Quetta.
II.	Mr. Manzoor Ahmed Kasi, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
III.	OFWM Staff
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> A farewell party was conducted in honor of Mr. Jamali, Ex DG, OFWM. The forum endorsed his efforts for OFWM, especially for the NPWC-II project. The Ex-DG paid 	

thanks to all OFWM staff for their best cooperation and efforts, contributing to the success of the project NPIWC-II, Balochistan Zone.



Figure-4.3: View of farewell party at DG Office, Quetta.

Date	20 th Nov. 2023
Venue	ME&IE Consultants Office, Arbab Karam Khan Road, Marri Street, Quetta
Participants	
I.	Mr. Manzoor Ahmed Kasi, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
II.	Technical Staff of ME&IEC, NPIWC-II, Balochistan Zone
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> The DTL Balochistan called a meeting for all technical staff to discuss issues related to data collection for the Dashboard, Balochistan. The forum shared the updated progress and findings of meetings held with DDs of OFWM. Additionally, the forum discussed the field plan regarding upcoming baseline activities. The DTL, Balochistan provided a detailed overview of the ongoing projects, highlighting achievements, challenges, and areas requiring immediate attention. 	
	
Figure-4.3: View of internal meeting held at ME&IEC office, Quetta.	

Date	27 th Nov. 2023
Venue	Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta.
Participants	
I.	Mr. Saleh Baloch, DD, Kharan, OFWM.
II.	Mr. Naseeb Jan, FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
III.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> The meeting commenced with a comprehensive review of the updated progress within the Balochistan zone. The FTI provided a detailed overview of the ongoing projects, highlighting achievements, challenges, and areas requiring immediate attention. 	
	
<p>Figure-4.3: View of meeting with DD, Kharan, OFWM at DG Office, Quetta</p>	

Date	30 th Nov. 2023
Venue	Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta.
Participants	
I.	Mr. Behram Mulghani, Focal Person, NPIWC-II, OFWM, Quetta.
II.	Mr. Manzoor Ahmed Kasi, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
III.	Mr. Naseeb Jan, FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
IV.	Mr. Qaisar Tareen, M&E Officer, ME&IE Consultants.
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> A meeting was held with the Focal Person, NPIWC-II to discuss the weak response of OFWM field staff regarding data validation on the Dashboard. The issue of missing Technical Sections was also discussed. The Focal Person assured the ME&IEC that necessary measures will be taken against 	

staff whose responses are weak in data validation.



Figure-4.3: View of meeting with Focal Person, NPIWC-II, OFWM at DG Office, Quetta

4.2 SOCIAL & GENDER ACTIVITIES BALOCHISTAN ZONE – NOVEMBER 2023

In the month of November 2023, Social and Gender specialist developed a draft case study on Killi Shamoza of Quetta, Balochistan. The Gender Action Plan was created by a Gender Expert and shared to the Team Leader and deputy team leaders of all zones. Additionally, the GAP document will be finalized after input from all senior management.

The gender team was also working on documents pertaining to gender.

Held frequent meetings on need-based basis, to monitor progress, plan, and strategize to begin the Project's targeted activities.

The Social & Gender team's main activities for this month included the following:

1. Draft GAP (Gender Action Plan) prepared and shared with DTLs and TL for finalization. (Draft GAP attached)
2. Regular meeting with DTL, TL and Gender experts on Gender related activities & documents.
3. Frequent meetings on gender-related activities and documents with DTL, TL, and gender experts.
4. S&G specialist attended 05 days' training course titled **"Planning and Management for Development Projects"** from 13th to 17th November 2023 at NCRD Akhtar Hameed National Center for Rural Development. (Report attached)
5. A draft success study of Killi Shamoza Quetta is prepared and will be shared after finalization.

4.2.1 Gender Action Plan

Gender roles outline the use and collection of water which are traditionally associated with Women in the private, domestic sphere, and the governance of

water resources which are associated with men in the public monetary field. Gender mainstreaming in development projects refers to the incorporation of a perspective that advocates gender equality and women's empowerment in all stages of a project, (i.e., planning, implementation, and monitoring and evolution).

In most of the irrigation management systems on WUAs rights are given to households that are headed by men. Therefore men represent the households while women play mainly a supporting role. It is a strategy for making women's as well as men's concerns and experiences integral dimensions of the design, implementation, monitoring, and evaluation of policies and programs in all spheres so that equally, sources, resource guide: Mainstreaming gender in water:

Before making a Gender action plan let's have a look at gender issues. All researchers narrate that the lack of safety management of water and sanitation is an equality issue; women and girls are disproportionately affected by poor water. Sanitation and hygiene services and facilities.

2030 Agenda for Social Development embedding gender equality into policy at all levels will be critical to achieving water and sanitation for all which in turn will help advance many other parts of women should be trained in irrigation and agricultural activities. That is kitchen gardening and SDG agenda, particularly poverty reduction, health education, and agriculture.

Needs of Gender Action Plan

Developing a gender action plan for water user associations (WUAs) is essential for promoting gender equality and empowering women to participate in water governance. Here are some key steps to consider when creating such a plan:

1. Conduct a gender analysis: Start by collecting data and conducting a thorough gender analysis of the current situation within the WUAs. Identify any gender disparities, gaps, or challenges faced by women in participating in decision-making processes, access to resources, or leadership roles. This analysis will help inform the development of targeted interventions
2. Establish gender-responsive policies: Set policies and guidelines that explicitly promote gender equality within WUAs. Ensure that these policies address issues such as women's representation in leadership positions, access to

training and capacity-building opportunities, and decision-making processes. Encourage inclusivity and consult with women

3. Enhance women's participation: Create strategies and mechanisms to specifically enhance women's participation in WUA activities. This could include organizing awareness campaigns, workshops, and capacity-building programs that help women develop the skills and knowledge necessary to actively engage in water governance.
4. Foster women's leadership: Actively promote women's leadership within WUAs by supporting their participation in leadership positions. Develop mentoring programs that pair experienced women leaders with aspiring ones to provide mentorship and guidance. Encourage women's involvement in decision-making processes and ensure their voices are valued and heard.
5. Improve access to resources: Ensure equal access to resources for all WUA members, including women. This may involve facilitating access to credit, tools, irrigation infrastructure, and other resources necessary for effective water management. Address any specific barriers, such as cultural norms or legal restrictions that may hinder women's access to these resources.
6. Use various communication channels to raise awareness about the importance of gender equality in water governance and the benefits it brings to the entire community. Advocate for policy changes that promote women's rights and equal participation in WUAs. Engage with local communities and stakeholders to build support for gender equality initiatives
7. Promote collaboration and cooperation: Encourage partnerships and collaboration between WUAs and other stakeholders, including government agencies, NGOs, and women's groups. Create platforms for sharing knowledge, experiences, and best practices in promoting gender equality
8. Raise awareness and advocate for gender equality: Use various communication channels to raise awareness about the importance of gender equality in water governance and the benefits it brings to the entire community. Advocate for policy changes that promote women's rights and equal participation in WUAs. Engage with local communities and monitoring: Collect gender-disaggregated data to track progress and identify any gender-

related issues within WUAs. Keep records of women's participation rates, leadership positions, capacity-building opportunities, and resource allocation. Regularly monitor and evaluate the implementation of gender action plan activities to identify areas for improvement.

9. Remember, developing a gender action plan is an ongoing process that requires continuous monitoring, evaluation, and adaptation. Regularly review and update the plan based on feedback and lessons learned to ensure its effectiveness and relevance.

By implementing a gender action plan, WUAs can create an inclusive and empowering environment where women are actively engaged in water governance, leading to better water management outcomes and improved overall community well-being.

NPICW II

Introduction

Agriculture is the backbone of Pakistan's economy. It accounts for 19% of the GDP and together with agro-based products acquires 80% of the country's total export earnings. More than 42.3% of the labor force is engaged in this sector. (May be added)

Or

Pakistan is an agricultural country; Agriculture is a vital sector of Pakistan's economy and accounts for a major share of GDP, according to government estimates. The sector directly supports three-quarters of the country's population and employs half the labor force.

Pakistan has a rich and vast natural resource base, covering various ecological and climatic zones; hence the country has great potential for producing all types of food. The agriculture sector of Pakistan is the major contributor to her economy and is

widespread all over the country.

Water is the main factor that determines agriculture output in irrigated systems. Pakistan's mainstay is agriculture with a contribution of 18.9% to GDP and 70% to foreign exchange earnings. A majority of its rural population's livelihood depends on agriculture while 42.3% of the labor force takes up occupation in this sector. Any improvements in farm productivity have multiplier effects and directly help reduce widespread poverty in the country. In recent years stagnation in yields along with the inability to meet food security targets, thus forcing food grain imports, have been viewed seriously by policy planners.

It was reported that the proposed project may benefit the country as follows:

- Water Saving per Watercourse per annum (AF) 123
- Watercourse to be improved (Nos.) 76,359
- Estimated water to be saved per annum (MAF) 9.35
- Estimated Economic Value per MAF under the present
- Productivity conditions (Million US\$) 400
- Total economic benefit due to saved water (Billion US\$) 3.74
- Billion Pak Rupees (1US\$ = Rs.141) 528

The National Program for Improvement of Watercourses in Pakistan: Phase-11 has been envisaged to improve 76,052 Nos. water courses inclusive of 16,625 Nos. of water storage tanks, and provision of 16,610 Nos. of laser land levelers in Punjab, Sindh, KPK, Balochistan, AJ&K, Gilgit Baltistan (GB), and Islamabad Capital Territory. The quantum of works in all the above provinces/areas are given in the following Table.

Sr. No.	Intervention	Punjab	Sindh	KP	Balo.	GB	AJK	ICT	Total
1	Watercourses (Nos.)	10,000	12,149	13,000	20,389	2,500	1,165	224	59,427
2	Water Storage Tanks (Nos.)	3,000	2,000	5,000	5,507	825	600		16,932
3	Laser Land Levelers (Nos.)	9,500	5,000	600	1,500	5	5	-	16,610

Aims and objectives

Project Objective

This is to replicate our success from Phase 1 and further improve the project based on findings from

the Project Impact Evaluation Study (PIES). The broad objectives of the proposed project are:

- Social mobilization through capacity building of WUAs/FOs

- Minimization of conveyance and field application losses
- Reduction in water logging and salinity
- Equity in water distribution
- Reduction in water disputes/thefts/litigation
- Motivation/participation of farmers
- Poverty reduction through employment generation
- Increase in crop yield/sufficiency in food

Issues of Agriculture in Pakistan

The agriculture sector of Pakistan is suffering and facing many issues. The government confesses that the sector could not grow more than 1.9 percent in the current fiscal year.

The Agriculture sector is the most important and key player involved in the game of Pakistan's financial system since independence. It was considered a dominant sector but due to some political, social, and local weather conditions its production is going down step by step and at the time it is the second biggest sector in Pakistan. Reference; Punjab growth strategy

Agriculture has an unlimited role in finances and fortune. Following are some important contributions of agriculture;

1. Contribution to National Income
2. Source of Food Supply
3. PreRequisite for Raw Material
4. Provision of Surplus Food
5. Shift of Manpower
6. Creation of Infrastructure
7. Relief from Shortage of Capital
8. Helpful to Reduce Inequality
9. Based on Democratic Notions
10. Create Effective Demand
11. Helpful in Phasing out Economic Depression
12. Source of Foreign Exchange for the Country
13. Contribution to Capital Formation
14. Employment Opportunities for Rural People
15. Extension of Market for Industrial Output
16. Role in Gross Domestic Product of Pakistan

The current GDP of Pakistan is 305 billion. The contribution of main crops in the agriculture sector is about 25.6 % while the contribution of major crops in GDP is about 5.4% according to an economic survey of Pakistan. Wheat contributes approximately 10.3% in agriculture. Sugarcane is also a cash and sugar crop

Agriculture accounts for 18.9 % of GDP and has employed the bulk of the full painting power. The

agriculture sector recorded an expansion of 3.46 percent in FY 2017 as compared to an expansion of 0.27 percent in the last 12 months. The vegetation sub-sector contains 37.22 pc of the agriculture sector and is the elemental motive force of the enlargement of the agriculture sector as well as GDP.

We know that because the government shared this number with the media after the recent approval of the 12th five-year plan. It also envisages 4pc economic growth for this year. In the past, policymakers had set targets of 3.8pc and 6.2pc for agriculture and economic growth. Planning commission reports

Policy makers were too optimistic at that time or the political transition has proved to be too depressing for agriculture.

The recently released second quarterly report of the State Bank of Pakistan (SBP) does not project a growth rate for agriculture. But it says that overall economic growth will remain in the range of 3.5pc and 4pc. The SBP report says the outputs of three key crops cotton, rice, and sugarcane have been in decline. It casts doubt on the likelihood of achieving the wheat target of 25.6 million tons as well. The report informs us that all minor crops, except chickpeas and sunflowers, have shown a declining trend in output.

Key Issues of Agriculture:

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

The following are the main issues that cause decline in agriculture:

1. The agriculturalists 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 unfortunate, and they often live in a hand-to-mouth position. Most of them are always under heavy burdens of debt. So due to a lack of capital, they cannot afford to purchase modern scientific implements, chemical manures, improved types of seeds, etc. Hence, they cannot attain the required standards.
3. Most of our farmers are still trapped in the deep-rooted traditions of their forefathers. The settings

have forced them to use the crude implements, due to small holdings of land and poverty they are unable to acquire 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 the excessive use of canal water, most of our cultivated lands have become victims of these two dangerous conditions. Salinity and water logging.

5. The 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 machinery for a small piece of land and their incomes are low. Hereafter his interest is changed to some other sector.

6. Our farmers have to face many issues due to the 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 a 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 and the tenants. The system, instead of being conducive to agricultural development, stands in the way of its progress.

8. In some areas especially in Hafiz Abad and Sheikhupura regions, the upper fertile soil is being eroded by different agents of change. The fertility is getting poor, and soils are becoming less productive, as compared to the 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 too

9. REF Pakistan Economic and Social Review Rural poverty in Pakistan

10. Due to the lack of the latest agricultural information / education and methods of modern times, 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 no 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 landless farmers Zarai Taraqati and commercial banks provide loans to the farmers which are insufficient and the interest rate is high.

Agriculture may not grow at a sustainable high rate unless the problem is addressed, prices shoot up every month, and 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 to build small dams and rainwater reservoirs.

If the country faces a super flood due to the faster melting of glaciers and increased mercury levels, as the

Ref Federal Flood Commission fears, agriculture will suffer with more issues.

Preparations to Overcome the Problems:

1. Tube wells should be installed in the affected areas to decrease the salinity.
2. Beds of new canals should be made of concrete to avoid water-logging. These measures should be taken on priority basis to avoid further deterioration of land.
3. The foremost issue in the agriculture of Pakistan is a shortage of water. The irrigation facilities must be extended to increase agricultural output.
4. The agricultural harvest can also be increased by using fertilizers. The use of artificial manure should be introduced throughout the country. Poverty and illiteracy affected our farmers and they hesitate to purchase fertilizers.
5. The use of improved seeds, manures, and modern implements is not possible without adequate credit facilities for the farmers. The government has improved the existing credit facilities to a large extent. The commercial banks also grant loans to the farmers, but still, there is a need for more facilities as our farmers are very poor. The farmers should be provided with better quality seeds at the lowest price and at the right time. Better seeds will ultimately give a better yield.

6. Various plant diseases damage a large part of our crops. But our farmers have no effective control over them. Therefore, preventive and narrative measures should be taken throughout the country.
7. Mechanization of agriculture refers to the use of various equipment the different stages of cultivation. Using modern equipment better results can be achieved in the shortest time.
8. Co-operative farming must be introduced (refers to the farming done based on mutual help and co-operation. Under this method, the small holdings are consolidated. In this way, the owners of small holdings can also use fertilizers and modern equipment jointly. After harvesting, the yield can be distributed among the owners according to their ownership) REF FAO report AGRICULTURE AND WOMEN 2015
9. An increase in literacy ratio in rural areas especially in education is the need of the day.
10. The more educated the farmers will be the better will be the results achieved. Marketing procedures should be simplified, and various marketing facilities should be provided to the cultivators.

The rural areas of the country must be provided with road and railway links with marketing centers and better means of transport and communication should be provided.

Necessary Policies, Strategies, and Programs for Future Agriculture:

- Improvement and adoption of new varieties
- Improved access to markets for inputs (seeds, fertilizers, farm mechanization, credit, water) and outputs
- Improved arrangement including storage and cooling facilities, Steps should be taken to reduce post-harvest losses
- More investment in research, development, and extension
- Improved quality and fulfillment of requirements for international markets.
- More diversification, especially minor but high-value crops
- Farm input and produce pricing
- Demand related policies:
- Income, growth, and development
- Education and knowledge
- Food price stabilization
- Market-related policies:
- Effectiveness of markets
- Policies to insulate local markets from global

markets

- Access to local markets.

Reference, above mention steps are taken from an article in the news Agriculture

Recommendations

More steps should be taken at the government level to help the agriculture sector flourish by making farmer-friendly policies.

Credit facilities at low rates or may be interest free it will help sharecroppers to get more profit which will reduce poverty in rural areas

Agriculture research institutes should be encouraged by providing grants to work on new varieties.

Research Institute

Condition of Female Farmers in Project Area in Pakistan

Women farmers in Pakistan are finding it difficult to access agricultural support. The needs of male farmers dominate most advisory services and socio-cultural setups due to the restricted mobility of women farmers. This is a challenge in many low- and middle-income countries. And it contributes to a gender gap in agricultural productivity. Women-managed farms are up to 30% less productive than farms managed by men. However, closing the gap could boost agricultural production by up to 4%. And it could also improve food security and enhance the welfare of rural households.

Pakistan's agriculture is labor intensive with women making an essential contribution. Their roles are substantially different across regions and are changing rapidly.

Despite this active participation in the agricultural sector, women have less access to assets, services, and opportunities compared to men. This gender gap generally relates to access to inputs (including improved seeds, agrochemicals, and machinery, all essential elements for improving farm productivity), services, land ownership, livestock, technology, education, extension, and financial services. Information about labor input in the production process in general, and activities performed by female laborers in particular, is patchy, and better understanding will promote gender considerations.

Unacknowledged Labor The issue of the marginalization of women begins from their inadequate representation and exclusion from the national statistics. For example, women who work seasonally as cotton harvesters may not be counted

in the labor force because they have not been economically active in the reference period (7 days) (PBS, 2010). Similarly, women who engage in subsistence farming and livestock care may not be recognized as agricultural workers altogether because they are not contributing to the cash economy.

Lack of Facilities

The fields where women work do not have women-friendly environments. Issues of harassment, mobility, and lack of sanitation and childcare facilities add to their difficulties (Food and Agriculture Organization, 2015).

Inaccessible Services

Additionally, the extension services and training programs in agriculture mostly accommodate male farmers (Yasmeen, 2011). Women, therefore, have to resort to traditional agricultural practices. Consequently, they remain unacquainted with the technology that may help them increase their productivity and decrease the burden of their work.

Lack of Land Ownership

Women are also deprived of land ownership and have to work on lands owned by their male relatives, or fellow tenants or are appointed by Jamadars seasonally for harvesting. Thus, they are barred from accessing credit that requires applicants to have ownership of land and collateral (Yasmeen, 2011; Schutter, 2013). Therefore, hardly 4 percent of the total borrowers (58,466 of 1,394,189) in agricultural finance are women (State Bank of Pakistan, 2015).

GAP Purpose and Strategy:

The project's gender analysis indicates that women in the communities targeted for monitoring are in disadvantaged positions relative to men in income

level, education, gender roles, and access to economic opportunities in water-related decision-making at community and section levels.

Tables of gender-related Baselines results, (incorporation please Abida)

After analyzing the situation it is imperative and dive need to have gender-inclusive measures and targets to promote gender awareness and improved skills among project implement consultants and address potential project risks i.e. widening of disparities and enhancing positive project benefits from women as follows:

1. Participation ensures women's equal participation in project design and implementation.
2. Economic women should have economic rights in all spheres of life.
3. Institutional strengthening.
4. Capacity development promotes gender awareness and GAP implements skills of executing and implementation agencies and ensures sex-disaggregated data.

Implementation Arrangement for GAP

All consultants should have a round table in the presence of NPC office representatives to chalk out details of GAP.

National gender and social experts and province experts should hold the discussion and work out all modalities under the guidance of the team leader.

NPC office representative should clarify the following details:

- GAP implantation
- GAP Budget

Proposed Gender Actions

Activity	Targets/Indicators	Responsibility	Timeframe
Output1: Community growers groups established			
1a. Conduct community consultations and integrate findings in design and action plans of 30 WUAs/Groups: (i) ways and degree of collaboration in farming activities; (ii) areas support is most required;	1. Tailored outreach and at least one women-only consultation is held in each target area 2. At least 50% of women should be consulted on ways and degree of collaboration and priority actions are women.		

(iii) prioritization of actions; And (iv) implementation of actions.			
1b. Encourage women's active participation and inclusion of female-headed households in water user's accusations.	3. At least 30% of the members are women 4. Registered with the governor (of which at least 30% have female leaders).		
1c. Ensure women's participation in project awareness activities and training on best farming practices, vegetable business, and management of water lation.	5. At least 25% of participants in all awareness sessions and target training are women. 6. Gender-specific needs and priorities are assessed and addressed (including training venues and timing).		
Output2: Sustainable climate-resilient vegetable farming practices applied			
2a. 30% of Women should be trained in water-related activities so that in the future they can take the lead.			
2b. Skill development programs should be started to train women to make them financially strong.	Training Rich gardening Appropriate Technology that is making surf, soap, and candles, Embroidery skills Fruit preservation, Seed preservation		
2c. Ensure women are consulted on decisions concerning shared ownership of assets, responsibilities, and tasks of group members and community grower's schemes.	7. At least 20% of women members consulted on farming assets, 8. <u>In 4 project components, women</u> should be consulted and trained and their views should be accounted for.		
2d. Improve knowledge of women members and female-headed households on the use of new types of crops, farm equipment, inputs, and facilities.	9. At least 25% of women should participate in project training for climate preparedness, water-saving technologies, and best farming practices. 10. Training reports with sex-disaggregated data should be submitted.		
Output3: Farmers' access to markets improved			
3a. Appoint a social and gender specialist in NPC, Consultants Office, and Provincial Offices.	11. A social and gender specialist should be engaged throughout the project at levels so that with the gender lens project activities can be		

	seen, monitored, and reported. All PIU staff are trained by gender specialists on gender-specific needs and priorities, and sex- 12. Disaggregated data collection and reporting.		
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Recommendations

Another aspect of catering to women in the sector is reducing their constraints. To combat the issue of interaction with men, female extension agents need to be trained and given transportation to the targeted regions. Also, training should be delivered in the regional languages of the trainees to diminish the language barriers and make the extension services more accessible and comprehensible. Considering the prevalence of work-related injuries among agricultural women, a budget should be allocated towards occupational safety measures. These can include first aid training, precautions while handling machinery and toxic chemicals, and warning signs in local languages.

4.3 ICT TEAM ASSIGNMENTS

4.3.1 Implementation of MIS Dashboard

The Dashboard has been implemented in Punjab, KP, Balochistan, AJK and ICT zones:

The progress of Interventions is live on the Dashboard application.

Punjab – WC Data - Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bahawalpur	167	197	326	15	705
D.G Khan	154	78	263	1	496
Faisalabad	88	61	203	35	387
Gujranwala	63	28	109	1	201
Gujrat	44	30	125	0	199
Lahore	72	42	134	7	255
Multan	168	81	311	2	562
Sahiwal	94	86	222	0	402
Sargodha	100	95	357	3	555
Overall	950	698	2050	64	3762

A total of **3762** Watercourses data have been received from Punjab zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-E**)

Punjab – WSP Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Bahawalpur	23	46	91	160
D.G Khan	27	30	25	82
Faisalabad	24	48	57	129
Gujranwala	0	4	2	6
Gujrat	2	10	29	41
Lahore	0	9	5	14
Multan	16	25	26	67
Rawalpindi	0	174	194	368
Sahiwal	9	15	15	39
Sargodha	6	32	47	85
Bahawalpur	23	46	91	160
Overall	107	393	491	991

Total **911** Water Storage Ponds data have been received from Punjab zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-F**)

Punjab – PLL Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bahawalpur	81	324	305	78	788
D.G Khan	50	297	190	100	637
Faisalabad	93	378	274	99	844
Gujranwala	49	231	263	17	560
Gujrat	30	106	122	16	274
Lahore	64	271	258	95	688
Multan	102	273	194	79	648
Sahiwal	71	188	231	98	588
Sargodha	78	266	247	38	629
Rawalpindi	22	76	75	15	188
Overall	640	2410	2159	635	5844

So far, Total **5844** PLL data have been received from Punjab zone and available live on GIS Dashboard. All PLL units have been delivered and currently there's no under progress PLL unit as per received data. (Detailed Summary attached as **Annex-G**)

KP – WC Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	3	19	39	18	79
Bannu	75	35	94	28	232

KP – WC Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
D.I Khan	448	12	110	7	577
Hazara	86	68	144	42	340
Khyber	6	13	7	1	27
Kohat	98	40	57	28	223
Kurram	3	5	3	0	11
Malakand	182	178	474	61	895
Mardan	105	64	88	13	270
Mohmand	4	39	17	26	86
N.W Agency	2	3	5	1	11
Orakzai	0	1	0	0	1
Peshawar	141	89	73	38	341
S.W Agency	3	12	15	7	37
Overall	1156	578	1126	270	3130

So far, Total **3130** Watercourses data have been received from KP zone and available live on GIS Dashboard. By which **3008** Watercourses have been lined and remaining **86** watercourses are under progress on different stages like 1st Milestone, 2nd Milestone, and Work Order Issued. The remaining 36 Watercourses are pending with Work Order Approval. (Detailed Summary attached as **Annex-H**)

KP – 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	35	0	122
Hazara	28	47	82	12	169
Khyber	1	9	12	0	22
Kohat	27	17	32	14	90
Kurram	1	1	0	0	2
Malakand	74	97	193	9	373
Mardan	16	9	26	2	53
Mohmand	1	40	69	0	110
Orakzai	0	2	0	0	2
Peshawar	36	25	56	15	132
S.W Agency	0	15	15	2	32
N.W Agency	0	8	8	1	17
Overall	279	296	560	58	1193

Overall Water Storage Tank data submissions are **1193** of which **1114** WST have been completed and **55** are under progress. While **24** Water Storage Tanks Work Order Pending. (Detailed Summary attached as **Annex-I**)

KP – PLL Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
D.I Khan	0	0	50	0	50
Overall	0	0	50	0	50

So far, Total **50** PLL have been delivered and partial data received from KP zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-J**)

Balochistan – WC Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Kalat	597	143	287	0	1027
Loralai	344	148	137	32	661
Makran	204	56	49	0	309
Nasirabad	216	111	191	0	518
Quetta	244	50	87	0	381
Rakhshan	126	58	82	0	266
Sibi	184	59	88	0	331
Zhob	232	69	81	0	382
Overall	2147	694	1002	32	3875

Total **3875** Watercourses data has been received from Balochistan zone of which **3230** Watercourses have been lined, **247** Watercourses are pending at TS Stage and remaining **398** watercourses are under progress and. (Detailed Summary attached as **Annex-K**)

Balochistan – WST Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Kalat	95	154	442	0	691
Loralai	54	57	111	11	233
Makran	50	57	168	0	275
Nasirabad	29	48	83	0	160
Quetta	53	87	111	0	251
Rakhshan	26	68	58	7	159
Sibi	35	34	61	9	139
Zhob	49	61	117	0	227
Overall	391	566	1151	27	2135

A total of **2135** Water Storage Tank data has been received from Balochistan zone of which **1636** Watercourses have been lined, **102** Water Storage Tank at TS Stage and remaining **397** Water Storage Tanks are under progress. (Detailed Summary attached as **Annex-L**)

Balochistan – PLL Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Kalat	0	4	0	0	4
Makran	0	11	0	0	11
Nasirabad	0	16	0	0	16
Quetta	0	1	0	0	1
Sibi	0	2	0	0	2
Overall	0	34	0	0	34

So far, Total **34** PLL have been delivered and partial data received from KP zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-M**)

GB – WC 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

A total of **809** completed schemes data have been received and live on Dashboard. (Detailed Summary attached as **Annex-N**)

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

A total of **328** completed Water Storage Tanks data have been received and live on Dashboard. (Detailed Summary attached as **Annex-O**)

AJK – WC Data Summary						
Division	2019-20	2020-21	2021-22	2022-23	2023-24	Overall
MZD	30	84	53	29	25	221
Poonch	33	32	30	8	22	125
Mirpur	37	96	72	21	62	288
Overall	100	212	155	58	109	634

A total of **634** Watercourses data has been received from AJK zone of which **525** Watercourses have been lined, **11** Watercourses are pending at TS & Work Order Stage, **98** watercourses are under progress. (Detailed Summary attached as **Annex-P**).

AJK – WST Data Summary						
Division	2019-20	2020-21	2021-22	2022-23	2023-24	Overall
MZD	35	56	61	9	23	184
Poonch	13	41	62	33	9	158
Mirpur	2	15	27	5	27	76
Overall	50	112	150	47	59	418

A total of **418** Water Storage Tank data has been received from AJK zone of which **361** Water Storage Tank have been lined, **7** Water Storage Tanks are pending at TS Stage, **5B** Water Storage Tanks are under progress. (Detailed Summary attached as **Annex-Q**)

ICT – WC Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
ICT	0	20	14	7	41
Overall	0	20	14	7	41

A total of **41** completed Watercourses data have been received and available live on Dashboard. (Detailed Summary attached as **Annex-R**)

4.3.2 On-Going Data Validation & Cleaning

Data submission is an ongoing process & will continue till the end of the project. Zonal Field Staff of AJK, KP, and Balochistan is continuously feeding data through customized Android Application provided & trained by the ICT team of ME&IE consultants.

However, The ICT team is continuously cleaning and validating the received data and communicating mistakes to the concerned Zonal DDs/ADs for correction.

CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (OCTOBER 2023 TO DECEMBER 2023)

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

4.1 PRE-FIELD-ACTIVITIES

- Preparation for 3rd-Phase Baseline & Endline Impact Survey
- Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey
- Training of Field Staff for Impact Survey and 3rd-Phase Baseline Survey

4.2 FIELD ACTIVITIES

- Regular Monitoring of Interventions in the field
- Data collection of the interventions in the field
- Baseline Survey Stage III
- Online data entry in android-based application

4.3 ICT ASSIGNMENT

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

4.4 COORDINATION

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

4.5 DELIVERABLES

- Monthly Monitoring Reports
- Quarterly Monitoring & Evaluation Report (QM&ER)
- Mid-Term Monitoring and Impact Evaluation Report (Consolidated)

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
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	Submitted
Monthly Monitoring Report-Fourteenth (MARCH 2022)	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	Submitted
Monthly Monitoring Report-	Submitted

Document	Status
Seventeenth (MAY 2022)	
Monthly Monitoring Report-Eighteenth (JUNE 2022)	Submitted
Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2022 (APRIL – JUNE 2022)	Submitted
Annual Monitoring & Evaluation Report (2 nd Jul 2021-June 2022)	Submitted
Monthly Monitoring Report-Nineteenth (JULY 2022)	Submitted
Monthly Monitoring Report-Twentieth (AUGUST 2022)	Submitted
Monthly Monitoring Report-Twenty First (SEPTEMBER 2022)	Submitted
Quarterly Monitoring & Evaluation Report-3 rd Quarter year 2022 (JUL – SEP 2022)	Submitted
Monthly Monitoring Report-Twenty Second (OCTOBER 2022)	Submitted
Monthly Monitoring Report-Twenty Third (NOVEMBER 2022)	Submitted
Monthly Monitoring Report-Twenty Fourth (DECEMBER 2022)	Submitted
Monthly Monitoring Report-Twenty Fifth (JANUARY 2023)	Submitted
Monthly Monitoring Report-Twenty Sixth (FEBRUARY 2023)	Submitted
Monthly Monitoring Report-Twenty Seventh (March 2023)	Submitted
Monthly Monitoring Report-Twenty-eighth (April 2023)	Submitted
Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (JAN – MAR 2023)	Submitted
Monthly Monitoring Report-Twenty-Ninth (May 2023)	Submitted
Monthly Monitoring Report-Thirtieth (June 2023)	Submitted
Monthly Monitoring Report-Thirty First (July 2023)	Submitted
Monthly Monitoring Report-Thirty Second (August 2023)	Submitted
Monthly Monitoring Report-Thirty Third (September 2023)	Submitted
Monthly Monitoring Report-Thirty Fourth (October 2023)	Report in hand
Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (Jul – Sep 2023)	Submitted
Baseline Survey Report -I	Submitted
Baseline Survey Report - II	Submitted

Document	Status
Baseline Survey Report-II (Updated version WC)	Submitted
Baseline Survey Report -II (Draft version of WSTs)	Submitted
Mid-Line Monitoring & Impact Evaluation Report	Submitted
Consolidated Baseline Survey Report (Phase-I&II)	Submitted
Baseline (Phase I&II) Consolidated Report	Submitted
Mid-Term Monitoring and Impact Evaluation Report	Submitted
Special Reports submitted: 1) Monitoring Tools 2) Survey Manual on MTs 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	Submitted

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

4.6 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.
- While reviewing Dashboard during our in-house exercise we have witnessed some stuck-up cases. Following are different levels/stages in term of days and area of jurisdiction:

<u>Days</u>	<u>Departments</u>
100 to 119	District
120 to 149	Division
150 to 164	NPC/DDPC

As some of the cases have crossed third level which is execution agency DG, therefore, you are hereby intimated for your personal intervention to sort out these stuck ups.

We have already pointed out Stuck-Up Cases of NPIWC II Watercourses through our office letter No. NPIWC-II / ME&IE / NOISD / 0623-0256 submitted to your office dated 15 June 2023. Your prompt action is required in this matter.

It is also important to mention that when ME&IE Consultants pointed out certain stuck-up cases to FPMU, a quick response has been observed from FPMU vide its Letter dated 12 July 2023 and raise the issue with executing agencies to settle the issue on priority basis.

ANNEXES A to R

ANNEXURE A: TENTATIVE QUARTERLY WORK PLAN (OCTOBER TO DECEMBER 2023)

TENTATIVE WORK PLANNED FOR THE QUARTER (October 2023 To December 2023)												Legend	
												Activity starts	↓
												Activity Ends	↓
												Activity Span	—
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)											
		October				November				December			
		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 Refresher Training of Field Staff for Baseline & Endline Impact Surveys												
	1.2 Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for Endline Survey												
2	Field Activities												
	2.1 Regular Monitoring of Interventions in the field												
	2.2 Baseline Survey Phase-III & Impact field survey visits												
	2.3 Online data entry in android-based application												
3	ICT Assignment												
	3.1 Development / Improvement of website of NPIWC-II												
	3.2 Monitoring online data collection and Data entry												
	3.3 Monitoring Android based Mobile Application under implementation by field staff.												
	3.4 Data collection of interventions in MIS/GIS database												
	3.5 Capacity Building Trainings / Refresher of Departments												
	3.6 Data Cleaning.												
4	Coordination												
	4.1 Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues												
	4.2 Meeting of DTLs with respective DTL of PC & concerned OFWM Departments												
	4.3 ME&IE Consultants Internal Meetings												
5	Deliverable												
	5.1 Monthly Monitoring Report												
	5.2 Quarterly Monitoring & Evaluation Report (July-Sep 2023)												
	5.3 Midterm Monitoring & Impact Evaluation Report (Consolidated)												

ANNEXURE B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

LEGEND	
●	Primary Responsibility
○	Secondary Responsibility
○	Assistance

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

ANNEXURE C: MONITORING LOG-FRAME

Project Sub-components	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.	i. Community mobilization at 47,278 watercourses	i. Total 47,278 WUAs reactivated / established/registered	i. Right of way of 47,278 watercourses available ii. Skilled and unskilled labor required for watercourse improvement available iii. Construction material for civil works of watercourses procured iv. Alternate arrangement for water conveyance during construction made v. Watercourse improved	i. Disputes among the water users settled ii. Farmers branched improved iii. Water allocation made amicably iv. Maintenance of watercourses , WST and laser units done v. Cooperation among farmers increased	i. 47,278 watercourses improved and 15 percentage points conveyance losses reduced ii. Litigation among farmers reduced	i. The functioning of the WUAs will be established through sample interview surveys of WUAs members twice during the project period
C2: Watercourses Improvements	Improvement of 47,278 watercourses on	i. Establishment of 47,278 Water users'	i. 47,278 WCAs established; ii. 47,278 WCAs	i. Conveyance losses for improved	i. Increase in cropping intensity on	i. Increase in farm income; ii. Increase in	i. The water flow measurements will be carried

Project Sub-components	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
	cost sharing basis: 40% farmers in terms of labor, and 60% funded by project.	associations (WUAs); ii. Registration of 47,278 WUAs; iii. Improvement and realignment of earthen section of 47,278 watercourses; iv. Lining of up to 50% length of 47,278 watercourses either by: v. Precast concrete parabolic lining (PCPL) segments, or vi. Rectangular brick masonry, or any other method as approved by	registered; iii. 47,278 watercourses improved and lined;	watercourses decreased by about 15 percentage points. ii. 1.654 million households benefited from the activity; iii. 11.347 million acres served with improved watercourses	improved watercourses by 5-24%; ii. Increase in crop yields. iii. Increase in irrigated area iv. Increase in agriculture output per unit of water by about 37%	employment for farm labor; iii. Reduction in poverty; iv. Enhanced food security for the country.	out at before and after watercourse improvement on 2-5% sample basis; ii. Agriculture survey before and after watercourse improvement on 2-5% sample basis; iii. The survey will determine: iv. Cropping pattern before and after the improvement; v. Cropping intensities before and after improvement; • Before and after crop yields; • Before and after

Project Sub-components	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		the project					employment; vi. 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)	i. Construction of 14,932 water storage tanks	i. 14,932 small farmers mobilized to construct water storage tanks for irrigation ii. They agree to contribute 40% of the cost iii. Agree to first construct the	i. 14,932 constructed WSTs ii. 14,932 operated WSTs and maintained	i. Water which was otherwise largely going to be wasted is saved i. Irrigation provided at critical stages of the crops ii. Flexibility achieved for irrigation	i. More area irrigated ii. Increased cropping intensities	i. Increased crop yields ii. Increased total crop output quantum iii. Increased farm income iv. Increased farm employment	i. 2-5% sample of WSTs will be surveyed iii. A data collection form will be designed to measure water saving due to WSTs iv. The forms used for baseline and

Project Sub-components	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		tank with his/her own funds and then received subsidy at 40% on issuance of FCR					impact surveys in case of watercourses will also be used for WSTs v. Same data analysis will be carried out here as in case of watercourses.
C4: Provision of Land Leveling Units	i. 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.	i. 11,610 laser units provided to farmers / service providers; ii. Farmers trained in using the units.	i. 11,610 farmers / service providers received PLL units; ii. Farmers / service providers received training in using the units.	i. Land leveled on Farmers' / service providers' farms; vi. Land leveled on fellow farmers on rent; vii. Total 3.483million acres leveled by 11,610 units.	i. Water application efficiency increased at field level; viii. Even germination of seed. ix. Field application losses reduced by 10 percentage points x. Water productivity increased by	i. Increased area under irrigated crops; ii. Enhanced crop yields iii. Increased farm income	i. The land leveling 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 Sub-components	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
					24%		<ul style="list-style-type: none"> xi. 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery xii. The unit will be verified xiii. Area treated during the year will be collected xiv. Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.

ANNEXURE 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 End line 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

ANNEXURE E: 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

ANNEXURE F: PUNJAB - WSP DATA SUBMISSION - SUMMARY

Division	District	Completed	Under Progress		Overall
			Work Order Issued	Work Order 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	10	0	0	10
Dera Ghazi Khan Total		82	0	0	82
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 Bahauddin	2	0	0	2
Gujrat Total		41	0	0	41
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	Khushab	28	0	0	28
Sargodha	Mianwali	3	0	0	3
Sargodha	Sargodha	35	0	0	35
Sargodha Total		85	0	0	85
Overall		991	0	0	991

ANNEXURE G: PUNJAB - PLL DATA SUBMISSION - SUMMARY

Division	District	Delivered	Under Progress	Overall
Bahawalpur	Bahawalnagar	283	0	283
Bahawalpur	Bahawalpur	246	0	246
Bahawalpur	Rahim Yar Khan	259	0	259
Bahawalpur Total		788	0	788
Dera Ghazi Khan	Dera Ghazi Khan	127	0	127
Dera Ghazi Khan	Layyah	165	0	165
Dera Ghazi Khan	Muzaffargarh	225	0	225
Dera Ghazi Khan	Rajanpur	120	0	120
Dera Ghazi Khan Total		637	0	637
Faisalabad	Chiniot	160	0	160
Faisalabad	Faisalabad	257	0	257
Faisalabad	Jhang	236	0	236
Faisalabad	Toba Tek Singh	191	0	191
Faisalabad Total		844	0	844
Gujranwala	Gujranwala	232	0	232
Gujranwala	Sialkot	190	0	190
Gujranwala	Narowal	138	0	138
Gujranwala Total		560	0	560
Gujrat	Gujrat	114	0	114
Gujrat	Mandi Bahauddin	160	0	160
Gujrat Total		274	0	274
Lahore	Kasur	232	0	232
Lahore	Lahore	94	0	94
Lahore	Nankana Sahib	137	0	137
Lahore	Sheikhupura	225	0	225
Lahore Total		688	0	688
Multan	Khanewal	184	0	184
Multan	Lodhran	145	0	145
Multan	Multan	126	0	126
Multan	Vehari	193	0	193
Multan Total		648	0	648
Sahiwal	Okara	203	0	203
Sahiwal	Pakpattan	178	0	178
Sahiwal	Sahiwal	207	0	207
Sahiwal Total		588	0	588
Sargodha	Bhakkar	171	0	171
Sargodha	Khushab	111	0	111
Sargodha	Mianwali	140	0	140
Sargodha	Sargodha	207	0	207
Sargodha Total		629	0	629
Rawalpindi	Attock	188	0	188
Rawalpindi Total		188	0	188
Grand Total		5844	0	5844

ANNEXURE H: KP - WATERCOURSE DATA SUBMISSION – SUMMARY

Division	District	Completed	Under Progress			Pending		Overall
			1st Milestone	2nd Milestone	Work Order Issued	TS Pending	Work Order Pending	
Bajaur Agency	Bajaur	60	0	0	13	6	0	79
Bajaur Agency Total		60	0	0	13	6	0	79
Bannu	Bannu	110	0	0	0	0	0	110
Bannu	Lakki Marwat	122	0	0	0	0	0	122
Bannu Total		232	0	0	0	0	0	232
D.I. Khan	D.I. Khan	507	3	0	0	0	0	510
D.I. Khan	Tank	67	0	0	0	0	0	67
D.I. Khan Total		574	3	0	0	0	0	577
Hazara	Abbottabad	30	0	0	0	0	0	30
Hazara	Battagram	49	0	0	0	0	0	49
Hazara	Haripur	73	0	0	0	0	0	73
Hazara	Lower Kohistan	7	0	0	13	1	0	21
Hazara	Mansehra	99	0	14	0	0	0	113
Hazara	Torghar	34	0	0	1	0	0	35
Hazara	Upper Kohistan	9	0	0	0	8	0	17
Hazara	Kolai Pallas	2	0	0	0	0	0	2
Hazara Total		303	0	14	14	9	0	340
Khyber Agency	Khyber	20	0	0	5	2	0	27
Khyber Agency Total		20	0	0	5	2	0	27
Kohat	Hangu	49	0	0	0	0	0	49
Kohat	Karak	82	0	0	0	0	0	82
Kohat	Kohat	92	0	0	0	0	0	92
Kohat Total		223	0	0	0	0	0	223
Kurram Agency	Kurram	10	0	0	0	1	0	11
Kurram Agency Total		10	0	0	0	1	0	11
Malakand	Buner	106	0	0	0	0	0	106
Malakand	Chitral	94	0	0	0	0	0	94
Malakand	Lower Dir	102	0	2	25	4	1	134
Malakand	Malakand	106	0	0	1	1	0	108
Malakand	Shangla	54	2	1	1	1	1	60
Malakand	Swat	282	0	0	0	0	0	282
Malakand	Upper Dir	111	0	0	0	0	0	111
Malakand Total		855	2	3	27	6	2	895
Mardan	Mardan	137	0	0	2	0	0	139
Mardan	Swabi	130	0	1	0	0	0	131
Mardan Total		267	0	1	2	0	0	270
M. Agency	Upper	64	0	0	0	0	0	64

Division	District	Completed	Under Progress			Pending		Overall
			1st Milestone	2nd Milestone	Work Order Issued	TS Pending	Work Order Pending	
	Mohmand							
M. Agency	Lower Mohmand	22	0	0	0	0	0	22
M. Agency Total		86	0	0	0	0	0	86
Orakzai Agency	Orakzai	1	0	0	0	0	0	1
Orakzai Agency Total		1	0	0	0	0	0	1
Peshawar	Charsadda	135	0	0	0	0	0	135
Peshawar	Nowshera	127	0	0	1	2	0	130
Peshawar	Peshawar	73	0	0	1	2	0	76
Peshawar Total		335	0	0	2	4	0	341
S.W Agency	S.W Agency	37	0	0	0	0	0	37
S.W Agency Total		37	0	0	0	0	0	37
N.W Agency	N.W Agency	5	0	0	0	6	0	11
N.W Agency Total		5	0	0	0	6	0	11
Overall		3008	5	18	63	34	2	3130

ANNEXURE I: KP - WST DATA SUBMISSION - SUMMARY

Division	District	Completed	Under Progress			Pending	Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bajaur Agency	Bajaur	17	0	0	1	3	21
Bajaur Agency Total		17	0	0	1	3	21
Bannu	Bannu	12	0	0	0	1	13
Bannu	Lakki Marwat	35	0	0	0	0	35
Bannu Total		47	0	0	0	1	48
Dera Ismail Khan	Dera Ismail Khan	83	1	1	5	0	90
Dera Ismail Khan	Tank	32	0	0	0	0	32
Dera Ismail Khan Total		115	1	1	5	0	122
Hazara	Abbottabad	18	0	0	0	0	18
Hazara	Battagram	26	0	0	4	0	30
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	39	0	5	1	0	45
Hazara	Torghar	17	0	0	1	0	18
Hazara	Upper Kohistan	7	0	0	0	6	13
Hazara Total		149	0	5	8	7	169
Khyber Agency	Khyber	10	0	0	6	6	22
Khyber Agency Total		10	0	0	6	6	22
Kohat	Hangu	12	0	0	0	0	12
Kohat	Karak	73	0	0	0	0	73
Kohat	Kohat	5	0	0	0	0	5
Kohat Total		90	0	0	0	0	90
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	18	2	4	11	0	35
Malakand	Malakand	24	0	0	0	0	24
Malakand	Shangla	43	0	0	0	1	44
Malakand	Swat	163	0	0	0	1	164
Malakand	Upper Dir	39	1	1	0	1	42
Malakand		351	3	5	11	3	373

Division	District	Completed	Under Progress			Pending	Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Total							
Mardan	Mardan	32	0	0	0	0	32
Mardan	Swabi	21	0	0	0	0	21
Mardan Total		53	0	0	0	0	53
Mohmand Agency	Lower Mohmand	31	0	0	0	0	31
Mohmand Agency	Upper Mohmand	79	0	0	0	0	79
Mohmand Agency Total		110	0	0	0	0	110
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	71	0	0	0	0	71
Peshawar	Peshawar	44	0	0	3	0	47
Peshawar Total		128	0	0	4	0	132
S.W Agency	S.W Agency	32	0	0	0	0	32
S.W Agency Total		32	0	0	0	0	32
N.W Agency	N.W Agency	8	0	0	5	4	17
N.W Agency Total		8	0	0	5	4	17
Overall	0	1114	4	11	40	24	1193

ANNEXURE J: KP - PLL DATA SUBMISSION - SUMMARY

Division	District	Delivered	Under Progress	Overall
D.I Khan	D.I Khan	50	0	50
Overall		50	0	50

ANNEXURE K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION - SUMMARY

Division	District	Completed	Under Progress			Pending	Overall
			1st Milestone	2nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	150	0	0	0	1	151
Kalat	Kalat	281	0	0	0	1	282
Kalat	Khuzdar	165	0	0	0	0	165
Kalat	Lasbela	154	0	0	35	0	189
Kalat	Mastung	190	0	0	6	2	198
Kalat	Surab	0	0	0	19	23	42
Kalat Total		940	0	0	60	27	1027
Loralai	Barkhan	64	0	0	0	0	64
Loralai	Duki	0	0	0	43	0	43
Loralai	Loralai	335	0	0	0	0	335
Loralai	Musakhail	187	0	0	0	32	219
Loralai Total		586	0	0	43	32	661
Makran	Gwadar	23	0	0	0	0	23
Makran	Kech	59	0	0	9	64	132
Makran	Panjgur	121	0	0	33	0	154
Makran Total		203	0	0	42	64	309
Nasirabad	Jaffarabad	141	0	0	0	0	141
Nasirabad	Jhal Magsi	27	0	0	0	0	27
Nasirabad	Kachi	3	0	0	98	1	102
Nasirabad	Nasirabad	52	0	0	89	28	169
Nasirabad	Sohbatpur	79	0	0	0	0	79
Nasirabad Total		302	0	0	187	29	518
Quetta	Killa Abdullah	110	0	0	0	0	110
Quetta	Pishin	186	0	0	0	1	187
Quetta	Quetta	83	0	0	1	0	84
Quetta Total		379	0	0	1	1	381
Rakhshan	Chaghi	77	0	0	0	0	77
Rakhshan	Kharan	26	0	0	2	40	68
Rakhshan	Nushki	3	0	0	61	37	101
Rakhshan	Washuk	18	0	0	0	2	20
Rakhshan Total		124	0	0	63	79	266
Sibi	Dera Bugti	99	0	0	0	0	99
Sibi	Harnai	42	0	0	0	0	42
Sibi	Kohlu	58	0	0	0	0	58
Sibi	Sibi	60	0	0	0	0	60
Sibi	Ziarat	71	0	0	1	0	72
Sibi Total		330	0	0	1	0	331
Zhob	Killa Saifullah	235	0	0	0	0	235
Zhob	Sherani	51	0	0	0	15	66
Zhob	Zhob	80	0	0	1	0	81
Zhob Total		366	0	0	1	15	382
Overall		3230	0	0	398	247	3875

ANNEXURE L: BALOCHISTAN - WST DATA SUBMISSION - SUMMARY

Division	District	Completed	Under Progress			Pending	Overall
			1st Milestone	2nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	84	0	0	1	2	87
Kalat	Kalat	177	0	0	2	0	179
Kalat	Khuzdar	139	0	0	0	0	139
Kalat	Lasbela	105	0	0	39	6	150
Kalat	Mastung	99	0	0	8	0	107
Kalat	Surab	0	0	0	29	0	29
Kalat Total		604	0	0	79	8	691
Loralai	Barkhan	54	0	0	0	0	54
Loralai	Duki	0	0	0	29	0	29
Loralai	Loralai	113	0	0	0	0	113
Loralai	Musakhel	26	0	0	0	11	37
Loralai Total		193	0	0	29	11	233
Makran	Gwadar	7	0	0	0	0	7
Makran	Kech	35	0	0	18	46	99
Makran	Panjgur	46	0	1	121	1	169
Makran Total		88	0	1	139	47	275
Nasirabad	Jaffarabad	17	0	0	0	0	17
Nasirabad	Jhal Magsi	30	0	0	0	0	30
Nasirabad	Kachi	36	0	0	46	0	82
Nasirabad	Nasirabad	0	0	0	17	0	17
Nasirabad	Sohbatpur	14	0	0	0	0	14
Nasirabad Total		97	0	0	63	0	160
Quetta	Killa Abdullah	55	0	0	0	1	56
Quetta	Pishin	107	0	0	10	2	119
Quetta	Quetta	75	0	1	0	0	76
Quetta Total		237	0	1	10	3	251
Rakhshan	Chaghi	33	0	0	0	14	47
Rakhshan	Kharan	15	0	0	13	8	36
Rakhshan	Nushki	0	0	0	53	9	62
Rakhshan	Washuk	4	0	0	8	2	14
Rakhshan Total		52	0	0	74	33	159
Sibi	Dera Bugti	38	0	0	1	0	39
Sibi	Harnai	21	0	0	0	0	21
Sibi	Kohlu	35	0	0	0	0	35
Sibi	Sibi	23	0	0	0	0	23
Sibi	Ziarat	21	0	0	0	0	21
Sibi Total		138	0	0	1	0	139
Zhob	Killa Saifullah	117	0	0	0	0	117
Zhob	Sherani	25	0	0	0	0	25
Zhob	Zhob	85	0	0	0	0	85
Zhob Total		227	0	0	0	0	227
Overall		1636	0	2	395	102	2135

ANNEXURE M: BALOCHISTAN - PLL DATA SUBMISSION - SUMMARY

Division	District	Delivered	Under Progress	Overall
Kalat	Lasbela	4	0	4
Makran	Panjgur	5	0	5
Makran	Turbat	6	0	6
Nasirabad	Jaffarabad	12	0	12
Nasirabad	Jhal Magsi	1	0	1
Nasirabad	Sohbatpur	3	0	3
Quetta	Killa Abdullah	1	0	1
Sibi	Sibi	2	0	2
Overall		34	0	34

ANNEXURE N: GB - WATERCOURSES DATA SUBMISSION - SUMMARY

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

ANNEXURE O: 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

ANNEXURE P: AJK - WATERCOURSES DATA SUBMISSIONS - SUMMARY

Division	District	Completed	Under Progress			Pending		Overall
			1st Milestone	2nd Milestone	Work Order Issued	TS Pending	Work Order Pending	
MZD	MZD	103	0	0	13	7	0	123
	Jhelum	26	2	0	12	0	0	40
	Neelum	56	0	1	1	0	0	58
MZD Total		185	2	1	26	7	0	221
Poonch	Poonch	41	0	0	4	0	0	45
	Bagh	29	0	0	3	1	0	33
	Haveli	10	1	0	4	0	0	15
	Sudhnoti	23	0	0	7	0	2	32
Poonch Total		103	1	0	18	1	2	125
Mirpur	Mirpur	77	0	0	6	0	0	83
	Bhimber	121	0	0	36	0	0	157
	Kotli	39	2	0	6	0	1	48
Mirpur Total		237	2	0	48	0	1	288
Overall		525	5	1	92	8	3	634

ANNEXURE Q: AJK - WST/WHs DATA SUBMISSIONS - SUMMARY

Division	District	Completed	Under Progress			Pending		Overall
			1st Milestone	2nd Milestone	Work Order Issued	TS Pending	Work Order Pending	
MZD	MZD	144	1	0	16	0	0	161
	Jhelum	19	0	0	3	0	0	22
	Neelum	0	0	0	1	0	0	1
MZD Total		163	1	0	20	0	0	184
Poonch	Poonch	54	0	1	2	0	0	57
	Bagh	44	0	0	4	0	0	48
	Haveli	28	0	0	0	0	0	28
	Sudhnoti	22	1	0	2	0	0	25
Poonch Total		148	1	1	8	0	0	158
Mirpur	Mirpur	7	0	0	3	0	0	10
	Bhimber	12	0	0	8	0	0	20
	Kotli	31	5	0	3	0	7	46
Mirpur Total		50	5	0	14	0	7	76
Overall		361	7	1	42	0	7	418

ANNEXURE R: ICT - WATERCOURSE DATA SUBMISSION - SUMMARY

Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
ICT	ICT	41	0	0	0	0	41
Overall		41	0	0	0	0	41