



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

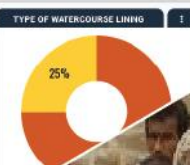
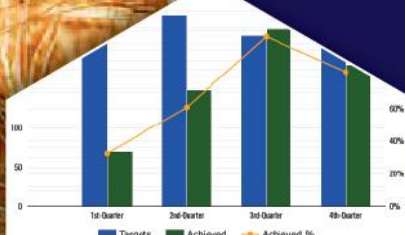
NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

MONITORING, EVALUATION AND IMPACT EVALUATION CONSULTANTS



MONTHLY MONITORING REPORT

SEPTEMBER 2024



A Joint Venture of
G3 Engineering 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 September 2024

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	8
2.1 OBJECTIVES OF CONSULTING SERVICES	8
2.2 SCOPE OF CONSULTING SERVICES	8
2.3 MONITORING STRATEGY OF CONSULTANTS	9
2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS	12
CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH	13
3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)	13
3.2 ACTIVITIES OF ME&IE CONSULTANTS OFFICES – SEPTEMBER 2024	13
3.2.1 Project Components' Implementation Status	13
3.2.2 Overall Field Progress:	13
3.2.3 Post Field Activities	15
3.2.4 Coordination / Meetings with Stakeholders / Beneficiaries	16
3.3 SOCIAL & GENDER IMPACT REPORT – SEPTEMBER 2024	17
3.4 ICT TEAM ASSIGNMENTS	20
3.4.1 Implementation of MIS Dashboard	20
3.4.2 Data Rectification Meetings	22
3.4.3 M&E ICT Team Technical Support	22
3.4.4 Server Maintenance Activities	22
3.4.5 Refresher Training Workshops	22
3.4.6 On-Going Data Validation & Cleaning	22
CHAPTER 4: FOUR MONTHS WORK PLAN-ACTIVITIES (JULY 2024 TO OCTOBER 2024)	25
4.1 PROJECT CLOSURE ACTIVITIES (ADMINISTRATIVE)	25
4.2 POST FIELD ACTIVITIES	25

4.3	ICT ASSIGNMENT	25
4.4	COORDINATION	25
4.5	DELIVERABLES	25
4.6	MATRIX OF RESPONSIBILITIES	27
CHAPTER 5: ISSUES / BOTTLENECKS		28

LIST OF ANNEXURES

ANNEXURE A:	TENTATIVE WORK PLAN FOR THE FOUR MONTHS (JUL-OCT 2024)	30
ANNEXURE B:	MATRIX OF RESPONSIBILITIES	31
ANNEXURE C:	MONITORING LOG-FRAME	32
ANNEXURE D:	DELIVERABLES / REPORTING REQUIREMENTS	37
ANNEXURE E:	ECOLOGICAL ZONE WISE ACHIEVEMENTS OF M&EC OF VARIOUS INTERVENTIONS IN PUNJAB ZONE .	38
ANNEXURE F:	PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY	41
ANNEXURE G:	PUNJAB - WSP DATA SUBMISSION – SUMMARY	42
ANNEXURE H:	PUNJAB - PLL DATA SUBMISSION – SUMMARY	43
ANNEXURE I:	KP - WATERCOURSE DATA SUBMISSION – SUMMARY	44
ANNEXURE J:	KP - WST DATA SUBMISSION – SUMMARY	45
ANNEXURE K:	KP - PLL DATA SUBMISSION – SUMMARY	46
ANNEXURE L:	BALUCHISTAN - WATERCOURSE DATA SUBMISSION – SUMMARY	47
ANNEXURE M:	BALUCHISTAN - WST DATA SUBMISSION – SUMMARY	48
ANNEXURE N:	BALUCHISTAN - PLL DATA SUBMISSION – SUMMARY	49
ANNEXURE O:	GB - WATERCOURSES DATA SUBMISSION – SUMMARY	50
ANNEXURE P:	GB - WST DATA SUBMISSION – SUMMARY	51
ANNEXURE Q:	AJK- WATERCOURSES DATA SUBMISSIONS – SUMMARY	52
ANNEXURE R:	AJK - WST/WHs DATA SUBMISSIONS – SUMMARY	53
ANNEXURE S:	ICT - WATERCOURSE DATA SUBMISSION – SUMMARY	54
ANNEXURE T:	DISTRICT-WISE PROGRESS OF DASHBOARD IN BALUCHISTAN	55

ACRONYMS

ADA	Assistant Director Agriculture
AES	Agriculture Extension Services
AF	Acre-Feet
AJK	Azad Jammu & Kashmir
AOSM	Adjustable Orifice Semi-Module
AWPB	Annual Work Plan and Budget
AWPs	Annual Work Plans
BCR	Benefit Cost Ratio
CFT	Cubic Feet
CMS	Content Management System
CSRD	Center for Social Research and Development
DAES	Director Agriculture Extension Services
DDA	Deputy Director Agriculture
DGA	Director General Agriculture
DTL	Deputy Team Leader
EAs	Executing Agencies
EIRR	Economic Internal Rate of Return
FCR	Financial Completion Report
FCRs	Final Completion Reports
FMFSR	Framework for Federal Financial Management System
FOs	Farmers Organizations
FPMU	Federal Project Management Unit
FTI	Field Team In charge
FWMC	Federal Water Management Cell
GAP	Gender Action Plan
GB	Gilgit Baltistan
G3EC	G3 Engineering Consultants
GIS	Geographic Information System
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Interim Completion Report
ICT	Islamabad Capital Territory
IRR	Internal Rate of Return
ICT	Information & Communication Technology
JV	Joint Venture
KP	Khyber Pakhtunkhwa
LLL	Laser Land Leveler
LPS	Liter per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring Evaluation and Impact Evaluation
MIS	Management Information System
MINFSR	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 and Evaluation Report for September 2024” comprises of five chapters:

Chapter-1 describes the detailed introduction and description of the project. The Government of Pakistan is implementing a project entitled “National Program for Improvement of Watercourses in Pakistan Phase-II” (NPIWC-II) at a total cost of PKR 154,542.355 million (Umbrella PC-I including Sindh) over a period of 05 years. This project is covering Punjab, Khyber Pakhtunkhwa (KP), Baluchistan provinces, 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 on the objectives and scope of work of the ME&IE Consultants for the project. The ME&IE Consultants are going to monitor the implementation of all criteria set, procedures defined, and timeline agreed for implementation of various components. All these are reproduced in this report as a 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). The current MMR covers the period from 1st September 2024 to 30th September 2024.

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

- Post field activities: including Data analysis and preparation of Final Tables for the Baseline & Endline survey Reports
- Quality Assurance and Final Review of Baseline and Endline survey Reports
- Monitoring of online data collection and Data entry;
- Data collection of interventions in MIS/GIS database;
- Submitted the MMR for August 2024; and
- Meetings of ME&IE Consultants with the respective Stakeholders about Project Progress / Issues in hand and its prospects.

Chapter-4 highlights the four months’ work plan for the period of 1st July 2024 to 31st Oct 2024. The work plan consists of the following activities:

- Project Closure Activities (Administrative)
- Post Field Activities
- ICT Assignment
- Coordination Meetings
- Deliverables

The detailed time for tentative work plan of four months (Jul-Oct 2024) 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 the Reporting Period

No.	Activities Planned for the Four Months (Jul-Oct 2024)		Status	
1	Project Closure Activities (Administrative)			
	1.1	Downsizing of ME&IE Consultants staff & approval of retained Staff	Accomplished	
	1.2	Preparing Remuneration & Reimbursable invoices	Accomplished	
	1.3	Handing over the project assets to the client	Will be handed over at the stipulated time	
2	Post field activities			
	2.1	Data Validation Process	Accomplished	
	2.2	Data Cleaning and Preparation	Accomplished	
	2.3	Data Analysis	Accomplished	
	2.4	Creating Final Tables for the Report	Accomplished	
3	ICT Assignment:			
	3.1	Improvement/Updation of website of NPIWC-II	Accomplished	
	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 entry, Data cleaning, Data processing & data analysis.	In Progress	
4	Coordination			
	4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues	Meetings conducted regularly	
	4.2	Meeting of DTLs with respective DTL of NWMC	Meetings conducted regularly	
	4.3	Internal Meetings of ME&IE Consultants	Weekly meetings conducted on a regular basis	
5	Deliverables:			
	5.1	Monthly Monitoring Reports (MMRs)	43 rd MMR (July 2024)	Submitted
			44 th MMR (August 2024)	Submitted
	5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	45 th MMR (Sep 2024)	Report in hand
			QM&ER Jul-Sep 2024	Will be submitted on the stipulated time
	5.3	Baseline Survey Report	Baseline Survey Report Consolidated	Under preparation
	5.4	Endline Survey Report	Endline Survey Report	Under preparation
	5.5	Special Reports		Under preparation
	5.6	Draft Assignment Completion Report	Draft Assignment Completion Report	Will be submitted on the stipulated time

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

ME&IE Consultant Mobilized: November 07, 2020

1.2 PROJECT DESCRIPTION

Project description includes the following 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

The following are the project's general and quantitative:

1) General Objectives:

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

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

2) Quantitative Objectives' Outputs and Impacts:

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

Project outputs

- i) Mobilization through capacity building of Water Users Associations/Farmers Organizations in improved water management techniques and their registration under On-Farm Water Management and Water User Associations Ordinance [Act] 1981 and organization of 47,278 WUAs.
- ii) Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete earthen renovation, partial lining of critical reaches (50% of the total watercourse length as decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).

- iii) Construction of 14,932 water storage tanks with a 60% subsidy through cost-sharing arrangements with the expectation to save about 50% of 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 the generation of employment.
- vii) Self-sufficiency in food through water-saving, 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 manuals and operational guidelines.

1.2.3 Project Beneficiaries

The Majority of the project's direct beneficiaries constitute the number of farmers (owners and tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming 35 farmers on each watercourse, the total number of 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 directly benefit 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, the total net population benefitting is expected to be 8.34 million people.

1.2.4 Project Components

The NPIWC-II project comprises of four components.

C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:

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

- i) Provide a right of way for constructing a 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 by 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 /

- ii) non-perennial canals for subsequent irrigations at the critical crop growth stages, Provide flexibility for storage of plentiful canals and rainfall runoff water for its more expedient use subsequently,
- iii) Collect, store and filter water from:
 - Small Dams, springs, streams, nullahs, 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 of LLL

services in the country through the provision of LLL Units to farmers/service providers at 50% subsidized rates arrangement.

1.2.5 Project Targets

The works are being undertaken in the Province of Punjab, Khyber Pakhtunkhwa (KP), and Balochistan excluding Sindh. It also covers Gilgit Baltistan (GB), Azad Jammu & Kashmir (AJK) and Islamabad Capital Territory (ICT). The location maps with total targets are shown in **Figure-1.1**. Project aims at achieving the targets for 5 years starting from the year 2019-20 to 2023-24, presented in **Figure-1.2**. The targets for each Province / Zone (excluding Sindh) are presented in **Figure-1.3**.

Project Targets

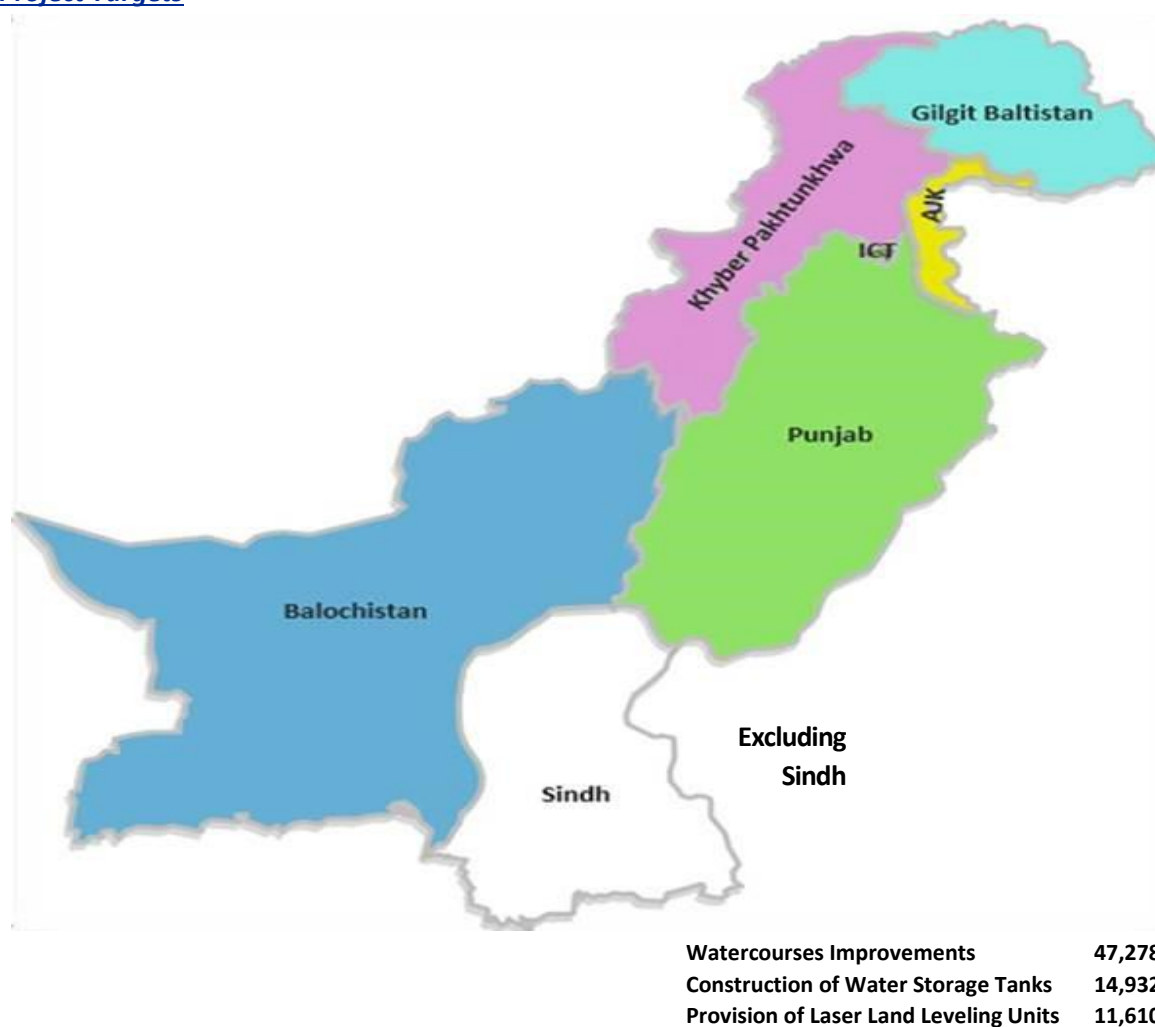


Figure 1.1: Location Map & Pakistan Targets

Table 1.1: Project Targets (in numbers)

Sr. No.	INTERVENTION	PUNJAB	KP	BALUCHISTAN	GB	AJK	ICT	TOTAL
1	Reconstruction of Watercourses (more than 20 years old/Additional lining 50 %)	7,500	3,000	3,589	-	-	-	14,089
	New Watercourses (Unimproved)	2,500	10,000	16,800	2,500	1,165	224	33,189
	Total Watercourses	10,000	13,000	20,389	2,500	1,165	224	47,278
2	Water Storage Tanks	3,000	5,000	5,507	825	600	-	14,932
3	Laser Land Leveling Units	9,500	600	1,500	5	5	-	11,610

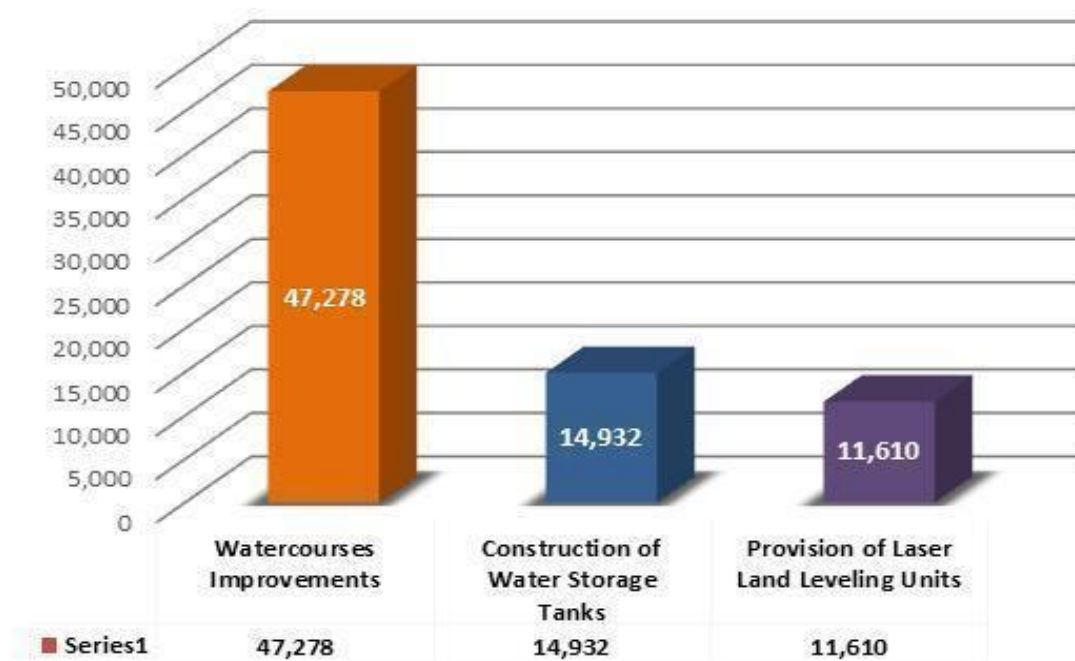


Figure 1.2: National Level Targets

Table 1.2: Province-wise year-wise Watercourses targets

Sr. No.	Province / Unit	Watercourses (Numbers)					
		Year-1	Year-2	Year-3	Year-4	Year-5	Total
1	Punjab	1,000	1,100	2,700	2,800	2,400	10,000
2	Khyber Pakhtunkhwa	1,600	3,200	3,200	3,200	1,800	13,000
3	Balochistan	2,020	5,250	5,530	4,800	2,789	20,389
4	Gilgit Baltistan	496	496	500	504	502	2,500
5	AJK	190	227	244	278	226	1,165
6	ICT	24	45	47	57	51	224
Total		5,330	10,320	12,221	11,639	7,768	47,278

Table 1.3: Province-wise year-wise Water Storage Tanks targets

Sr. No	Province / Unit	Water Storage Tanks (Numbers)					
		Year-1	Year-2	Year-3	Year-4	Year-5	Total
1	Punjab	400	400	800	700	700	3,000
2	Khyber Pakhtunkhwa	550	1,300	1,300	1,300	550	5,000
3	Balochistan	360	1,000	1,510	1,500	1,137	5,507
4	Gilgit Baltistan	163	164	165	165	168	825
5	AJK	120	120	120	120	120	600
6	ICT	-	-	-	-	-	-
Total		1,593	2,984	3,895	3,785	2,675	14,932

Table 1.4: Province-wise year-wise Laser Land Leveling Unit targets

Sr. No.	Province / Unit	Laser Land Leveling (Numbers)					
		Year-1	Year-2	Year-3	Year-4	Year-5	Total
1	Punjab	1,700	2,200	2,200	2,000	1,400	9,500
2	Khyber Pakhtunkhwa	-	200	200	200	-	600
3	Balochistan	200	350	400	400	150	1,500
4	Gilgit Baltistan	-	2	3	-	-	5
5	AJK	-	2	3	-	-	5
6	ICT	-	-	-	-	-	-
Total		1,900	2,754	2,806	2,600	1,550	11,610

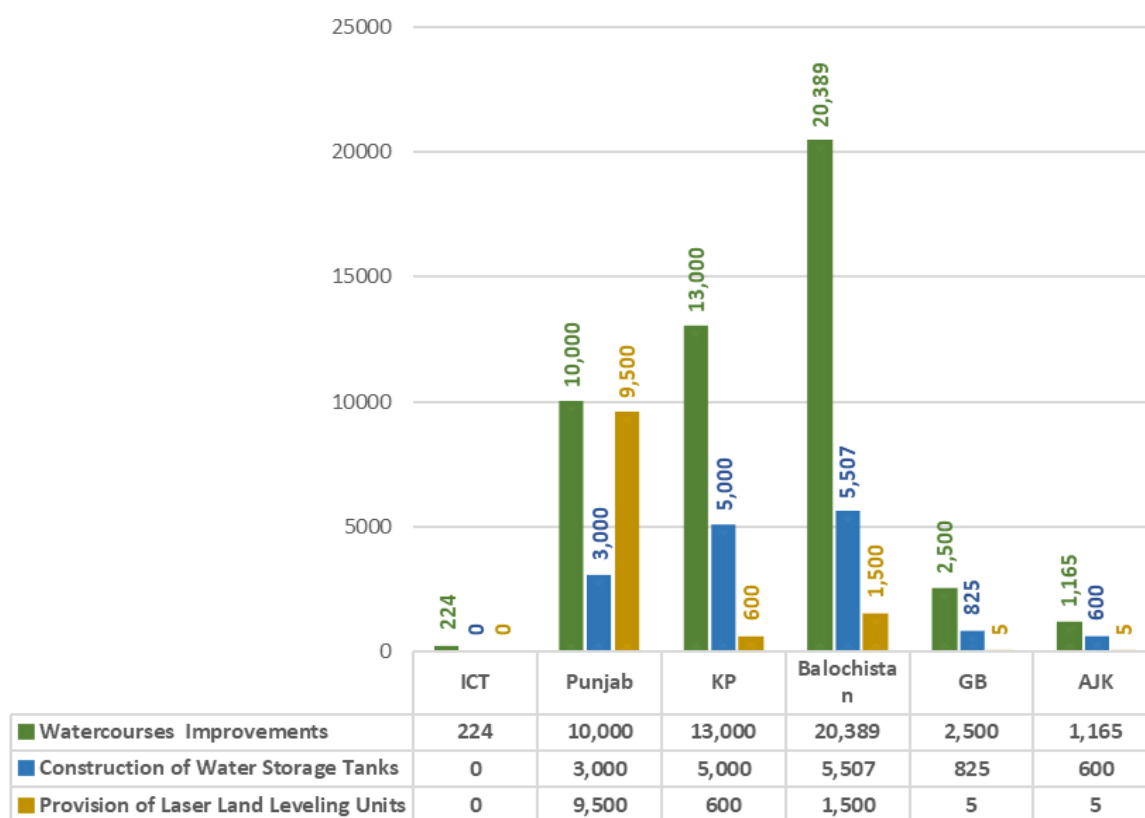


Figure 1.3: Zonal/Unit Level Targets

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 of highly qualified professionals having long and rich practical experience of such projects earlier launched in Pakistan. The consultants are developing a "State-of-the-Art Management Information System" (MIS) with a "Geographical Information System" (GIS) focused on NPIWC-II to monitor progress on project interventions and to carry out an effective monitoring process. The MIS is helping the decision makers to make informed decisions.

2.1 OBJECTIVES OF CONSULTING SERVICES

The objective of the ME&IE Consultants' services is to carry out M&E of project impacts to ensure the 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 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. The economic impact of project interventions,
- ix. Carry out the impact evaluation of the project intervention on the economy and stakeholders,
- x. Develop a website containing information on facilities and services, applications, procedures, watercourses, water storage tanks, laser 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 updation / 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 an application interface.
- Development of an 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.
- The application should generate custom-designed reports and analyses as per user-defined requirements.
- The application should generate alerts (SMS, email, web notifications) to the user on the non-conformance of the project's key indicators; the application should have the provision to custom define alert 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 the 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 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 the 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, End line 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 the 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.

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
			<ul style="list-style-type: none"> The measurements will be done through current meters. Based on water savings on sample watercourses, total water savings will be estimated for all project watercourses. The savings will be reported per watercourse, per annum, and aggregate for the project in LPS and Acre feet.
			<p>Water Savings on WSTs</p> <ul style="list-style-type: none"> Since WSTs will be filled and emptied continuously, the water savings will be assessed based on 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 surveys same forms will be used and the 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	Team Leader, Agricultural	<ul style="list-style-type: none"> The results of the baseline and impact surveys will be used to quantify the impact on the economy

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
	the economy	Economist and Socio-Economic Expert	<ul style="list-style-type: none"> Additional food produced due to the project will be estimated. It is benefitted towards food security Project costs and benefits will be compared in economic and financial terms to carry out economic and financial analysis. Parameters like IRR, NPV, and BCR will be estimated.
7	Impact evaluation on the stakeholders	Team Leader, Agricultural Economist, and Socio-Economic Expert	Analysis as in serial 6 will be carried out concerning 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 Dept., 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 the forty-fourth MMR (August 2024). While the forty-fifth MMR (the Report in hand) for September 2024 (1st September 2024 to 30th September 2024) is being submitted.

The Monthly Monitoring Report (MMR) explains the understanding of all activities to be carried out as per TORs of ME&IE consultants' assignment and their completion within the stipulated time frame. The activities include but are not limited to project closure activities, baseline consolidated and endline survey data validation, cleaning, analysis and interpretation of findings for preparation/ documentation of said reports, ICT assignments including monitoring of online data collection in the field, and development /

improvement of project's dashboard & updation/ development of website, etc. Consultants of the ICT Team also remained in contact with Clients' officials to enter data in the Dashboard and provided assistance when and where it was required by the client. All the activities of the current month complied with the four month 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 OF ME&IE CONSULTANTS OFFICES – SEPTEMBER 2024

An overview of the significant tasks accomplished, observed and assessed by the ME&IE consultants by all the ME&IE Consultants' offices under the supervision of National Office, Islamabad during the last month of the completing NPIWC-II project, September 2024.

3.2.1 Project Components' Implementation Status

The following Table shows the Project Components' Implementation Status from inception till June 2024.

Project Components Implementation Status till June 2024

Interventions	Punjab			KP			Balochistan			GB			AJ&K			ICT			National (Overall)		
	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)	Target (no.)	Achievements (no.)	Progress (%)
WCs	10,000	4,487	44.87	13,000	3,336	25.66	20,389	5,202	25.51	2,500	809	32.36	1,165	608	52.19	224	41	18.30	47,278	14,483	30.63
WSTs	3,000	1,021	34.03	5,000	1,236	24.72	5,507	2,499	45.38	825	328	39.76	600	479	79.83	0	0	0.00	14,932	5,563	37.26
LLs	9,500	6,112	64.34	600	50	8.33	1,500	34	2.27	5	0	0.00	5	0	0.00	0	0	0.00	11,610	6,196	53.37

3.2.2 Overall Field Progress:

ME & IE consultants have successfully covered, overall, more than 5% Sample Size of the targeted population in almost all zones that constituted at least 5% sample size in each district of all project's zones. This accomplishment underscores the diligent efforts of all teams in conducting thorough baseline-assessments, impact evaluations, and regular/ spot

checking monitoring activities. Consequent upon successfully covering the targeted percentage entrusted by the NPC office in respect of the Project's targeted population in all project zones, the project has laid a strong foundation for broader data collection and analysis in order to arrest the likely representative sample size of the targeted population.

Field visits by the ICT Field Team

From inception to date, the ME&IE Consultants ICT field team conducted baseline vis-a-vis impact surveys of more than **46** watercourses in AJK & ICT as well as baseline vis-a-vis impact surveys of more than **25** water storage tanks in AJK and **19** in four Districts of Potohar region of Punjab Zone.

AJK UNIT				
District	WC	WST	PLL	Overall
Bagh	2	3	0	5
Bhimber	9	2	0	11
Haveli	1	2	0	3
Jhelum	3	4	0	7
Kotli	2	2	0	4
Mirpur	8	1	0	9
Muzaffarabad	7	7	0	14
Neelum	4	0	0	4
Poonch	2	3	0	5
Sudhnoti	1	1	0	2
AJK Total	39	25	0	64
ICT UNIT				
District	WC	WST	PLL	Overall
ICT	7	0	0	7
ICT Total	7	0	0	7
POTOHAR REGION OF PUNJAB				
District	WC	WST	PLL	Overall
Attock	0	6	0	6
Chakwal	0	7	0	7
Jhelum	0	2	0	2
Rawalpindi	0	4	0	4
Potohar Region Total	0	19	0	19

Field visits by the Punjab Field Teams

From inception to the reporting month, the ME&IE Consultants' Punjab field team conducted baseline and impact surveys on a total of **250** watercourses. In addition, out of **80** WSTs of Punjab zone for Baseline and Impact surveys **61** visits were performed by Punjab field teams and **19** were visited by the ICT field team. Punjab field team conducted impact assessments of **306** PLL interventions.

PUNJAB ZONE				
District	WC	WST	PLL	Overall
Attock	0	6	0	6
Bahawalnagar	22	3	15	40
Bahawalpur	9	1	12	22
Bhakkar	11	5	10	26

PUNJAB ZONE				
District	WC	WST	PLL	Overall
Chakwal	0	7	0	7
Chiniot	3	1	15	19
Dera Ghazi Khan	9	3	8	20
Faisalabad	9	2	14	25
Gujranwala	7	1	12	20
Gujrat	6	2	6	14
Hafizabad	10	3	10	23
Jhang	5	2	15	22
Jhelum	0	2	0	2
Kasur	6	2	12	20
Khanewal	7	2	9	18
Khushab	8	2	8	18
Lahore	2	1	6	9
Layyah	8	1	16	25
Lodhran	15	1	8	24
Mandi Bahauddin	4	2	8	14
Mianwali	4	1	7	12
Multan	9	5	8	22
Muzaffargarh	6	2	12	20
Nankana Sahib	3	2	7	12
Narowal	1	0	7	8
Okara	15	1	7	23
Pakpattan	6	1	11	18
Rahim Yar Khan	18	4	14	36
Rajanpur	6	1	6	13
Rawalpindi	0	4	0	4
Sahiwal	8	1	8	17
Sargodha	8	2	6	16
Sheikhupura	8	2	7	17
Sialkot	5	1	5	11
Toba Tek Singh	6	3	9	18
Vehari	6	1	8	15
Punjab Total	250	80	306	636

Field visits by the KP Field Teams

From inception to date the KP field team of ME&IE Consultants conducted baseline vis-a-vis impact surveys of **205** watercourses in KP and **40** in GB. Moreover, the consultants had completed baseline vis-a-vis impact surveys of **79** water storage tanks in KP and **15** in GB. Impact assessment field visits of **05** PLL interventions were also carried out in KP.

KP ZONE				
District	WC	WST	PLL	Overall
Abbottabad	2	1	0	3
Bannu	5	1	0	6
Battagram	3	1	0	4
Buner	6	2	0	8
Charsadda	7	1	0	8

KP ZONE				
District	WC	WST	PLL	Overall
Chitral	6	1	0	7
Dera Ismail Khan	38	10	5	53
Hangu	3	0	0	3
Haripur	9	5	0	14
Karak	4	4	0	8
Khyber	2	2	0	4
Kohat	5	1	0	6
Lakki Marwat	6	2	0	8
Lower Dir	7	1	0	8
Lower Kohistan	1	0	0	1
Lower Mohmand	2	3	0	5
Malakand	6	2	0	8
Mansehra	15	4	0	19
Mardan	7	3	0	10
Nowshera	20	8	0	28
Peshawar	13	7	0	20
Shangla	3	2	0	5
Swabi	6	1	0	7
Swat	14	8	0	22
Tank	4	2	0	6
Torghar	2	0	0	2
Upper Dir	6	3	0	9
Upper Kohistan	1	1	0	2
Upper Mohmand	2	3	0	5
KP Total	205	79	5	289
GB UNIT				
District	WC	WST	PLL	Overall
Astore	2	1	0	3
Diamer	6	2	0	8
Ghanche	6	0	0	6
Ghizer	4	2	0	6
Gilgit	5	3	0	8
Hunza	2	1	0	3
Kharmang	2	1	0	3
Nagar	2	1	0	3
Shigar	4	2	0	6
Skardu	7	2	0	9
GB Total	40	15	0	55

BALOCHISTAN ZONE				
District	WC	WST	PLL	Overall
Awaran	8	4	0	12
Barkhan	3	3	0	6
Chaghi	4	3	0	7
Dera Bugti	5	2	0	7
Duki	2	2	0	4
Gwadar	2	1	0	3
Harnai	2	1	0	3
Jafarabad	0	0	4	4
Jaffarabad	7	1	0	8
Jhal Magsi	2	4	0	6
Kachi	5	10	0	15
Kalat	13	9	0	22
Kech	6	5	0	11
Kharan	4	2	0	6
Khuzdar	8	7	0	15
Killa Abdullah	5	3	0	8
Killa Saifullah	12	6	0	18
Kohlu	3	2	0	5
Lasbela	10	8	0	18
Loralai	17	7	0	24
Mastung	9	8	0	17
Musakhail	11	1	0	12
Musakhel	0	1	0	1
Nasirabad	9	6	0	15
Nushki	6	3	0	9
Panjgur	8	8	0	16
Pishin	10	9	0	19
Quetta	4	15	0	19
Sherani	4	2	0	6
Sibi	3	3	0	6
Sohbatpur	10	1	3	14
Surab	2	2	0	4
Washuk	1	1	0	2
Zhob	4	4	0	8
Ziarat	4	4	0	8
Balochistan Total	203	148	7	358

Field visits by the Balochistan Field Teams

From inception to the reporting month, the ME&IE Consultants of Balochistan field team conducted baseline vis-à-vis impact surveys of **203** watercourses. Moreover, completed baseline vis-a-vis impact surveys of **148** water storage tanks and carried out impact assessment surveys of **07** PLL interventions as well.

3.2.3 Post Field Activities

The activities were related to the data verification and cleaning of baseline and impact surveys, and data validation for WUA's Improvement of Water Courses and Construction of Water Storage Tank/Ponds for PMIS Dashboard.

1. Data Analysis

a. Descriptive Statistics

- **Calculated Averages and Totals:** Computed the averages for crop yields, income per acre, and water savings for both baseline and post-intervention phases.
- **Water Savings:** Estimated the water saved through watercourse improvements, WST construction, and laser levelling based on field data.

b. Comparison and Trend Analysis

- **Pre and Post-Intervention Comparisons:** To analyze changes in crop yields, cultivated areas, and water conveyance efficiency before and after interventions.
- **Income Impact:** To Evaluate the changes in gross and net incomes for the farmers after launching the interventions like watercourse improvements and WST construction.

c. Economic and Social Impact

- **Employment Impact:** To calculate the increase in farm labor man-days due to improved water availability and cropping intensities.
- **Crop Production Impact:** To analyze the total increase in crop production across different zones.

d. Zone-Wise Analysis

- **Zone-Specific Analysis:** Along with overall, the separate analysis for each region/zone (Punjab, KP, Balochistan) & Units (ICT, AJK & GB) for cultivated area, increases water savings and income growth would have also been conducted.

2. Creating Final Tables for the Report

a. Structure the Report Tables

- Tables prepared regarding Increase in Cultivated and Cropped Areas (Zone/Unit-wise breakdown) were worked out.
- Tables regarding Gross and Net Incomes Increases by Zone/ Unit (in Million Rupees) worked out.
- Tables regarding Water Savings (Acre-Feet) per Watercourse and WST, zone/unit-wise worked out.

- Tables regarding Number of Water Storage Tanks and their Economic Impact (Income and Crop Production) worked out.
- Tables regarding Precision Laser Land Leveler (PLL) Performance including total acres leveled and number of farmers/ beneficiaries worked out.

b. Visual Representation

- **Charts and Graphs:** Bar charts and line graphs to display trends in crop yields, income growth, and water savings created/ drawn.

3. Quality Assurance and Final Review

- **Cross-Validation:** Final check to ensure all data and findings match the analysis performed will be conducted
- **Client Feedback:** Share preliminary results with the client (Draft Report) for any feedback or clarifications before the final Report's submission.
- **Final Tables and Report Preparation:** Ensure all data result tables are aligned with the project's impact objectives and present the findings concisely.

The Baseline Survey Report (Consolidated) & Endline/ impact evaluation Survey Reports are under process of Quality Assurance and Final Review, and will be submitted in the first week of October 2024.

3.2.4 Coordination / Meetings with Stakeholders / Beneficiaries

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

A meeting with the Focal person Mr. Bahram Khan Agriculture Officer OFWM and the DTL Balochistan & FTI, Saleem Ahmad was held at the DG Agri (OFWM) office Quetta, on 10th September 2024 (as shown below in picture).



On Sep 23, 2024, a meeting was convened in DG Office, OFWM, Quetta with Asian Development Bank team for reviewing the impact of ME&IEC Project and Gender issues in the field. The participants were as follows:-

- Mehboob Ali Baloch DG Officer OFWM Quetta
- M Salman Farooqi Team Leader (ADB)
- M Afzal Tarar (NIWRDP)
- Muniza Bashir Tarar (Social & Gender Specialist)
- Dilbar Ali Buzdar SE (NDP)
- Karim Nawaz (Consultant)
- Qasim Sarfiraz (XEN NDP)
- Mr, Manzoor Ahmed, DTL Balochistan ME&IEC, NPIWC-II
- Mr. Saleem, FTI, ME&IEC, NPIWC-II.

3.3 SOCIAL & GENDER IMPACT REPORT – SEPTEMBER 2024

Empowering Women and Landless Farmers through NPIWC-II: Four-Year Impact Report

Executive Summary:

The four-year NPIWC-II aimed at to enhance agricultural productivity, improve livelihoods, and empower women and landless farmers through laser land leveling, water tanks, and other water management interventions. This report highlights the program's impact on women and landless farmers, citing specific examples and data.

Impact on Women:

1. Increased Access to Water: Women's workload reduced by 40% due to easy access to water for domestic and agricultural use (Source: Program beneficiary survey, 2022).
2. Improved Agricultural Productivity: Women's participation in agricultural decision-making increased by 30% due to enhanced agricultural productivity and income (Source: Agricultural productivity survey, 2022).
3. Economic Empowerment: Women's income increased by 25% through sales of surplus produce and livestock (Source: Income survey, 2022).
4. Enhanced Decision-Making: Women's participation in community decision-making processes increased by 35% due to increased confidence/ ownership and economic independence (Source: Community survey, 2022).

Impact on Landless Farmers:

1. Increased Access to Land: Landless farmers gained access to 20% more land for cultivation due to laser land leveling and water management interventions (Source: Land survey, 2022).
2. Improved Agricultural Productivity: Landless farmers' agricultural productivity increased by 28% due to enhanced water management and agricultural practices (Source: Agricultural productivity survey, 2022).
3. Economic Empowerment: Landless farmers' income increased by 22% through sales of surplus produce and livestock (Source: Income survey, 2022).
4. Enhanced Food Security: Landless farmers' food security improved due to increased access to land, water, and higher agricultural productivity (Source: Food security survey, 2022).

Case Studies:

1. Ms. X: A Beneficiary from District Y, increased her income by 50% through sales of surplus produce and livestock, and became a leader in her community.
2. Mr. Z: A Landless farmer from District W, gained access to 1 acre of land for cultivation and increased his income by 30%.

National Programme For Improvement Of Water Courses Phase-II: Women Empowerment And Way Forward

Programme Overview

The National Programme for Improvement of Water Courses-II aims at to improve the livelihoods of rural communities, particularly women, by enhancing water management and irrigation systems.

Women Empowerment Components

1. Capacity Building: Training for women on water management, irrigation, and good agricultural practices.
2. Decision-Making: Ensure women's participation in Water User Associations (WUAs) and decision-making processes.
3. Economic Empowerment: Support women's access to credit, markets, and entrepreneurship opportunities.
4. Social Mobilization: Raise awareness on gender equality and women's rights.

Key Strategies

1. Community-Led Total Sanitation (CLTS) approach.
2. Water User Associations (WUAs) strengthening.
3. Irrigation system rehabilitation and modernization.
4. Rainwater harvesting and groundwater recharge.
5. Climate-resilient agriculture practices.

Way Forward

Short-Term (0-12 months)

1. Conduct baseline surveys and needs assessments.
2. Establish women's groups and WUAs.
3. Provide training on water management and agriculture.
4. Develop and implement gender-sensitive policies.

Medium-Term (13-24 months)

1. Rehabilitate and modernize irrigation systems.
2. Implement CLTS approach.
3. Establish market linkages for women's lead produce.
4. Scale up successful initiatives.

Long-Term (25-36 months)

1. Ensure sustainability of WUAs and women's groups.
2. Enhance women's leadership and decision-making.
3. Mainstream gender-sensitive approaches.
4. Evaluate programme impact and scalability.

Key Performance Indicators (KPIs)

1. Number of women trained on water management and good agricultural practices.
2. Women's participation in WUAs and decision-making processes.
3. Increase in women's access to credit and markets.
4. Reduction in water-borne diseases awareness program.
5. Increase in agricultural productivity.

Budget Allocation: Recommendations

1. Capacity building and training (30%).
2. Infrastructure development (25%).

3. Social mobilization and awareness (20%).
4. Market development and linkages (15%).
5. Monitoring and evaluation (10%).

Partnerships

1. Government departments (water resources especially OFWM, agriculture, women development).
2. NGOs and CSOs.
3. Private sector (pertaining to irrigation equipment, agricultural inputs dealing public and private institutions).
4. International organizations (UNDP Women, FAO, etc.).

Challenges and Mitigation Strategies

1. Cultural and social barriers: Sensitization and awareness campaigns.
2. Limited access to credit: Partner with microfinance institutions.
3. Climate change: Implement climate-resilient agriculture practices.

By empowering women and improving water management, this programme can contribute to sustainable development, food security, and enhanced livelihoods for rural communities.

The impact assessment at Rajan Pur in July 2024 was a significant step towards understanding the needs of landless farmers in the region. During this visit, a gender specialist met with farmers in Dera Ghazi Khan, Multan, and Khushab to discuss how they may be included in the National Program for Improvement of Watercourses in Pakistan Phase-II.

Key Objectives of the Visit:

- Assessing the Impact: Evaluating the effectiveness of the NPIWC in improving the livelihoods of landless farmers.
- Inclusive Participation: Exploring ways to involve landless farmers in the decision-making process and implementation of the program.
- Addressing Gender Disparities: Identifying strategies to address the unique challenges faced by women farmers in accessing water management resources and fetch benefits from the programs.

Recommendations for Future Action:

- **Capacity Building:** Providing training and capacity-building programs for landless farmers, particularly women, to enhance their participation in the program.
- **Access to Credit:** Facilitating access to credit and financial services for landless farmers to support their agricultural endeavors.
- **Policy Reforms:** Advocating for policy reforms to ensure inclusive and equitable distribution of water resources.

By prioritizing the needs of landless farmers, especially women, the NPIWC can contribute to a more equitable and sustainable agriculture sector in Pakistan.

Meeting With DG OFWM Balochistan

The meeting with DG On-Farm Water Management on September 25, 2024, likely focused on strategies for reducing land leveling, enhancing water tanks, and improving water courses under the National Water Courses Improvement Programme from 2020 to 2024.

Key Discussion Points:

Laser Land Leveling: The discussion may have centered on the importance of precision land leveling to reduce water losses and improve irrigation efficiency. This could involve the use of LASER land levelers, which have been provided to farmers and service providers under the National Program for Improvement of Watercourses in Pakistan (Phase-II).

Water Tanks: The meeting might have explored ways to promote on-farm water storage, including the construction of water storage ponds to store excess canal and rainwater for supplemental irrigation.

Improvement of Water Courses: The participants likely discussed the need for regular maintenance, de-silting, and repair of breaches in water courses to prevent water losses. They may have also talked about the importance of community involvement in water course maintenance and the potential for technology, such as sensors, to detect leaks and blockages.



On Sep 23, 2024, a meeting was convened in DG, Office OFWM Quetta with Asian Development Bank team for the impact of ME&IEC Project and apprising Gender issues in the field. The participants were as follows:

- Mehboob Ali Baloch, DG Officer OFWM, Quetta
- M. Salman Farooqi, Team Leader (ADB)
- M. Afzal Tarar, (NIWRDP)
- Muniza Bashir Tarar, (Social & Gender Specialist)
- Dilbar Ali Buzdar, SE (NDP)
- Karim Nawaz, (Consultant)
- Qasim Sarfiraz, (XEN NDP)
- Mr, Manzoor Ahmed, DTL Balochistan ME&IEC, NPIWC-II
- Mr. Saleem, FTI, ME&IEC, NPIWC-II.



3.4 ICT TEAM ASSIGNMENTS

3.4.1 Implementation of MIS Dashboard

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

The progress of Interventions is live on the Dashboard application.

Punjab – WC Data – Summary					
Division	19-20	20-21	21-22	22-23	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-F**).

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	130	439	582	1151

Total **1151** Water Storage Ponds data have been received from Punjab zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-G**).

Punjab – PLL Data Summary					
Division	19-20	20-21	21-22	22-23	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-H**.

KP – WC Data Summary						
Division	19-20	20-21	21-22	22-23	23-24	Overall
Bajaur	3	18	23	17	12	73
Bannu	73	40	94	27	0	234
D.I. Khan	446	10	80	38	10	584
Hazara	88	62	141	76	10	377
Khyber	6	13	0	1	20	40
Kohat	98	40	57	28	20	243
Kurram	3	5	5	0	0	13
Malakand	178	174	474	92	95	1013
Mardan	105	64	88	26	38	321
Mohmand	4	40	16	30	0	90
N Waziristan	0	0	5	1	0	6
Orakzai	0	1	0	0	0	1
Peshawar	139	87	73	53	16	368
S Waziristan	5	10	14	7	0	36
Overall	1148	564	1070	396	221	3399

As of now, **3,399** watercourse datasets from the KP zone have been received, all of which are live on the GIS Dashboard. Of these, **3,330** watercourses have been lined, with work in progress on the remaining **54** at various stages, including 1st Milestone, 2nd Milestone, and after Work Order Issuance. Additionally, **15** watercourses are awaiting approval for Technical Sanction. These figures have been revised following data verification and rectification. (Detailed Summary attached as **Annex-I**).

KP – WST Data Summary						
Division	2019-20	2020-21	2021-22	2022-23	2023-24	Overall
Bajaur	1	9	6	1	0	17
Bannu	12	10	23	2	0	47
D.I. Khan	80	6	30	4	5	125
Hazara	29	44	75	20	2	170
Khyber	1	9	0	0	7	17
Kohat	27	17	32	14	0	90
Kurram	1	1	0	0	0	2
Malakand	74	95	187	22	18	396
Mardan	16	9	26	4	19	74
Mohmand	1	42	70	0	0	113
N Waziristan	0	8	7	0	0	15
Orakzai	0	2	0	0	0	2
Peshawar	36	26	62	19	16	159
S Waziristan	7	8	15	2	0	32
Overall	285	286	533	88	67	1259

A total of **1,259** Water Storage Tank submissions have been received. Of these, **1,253** have been completed, while work is still in progress on **4** tanks. Additionally, **5** Water Storage Tanks are pending at the Technical Sanction (TS) stage. These figures have been revised following data verification and rectification. Detailed Summary attached as **Annex-J**.

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

As of now, **50** PLLs have been delivered, with partial data received from the KP zone, all of which is available live on the GIS Dashboard. Detailed Summary attached as **Annex-K**.

Balochistan – WC Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Kalat	597	143	287	0	1027
Loralai	344	148	137	37	666
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	3	385
Overall	2147	694	1002	40	3883

Total **3,883** Watercourses data has been received from Balochistan zone of which **3,236** Watercourses has been lined, **253** Watercourses are pending at TS Stage and remaining 394 watercourses are under progress. Detailed Summary attached as **Annex-L**.

Note: The Watercourses data from Balochistan Zone was last updated on October 17, 2023. However, since then, there has been no further data input received from Balochistan Zone enumerators via the Android Application. There is still a significant amount of pending data on their end. That needs to be submitted promptly to address the backlog on the PMIS Dashboard.

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-M**.

Note: The Water Storage data from Balochistan Zone was last updated on October 24, 2023. However, since then, there has been no further data input received from Balochistan Zone's enumerators via the Android Application. There is still a significant amount of pending data on their end. That needs to be submitted promptly to address the backlog on the PMIS Dashboard.

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** PLLs have been delivered and partial data received from KP zone and available live on GIS Dashboard. Detailed Summary attached as **Annex-N**.

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-O**

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

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

AJK – WC Data Summary						
Division	19-20	20-21	21-22	22-23	23-24	Overall
MZD	30	84	53	29	50	246
Poonch	33	32	30	8	48	151
Mirpur	37	96	72	21	73	299
Overall	100	212	155	58	171	696

A total of **696** Watercourse data sets have been received from the AJK zone. Among these, **571** Watercourses have been lined, while **16** are currently pending at the TS & Work Order Stage. Additionally, there are **109** watercourses currently under progress. These figures have been revised following data verification and rectification. Detailed Summary attached as **Annex-Q**.

Note: AJK-Last Water Course received date: 19 August 2024

AJK – WST Data Summary						
Division	19-20	20-21	21-22	22-23	23-24	Overall
MZD	35	56	61	9	29	190
Poonch	13	41	62	34	92	242
Mirpur	2	15	31	6	46	100
Overall	50	112	154	49	167	532

A total of **532** Water Storage Tank data has been received from AJK zone of which **406** Water Storage Tank have been lined, **17** Water Storage Tanks are pending at TS Stage, **109** Water Storage Tanks are under progress. These figures have been revised following data verification and rectification. Detailed

Summary attached as **Annex-R**.

Note: AJK-Last WST received date: 09 August 2024

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

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

3.4.2 Data Rectification Meetings

The ICT team of the M&E consultants conducted a series of meetings across Punjab, KP, Balochistan, and AJK to address data discrepancies and shortages identified on the PMIS Dashboard. These meetings were held with the concerned Director Generals (DGs) and Deputy Directors (DDs) to ensure the timely communication and resolution of data issues. The discussions focused on rectifying the data in an organized and systematic manner, enabling the M&E teams to close data gaps on the Dashboard effectively and ensure accurate, up-to-date reporting for decision-making purposes.

3.4.3 M&E ICT Team Technical Support

The M&E ICT team maintains continuous communication with the Android Application amongst Enumerators across KP, AJK, and Balochistan, providing them with ongoing technical support to address issues related to data validation, rectification, and completion. This proactive approach ensures that any challenges faced by field enumerators are promptly resolved, enabling the smooth and seamless transition of data from the field to the live PMIS dashboard. The ICT team actively

monitors and supports the data flow to maintain real-time accuracy and integrity of the dashboard.

3.4.4 Server Maintenance Activities

The ICT team is responsible for overseeing server maintenance activities, focusing on enhancing security measures to mitigate potential threats, such as data breaches and unauthorized access. They are supposed to implement advanced security protocols and regularly update the system infrastructure to tackle emerging threats. The M&E ICT team is dedicated in providing technical support, whenever and wherever; it is needed, ensuring the system remains secure and operational while facilitating the efficient management of field data for the PMIS dashboard.

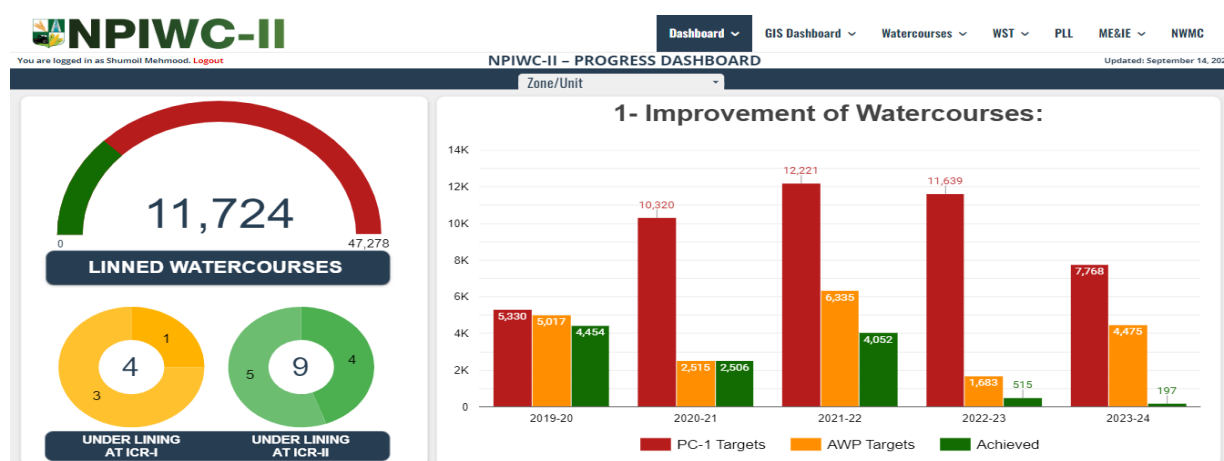
3.4.5 Refresher Training Workshops

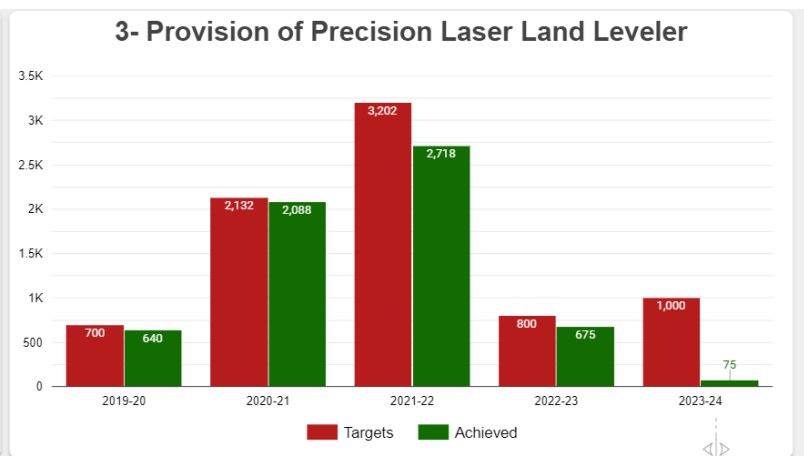
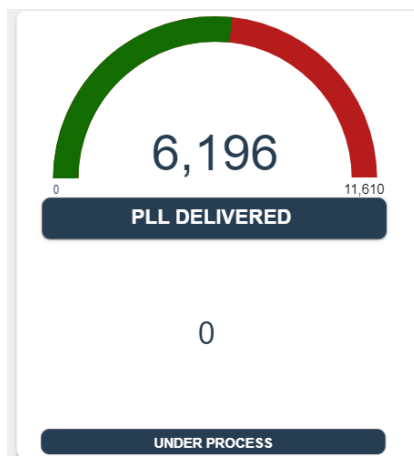
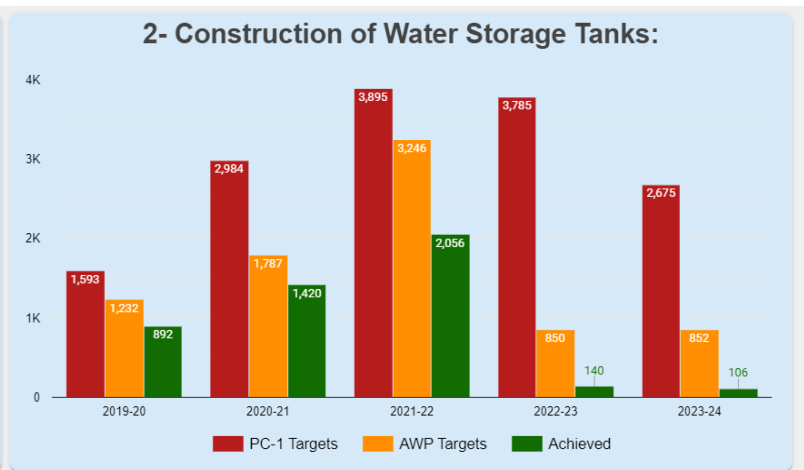
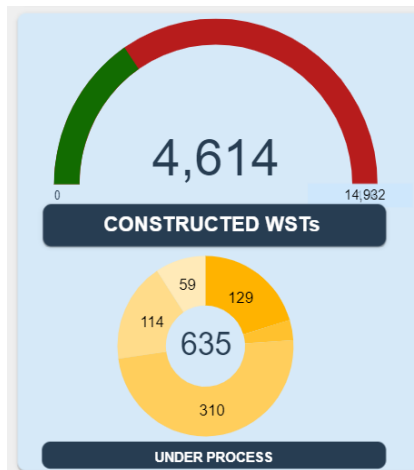
The M&E ICT team has conducted more than 16 training/refresher training workshops since inception till date. The ICT team continues to provide support and technical assistance to all enumerators across all project territories and is prepared to offer additional refresher training sessions as needed or upon request.

3.4.6 On-Going Data Validation & Cleaning

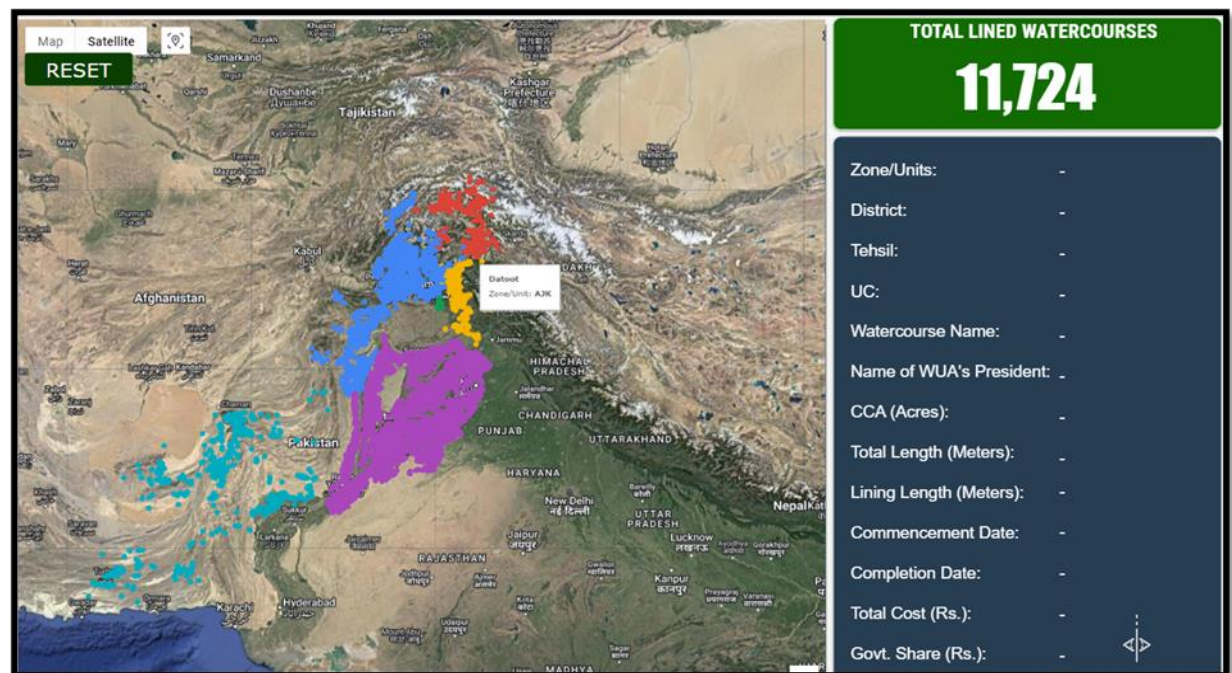
The data submission process is ongoing and will continue until the project concludes. Zonal Field Staff in KP and AJK are consistently entering data through a customized Android application, developed by the ICT team of ME&IE consultants. Meanwhile, the ICT team has remained actively involved in cleaning and validating the incoming data. Any identified errors are immediately communicated to the respective Zonal DDs/ADs for prompt rectification.

NATIONAL PMIS DASHBOARD PROGRESS

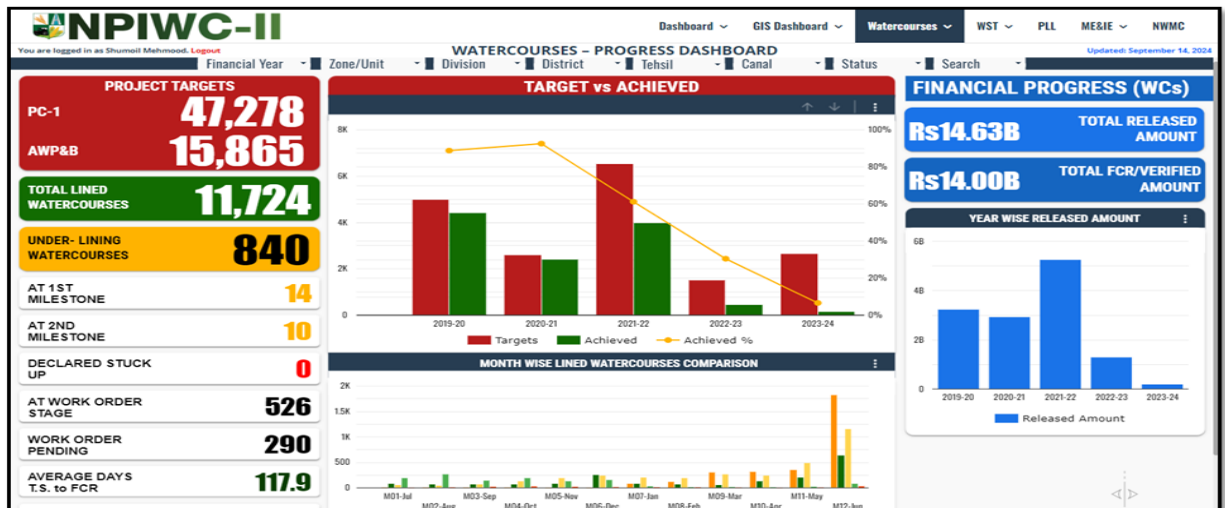




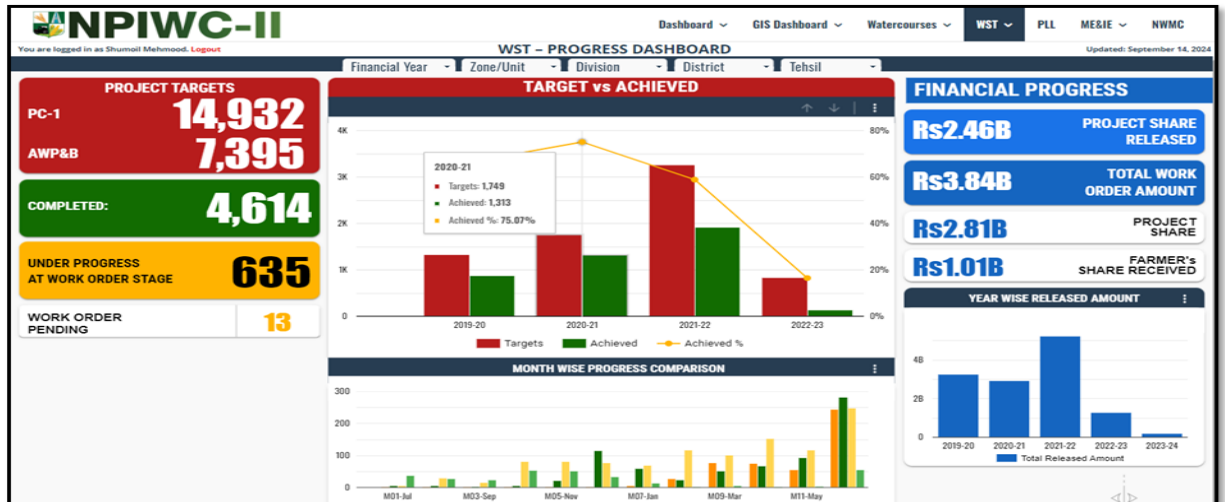
GIS Component



Watercourses Component



Water Storage Tank Component



Precision Laser Land Leveler (PLL)



CHAPTER 4: FOUR MONTHS WORK PLAN- ACTIVITIES (JULY 2024 TO OCTOBER 2024)

The ME&IE Consultants' activities initiating during the first four months of the financial year, 2024-2025 (1st July 2024 to 31th October 2024) are listed below: A tentative work plan of four months for this period is given as **Annex-A**.

4.1 PROJECT CLOSURE ACTIVITIES (ADMINISTRATIVE)

- Downsizing of ME&IE Consultants staff & approval sought of the retained Staff
- Preparing Remuneration & Reimbursable invoices
- Handing over the project assets to the client

4.2 POST FIELD ACTIVITIES

- Data Validation Process
- Data Cleaning and Preparation
- Data Analysis
- Creating Final Tables for the Report

4.3 ICT ASSIGNMENT

- Improvement/Updation 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 entry, Data cleaning, Data processing & data analysis.

4.4 COORDINATION

- Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- Meeting of DTLs with the 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)
- Baseline Survey Report
- Endline Survey Report
- Special Reports
- Draft Assignment Completion Report

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 (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 (APR-JUN 2021)	Submitted
Annual Monitoring & Evaluation Report (1 st)	Submitted
Monthly Monitoring Report-Seventh (JULY)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Baseline Survey Report-I	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report (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 year 2021 (OCTOBER – DECEMBER 2021)	Submitted
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	Submitted
Monthly Monitoring Report-Fourteenth (FEBRUARY 2022)	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	Submitted
Quarterly Monitoring & Evaluation Report- year 2022 (JANUARY – MARCH 2022)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	Submitted

Document	Status
Monthly Monitoring Report-Seventeenth (MAY 2022)	Submitted
Monthly Monitoring Report-Eighteenth (JUNE 2022)	Submitted
Quarterly Monitoring & Evaluation Report- 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- 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- 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
Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (Jul – Sep 2023)	Submitted
Monthly Monitoring Report-Thirty Fourth (October 2023)	Submitted
Monthly Monitoring Report-Thirty	Submitted

Document	Status
Fifth (November 2023)	
Monthly Monitoring Report-Thirty Sixth (December 2023)	Submitted
Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2023-24 (Oct – Dec 2023)	Submitted
Monthly Monitoring Report-Thirty Seventh (January 2024)	Submitted
Monthly Monitoring Report-Thirty Eighth (February 2024)	Submitted
Monthly Monitoring Report-Thirty Ninth (March 2024)	Submitted
Quarterly Monitoring & Evaluation Report- year 2023-24 (Jan – Mar 2024)	Submitted
Monthly Monitoring Report-Fortieth (April 2024)	Submitted
Monthly Monitoring Report-Forty First (May 2024)	Submitted
Monthly Monitoring Report-Forty Second (June 2024)	Submitted
Quarterly Monitoring & Evaluation Report- year 2023-24 (Apr – Jun 2024)	Submitted
Monthly Monitoring Report-Forty Third (July 2024)	Submitted
Monthly Monitoring Report-Forty fourth (August 2024)	Submitted
Monthly Monitoring Report-Forty fifth (September 2024)	Report in hand
Quarterly Monitoring & Evaluation Report- year 2024-25 (Jul – Sep 2024)	Will be submitted on stipulated time
Baseline Survey Report - II	Submitted
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
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	Submitted

Document	Status
Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard.	
5) Survey Methodology & Questionnaires for Baseline Survey Phase-II	
6) Baseline-End Line Manual Survey Manual	
7) Android Application PMIS Dashboard Manual	
8) Survey Manual on MTs (Updated)	
9) Water Saving Through NPIWC-II Project Interventions	
10) Special Report on Monitoring and Impact Evaluation of Precision (Laser) Land Leveling	
11) Monitoring, Evaluation, and Impact Analysis of The Project "NPIWC-II".	

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

4.6 MATRIX OF RESPONSIBILITIES

The Matrix of Responsibilities is placed in **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.
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments (OFWM) & NWMCs (NESPAK) till to date.
- Irregularity in the fund releases is also one of the key difficulties in the completion of the required project assignments/tasks, on time.

ANNEXES A to T

ANNEXURE A: TENTATIVE WORK PLAN FOR THE FOUR MONTHS (JUL-OCT 2024)

TENTATIVE WORK PLANNED FOR THE FOUR MONTHS (July 2024 To October 2024)																	Legend	
																	Activity starts	↓
																	Activity Ends	↓
																	Activity Span	---
No.	ACTIVITIES	4 Months-Year 2024 (Weeks)																
		July				Aug				Sep				Oct				
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	
1	Project Closure Activities (Administrative)																	
	1.1 Downsizing of ME&IE Consultants staff & approval of retained Staff		↓															
	1.2 Preparing Remuneration & Reimbursable invoices																	
	1.3 Handing over the project assets to the client																	↓
2	Post Field Activities																	
	2.1 Data Validation Process					↓												
	2.2 Data Cleaning and Preparation		↓						↓									
	2.3 Data Analysis							↓				↓						
	2.4 Creating Final Tables for the Report									↓			↓					
3	ICT Assignment																	
	3.1 Improvement/Updation 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 entry, Data cleaning, Data processing & data analysis.																	
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 (Jul-Sep 2024)													↓	↓			
	5.3 Baseline Survey Report													↓	↓			
	5.4 Endline Survey Report													↓	↓			
	5.5 Special Reports													↓	↓			
	5.6 Draft Assignment Completion Report															↓		

ANNEXURE B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

LEGEND	
●	Primery Responsibility
○	Secndry Responsibility
○	Assistance

SR. NO.	DELIVERABLE / ACTIVITIES	NPC-FPMU	Agriculture Dept. (CEM)	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 cost sharing basis: 40% farmers in terms of labor, and	i. Establishment of 47,278 Water users' associations (WUAs); ii. Registration of	i. 47,278 WCAs established; ii. 47,278 WCAs registered; iii. 47,278 watercourses	i. Conveyance losses for improved watercourses decreased by about 15	i. Increase in cropping intensity on improved watercourses by 5-24%;	i. Increase in farm income; ii. Increase in employment for farm	i. The water flow measurements will be carried out at before

60% funded by project.	<p>47,278 WUAs;</p> <p>iii. Improvement and realignment of earthen section of 47,278 watercourses;</p> <p>iv. Lining of up to 50% length of 47,278 watercourses either by:</p> <p>v. Precast concrete parabolic lining (PCPL) segments, or</p> <p>vi. Rectangular brick masonry, or any other method as approved by the project</p>	improved and lined;	<p>percentage points.</p> <p>ii. 1.654 million households benefited from the activity;</p> <p>iii. 11.347 million acres served with improved watercourses</p>	<p>ii. Increase in crop yields.</p> <p>iii. Increase in irrigated area</p> <p>iv. Increase in agriculture output per unit of water by about 37%</p>	<p>labor;</p> <p>iii. Reduction in poverty;</p> <p>iv. Enhanced food security for the country.</p>	<p>and after watercourse improvement on 2-5% sample basis;</p> <p>ii. Agriculture survey before and after watercourse improvement on 2-5% sample basis;</p> <p>iii. The survey will determine:</p> <p>iv. Cropping pattern before and after the improvement;</p> <p>v. Cropping intensities before and after improvement;</p> <ul style="list-style-type: none"> • Before and after crop yields; • Before and
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							after 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 tank with his/her own	i. 14,932 constructed WSTs ii. 14,932 WSTs operated 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

		funds and then received subsidy at 40% on issuance of FCR					<p>impact surveys in case of watercourses will also be used for WSTs</p> <p>v. Same data analysis will be carried out here as in case of watercourses.</p>
C4: Provision of Land Leveling Units	<p>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.</p>	<p>i. 11,610 laser units provided to farmers / service providers;</p> <p>ii. Farmers trained in using the units.</p>	<p>i. 11,610 farmers / service providers received PLL units;</p> <p>ii. Farmers / service providers received training in using the units.</p>	<p>i. Land leveled on Farmers' / service providers' farms;</p> <p>vi. Land leveled on fellow farmers on rent;</p> <p>vii. Total 3.483million acres leveled by 11,610 units.</p>	<p>i. Water application efficiency increased at field level;</p> <p>viii. Even germination of seed.</p> <p>ix. Field application losses reduced by 10 percentage points</p> <p>x. Water productivity increased by 24%</p>	<p>i. Increased area under irrigated crops;</p> <p>ii. Enhanced crop yields</p> <p>iii. Increased farm income</p>	<p>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</p>

							<p>sample surveys.</p> <p>xi. 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery</p> <p>xii. The unit will be verified</p> <p>xiii. Area treated during the year will be collected</p> <p>xiv. Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</p>
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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	End line 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: ECOLOGICAL ZONE WISE ACHIEVEMENTS OF M&E CONSULTANT OF VARIOUS INTERVENTIONS IN PUNJAB ZONE

Ecological Zone Wise Achievement of Watercourses by ME&IE Consultants Till 30-06-2024					
Ecological zone	Districts	W.C Completed By OFWM till 30-06-2024	Sample Size 5% ME&IE Consultants	Achievement of ME&IE Consultants	Remaining Part
Partial Irrigated Barani Zone	Bhakkar	183	9	11	-2
	Mianwali	146	7	4	3
Sub Total		329	16	15	1
Irrigated (Rice Zone)	Gujranwala	101	5	7	-2
	Hafizabad	85	4	10	-6
	Gujrat	35	2	6	-4
	Narowal	16	1	1	0
	Sialkot	84	4	5	-1
	Mandi Bahu Din	79	4	4	0
	Lahore	23	1	2	-1
	Kasur	83	4	6	-2
	Sheikhupura	99	5	8	-3
	Nankana Sahib	50	3	3	0
Sub Total		655	33	52	-19
Irrigated (Mixed Zone)	Sahiwal	145	7	8	-1
	Okara	136	7	15	-8
	Pakpatan	121	6	6	0
	Faisalabad	130	7	9	-2
	Jhang	99	5	5	0
	Chiniot	34	2	3	-1
	Toba Tek Singh	124	6	6	0
	khushab	80	4	8	-4
	Sargodha	146	7	8	-1
Sub Total		1015	51	68	-17
Irrigated (Cotton Zone)	Multan	153	8	9	-1
	DG Khan	118	6	9	-3
	Bahawalpur	154	8	9	-1
	Bahawalnagar	220	11	22	-11
	Rahim Yar Khan	331	17	18	-1
	Lodhran	154	8	15	-7
	khanewal	123	6	7	-1
	Rajanpur	119	6	6	0
	Muzaffargarh	133	7	6	1
	Layyah	126	6	8	-2
	Vehari	132	7	6	1
Sub Total		1763	88	115	-27
Grand Total		3762	189	250	-61
Updated Figure provided by Punjab OFWM Department (Completed WC till 30-06-2024)		4063	203	250	-47

Ecological Zone Wise Achievement of WSTs by ME&IE Consultants Till 30-06-2024					
Ecological zone	Districts	W.S.T Completed By OFWM till 30-06-2023	Sample Size 5% ME&IE Consultants	Achievement of ME&IE Consultants	Remaining Balance
Barani	Rawalpindi	71	4	4	0
	Attock	79	4	6	-2
	Jehlum	63	3	2	1
	Chakwal	155	8	7	1
Sub Total		368	18	19	-1
Partial Irrigated Barani Zone	Bhakkar	19	1	5	-4
	Mianwali	3	0	1	-1
Sub Total		22	1	6	-5
Irrigated (Rice Zone)	Gujranwala	1	0	1	-1
	Hafizabad	13	1	3	-2
	Gujrat	27	1	2	-1
	Narowal	0	0		0
	Sialkot	4	0	1	-1
	Mandi Bahu Din	2	0	2	-2
	Lahore	2	0	1	-1
	Kasur	7	0	2	-2
	Sheikhupura	2	0	2	-2
	Nankana Sahib	3	0	2	-2
Sub Total		61	3	16	-13
Irrigated (Mixed Zone)	Sahiwal	5	0	1	-1
	Okara	19	1	1	0
	Pakpattan	15	1	1	0
	Faisalabad	35	2	2	0
	Jhang	31	2	2	0
	Chiniot	8	0	1	-1
	Toba Tek Singh	55	3	3	0
	khushab	28	1	2	-1
	Sargodha	35	2	2	0
Sub Total		231	12	15	-3
Irrigated (Cotton Zone)	Multan	17	1	5	-4
	DG Khan	33	2	3	-1
	Bahawalpur	42	2	1	1
	Bahawalnagar	51	3	3	0
	Rahim Yar Khan	67	3	4	-1
	Lodhran	14	1	1	0
	khanewal	22	1	2	-1
	Rajanpur	10	1	1	-1
	Muzaffargarh	21	1	2	-1
	Layyah	18	1	1	0
	Vehari	14	1	1	0
Sub Total		309	15	24	-9
Grand Total		991	50	80	-30

Ecological Zone Wise Achievement of LLL Units by ME&IE Consultants Till 30-06-2024					
Ecological zone	Districts	Total No of Laser Land Levelling units Delivered By OFWM till 30-06-2023	Sample Size 5% ME&IE Consultants	Achievement of ME&IE Cosultants	Remaining Balance
Partial Irrigated Barani Zone	Bhakkar	191	10	10	0
	Mianwali	146	7	7	0
	Sub Total	337	17	17	0
Irrigated (Rice Zone)	Gujranwala	235	12	12	0
	Hafizabad	188	9	10	-1
	Gujrat	115	6	6	0
	Narowal	139	7	7	0
	Sialkot	196	10	5	5
	Mandi Bahu Din	163	8	8	0
	Lahore	97	5	6	-1
	Kasur	240	12	12	0
	Sheikhupura	228	11	7	4
	Nankana Sahib	140	7	7	0
Sub Total		1741	87	80	7
Irrigated (Mixed Zone)	Sahiwal	208	10	8	2
	Okara	203	10	7	3
	Pakpatan	180	9	11	-2
	Faisalabad	275	14	14	0
	Jhang	253	13	15	-2
	Chiniot	159	8	15	-7
	Toba Tek Singh	206	10	9	1
	khushab	118	6	8	-2
	Sargodha	219	11	6	5
Sub Total		1821	91	93	-2
Irrigated (Cotton Zone)	Multan	139	7	8	-1
	khanewal	187	9	9	0
	Vehari	199	10	8	2
	Lodhran	149	7	8	-1
	Bahawalpur	257	13	12	1
	Bahawalnagar	282	14	15	-1
	Rahim Yar Khan	264	13	14	-1
	DG Khan	123	6	8	-2
	Rajanpur	123	6	6	0
	Muzaffargarh	235	12	12	0
	Layyah	166	8	16	-8
Sub Total		2124	106	116	-10
Grand Total		6023	301	306	-5

ANNEXURE F: 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	Rajapur	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 G: 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 H: 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 I: KP - WATERCOURSE DATA SUBMISSION – SUMMARY

Division	District	Completed	Under Progress			Pending	Overall
			1st Milestone	2nd Milestone	Work Order Issued	TS Pending	
Bajaur	Bajaur	73	0	0	0	0	73
Bajaur Total		73	0	0	0	0	73
Bannu	Bannu	107	0	0	0	0	107
Bannu	Lakki Marwat	122	0	0	0	0	122
Bannu Total		229	0	0	0	0	229
D.I. Khan	D.I. Khan	503	3	0	0	1	507
D.I. Khan	Tank	77	0	0	0	0	77
D.I. Khan Total		580	3	0	0	1	584
Hazara	Abbottabad	34	0	0	0	0	34
Hazara	Battagram	49	0	0	0	0	49
Hazara	Haripur	74	0	0	0	0	74
Hazara	Kolai Pallas	2	0	0	0	0	2
Hazara	Lower Kohistan	20	0	0	0	0	20
Hazara	Mansehra	138	0	5	0	0	143
Hazara	Torghar	38	0	0	0	0	38
Hazara	Upper Kohistan	17	0	0	0	0	17
Hazara Total		372	0	5	0	0	377
Khyber	Khyber	28	0	0	12	0	40
Khyber Total		28	0	0	12	0	40
Kohat	Hangu	67	0	0	0	0	67
Kohat	Karak	84	0	0	0	0	84
Kohat	Kohat	92	0	0	0	0	92
Kohat Total		243	0	0	0	0	243
Kurram	Kurram	13	0	0	0	0	13
Kurram Total		13	0	0	0	0	13
Malakand	Buner	114	0	0	0	0	114
Malakand	Chitral	118	4	1	0	5	128
Malakand	Lower Dir	145	1	0	4	0	150
Malakand	Malakand	106	0	0	0	0	106
Malakand	Shangla	58	0	0	0	0	58
Malakand	Swat	300	1	1	17	0	319
Malakand	Upper Dir	138	0	0	0	0	138
Malakand Total		979	6	2	21	5	1013
Mardan	Mardan	152	0	0	0	9	161
Mardan	Swabi	160	0	0	0	0	160
Mardan Total		312	0	0	0	9	321
Mohmand	Mohmand	90	0	0	0	0	90
Mohmand Total		90	0	0	0	0	90
North Waziristan	North Waziristan	8	0	3	0	0	11
North Waziristan Total		8	0	3	0	0	11
Orakzai	Orakzai	1	0	0	0	0	1
Orakzai Total		1	0	0	0	0	1
Peshawar	Charsadda	152	1	0	1	0	154
Peshawar	Nowshera	136	0	0	0	0	136
Peshawar	Peshawar	78	0	0	0	0	78
Peshawar Total		366	1	0	1	0	368
S.Waziristan	S.Waziristan	36	0	0	0	0	36
S.Waziristan Total		36	0	0	0	0	36
Overall		3330	10	10	34	15	3399

ANNEXURE J: KP - WST DATA SUBMISSION – SUMMARY

Division	District	Completed	Under Progress		Pending	Overall
			2nd Milestone	Work Order Issued	TS Pending	
Bajaur	Bajaur	17	0	0	0	17
Bajaur Total		17	0	0	0	17
Bannu	Bannu	12	0	0	0	12
Bannu	Lakki Marwat	35	0	0	0	35
Bannu Total		47	0	0	0	47
D.I. Khan	D.I. Khan	89	0	0	1	90
D.I. Khan	Tank	35	0	0	0	35
D.I. Khan Total		124	0	0	1	125
Hazara	Abbottabad	21	0	0	0	21
Hazara	Battagram	29	0	0	0	29
Hazara	Haripur	40	0	0	0	40
Hazara	Kolai Pallas	4	0	0	0	4
Hazara	Lower Kohistan	3	0	0	0	3
Hazara	Mansehra	45	3	0	0	48
Hazara	Torghar	14	0	0	0	14
Hazara	Upper Kohistan	11	0	0	0	11
Hazara Total		167	3	0	0	170
Khyber	Khyber	17	0	0	0	17
Khyber Total		17	0	0	0	17
Kohat	Hangu	12	0	0	0	12
Kohat	Karak	73	0	0	0	73
Kohat	Kohat	5	0	0	0	5
Kohat Total		90	0	0	0	90
Kurram	Kurram	2	0	0	0	2
Kurram Total		2	0	0	0	2
Malakand	Buner	44	0	0	0	44
Malakand	Chitral	22	0	0	0	22
Malakand	Lower Dir	41	0	0	0	41
Malakand	Malakand	24	0	0	0	24
Malakand	Shangla	40	0	0	0	40
Malakand	Swat	171	0	0	0	171
Malakand	Upper Dir	54	0	0	0	54
Malakand Total		396	0	0	0	396
Mardan	Mardan	34	0	0	1	35
Mardan	Swabi	39	0	0	0	39
Mardan Total		73	0	0	1	74
Mohmand	Mohmand	113	0	0	0	113
Mohmand Total		113	0	0	0	113
North Waziristan	North Waziristan	15	0	0	0	15
North Waziristan Total		15	0	0	0	15
Orakzai	Orakzai	2	0	0	0	2
Orakzai Total		2	0	0	0	2
Peshawar	Charsadda	13	0	0	0	13
Peshawar	Nowshera	88	0	1	0	89
Peshawar	Peshawar	57	0	0	0	57
Peshawar Total		158	0	1	0	159
S.Waziristan	S.Waziristan	32	0	0	0	32
S.Waziristan Total		32	0	0	0	32
Overall		1253	3	1	2	1259

ANNEXURE K: 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 L: 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	191	0	0	6	1	198
Kalat	Surab	0	0	0	19	23	42
Kalat Total		941	0	0	60	26	1027
Loralai	Barkhan	64	0	0	0	0	64
Loralai	Duki	0	0	0	43	0	43
Loralai	Loralai	335	0	0	0	5	340
Loralai	Musakhail	187	0	0	0	32	219
Loralai Total		586	0	0	43	37	666
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	4	0	0	97	1	102
Nasirabad	Nasirabad	55	0	0	86	28	169
Nasirabad	Sohbatpur	79	0	0	0	0	79
Nasirabad Total		306	0	0	183	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	4	0	0	61	36	101
Rakhshan	Washuk	18	0	0	0	2	20
Rakhshan Total		125	0	0	63	78	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	18	69
Zhob	Zhob	80	0	0	1	0	81
Zhob Total		366	0	0	1	18	385
Overall		3236	0	0	394	253	3883

ANNEXURE M: 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 N: 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 O: 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 P: 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 Q: AJK- WATERCOURSES DATA SUBMISSIONS – SUMMARY

Division	District	Completed	Under Progress		Pending		Overall
			1st Milestone	Work Order Issued	TS Pending	Work Order Pending	
Muzaffarad	MZD	103	0	13	7	0	123
	Jhelum	32	0	10	0	1	43
	Neelum	72	1	7	0	0	80
MZD Total		207	1	30	7	1	246
Poonch	Poonch	48	1	8	0	0	57
	Bagh	31	0	7	0	0	38
	Haveli	10	1	2	0	0	13
	Sudhnoti	24	1	16	0	2	43
Poonch Total		113	3	33	0	2	151
Mirpur	Mirpur	84	0	2	0	1	87
	Bhimber	125	0	32	0	0	157
	Kotli	42	0	8	0	5	55
Mirpur Total		251	0	42	0	6	299
Overall		571	4	105	7	9	696

ANNEXURE R: 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	25	0	0	0	2	0	27
	Neelum	0	0	0	1	1	0	2
MZD Total		169	1	0	17	3	0	190
Poonch	Poonch	64	1	1	7	0	0	73
	Bagh	57	1	0	21	0	0	79
	Haveli	29	0	0	5	2	0	36
	Sudhnoti	25	1	0	28	0	0	54
Poonch Total		175	3	1	61	2	0	242
Mirpur	Mirpur	14	0	0	1	0	0	15
	Bhimber	12	0	0	8	0	0	20
	Kotli	36	0	0	17	0	12	65
Mirpur Total		62	0	0	26	0	12	100
Overall		406	4	1	104	5	12	532

ANNEXURE S: 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

ANNEXURE T: DISTRICT-WISE PROGRESS OF DASHBOARD IN BALOCHISTAN

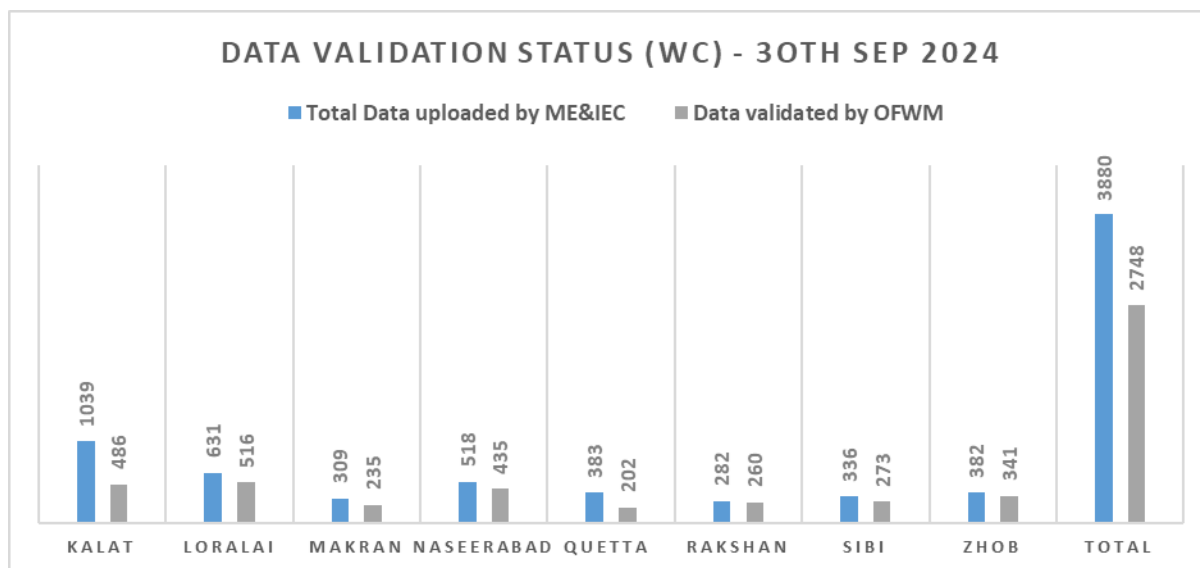
District-wise Progress of Dashboard, Balochistan (Watercourses)

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
Total (%)		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
Total (%)		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
Total (%)		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
Total (%)		69%		95%		95%		84%	
Quetta	Killa Abdullah	106	0	2	0	2	0	110	0
Quetta	Pishin	99	97	39	2	52	52	190	151
Quetta	Quetta	41	25	10		33	26	84	51
Total		246	122	51	2	87	78	384	202
Total (%)		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
Total (%)		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
Total (%)		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
Total (%)		85%		96%		96%		89%	
GRAND TOTAL		2165	1318	695	490	1020	939	3880	2747
Total (%)		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
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)

