



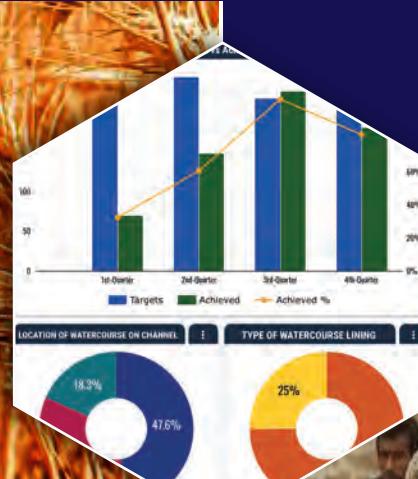
FEDERAL PROJECT MANAGEMENT UNIT  
FEDERAL WATER MANAGEMENT CELL  
MINISTRY OF NATIONAL  
FOOD SECURITY & RESEARCH  
ISLAMABAD - PAKISTAN

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

MONITORING, EVALUATION  
AND IMPACT EVALUATION  
CONSULTANTS

### MONTHLY MONITORING REPORT

JULY 2021





**Federal Project Management Unit (FPMU)  
Federal Water Management Cell (FWMC)  
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  
JULY 2021**

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## ACRONYMS

ADA	Assistant Director Agriculture
AES	Agriculture Extension Services
AF	Acre-Feet
AJK	Azad Jammu & Kashmir
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
FWMC	Federal Water Management Cell
GAP	Gender Action Plan
GB	Gilgit Baltistan
G3EC	G3 Engineering Consultants
GIS	Geographic Information System
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Interim Completion Report
ICT	Islamabad Capital Territory
IRR	Internal Rate of Return
ICT	Information & Communication Technology
JV	Joint Venture
KP	Khyber Pakhtunkhwa
LLL	Laser Land Leveler
LPS	Liter Per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring, Evaluation and Impact Evaluation
MIS	Management Information System
MNFSR	Ministry of National Food Security and Research
MMR	Monthly Monitoring Report
MT	Monitoring Template
MTE	Mid-Term Evaluation
NESPAK	National Engineering Services Pakistan

NPC	National Project Coordinator
NPIWC	National Program for Improvement of Watercourses
NPV	Net Present Value
NWMC	National Water Management Consultants
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 report in hand, "Monthly Monitoring Report for the month of July 2021" is comprising of six chapters.

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

The NPIWC-II comprises of four components to be implemented in Punjab, KP, Balochistan, GB, AJK, 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** describes Scope of Work of the ME&IE Consultants for the project. Since the ME&IE Consultants are going to monitor implementation of all criteria set, procedures defined and timeline agreed for implementation of various components, all these are reproduced in this report as ready reference to devise / design M&E strategy, methodology, procedures for monitoring and impact assessments of the project interventions.

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

**Chapter-3** covers the details about the Monthly Monitoring Report. This Seventh (7<sup>th</sup>) Monthly Monitoring Report (MMR) covers the period from July 01, 2021 to July 31, 2021.

**Chapter-4** of this report covers the activities completed during the reporting period are summarized below:

- Meetings and trainings
- Training of Measurement of water flow-Pygmy current meter
- Baseline survey field visit
- Data entry, Data cleaning, Data processing & data Analysis
- Regular Monitoring
- Development of web site of NPIWC-II
- Data collection of interventions in MIS/GIS database
- Meeting of DTLs with respective DTL of NWMC
- Deliverables

**Chapter-5** of this report covers the details of ME&IE Consultants' activities initiated during the Third Quarter (July 1, 2021 to September 30, 2021) are listed below.

- Field Activities
- ICT Assignment
- Coordination
- Deliverables

Time span detail is mentioned in the Tentative Work Plan. **Annex-A**.

**Chapter-6:** of this MMR describes issues / problems faced by the consultants during the reporting period of the assignment.

Table:-ES 1: Compliance Status of Tentative Work Plan (1<sup>st</sup> July to 30<sup>th</sup> September 2021)

No.	Activities Planned for the Reporting Quarter		Status
<b>1</b>	<b>Pre-Field Activities:</b>		
1.1	Training of Field Teams for Monitoring of Project Interventions		Complied
<b>2</b>	<b>Field Activities:</b>		
2.1	Regular Monitoring of Project Interventions		In progress
2.2	Data collection from OFWM Department/NWMC during Regular monitoring of Interventions		In progress
2.2	Baseline survey field visit		Complied
2.3	Data entry, Data cleaning, Data processing & data Analysis		Under completion
2.4	Preparation of Draft Baseline Survey Report		Under completion
<b>3</b>	<b>ICT Assignment:</b>		
3.1	Development of Website of NPIWC-II		Complied/Refinement under process
3.2	Development of Android based Mobile Application		Complied
3.3	Testing of Monitoring tools on Android based system		Complied
3.4	Data collection of interventions in MIS/GIS database		Complied
3.5	Designing of dashboard of Project Interventions		Complied/Implementation under process
<b>4</b>	<b>Coordination</b>		
4.1	Meeting of DTLs with respective DTL of NWMC		Meetings conducted on regular basis
<b>5</b>	<b>Deliverables:</b>		
5.1	Monthly Monitoring Report (MMRs)	1 <sup>st</sup> to 6 <sup>th</sup> MMR (Jan 2021 – June 2021)	Submitted
		7 <sup>th</sup> MMR (Jul 2021)	To be submitted on Stipulated time
5.2	Quarterly Monitoring & Evaluation Reports (QM&ERs)	1 <sup>st</sup> QM&ER (Jan-Mar 2021) & 2 <sup>nd</sup> QM&ER (Apr-Jun 2021)	Submitted
		3rd QM&ER (Jul-Sept 2021)	Will be submitted on Stipulated time
5.3	Baseline Survey Report	Under completion	

## CHAPTER-1: INTRODUCTION

### 1.1 PROJECT PROFILE

<b>Project Name</b>	National Program for Improvement of Watercourses in Pakistan Phase-II ( <b>NPIWC-II</b> )
<b>Project Areas</b>	Punjab, KP, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)
<b>Sponsoring Agency</b>	Ministry of National Food Security & Research
<b>Executing Agencies (EAs)</b>	<ol style="list-style-type: none"> <li>1. Federal Project Management Unit (FPMU),</li> <li>2. DGA OFWM Punjab</li> <li>3. DGA OFWM KP</li> <li>4. DGA OFWM Balochistan</li> <li>5. Director Irrigation and Small Dams, AJ&amp;K</li> <li>6. Director WM, GB</li> <li>7. Director Agriculture Extension Services (AES) ICT</li> </ol>
<b>Project Period</b>	5 Year (2019-2024)
<b>Total Project Cost</b>	154,542.355 million (Umbrella PC-1, including Sindh)
<b>ME&amp;IE Consultancy Period</b>	4 year
<b>ME&amp;IE Consultant:</b>	JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSR) and ADA Consultants Inc. Canada
<b>ME&amp;IE Consultant Mobilized</b>	November 20, 2020

### 1.2 PROJECT DESCRIPTION

#### 1.2.1 Project Development Objectives

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

#### 1.2.2 Project Objectives – General & Quantitative

##### 1) General Objectives:

The Project aims to replicate the success achieved

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

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

#### 2) Quantitative Objectives:

The quantitative objectives of the Project are as under:

##### Project outputs

- i) Mobilization through capacity building of Water Users Associations/Farmers Organizations in improved water management techniques and their registration under On-Farm Water Management and Water User Associations Ordinance [Act] 1981 and organization of 47,278 WUAs.
- ii) Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete earthen renovation, partial lining of critical reaches (50% of the total watercourse length as decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).
- iii) Construction of 14,932 water storage tanks with 60% subsidy.
- iv) Provision of 11,610 Laser Land Levelers at 50% cost sharing, with the expectation to save about 50% irrigation water for wheat and about 68% of irrigation water for paddy.

##### Project impacts

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

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

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

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

**Awareness support to farmers**

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

**1.2.3 Project Beneficiaries**

Majority of the direct project beneficiaries constitute the number of farmers (owners as well as tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming 35 farmers on each watercourse, the total number of the farmers benefiting from the activity comes to 1.655 million. The same number will benefit due to Water Users' Associations (WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 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, total net population benefitting is expected to be 8.34 million people.

**1.2.4 Project Components**

The NPIWC-II comprises four components.

**C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:**

Establishment/ reactivation of Water Users Associations (WUAs) through community driven implementation approach.

- i) Provide right of way for constructing watercourse,
- ii) Arrange skilled and unskilled labour required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,

- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of Naccas, distribution of work, etc.
- v) Make alternate arrangements for conveyance of water during execution of improvement works,
- vi) Carry out civil works in accordance with standards and specifications under the supervision of OFWM field staff,
- vii) Regularly undertake O&M of improved watercourses after its construction.

**C2: WATERCOURSE IMPROVEMENTS:**

47,278 Watercourses are planned to be improved /reconstructed and lined.

- 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:**

Construction of 14,932 Water Storage Tanks (WSTs)

- i) Store water during the rainy season and times of no use in the commands of perennial / non-perennial canals for subsequent irrigations at the critical crop growth stages,
- ii) Provide flexibility for storage of plentiful canal and rainfall runoff water for its more expedient use subsequently,
- iii) Collect, store and filter water from:
  - Small Dams, Springs, Streams, Nallas 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 in large flow rates.

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

Provision of 11,610 Laser Land Leveling units to the farmers. The component will strengthen LASER land leveling services in the country through provision of Laser Land Leveling Units to farmers/service providers on 50% subsidized rates.

**1.2.5 Project Targets**

Project aims at achieving the targets for 5 years starting from year 2019-20 to 2023-24. The targets for each province/Zone (excluding Sindh) are given below Figure-1.1, 1.2.

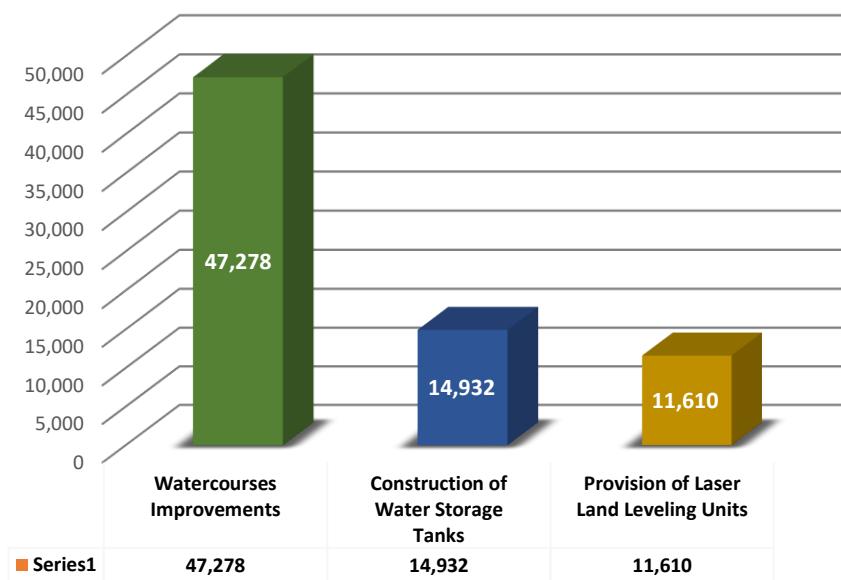


Figure-1.1: Pakistan Targets

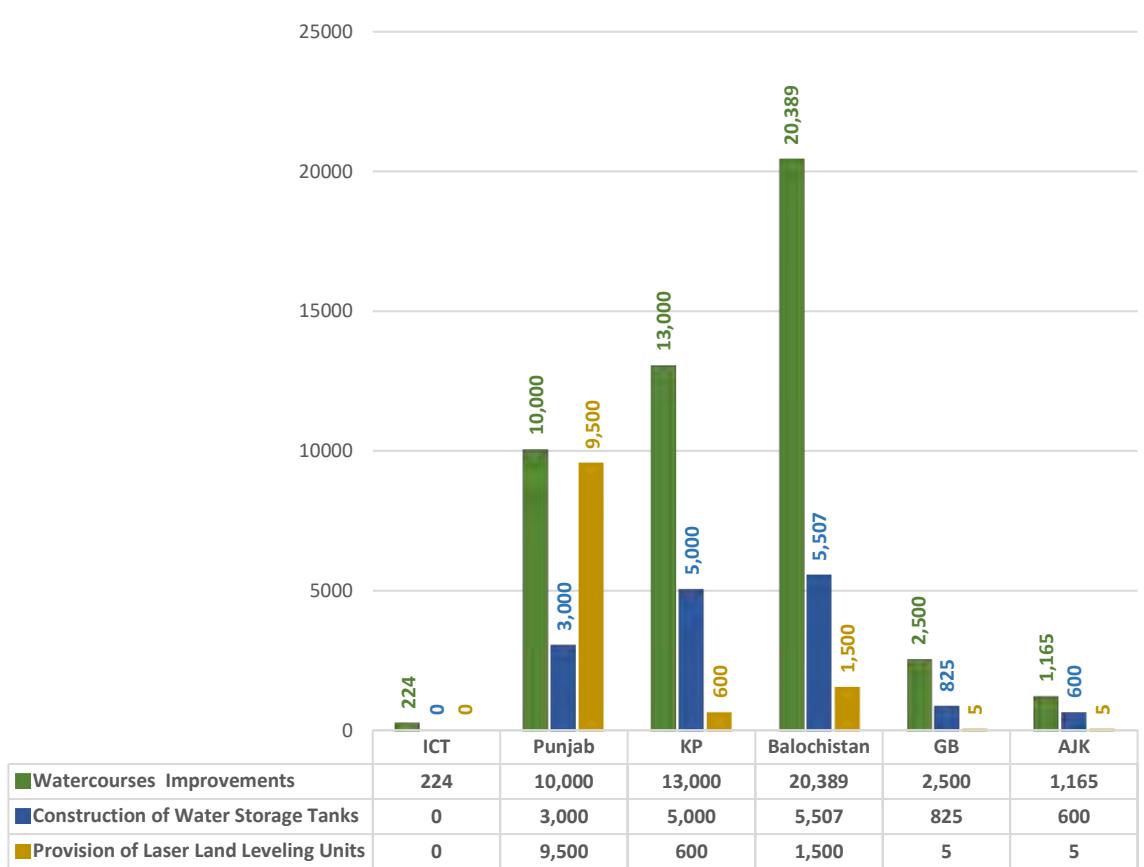


Figure-1.2: Zonal Target

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

The ME&IE Consultants services are planned to be provided through a multi-disciplinary team of qualified professionals. All firms in the joint venture have rich experience in the field of monitoring and evaluations. The team deputed for this task in the project comprises highly qualified professionals having long practical experience of such projects earlier launched in Pakistan. The consultant will develop a State-of-the-Art Management Information System (MIS) with GIS focuses for NPIWC-II to monitor progress on project interventions and to carry out effective monitoring process. The MIS will help decision makers to make informed the decisions.

### 2.1 OBJECTIVES

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

### 2.2 SCOPE OF THE SERVICES

The ME&IE Consultants will be responsible for monitoring, evaluation and impact evaluation, and in this context will carry out the following activities:

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

ensuring the maintenance of watercourses, water storage tanks and laser land Levelers,

- viii) Economic impact of project interventions,
- ix) Carry out the impact evaluation of the project intervention on the economy and stakeholders,
- x) Develop a website containing information on facilities and services, applications, procedures, watercourses, water storage tanks and laser Levelers database, etc. (while the project staff will maintain the website),
- xii) Provide technical support for the development of a custom-designed mobile application (Android Based) to capture on-site project progress and geo-tagged photos. It should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the management. The said requirement is based on the following functional features:

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

### 2.3 MONITORING STRATEGY

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in the following Table-2.1. However, detailed methodology and procedures to carry out the Monitoring,

Evaluations and Impact Evaluations of the project interventions were explained in Chapter 6 of Inception Report. The strategy aims to be finalized and implemented in close coordination with the client and active participation of the beneficiaries as well as the project stakeholders.

Table-2.1: Monitoring Strategy for ME&IE Activities

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
1	Baseline, midline and endline surveys	Team Leader, Socio-Economic Expert, Agricultural Economist and Deputy Team Leader of respective province/unit.	<ul style="list-style-type: none"> <li>Baseline and impact surveys will be carried out on sample basis.</li> <li>Data will be collected by field teams on pre-designed data collection tools through an android application on TABs.</li> <li>Baseline and impact surveys will be carried out in phases as target watercourses are not preselected.</li> <li>Baseline will be carried out before the intervention and the impact one year (two crop seasons) after the completion of the intervention.</li> <li>The midterm study will review the project progress at middle of the project implementation</li> <li>The endline study will assess the impact of the project interventions.</li> </ul>
2	Reporting	All core team members	<p>Following periodic reports will be prepared and submitted:</p> <ul style="list-style-type: none"> <li>Draft Inception Report 45 days after the agreement,</li> <li>Final Inception Report one week after the issuance of comments by the client on the draft,</li> <li>Monthly Monitoring Report on 10<sup>th</sup> of following month,</li> <li>Quarterly Monitoring Report on 10<sup>th</sup> of the first month of the following quarter,</li> <li>Annual Monitoring and Evaluation Report during first month of the following year,</li> <li>Baseline Survey Reports (in three phases),</li> <li>First Phase Baseline Survey report will be submitted within the four months after the start of the assignment i.e., Submission of final inception report/Beginning of field activities.</li> <li>Impact Survey Reports (in phases) – two months after the data collection completion for the impact phase,</li> <li>Midline report in the middle of the assignment,</li> <li>Endline Report at the end of endline Survey,</li> <li>Draft Assignment completion Report at completion of the physical works,</li> <li>Final Assignment Completion Report at completion of works and financial transactions. It will also include the full economic benefit of the project (NPIWC-II) on agriculture sector as well as on the GDP of Pakistan,</li> <li>Special Reports, as and when asked by the client.</li> </ul>
3	Water saving assessment	Irrigation Agronomist, Field Team/ Engineers	<p><b>Water Saving on Watercourses:</b></p> <ul style="list-style-type: none"> <li>Water flow will be measured on sample watercourses selected for the baseline and impact surveys</li> <li>The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach and tail reach.</li> <li>The measurements will be done through current meters.</li> </ul>

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

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
		Expert	<ul style="list-style-type: none"> <li>Project costs and benefits will be compared in economic and financial terms to carry out economic and financial analysis.</li> <li>Parameters like IRR, NPV and BCR will be estimated.</li> </ul>
7	Impact evaluation-on the stakeholders	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> <li>Analysis as in serial 6 will be carried out with reference to various stakeholders, like community, government, farmers, etc.</li> </ul>
8	Spot checking	Team Leader, Deputy Team Leaders & Field teams/Engineers.	During the field visits for WUAs baselines impacts of Watercourses, WSTs and laser units, the interventions will be spot checked for quality of construction, material, functioning and beneficiaries' satisfaction etc.
9	Process monitoring	Field Teams of Agriculture Deptt., Project Consultants, ME&IE Consultants & ICT/Technology Specialist	<ul style="list-style-type: none"> <li>The process data for all the interventions will be fed to the MIS/GIS database.</li> <li>Client's field staff and field teams of consultants will furnish data of their activities.</li> <li>The ME&amp;IE will assist in developing mobile application for this purpose</li> <li>From this data reports will be generated for process monitoring</li> <li>All interventions will be fully (100%) covered.</li> </ul>
10	Project website and MIS/GIS dashboard development	ICT / Technology Specialist (Including all other core team staff will also coordinate in completing data for the MIS/GIS	<ul style="list-style-type: none"> <li>The State-of-the-art MIS / Progress Monitoring Model will be developed for NPIWC-II.</li> <li>Customized forms will be developed to collect data from the implementing teams on-site for progress monitoring</li> <li>These forms will be made available to the teams on smart phones through an android application</li> <li>The teams will be adequately trained to use the application</li> <li>Data on physical and financial stages with dates will be fed to the system for process monitoring</li> <li>GIS coordinates for watercourses, WSTs, laser units (if available) and WUAs offices will be uploaded to the system and could be viewed / reached by the management online</li> <li>The system will be maintained on GOOGLE server so that it is accessible by the management from anywhere in Pakistan and abroad</li> <li>Custom reports will be possible as the user demands / desires</li> <li>The results could be displayed on small as well as large screens.</li> </ul>
11	Development of Android based application	ICT / Technology Specialist	All the data collection forms / tools will be executed through customized developed Android based applications accessible with smart phones / TABs.

#### 2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

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

They will also get improved as the project implementation progresses as in the light of real and on the ground situations.

## CHAPTER 3: MONTHLY MONITORING REPORT

### 3.1 INTRODUCTION

Monthly Monitoring Report (MMR) explains the understanding towards all activities to be carried out as per TORs of ME&IE assignment and their completion within stipulated time frame.

### 3.2 OBJECTIVE OF MONTHLY MONITORING REPORT

The Main objective of the Monthly Monitoring Report is to update the Client about the activities carrying out by the ME&IE Consultants during the reporting period. Reporting is an integral part of monitoring and evaluation framework.

### 3.3 REPORTING PERIOD

This Seventh Monthly Monitoring Report (MMR) covers the period from July 01, 2021 to July 31, 2021.

The Seventh Monthly Monitoring Report (MMR) has prepared under the guidance and supervision of Mr. Saif Ullah Ejaz Chaudhry, Director G3 Engineering Consultants authorized representative of ME&IE Consultants. The core team of NPIWC-II participated in the preparation of this Report in hand.

The Report In-hand provides the progress made in various activities relating to the accomplishment of Monitoring activities of project interventions e.g., Baseline Survey field activities. This report also describes all activities to be carried out as per quarterly work plan.

## CHAPTER 4: ACTIVITIES DURING THE REPORTING PERIOD

### 4.1 REGULAR MONITORING OF INTERVENTIONS IN THE FIELD

After completion of Baseline Survey ME&IE consultants' survey teams started regular monitoring of Project Interventions in the field.

Teams started monitoring the field activities as per TORs of the assignment and gathering the all the required data through Monitoring Tools already developed. The data is uploaded to the android based software and is being compiled in the MIS system developed by the ICT Specialist.

All the zonal offices prepared work plan for the routine monitoring / survey activities and provided further training to field survey teams for the regular monitoring the project interventions in the field.

The regular monitoring assignments are comprised of input-output and process as defined in the Annual Work Plan / Budget and tracking of the outcomes indicators. Regular routine monitoring will look at the extent to which the proposed project activities are being implemented as planned.

#### 4.1.1 Regular Monitoring of Interventions in the Field - ICT Zone

In ICT, only watercourses are being installed under NPIWC-II and till yet 20 watercourses have been constructed. In AJK, watercourses and water storage tanks are being constructed under NPIWC-II.

In July 2021, Team of ICT Zone has successfully surveyed 3 watercourses (2 in ICT & 1 in AJK) and 5 water storage tanks (4 in Attock District & 1 WHS in Mirpur)

Site selection of interventions in each District is 2-5 % of its target of financial years i.e., 2019-20 & 2020-21. The site selection was carried out with close Coordination/consultation of concerned DDA/ADA through randomization.

#### 4.1.1.1 Planning for Regular Monitoring of Interventions in the Field

A Quarterly Monitoring (July 2021 to September 2021) Survey Sampling for ICT Zone is as under.

Quarterly Monitoring Survey Sampling (July 2021 to September 2021)

Division	Interventions	Target Population	Targeted Samples
ICT	Watercourses	69	4
	Water Storage Tanks	-	-
AJ&K	Watercourses	417	13
	Water Storage Tanks	240	7
Rawalpindi	Water Storage Tanks	220	7

#### 4.1.1.2 Schedule for Regular Monitoring

ICT Zone Field Team scheduled the visits for monitoring survey in 3 segments. The visits are planned for 10 days in 3 months i.e., July, August and September 2021. The tentative schedule of first segment of monitoring visits is as under:

Date	Division / Unit	Areas / Schemes
16 <sup>th</sup> July 2021	Islamabad Capital Territory	Tarlai Kalan
		Pind Begwal
27 <sup>th</sup> July 2021	Attock, Rawalpindi	Jumgah
		Sarwala
		Bafahad
		Bafahad
28 <sup>th</sup> July 2021	Mirpur, AJK	Jari Kass
		Akbarabad
4 <sup>th</sup> August 2021	Islamabad Capital Territory	Lohi Bher
		Thandapani
		Arrah
		Katchi
5 <sup>th</sup> August 2021	Bhimber, AJK	Serla 2
		Kohl Bala

During the Month of July 2021 field team of ICT Zone has successfully surveyed 3 watercourses (2 in ICT & 1 in AJK) and 5 water storage tanks (4 in Attock District & 1 WHS in Mirpur).

#### 4.1.1.3 Team Composition

For ICT Zonal office there is only one Field Monitoring / Survey Team comprising of three members.

#### 4.1.2 Regular Monitoring of Interventions in the Field Punjab Zone

##### 4.1.2.1 Planning for Regular Monitoring

The monitoring/baseline survey is to be conducted for the intervention of improvement of watercourses, Water User Associations and Water Storage Tank. The survey will be conducted in 3 phases depending upon the number of units of each intervention targeted for each financial year. The planned baseline survey could be summarized as under:

- i. **Monitoring/Baseline Survey-I** - Based on sample from Target Interventions for the Year 2019-20 to 2020-21 (2 years) Cropping year Kharif 2020 and Rabi 2020-21
- ii. **Monitoring/Baseline Survey-II** - Based on sample from Target Intervention for the Year

iii. 2021-22 Cropping year Kharif 2021 and Rabi 2021-22

iv. **Monitoring/Baseline Survey-III** - Based on sample from Target Intervention for the Year 2022-23 Cropping year Kharif 2022 and Rabi 2022.23

##### 4.1.2.2 Schedule for Regular Monitoring

The phase-I survey has been confined to more than 50% Divisions/Districts of Punjab zone as under:

Sub-Zone-1 Lahore and Sahiwal Division.  
Sub-Zone-2 Gujranwala Division.  
Sub-Zone-3 Multan and D.G Khan Division.

The remaining Division/Districts will be covered in phase-II. In the phase-III remaining target of intervention in all division/districts will be covered in order to give due representation to each district i.e., 2-3 percent of the total targets archived of the project in each district. Regular and additional user of watercourses and water storage tanks are given in tables 4.1 to 4.7 below.

Table-4.1: List of Regular Water Courses: Field Team Sub zone – 2

Sr. No	Date	WC ID	Chairman Name	Chairman Number	Status	WC Type	Address	Financial year
1	17/7/2021	3315-L	Bashrat Ali	03214309721	FCR	Regular	Badar Ali, Tehsil Pindi Bhatiya, District Hafizabad	2020-21

Table-4.2: List of Additional Watercourses: Field Team Sub zone – I

Sr. No	Date	WC ID	Chairman Name	Chairman Number	Status	WC Type	Address	Financial year
1	16/7/2021	32150/L	Khalid Nawaz	03364748116	FCR Issued	Additional Lining	116/12L Chichwatni	2020-21
2	16/7/2021	25486/L	M Rafiq	03063916093	FCR Issued	Additional Lining	90-12L chichwatni	2020-21
3	16/7/2021	30470/R	Majid Hussain	03217196519	FCR Issued	Additional Lining	110/12R Chichwatni	2020-21
4	17/7/2021	28240/R	Ghulam Shabir	03205656987	FCR Issued	Additional Lining	129/9L Sahiwal	2020-21
5	17/7/2021	87112/L	Masood Ahmed	03009693509	FCR Issued	Additional Lining	142/9L Sahiwal	2020-21
6	17/7/2021	28240/R	Ghulam Shabir	03205656987	FCR Issued	Additional Lining	129/9L Sahiwal	2020-21

Table-4.3: List of Additional Watercourses: Field Team Sub zone – II

Sr. No	Date	WC ID	Chairman Name	Chairman Number	Status	WC Type	Address	Financial year
1	15/7/2021	6990-R	Akhter Ali	03006128874	FCR Issued	Additional	Sunderene, Tehsil & District Hafizabad	2020-21
2	15/7/2021	655-L	Rana Shaukat Ali	03217461406	FCR	Additional	Saroop Wala Tehsil & District Hafizabad	2020-21
3	15/7/2021	8210-L	Muhammad Rizwan Abbas	03315646464	FCR	Additional	Thatha Noor Shah Tehsil & District Hafizabad	2020-21
4	16/7/2021	36672-L	Zulqarnain Haider	03002051512	FCR	Additional	Dhobra, Tehsil Pindi Bhatiya, District Hafizabad	2020-21
5	16/7/2021	4256-L	Khuda Baksh	03005448857	FCR	Additional	Kassesy Tehsil Pindi Bhatiya, District Hafizabad	2020-21
6	16/7/2021	41350-L	Imran Khan	03416181456	FCR	Additional	Hardoratta, Tehsil Pindi Bhatiya, District Hafizabad	2020-21
7	17/7/2021	15404-R	Nauman Ali	03404339422	FCR	Additional	Nawan Manika, Tehsil Pindi Bhatiya, District Hafizabad	2020-21

Table-4.4: List of Additional Watercourses: Field Team Sub zone-3

Sr. No	Date	WC ID	Chairman Name	Chairman Number	Status	WC Type	Address	Financial Year
1	15-07-2021	7894/L	Muhammad Iqbal	0301-7543695	ICR-II	Additional	Kherabad, Qadirpur Raan 38, Multan Saddar Multan	2020-21
2	15-07-2021	41440/L	Altaf Hussain	0306-7337531	ICR-II	Additional	2-Terpai, 131 Chatta, Multan Saddar Multan	2020-21
3	16-07-2021	106200/TR	Toqueer Ahmed	0300-8539575	FCR	Additional	Raja Ram, Shujabad, Multan	2020-21
4	16-07-2021	139544/R	Sarfraz Ahmed Khan	0300-6373711	FCR	Additional	That Ghaluwan, Shujabad, Multan	2020-21
5	17-07-2021	43000/R	Muhammad Ismail	0302-7306302	FCR	Additional	Qasba Maral, Multan Saddar, Multan	2020-21
6	17-07-2021	27100/L	Umer Farooq	0300-6349137	FCR	Additional	Basti Balochan, Khokran, Multan Saddar, Multan	2020-21

Table-4.5: List of Water Storage Tank Monitoring During July 2021-Subzone-1

Date	WST Type	Owner / Beneficiary Name	Address	Beneficiary Number	Area Owned (Acre)	Status	Financial year
17/7/2021	Trapezoidal	Younas Pervaiz Gill	Chak No 148/9L Tehsil District Sahiwal	03003327191	20 Acre	FCR	2020-21

Table-4.6: List of Water Storage Tank Monitoring During July 2021-Subzone-2

17-07-2021	Square	Iftikhar Ahmad	Village Bahuman Tehsil Pindi Bhattian District Hafizabad	03496283679	5.45	FCR	2020-21
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**Table-4.7: List of Water Storage Tank Monitoring During July 2021-Subzone-3**

16-07-2021	Trapezoidal	Amir Sohail	Chak 6 Faiz, Moza Matti Tal Tehsil Multan Saddar District Multan	0300-3546000	37	FCR	2020-21
16-07-2021	Trapezoidal	Muhammad Hamid Nawaz	Chak 131A, Mubarak Pur Tehsil Jahanian District Khanawal	0300-6343430	12	FCR	2020-21

#### **4.1.3 Regular Monitoring of Interventions in the Field KP Zone**

Due to unavailability of Data from Client, KP Zonal office field teams could not start the regular monitoring of the Project Interventions. However, ME&IE consultants conducted meeting with client office for acquisition of data.

#### **4.1.4 Regular Monitoring of Interventions in the Field Balochistan Zone**

The ME&IE Consultants, Balochistan conducted several activities during the reporting month i.e., July 2021. The Balochistan team accomplished the assignments and submitted all deliverable timely. The activities done by the Balochistan team are listed below:

- i. Arranged a training to staff on Regular Monitoring MTs
- ii. Conducted the Regular Monitoring / Spot Checking of F.Y. 2019-20 and F.Y. 2020-21
- iii. Data Collection from client regarding Regular Monitoring.
- iv. Prepared of Work Plan for Regular Monitoring Field activities for the month of July 2021
- v. Attended different meeting with Core Team Members on Zoom.
- vi. Attended different meetings with NPIWC officials and Project Consultants.

After fully operational the ME&IE Consultants, Balochistan, they have started Regular Routine Monitoring from the reporting month. The regular monitoring assignment are comprised input-output and process as defined in the Annual Work Plan/ Budget and tracking of the outcomes indicators. Regular routine monitoring will look at the extent to which the proposed project activities are being implemented as planned.

The routine monitoring is containing, a brief analysis of the results; calculating achievement rates and establishing trends, relevant findings that may help or constraint the future data collection activities in the established periods and, if appropriate, propose specific solutions assessing the advantages and disadvantages of each.

##### **4.1.4.1 Planning for Regular Monitoring**

The Balochistan team planned to start Regular Monitoring / Sport Checking of F.Y. 2019-20 and 2020-21 phase-wise. In first phase Balochistan Field Team focused to schemes of NPIWC-II, F.Y. 2019-20. In second phase F.Y. 2020-21 will be covered in upcoming months. The schemes of 2019-20 were started in 2019 and completed in mid of 2020 as per record of OFWM. This programme was initiated in all 33 districts of Balochistan. The OFWM initiated 1819 Watercourses including PVC Pipe, RCC Pipe and Rehabilitation, 20 years old watercourses and 411 Water Storage Tanks of 04 different sizes as per need i.e. 60x60, 50x50, 40x40 and 30x30 with depth of 4'.5".

The Balochistan field teams assigned 15 districts out of 33 (45%) for regular monitoring. Each Team assigned 05 districts and 15 sites. The total targets of F.Y. 2019-20 was 2280 after taking sample size for purpose of regular monitoring, total 45 sites (2%) selected randomly. As the ME&IE Consultants are taking sample sizes phase wise, the rest of districts will be covered in next phases.

##### **4.1.4.2 Schedule for Regular Monitoring**

After taking sample size selection of districts, Balochistan Zonal ME&IE Consultants prepared a schedule for field visit as detailed below:

Districts	WC	PVC Pipe	WST	Total	Dates
<b>Team-1</b>					
Jaffarabad	1	1	1	3	28/07/2021
Naseerabad	1	1	1	3	29/07/2021
Jhal Magsi	1	1	1	3	30/07/2021
Dear Bugti	1	1	1	3	02/08/2021
Kachi	1	1	1	3	03/08/2021
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>15</b>	
<b>Team-2</b>					
Zhob	1	1	1	3	28/07/2021
Sherani	1	1	1	3	29/07/2021
Musa Khail	1	1	1	3	30/07/2021
Duki	1	1	1	3	31/07/2021
Barkhan	1	1	1	3	02/08/2021
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>15</b>	
<b>Team-3</b>					
Noshki	1	1	1	3	28/07/2021
Ziarat	1	1	1	3	29/07/2021
Harnai	1	1	1	3	30/07/2021
Kharan	1	1	1	3	02/08/2021
Chagai	1	1	1	3	03/08/2021
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>15</b>	
<b>G. Total</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>45</b>	

#### 4.1.4.3 Team Composition

Balochistan zonal office mobilized listed below three (03) field survey teams to carryout monitoring activities in the field:

##### Team – 1

1. Mr. Tariq Khoso, M&E Expert
2. Mr. Saleem Abro, M&E Expert

##### Team – 2

1. Mr. Naseeb Jan, M&E Expert
2. Mr. Qaisar Tareen, M&E Officer

##### Team -3

1. Mr. Manzoor Kasi, M&E Expert
2. Mr. Hamza Qureshi, M&E Officer
3. Ms. Mahgul Baloch, M&E Officer

The field teams 1 & 2 started the regular monitoring from 29<sup>th</sup> July and covered 06 districts with 18 sites. The team 3 started field activities from 29<sup>th</sup> July and covered 02 districts with 06 sites in the reporting month. The rest of districts and sites will be covered

in the month of August 2021. Scheme-wise summary of visited sites, teams, and districts is given below:

<b>Team – 1</b>					
Districts	Dates	WC	PVC / RCC Pipe	WST	Total
Jaffara-bad	29/07/2021	3	0	0	3
Naseera-bad	30/07/2021	3	0	0	3
<b>Total</b>		<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>

##### Team – 2

Districts	Dates	WC	PVC / RCC Pipe	WST	Total
Zhob	29/07/2021	1	1	1	3
Sherani	&	1	1	2	4
Musa Khail	30/07/2021	1	0	1	2
Duki	31/07/2021	1	1	1	3
<b>Total</b>		<b>4</b>	<b>3</b>	<b>5</b>	<b>12</b>

##### Team – 3

Districts	Dates	WC	PVC / RCC Pipe	WST	Total
Noshki	28/07/2021	1	1	1	3
Ziarat	29/07/2021	1	2	0	3
Total		2	3	1	6

#### 4.2 DATA COLLECTION OF THE INTERVENTIONS IN THE FIELD

As per plan ME&IE Zona Teams started regular monitoring of activities on project interventions. All the zonal offices conducted trainings of Field Teams for monitoring and data collection in the field. Teams were already designed and deputed as per baseline survey. Detail of monitoring activities of all the zonal offices is given below.

#### 4.2.1 Regular Monitoring of Interventions in the Field - ICT Zone

ICT Zone Field Team visited the interventions, coordinated with the respective OFWM departments for documents and official details. Officials from OFWM department accompanied the team for surveys. ICT Zone Field Team visited and surveyed the watercourses and water storage tanks for baseline and monitoring surveys according to the schedule.

#### 4.2.1.1 Field Visits of ICT Team

##### 1) Field Visit Date: 16<sup>th</sup> July 2021

Field Team of ICT visited the village "Tarlai Kalan" situated in Islamabad for ME&IE Consultants' monitoring and baseline survey. Underground pipeline is being installed. The beneficiary is a new owner of this land, and he was a contractor by profession. Team thoroughly surveyed the location and took measurements. Following are the details of visit:

Details of WC at Tarlai Kalan	
Province/Unit	ICT
District	ICT
Tehsil	Tarlai Kalan
Village	Tarlai Kalan
Name of Watercourse	Omer Ali Khan – Tarlai Kalan
Coordinates	N 33.6365023 , E 73.1384257
No. of beneficiaries	1
Culturable Command Area (CCA)	20 Kanals
Name of Owner	Omer Ali Khan
Total Number of Water Users	1
Cropping Pattern	Leechee, Oranges, Grapefruits, Plum, Peach, Olives
Type of watercourse	PVC 3"
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	28.32 LPS
Main Source of water	Dug well
Additional Source of water	Bore
Length of watercourse	340 Meters
Date of Technical Sanction	15-07-2020
Sanctioned Cost	Rs. 757,799/-



Figure 4.1: FTI measuring the length of PVC 3" pipeline installed at Tarlai Kalan, ICT

Field Team of ICT visited the village "Pind Begwal" situated in Islamabad for ME&IE Consultants' monitoring and baseline survey. Underground pipeline is being installed. By profession, the landowner is a Lawyer in Supreme Court. Team thoroughly surveyed the location and took measurements of which observations are as follow:

Details of WC at Pind Begwal	
Province/Unit	ICT
District	ICT
Tehsil	Pind Begwal
Village	Pind Begwal
Name of Watercourse	Pind Begwal – Ch. Khanzada Khan
Coordinates	N 33.7117241 , E 73.2586318
No. of beneficiaries	1
Culturable Command Area (CCA)	20 Kanals
Name of Owner	Ch. Khanzada Khan
Total Number of Water Users	1
Cropping Pattern	-
Type of watercourse	PVC 3"
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	28.32 LPS
Main Source of water	Tubewell
Additional Source of water	No
Length of watercourse	340 Meters
Date of Technical Sanction	20-06-2020
Sanctioned Cost	Rs. 851,951/-



Figure 4.2: FTI measuring the length of PVC 3" pipeline installed at Pind Begwal, ICT.

Measured Size of Water Storage Tank	24.7 ft x 24.9 ft x 5.6 ft
Date of Technical Sanction	04-01-2021
Sanctioned Cost	Rs. 402,133/-
Government's Share (60%)	Rs. 241,280/-
Farmer's Share (40%)	Rs. 160,853/-



Figure 4.3: ME&IE Consultants' monitoring visit to Sarwala, Tehsil Attock

## 2) Field Visit Date: 27th July 2021

Field Team of ICT & AJK visited the village "Sarwala" situated in Attock District for ME&IE Consultants' monitoring and baseline survey. Water storage tanks made up of concrete and bricks are constructed here. Team were unable to meet the beneficiary but thoroughly surveyed the location and observations are as follow:

Details of WST at Sarwala	
Province	Punjab
Division/Unit	Rawalpindi
District	Attock
Tehsil	Attock
Village	Sarwala
Name of Water Storage Tank	Sarwala - Malik Rizwan
Coordinates	N 33.800216 , E 72.325604
No. of beneficiaries	1
Culturable Command Area (CCA)	6 Acres
Name of Owner	Malik Rizwan
Total Number of Water Users	1
Cropping Pattern	Citrus
Type of Water Storage Tank	RCC
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	4.1 LPS
Main Source of water	Tubewell / Bore
Additional Source of water	No
Sanctioned Size of Water Storage Tank	25 ft x 25 ft x 5 ft

Field Team of ICT & AJK visited the village "Jamgah" situated in Attock District for ME&IE Consultants' monitoring and baseline survey. Water storage tanks made up of concrete and bricks are constructed here. Team were unable to meet the beneficiary but thoroughly surveyed the location and observations are as follow:

Details of WST at Jamgah	
Province	Punjab
Division/Unit	Rawalpindi
District	Attock
Tehsil	Attock
Village	Jamgah
Name of Water Storage Tank	Jamgah – Nisar Bibi
Coordinates	N 33.8325831, E 72.3731739
No. of beneficiaries	1
Culturable Command Area (CCA)	14.33 Acres
Name of Owner	Nisar Bibi
Total Number of Water Users	1
Cropping Pattern	Vegetables, Wheat
Type of Water Storage Tank	RCC
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	7.32 LPS

<b>Main Source of water</b>	Tubewell / Bore
<b>Additional Source of water</b>	No
<b>Sanctioned Size of Water Storage Tank</b>	30 ft x 30 ft x 5 ft
<b>Measured Size of Water Storage Tank</b>	32.5 ft x 31.4 ft x 9 ft
<b>Date of Technical Sanction</b>	19-08-2020
<b>Sanctioned Cost</b>	Rs. 500,000/-
<b>Government's Share (60%)</b>	Rs. 300,000/-
<b>Farmer's Share (40%)</b>	Rs. 200,000/-



Figure 4.4: ME&IE Consultants' monitoring visit to Jamgah, Tehsil Attock

Field Team of ICT & AJK visited the village "Bafahad" situated in Attock District for ME&IE Consultants' monitoring and baseline survey. Water storage tanks made up of concrete and bricks are constructed here. Team were unable to meet the beneficiary but thoroughly surveyed the location and observations are as follow:

Details of WST at Bafahad	
<b>Province</b>	Punjab
<b>Division/Unit</b>	Rawalpindi
<b>District</b>	Attock
<b>Tehsil</b>	Hassan Abdal
<b>Village</b>	Bafahad
<b>Name of Water Storage Tank</b>	Bafahad – Asid Ali Khan
<b>Coordinates</b>	N 33.864265 , E 72.6810624
<b>No. of beneficiaries</b>	1
<b>Culturable Command Area (CCA)</b>	16.10 Acres
<b>Name of Owner</b>	Asid Ali Khan
<b>Total Number of Water Users</b>	1
<b>Cropping Pattern</b>	Citrus

<b>Type of Water Storage Tank</b>	RCC
<b>Water Logging &amp; Salinity</b>	No
<b>Warabandi System</b>	No
<b>Designed Discharge</b>	9.887 LPS
<b>Main Source of water</b>	Tubewell / Bore
<b>Additional Source of water</b>	No
<b>Sanctioned Size of Water Storage Tank</b>	30 ft x 30 ft x 5 ft
<b>Measured Size of Water Storage Tank</b>	56 ft x 25.9 ft x 5.2 ft
<b>Date of Technical Sanction</b>	22-03-2021
<b>Sanctioned Cost</b>	Rs. 500,000/-
<b>Government's Share (60%)</b>	Rs. 300,000/-
<b>Farmer's Share (40%)</b>	Rs. 200,000/-



Figure 4.5: ME&IE Consultants' monitoring visit to Bafahad, Tehsil Hassan Abdal

Field Team of ICT & AJK visited the village "Bafahad" situated in Attock District for ME&IE Consultants' monitoring and baseline survey. Water storage tanks made up of concrete and bricks are constructed here. Team were unable to meet the beneficiary but thoroughly surveyed the location and observations are as follow. Following are the details of visit:

Details of WST at Bafahad	
<b>Province</b>	Punjab
<b>Division/Unit</b>	Rawalpindi
<b>District</b>	Attock
<b>Tehsil</b>	Hassan Abdal
<b>Village</b>	Bafahad
<b>Name of Water Storage Tank</b>	Bafahad – Saqib Javed
<b>Coordinates</b>	N 33.8602821 , E 72.6824752
<b>No. of beneficiaries</b>	1
<b>Culturable Command</b>	10 Acres

<b>Area (CCA)</b>	
<b>Name of Owner</b>	Saqib Javed
<b>Total Number of Water Users</b>	1
<b>Cropping Pattern</b>	Citrus
<b>Type of Water Storage Tank</b>	RCC
<b>Water Logging &amp; Salinity</b>	No
<b>Warabandi System</b>	No
<b>Designed Discharge</b>	5.2 LPS
<b>Main Source of water</b>	Tubewell / Bore
<b>Additional Source of water</b>	No
<b>Sanctioned Size of Water Storage Tank</b>	25 ft × 25 ft × 5 ft
<b>Measured Size of Water Storage Tank</b>	24.9 ft × 24.5 ft × 5.8 ft
<b>Date of Technical Sanction</b>	22-03-2021
<b>Sanctioned Cost</b>	Rs. 402,133/-
<b>Government's Share (60%)</b>	Rs. 241,280/-
<b>Farmer's Share (40%)</b>	Rs. 160,853/-



Figure 4.6: Field team taking the dimensions of WST at Bafahad, Tehsil Hassan Abdal

### 3) Field Visit Date: 28<sup>th</sup> July 2021

Field Team of ICT & AJK visited the village "Jari Kass" situated in Mirpur District for ME&IE Consultants' monitoring and baseline survey. Water Harvesting Structure made up of clay and stones is constructed here. Team were unable to meet the beneficiary but thoroughly surveyed the location and observations are as follow:

Details of WHS at Jari Kass	
Province	Azad Jammu & Kashmir
Division/Unit	Mirpur
District	Mirpur
Tehsil	Mirpur
Village	Jari Kass
Name of Water Harvesting Structure	Jari Kass – Raja Muhammad Munir
Coordinates	N 33.1026696 , E 73.8527942
No. of beneficiaries	3
Culturable Command Area (CCA)	100 Kanals
Name of WUA Chairman	Raja Muhammad Munir
Total Number of Water Users	3
Cropping Pattern	Citrus Fruits (Oranges, Lemons, Guawa), Mango, Fodder, Wheat, Millet
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	-
Main Source of water	Bore
Additional Source of water	No
Specification of Dam	Clay Dam + Stone Pitching
Size of Earth Dam in documents	10 ft × 20 ft × 12 ft
Measured Size of Earth Dam	10.6 ft × 20.5 ft × 16.2 ft
Date of Technical Sanction	07-06-2021
Sanctioned Cost	Rs. 846,488/-
Government's Share(80%)	Rs. 677,190/-
Farmer's Share (40%)	Rs. 169,298/-



Figure 4.7: Field team taking the dimensions of Earth Dam of WHS at Jari Kass, Tehsil Mirpur.

Field Team of ICT visited the village "Akbarabad" situated in Mirpur for ME&IE Consultants' monitoring and baseline survey. PCPS type watercourse is installed there. Team thoroughly surveyed the location and observations are as follow. Following are the details of visit:

Details of WC at Akbarabad	
Province	Azad Jammu & Kashmir
Division	Mirpur
District	Mirpur
Tehsil	Mirpur
Village	Akbarabad
Name of Watercourse	Akbarabad – Muhammad Aslam
Coordinates	N 32.9698486 , E 73.8132382
No. of beneficiaries	3
Culturable Command Area (CCA)	60 Kanals
Name of Owner	Muhammad Aslam
Total Number of Water Users	3
Cropping Pattern	-
Type of watercourse	PCPS
Water Logging & Salinity	No
Warabandi System	No
Designed Discharge	42.5 LPS
Main Source of water	Bore
Additional Source of water	No
Sanctioned Length of Watercourse	810 ft
Measured Length of Watercourse	816 ft
Date of Technical Sanction	20-05-2021
Sanctioned Cost	Rs. 503,290/-
Government's Share (80%)	Rs. 402,632/-
Farmer's Share (40%)	Rs. 100,658/-



Figure 4.8: FTI taking the dimensions of WC at Akbarabad, Tehsil Mirpur.

#### 4.2.1.2 Plan for Next Month:

The rest of the two segments of monitoring surveys of ICT Zone are as follow:

##### Monitoring Survey Plan From 23<sup>rd</sup> August 2021 to 1<sup>st</sup> September 2021

Date	Division / Unit	Targeted Samples (W/C)	Targeted Samples (Water Storage Tanks)
23 <sup>rd</sup> Aug. 2021 To 24 <sup>th</sup> Aug. 2021	Poonch, AJK	2	2
25 <sup>th</sup> Aug. 2021	Mirpur	3	-
26 <sup>th</sup> Aug. 2021 To 27 <sup>th</sup> Aug. 2021	Muzaffarabad, AJK	2	2
30 <sup>th</sup> Aug. 2021 To 1 <sup>st</sup> Sept. 2021	Neelum Valley, AJK	3	2

##### Monitoring Survey Plan From 13<sup>th</sup> September 2021 to 21<sup>st</sup> September 2021

Date	Division / Unit	Targeted Samples (WC)	Targeted Samples (Water Storage Tanks)
13 <sup>th</sup> Sept. 2021 To 15 <sup>th</sup> Sept. 2021	Jhelum Valley, AJK	3	3
16 <sup>th</sup> Sept. 2021	ICT	2	-

17 <sup>th</sup> Sept. 2021	ICT	2	-
18 <sup>th</sup> Sept. 2021	Muzaffaraba d, AJK	2	-
20 <sup>th</sup> Sept. 2021 To 21 <sup>st</sup> Sept. 2021	Bimber, Mirpur	2	2

#### 4.2.2 Regular Monitoring of Interventions in the Field –Punjab Zone

Details of field visits and monitoring / survey of interventions during the month of July are given below.

##### 4.2.2.1 Watercourses Sub-Zone - 1

###### 1) Field Visit Date: 16 July 2021

Watercourse ID:	25486/L
Name of village:	90/12L
Village council:	UC—82
Chairman WUA:	M Rafiq
Cell No.	03063916093
Tehsil & District:	Chichawatni
Source of irrigation:	Canal + Tube well
Total length of watercourse:	3852
Estimated length of lining:	141
Command area of watercourse:	
No of beneficiaries:	67
Starting date:	10/10/2020
Completion date:	
Construction cost of WC:	59,36.398



Figure 4.9: Controlled Structure of parabolic Watercourse

###### 2) Field Visit Date: 16 July 2021

Watercourse ID:	30470/R
Name of village:	110/12L
Village council:	UC 61
Chairman WUA:	Majid Hussain
Cell No.	03217196519
Tehsil & District:	Chichawanti / Sahiwal
Source of irrigation:	Canal + Tube well
Total length of watercourse:	5190
Estimated length of lining:	1231
Command area of watercourse:	419
No of beneficiaries:	61
Starting date:	29/9/2020
Completion date:	Completed
Construction cost of WC:	40,70,482



Figure 4.10: 30470/L A glimpse of Flowing Water

3) Field Visit Date: 16 July 2021

Watercourse ID:	28240/L
Name of village:	129/9L
Village council:	UC 39
Chairman WUA:	Ghulam Shabir
Cell No.	03205656987
Tehsil & District:	/ Sahiwal
Source of irrigation:	Canal + Tube well
Total length of watercourse:	4266
Estimated length of lining:	846
Command area of watercourse:	345
No of beneficiaries:	25
Starting date:	02/01/2020
Completion date:	Completed
Construction cost of WC:	2,180,566



Figure 4.11: 28240/L Proper filling Water course sides

4) Field Visit Date: 17 July 2021

Watercourse ID:	87112/L
Name of village:	142/9L
Village council:	UC 33
Chairman WUA:	Masood Ahmed
Cell No.	03009693509

Tehsil & District:	Sahiwal / Sahiwal
Source of irrigation:	Canal + Tube well
Total length of watercourse:	3240
Estimated length of lining:	648
Command area of watercourse:	409
No of beneficiaries:	65
Starting date:	17/6/2020
Completion date:	Completed
Construction cost of WC:	1,725,495



Figure 4.12: 87112/L taking Coordinate at Mogha Point

5) Field visit Date: 17 July 2021

Watercourse ID:	6300/L
Name of village:	138/9L
Village council:	UC 22
Chairman WUA:	Allah Ditta
Cell No.	03467038967
Tehsil & District:	Sahiwal / Sahiwal
Source of irrigation:	Canal + Tube well
Total length of watercourse:	2910
Estimated length of lining:	10
Command area of watercourse:	216
No of beneficiaries:	24

<b>Starting date:</b>	26/11/2019
<b>Completion date:</b>	Completed
<b>Construction cost of WC:</b>	763889



Figure 4.13: 6300/L View of Lined Curvy Water Course

#### 6) Field Visit Date 17 July 2021

<b>Watercourse ID:</b>	32150/L
<b>Name of village:</b>	116/12L
<b>Village council:</b>	
<b>Chairman WUA:</b>	Khalid Nawaz
<b>Cell No.</b>	03364748116
<b>Tehsil &amp; District:</b>	Chichawanti / Sahiwal
<b>Source of irrigation:</b>	Canal + Tube well
<b>Total length of watercourse:</b>	5160
<b>Estimated length of lining:</b>	1220
<b>Command area of watercourse:</b>	423
<b>No of beneficiaries:</b>	20
<b>Starting date:</b>	14-05-2020
<b>Completion date:</b>	Completed
<b>Construction cost of WC:</b>	2385997



Figure 4.14: Measuring Lining Length of Water Course with Measuring Wheel

#### 4.2.2.2 Watercourses Sub-Zone-2

##### 1) Field Visit Date: 15 July 2021

<b>Watercourse ID:</b>	6990-R
<b>Name of village:</b>	Sunderana
<b>Village council:</b>	Kalay ki Mandi
<b>Chairman WUA:</b>	Akhter Ali
<b>Cell No.</b>	03006128874
<b>Tehsil &amp; District:</b>	Hafizabad
<b>Source of irrigation:</b>	Canal + Tube well
<b>Total length of watercourse:</b>	3366
<b>Estimated length of lining:</b>	1280
<b>Command area of watercourse:</b>	302
<b>No of beneficiaries:</b>	16
<b>Starting date:</b>	14/10/20
<b>Present Status</b>	Completed
<b>Construction cost of WC:</b>	20,29,425



Figure 4.15: Inspection of control structure at Water course No 6990-R

2) Field Visit Date: 15 July 2021

Watercourse ID:	8210-L
Name of village:	Thatha Noor Shah
Village council:	
Chairman WUA:	Muhammad Rizwan Abbas
Cell No.	03315646464
Tehsil & District:	Hafizabad
Source of irrigation:	Canal + Tube Well
Total length of watercourse:	5742
Estimated length of lining:	2871
Command area of watercourse:	324
No of beneficiaries:	18
Starting date:	20/3/2020
Present Status	Completed
Construction cost of WC:	44,33,521



Figure 4.16: Theft of Water from Jalalpur Minor at Water course No 8210-L

3) Field Visit Date: 15 July 2021

Watercourse ID:	655-L
Name of village:	Saroop Wala
Village council:	Shah Jamal
Chairman WUA:	Rana Shaukat Ali
Cell No.	03217461406
Tehsil & District:	Hafizabad
Source of irrigation:	Canal + Tube well
Total length of watercourse:	912
Estimated length of lining:	456
Command area of watercourse:	127
No of beneficiaries:	10
Starting date:	16/6/2021
Present Status	Completed
Construction cost of WC:	39,8583



Figure 4.17: A view of Water Course at the End of Lined Portion At Water Course No 655-L

4) Field Visit Date: 16 July 2021

Watercourse ID:	36672-L
Name of village:	Dhobra
Village council:	Bhobra
Chairman WUA:	Zulqarnain Haider
Cell No.	03002051512
Tehsil & District:	Hafizabad
Source of irrigation:	Canal + Tube well

<b>Total length of watercourse:</b>	3762
<b>Estimated length of lining:</b>	827
<b>Command area of watercourse:</b>	266
<b>No of beneficiaries:</b>	20
<b>Starting date:</b>	26/10/2020
<b>Present Status</b>	Completed
<b>Construction cost of WC:</b>	1,77,1242



Figure 4.18: Improper Filling of Joint and back fill material at Water Course No 36672-L

##### 5) Field Visit Date: 16 July 2021

<b>Watercourse ID:</b>	4256-R
<b>Name of village:</b>	Kassesy
<b>Village council:</b>	Uc - 32
<b>Chairman WUA:</b>	Khuda Buksh
<b>Cell No.</b>	03005448857
<b>Tehsil &amp; District:</b>	Hafizabad
<b>Source of irrigation:</b>	Canal + Tube well
<b>Total length of watercourse:</b>	3200
<b>Estimated length of lining:</b>	1289
<b>Command area of watercourse:</b>	264
<b>No of beneficiaries:</b>	29
<b>Starting date:</b>	1/9/2020

<b>Present Status</b>	Completed
<b>Construction cost of WC:</b>	2,61,615



Figure 4.19: Inspection of joint at water course No 4256-R

##### 6) Field Visit Date: 16 July 2021

<b>Watercourse ID:</b>	41350-TL
<b>Name of village:</b>	Hardoratta
<b>Village council:</b>	Kot sarwar
<b>Chairman WUA:</b>	Imran Khan
<b>Cell No.</b>	03416181466
<b>Tehsil &amp; District:</b>	Hafizabad
<b>Source of irrigation:</b>	Canal + Tube well
<b>Total length of watercourse:</b>	2508
<b>Estimated length of lining:</b>	947
<b>Command area of watercourse:</b>	270
<b>No of beneficiaries:</b>	44
<b>Starting date:</b>	28/03/2020
<b>Present Status</b>	Completed
<b>Construction cost of WC:</b>	15,48,269



Figure 4.20: Measuring water course length by measuring wheel at Water Course No 41350-TL



Figure 4.21: Collection of Coordinates at Mogha point of Water Course 3315-TL

#### 7) Field Visit Date: 17 July 2021

Watercourse ID:	3315-L
Name of village:	Badar Ali
Village council:	Badar Ali
Chairman WUA:	Basharat Ali
Cell No.	03214309721
Tehsil & District:	Hafizabad
Source of irrigation:	Canal + Tube well
Total length of watercourse:	1320
Estimated length of lining:	858
Command area of watercourse:	157
No of beneficiaries:	17
Starting date:	15/2/2021
Present Status	Completed
Construction cost of WC:	2,00,6417

#### 8) Field Visit Date: 17 July 2021

Watercourse ID:	15404-R
Name of village:	Nawan Manika
Village council:	Nawan Manika
Chairman WUA:	Nauman Ali
Cell No.	03404339422
Tehsil & District:	Hafizabad
Source of irrigation:	Canal + Tube well
Total length of watercourse:	3114
Estimated length of lining:	227
Command area of watercourse:	257
No of beneficiaries:	41
Starting date:	24/2/2021
Present Status	Completed
Construction cost of WC:	442291



Figure 4.22: Presence of Weeds-Bushes at Water Course  
 No 15404-R



Figure 4.23: Longitudinal View of WC 7894L

#### 4.2.2.3 Watercourses Sub-Zone-3

##### 1) Field Visit Date: 15 July 2021

Watercourse ID:	7894/L
Name of village:	Kherabad
Union council:	Qadirpur Raan 38
Chairman WUA:	Muhammad Iqbal
Tehsil & District:	Multan Saddar, Multan
Source of irrigation:	Canal+Tube Well
Total length of watercourse:	3543 m
Estimated length of lining:	900 m
Command area of watercourse:	289 Acres
No of beneficiaries:	22
Starting date:	04-01-2021
Completion date:	Under Process
Cost of Construction of WC:	Rs.1606570/-

##### 2) Field Visit on 15-7-2021

Watercourse ID:	41440/L
Name of village:	2-Terpai
Union council:	131 Chatta
Chairman WUA:	Altaf Hussain
Cell No.	0306-7337531
Tehsil & District:	Multan Saddar, Multan
Source of irrigation:	Canal+Tube Well
Total length of watercourse:	7246 m
Estimated length of lining:	930 m
Command area of watercourse:	450 Acres
No of beneficiaries:	7
Starting date:	08-08-2020
Completion date:	Under Process
Cost of Construction of WC:	Rs.2498821/-



Figure 4.24: View of Water flowing through Watercourse at 41440 L



Figure 4.25: Path Depicting WC 106200 L

3) Field Visit Date: 16 July 2021

Watercourse ID:	106200/TR
Name of village:	Raja Ram
Village council:	Raja Ram
Chairman WUA:	Toqeer Ahmed
Cell No.	0300-8539575
Tehsil & District:	Shujabad, Multan
Source of irrigation:	Canal+Tube Well
Total length of watercourse:	5263 m
Estimated length of lining:	844 m
Command area of watercourse:	682 Acres
No of beneficiaries:	36
Starting date:	04-12-2019
Completion date:	-
Construction cost of WC:	Rs.2433817/-

4) Field Visit Date: 16 July 2021

Watercourse ID:	139544/R
Name of village:	That Ghaluwan
Village council:	That Ghaluwan
Chairman WUA:	Sarfraz Ahmed Khan
Cell No.	0300-6373711
Tehsil & District:	Shujabad, Multan
Source of irrigation:	Canal +Tube Well
Total length of watercourse:	5992 m
Estimated length of lining:	1232 m
Command area of watercourse:	469 Acres
No of beneficiaries:	18
Starting date:	16-03-2020
Completion date:	07-05-2021
Construction cost of WC:	Rs.1131199/-



Figure 4.26: View of 139544 R along the fields

5) Field Visit Date: 17 July 2021

Watercourse ID:	43000/R
Name of village:	Qasba Maral
Village council:	Qasba Maral
Chairman WUA:	Muhammad Ismail
Cell No.	0302-7306302
Tehsil & District:	Multan Saddar, Multan
Source of irrigation:	Canal+Tube Well
Total length of watercourse:	10576 m
Estimated length of lining:	1214 m
Command area of watercourse:	1101 Acres
No of beneficiaries:	49
Starting date:	08-05-2020
Completion date:	18-02-2021
Construction cost of WC:	Rs.3431684/-



Figure 4.27: Water flowing through WC 43000 R

6) Field Visit Date: 17 July 2021

Watercourse ID:	27100/L
Name of village:	Basti Balochan
Village council:	Khokran
Chairman WUA:	Umer Farooq
Cell No.	0300-6349137
Tehsil & District:	Multan Saddar, Multan
Source of irrigation:	Canal+Tube Well
Total length of watercourse:	4000 m
Estimated length of lining:	946 m
Command area of watercourse:	270 Acres
No of beneficiaries:	5
Starting date:	13-06-2020
Completion date:	26-04-2021
Construction cost of WC:	Rs.2499353/-



Figure 4.28: WC 27100 L Figure-4.44: Parabolic Segments Shown in Fig.

#### 4.2.2.4 Water Storage Tanks Sub-Zone-1

##### 1) Field Visit Date: 17 July 2021

Water Storage Tank	
Name of village:	148/9L
Union council:	UC-29
Beneficiaries Name	Pervez Asraf Gill
Tehsil & District:	Sahiwal
Source of irrigation:	Canal + Tube well
Shape of water storage tank:	Rectangular
Size of water storage tank:	60x51 51.45
Depth of WST:	5.5 feet
Command area of water storage tank:	20 Acre
No of beneficiaries:	1
Starting date:	28/5/2020
Completion date:	Completed



Figure 4.29: View of Water Storage Tank

#### 4.2.2.5 Water Storage Tanks Sub-Zone-2

##### 1) Field Visit on 17-7-2021

Water Storage Tank	
Name of village:	Bahuman
Union council:	UC – 32

Beneficiaries Name	Iftikhar Ahmed
Tehsil & District:	Pindi Bhattian Hafizabad
Source of irrigation:	Tube well
Shape of water storage tank:	Trapezoidal
Size of water storage tank:	33/33
Depth of WST:	6 feet
Command area of water storage tank:	5.45
No of beneficiaries:	1
Starting date:	1/3/2020
Construction Cost of water storage tank:	N/A



Figure 4.30: Collection of Coordinates at WST

#### 4.2.2.6 Water Storage Tanks Sub-Zone-3

##### 1) Field visit on 16-7-2021

Water Storage Tank	
Name of village:	131-A
Union council:	Mubarak Pur
Chairman WUA:	Muhammad Hamid Nawaz
Tehsil & District:	Jahania, Khanewal
Source of irrigation:	Canal+Tubewell
Shape of water storage tank:	Trapezoidal
Size of water storage tank:	40.6 x 24.2 m
Depth of WST:	1.89 m
Command area of water storage tank:	12.00 Acres
No of beneficiaries:	1
Starting date:	05-05-2020
Completion date:	N/A



Figure 4.31: View of WST (Hamid Nawaz)

2) Field Visit Date: 16 July 2021

Water Storage Tank	
Name of village:	6 Faiz
Union council:	Moza Matti Tal
Beneficiary Name	Amir Sohail
Tehsil & District:	Multan Saddar, Multan
Source of irrigation:	Canal+Tubewell
Shape of water storage tank:	Trapezoidal
Size of water storage tank:	32.68 x 22.89 m
Depth of WST:	1.98 m
Command area of water storage tank:	37 Acres
No of beneficiaries:	1
Starting date:	-
Completion date:	-



Figure 4.32: Night View of WST (Amir Sohail)

4.2.2.7 Water Storage Tanks - Rawalpindi Division

1) Field Visit On 27-07-2021

Water Storage Tank	
Name of village:	Sarwala
Union council:	
Beneficiary Name	Malik Rizwan
Tehsil & District:	Attock/Attock
Source of irrigation:	Tubewell+Bore
Shape of water storage tank:	
Size of water storage tank:	25ft x 25ft x 5ft
Depth of WST:	5.6 ft
Command area of water storage tank:	6 Acres
No of beneficiaries:	1
Starting date:	04-01-2021
Completion date:	

2) Field Visit Date: 27 July 2021

Water Storage Tank	
Name of village:	Jamagh
Union council:	
Beneficiary Name	Nisar Bibi
Tehsil & District:	Attock/Attock
Source of irrigation:	Tubewell+Bore
Shape of water storage tank:	
Size of water storage tank:	30ft x 30ft x 5ft
Depth of WST:	9 ft
Command area of water storage tank:	14.33 Acres
No of beneficiaries:	1
Starting date:	19-08-2021
Completion date:	

**3) Field Visit Date: 27 July 2021**

Water Storage Tank	
Name of village:	Bafahad
Union council:	
Beneficiary Name	Saqib Javed
Tehsil & District:	Hassan Abdal/Attock
Source of irrigation:	Tubewell+Bore
Shape of water storage tank:	
Size of water storage tank:	24.9ft x 24.5ft x 5.8ft
Depth of WST:	5.8ft
Command area of water storage tank:	10 Acres
No of beneficiaries:	1
Starting date:	22-03-2021
Completion date:	

**4) Field Visit Date: 27 July 2021**

Water Storage Tank	
Name of village:	Bafahad
Union council:	
Beneficiary Name	Saqib Javed
Tehsil & District:	Hassan Abdal/Attock
Source of irrigation:	Tubewell+Bore
Shape of water storage tank:	
Size of water storage tank:	24.9ft x 24.5ft x 5.8ft
Depth of WST:	5.8ft
Command area of water storage tank:	10 Acres
No of beneficiaries:	1
Starting date:	22-03-2021
Completion date:	

**4.2.3 Regular Monitoring of Interventions in the Field – KP Zone**

Due to unavailability of Data from Client, KP Zonal office field teams could not start the regular

monitoring of the Project Interventions. However, ME&IE consultants conducted meeting with client office for acquisition of data.

**4.2.4 Field Visits Details of Regular Monitoring- Balochistan Zone**

**4.2.4.1 Field Visits of Team-1**

**Team – 1: Monitored by Tariq Khosa, M&E Expert and Mr. Saleem Ahmed, M&E Officer**

**1) Field Visit Date – 29<sup>th</sup> July, 2021**

<b>Scheme:</b>	Watercourse
<b>Name of Farmer:</b>	Abdul Rehman
<b>Name of village:</b>	Abdul Rehman
<b>Union council:</b>	Bedar Beroon
<b>Chairman WUA:</b>	Abdul Rehman
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali
<b>Source of irrigation:</b>	Canal
<b>Total length of watercourse:</b>	1150 ft
<b>Estimated length of lining:</b>	1150 ft
<b>Command area of watercourse:</b>	32 Acre
<b>No of beneficiaries:</b>	10
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Average
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water loses decreased about 30%</li> <li>Cropping intensity increased by 15 to 20 %</li> <li>Water reaching timing to farms from source decreased 80% (Before provision of WC water took 4 hours in reaching to farms, now it took 30 minutes)</li> </ul>	

<ul style="list-style-type: none"> <li>• Saving of electricity</li> <li>• Reduced tube well repairing expenses.</li> </ul>

Figure 4.33: Measuring the Watercourse

<ul style="list-style-type: none"> <li>monitoring due to non-available of files</li> <li>• The Farmer was not taking care of WC properly, some damages were found in WC. The OFWM need to look in to the matter.</li> <li>• Back filling of WC was not proper.</li> </ul>
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<b>Farmer Feedback / Impact</b>
• Water loses decreased about 10%.

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Figure 4.34: Measuring Watercourse

## 2) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Khan Muhammad
<b>Name of village:</b>	Yar Mohammad
<b>Union council:</b>	Bedar Beroon
<b>Chairman WUA:</b>	Khan Mohammad
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali
<b>Source of irrigation:</b>	Canal
<b>Total length of watercourse:</b>	1150 ft
<b>Estimated length of lining:</b>	1150 ft
<b>Command area of watercourse:</b>	60 Acre
<b>No of beneficiaries:</b>	11
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Average
<b>Observations</b>	<ul style="list-style-type: none"> <li>• Files of scheme were not available with OFWM staff.</li> <li>• The ME&amp;IE Consultants felt great difficulties in</li> </ul>

## 3) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer:</b>	Asad Khan
<b>Name of village:</b>	Asad Khan
<b>Union council:</b>	Bedar Beroon
<b>Chairman WUA:</b>	Asad Khan
<b>District:</b>	Naseerabad
<b>Tehsil</b>	Dera Murad Jamali
<b>Source of irrigation:</b>	Canal
<b>Total length of watercourse:</b>	1150 ft (100 ft additional WC is being under constructed by the farmer through his own expenses)
<b>Estimated length of lining:</b>	1150 ft
<b>Command area of watercourse:</b>	70 Acre
<b>No of beneficiaries:</b>	12

<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Good
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water loses decreased 30%</li> <li>Cropping intensity increased by 15 to 20 %</li> <li>Water conveyance timing decreased 80% (Before provided the WC water took 4 hours in reaching which now reached in 30 minutes</li> </ul>	
 	

Figure 4.35: Taking length of WC (Left), Farmer making 100 ft additional WC through own expenses (Right)

#### 4) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme:</b>	Watercourse
<b>Name of Farmer</b>	Mohib Ali
<b>Name of village:</b>	Mohib Ali Kanrani
<b>Union council:</b>	Ramzay Pur
<b>Chairman WUA:</b>	Mohib Ali
<b>District:</b>	Jaffarabad
<b>Tehsil</b>	Jhat Pat
<b>Source of irrigation:</b>	Canal
<b>Total length of watercourse:</b>	1300 ft (150 ft has been added WC by farmer through his own expenses)
<b>Estimated length of lining:</b>	1150 ft

<b>Command area of watercourse:</b>	60 Acre
<b>No of beneficiaries:</b>	2
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Good
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>150 feet WC added by farmer with his own expenses.</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water loses decreased 40%</li> <li>Cropping intensity increased by 15 to 20 %</li> <li>Water conveyance timing decreased 80% (Before provided the WC water took 4 hours in reaching to farm which now reached in 30 minutes)</li> <li>Farmer was happy with scheme and demanding more WC.</li> </ul>	
	

Figure 4.36: Meeting with OFWM staff and Farmers

#### 5) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme:</b>	Watercourse
<b>Name of Farmer</b>	Khair Muhamad
<b>Name of village:</b>	Khair Mohammad
<b>Union council:</b>	Band Manik
<b>Chairman WUA:</b>	Khan Mohammad
<b>District:</b>	Jaffarabad
<b>Tehsil</b>	Jhat Pat

<b>Source of irrigation:</b>	Cannal
<b>Total length of watercourse:</b>	1150 ft
<b>Estimated length of lining:</b>	1150 ft
<b>Command area of watercourse:</b>	80 Acre
<b>No of beneficiaries:</b>	7
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Good

#### Observations

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files

#### Farmer Feedback / Impact

- Water loses decreased 40%
- Cropping intensity increased by 20 to 25 %
- Water conveyance timing decreased 80% (Before provided the WC water took 4 hours in reaching to farm which now reached in 30 minutes)



Figure 4.37: View of Farm and Sign Board

#### 6) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme:</b>	Watercourse
<b>Farmer Name</b>	Asad Khan Badini
<b>Name of village:</b>	Ghulam Jan Badini
<b>Union council:</b>	Ramzay Pur
<b>Chairman WUA:</b>	Asad Khan
<b>District:</b>	Jaffar abad
<b>Tehsil</b>	Jhat Pat
<b>Source of irrigation:</b>	Canal
<b>Total length of</b>	1150 ft

<b>watercourse:</b>	
<b>Estimated length of lining:</b>	1150 ft
<b>Command area of watercourse:</b>	60 Acre
<b>No of beneficiaries:</b>	8
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	2,825,815/=
<b>Quality of Work</b>	Average

#### Observations

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files

#### Farmer Feedback / Impact

- Water loses decreased 40%
- Cropping intensity increased by 10 to 15 %
- Water conveyance timing decreased 80% (Before provided the WC water took 4 hours in reaching to farm which now reached in 30 minutes)
- Farmer was happy with scheme and demanding more WC.



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Figure 4.38: Measuring Watercourse

#### 4.2.4.2 Field Visits of Team-2

**Team – 2: Monitored by Naseeb Jan, M&E Expert and Mr. Qaisar Tareen, M&E Officer**

##### 1) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tanks
<b>Name of Farmer</b>	Haji Akram
<b>Name of village:</b>	Awarha Badenzai
<b>Union council:</b>	Badenzai
<b>Chairman WUA:</b>	Haji Akram
<b>District:</b>	Zhob
<b>Tehsil</b>	Zhob
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	40x40 ft
<b>Depth of WST:</b>	4.5 ft
<b>Command area of water storage tank:</b>	5 Acres
<b>No of beneficiaries:</b>	1
<b>Starting date:</b>	Not Shared
<b>Completion date:</b>	Not Shared
<b>Construction Cost of watercourse:</b>	Not Shared
<b>Quality of Work</b>	Satisfactory
<b>Observations</b>	<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>
<b>Farmer Feedback / Impact</b>	<ul style="list-style-type: none"> <li>Water saving around 50%</li> <li>Cultivated area increased about 3 to 4 Acre</li> </ul>



Figure 4.39: View of Signboard and measuring the Water Storage Tank - Spot Checking

##### 2) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Abdul Wahid
<b>Name of village:</b>	Badenzai
<b>Union council:</b>	Badenzai
<b>Chairman WUA:</b>	Abdul Wahid
<b>District:</b>	Zhob
<b>Tehsil</b>	Zhob
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	3600 ft.
<b>Estimated length of lining:</b>	1800 ft.
<b>Command area of watercourse:</b>	10 Acres
<b>No of beneficiaries:</b>	6
<b>Starting date:</b>	Not Shared
<b>Completion date:</b>	Not Shared
<b>Cost of Construction of WC:</b>	Not Shared
<b>Quality of work</b>	Not satisfactory
<b>Observations</b>	<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>There was no Nacca (Design Fault), due to this reason, beneficiaries damaged the WC from</li> </ul>

<p>different place to get the water. Water leakage also observed as the beneficiaries not properly sealed the damaged placed after using the water.</p> <p><b>Farmer Feedback / Impact</b></p> <ul style="list-style-type: none"> <li>• Water saving around 10%</li> <li>• Cultivated area increased about 8 Acre</li> </ul> 
--

Figure 4.40: Measuring the Watercourse and View of Damaged Watercourse

### 3) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse (PVC Pipe)
<b>Name of Farmer</b>	Fareed Khan
<b>Name of village:</b>	Apozai
<b>Union council:</b>	Apozai
<b>Chairman WUA:</b>	Fareed Khan
<b>District:</b>	Zhob
<b>Tehsil</b>	Zhob
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	3000 ft.
<b>Estimated length of lining:</b>	1000 ft.
<b>Command area of watercourse:</b>	52 Acres
<b>No of beneficiaries:</b>	5
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Not satisfactory

<b>Observations</b>
• Files of scheme were not available with OFWM staff.
• The ME&IE Consultants felt great difficulties in monitoring due to non-available of files
• It was observed the PVC pipe was not installed properly
• The farmer was not taking care the scheme, The OFWM staff look into the matter

<b>Farmer Feedback / Impact</b>
• Water saving around 20%
• Cultivated area increased about 5 Acre as the land of upper side is now cultivated by the this scheme (PVC Pipe).



Figure 4.41: Measuring Watercourse

### 4) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Malik Mir Adam
<b>Name of village:</b>	Khan Alam
<b>Union council:</b>	Kapip
<b>Chairman WUA:</b>	Malak Mir Adam
<b>District:</b>	Sherani
<b>Tehsil</b>	Sherani
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	60x60 ft
<b>Depth of WST:</b>	4.5 ft
<b>Command area of water storage tank:</b>	8 Acres

<b>No of beneficiaries:</b>	4
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Construction Cost of watercourse:</b>	Not available
<b>Quality of work</b>	Not satisfactory
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>Construction of WST was not up to the mark</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water saving around 40%</li> <li>Cultivated area increased about 10 Acre</li> </ul>	
	

Figure 4.42: View of Water Storage Tank

## 5) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Muhammad Shah
<b>Name of village:</b>	Khan Alam
<b>Union council:</b>	Kapip
<b>Chairman WUA:</b>	Muhammad Shah
<b>District:</b>	Sherani
<b>Tehsil</b>	Sherani
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	1000 ft.
<b>Estimated length of lining:</b>	1000 ft.

<b>Command area of watercourse:</b>	8 Acres
<b>No of beneficiaries:</b>	3
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Satisfactory

<b>Observations</b>
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>
<b>Farmer Feedback / Impact</b>

<ul style="list-style-type: none"> <li>Water saving around 50%</li> <li>Cultivated area increased about 10 Acre</li> </ul>
--



Figure 4.43: Measuring the PVC Pipe length with Deputy Direct, Sheerani

## 6) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tank
<b>Name of Farmer</b>	Rehmat Shah
<b>Name of village:</b>	Asuband
<b>Union council:</b>	Manikhwah
<b>Chairman WUA:</b>	Rehmat Shah
<b>District:</b>	Sherani
<b>Tehsil</b>	Sherani
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square

<b>Size of water storage tank:</b>	50x50 ft
<b>Depth of WST:</b>	4.5 ft
<b>Command area of water storage tank:</b>	8 Acres
<b>No of beneficiaries:</b>	5
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Construction Cost of watercourse:</b>	Not available
<b>Quality of work</b>	Satisfactory
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>WST is okey, but further conveyance system (WC) damaged, due to this reason farmers are not getting proper benefit of this scheme.</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water saving around 20%</li> <li>Cultivated area increased about 5 Acre</li> </ul>	
	

Figure 4.44: Measuring the Water Storage Tank

## 7) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Rehamat Shah
<b>Name of village:</b>	Asuband
<b>Union council:</b>	Manikhwah
<b>Chairman WUA:</b>	Rahmat Shah
<b>District:</b>	Sherani
<b>Tehsil</b>	Sherani

<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	4000 ft.
<b>Estimated length of lining:</b>	1000 ft.
<b>Command area of watercourse:</b>	8 Acres
<b>No of beneficiaries:</b>	5
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Not satisfactory

<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>It was observed that WC constructed without proper feasibility/design as it was constructed on way which was using for the transportation, now due to transportation WC has been damaged badly.</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>After this scheme farmer get cultivated barren land.</li> </ul>	



Figure 4.45: View of Damaged WC

## 8) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tank
<b>Farmer Name</b>	Dawood Khan
<b>Name of village:</b>	Toyi Sar
<b>Union council:</b>	Toyi Sar

<b>Chairman WUA:</b>	Dawood Khan
<b>District:</b>	Musakhail
<b>Tehsil</b>	Toyi Sar
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	60x60
<b>Depth of WST:</b>	4.5
<b>Command area of water storage tank:</b>	60 Acres
<b>No of beneficiaries:</b>	2
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Construction Cost of watercourse:</b>	Not available
<b>Quality of work</b>	Not satisfactory

**Observations**

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files

**Farmer Feedback / Impact**

- Water saving around 50%
- Cultivated area increased about 15 Acre



Figure 4.46: View of Watercourse Storage Tank

<b>District:</b>	Musakhail
<b>Tehsil</b>	Musakhail
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	2000 ft.
<b>Estimated length of lining:</b>	800 ft.
<b>Command area of watercourse:</b>	2 Acres
<b>No of beneficiaries:</b>	7
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Not satisfactory

**Observations**

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files
- It was observed the sewerage water is passing through WC

**Farmer Feedback / Impact**

- Cultivated area increase about 3 Acre



Figure 4.47: Measuring the Watercourse during spot checking

**10) Field Visit Date – 31<sup>st</sup> July, 2021**

**9) Field Visit Date – 30<sup>th</sup> July, 2021**

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Abdul Rahim
<b>Name of village:</b>	Town
<b>Union council:</b>	Town
<b>Chairman WUA:</b>	Abdul Rahim

<b>Scheme</b>	Water Storage Tank
<b>Name of Farmer</b>	Rehmat Ullah
<b>Name of village:</b>	Saddo Karez
<b>Union council:</b>	Thal Chotyali
<b>Chairman WUA:</b>	Rehmat Ullah
<b>District:</b>	Dukki

<b>Tehsil</b>	Dukki
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	60x60
<b>Depth of WST:</b>	4.5
<b>Command area of water storage tank:</b>	30 Acres
<b>No of beneficiaries:</b>	4
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Construction Cost of watercourse:</b>	Not available
<b>Quality of work</b>	Good

**Observations**

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files

**Farmer Feedback / Impact**

- Water saving around 50%
- Cultivated area increased about 10 Acre



Figure 4.48: Measuring the Water Storage Tank

<b>Tehsil</b>	Dukki
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	3500 ft.
<b>Estimated length of lining:</b>	1200 ft.
<b>Command area of watercourse:</b>	30 Acres
<b>No of beneficiaries:</b>	4
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Satisfactory
<b>Observations</b>	
<ul style="list-style-type: none"> <li>• Files of scheme were not available with OFWM staff.</li> <li>• The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>• Water saving around 50%</li> <li>• Cultivated area increased about 5 Acre. Now the barren land now being irrigated through this scheme.</li> </ul>	



Figure 4.49: View of Scheme Signboard

**11) Field Visit Date – 31<sup>st</sup> July, 2021**

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Abdul Raziq
<b>Name of village:</b>	Nimaki
<b>Union council:</b>	Moza
<b>Chairman WUA:</b>	Abdul Raziq
<b>District:</b>	Dukki

**12) Field Visit Date – 31<sup>st</sup> July, 2021**

<b>Scheme</b>	Watercourse (PVC Pipe)
<b>Name of Farmer</b>	Ahsan Ullah
<b>Name of village:</b>	Manzaki
<b>Union council:</b>	Gharbi Luni
<b>Chairman WUA:</b>	Ahsan Ullah

<b>District:</b>	Dukki
<b>Tehsil</b>	Dukki
<b>Source of irrigation:</b>	Tube well
<b>Total length of watercourse:</b>	4700 ft.
<b>Estimated length of lining:</b>	3000 ft.
<b>Command area of watercourse:</b>	250 Acres
<b>No of beneficiaries:</b>	4
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Satisfactory
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Water saving around 50%</li> <li>Cultivated area increased about 10 Acre. Now the barren land now being irrigated through this scheme.</li> </ul>	



Figure 4.50: View of Signboard

#### 4.2.4.3 Field Visits of Team-3

**Team-3: Monitored by Manzoor Kasi, M&E Expert, Mr. Hamza Qureshi, M&E Officer and Mah Gul, M&E Officer**

##### 1) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tank
<b>Name of Farmer</b>	Habib ur Rehman
<b>Name of village:</b>	Jamaldini
<b>Union council:</b>	Jamaldini
<b>Chairman WUA:</b>	Habib-Ur-Rehman
<b>District:</b>	Nushki
<b>Tehsil</b>	Nushki
<b>Source of irrigation:</b>	Tube well
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	60x60 ft.
<b>Depth of WST:</b>	4.5 ft.
<b>Command area of water storage tank:</b>	50 Acres
<b>No of beneficiaries:</b>	10
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Construction Cost of water storage tank:</b>	Not available
<b>Quality of work</b>	Good
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>Electricity problem</li> <li>Solar System is more feasible for this area.</li> <li>WC is not feasible due to heavy sand in this area</li> <li>PVC Pipe is feasible for this area.</li> </ul>	
<b>Farmer Feedback / Impact</b>	
<ul style="list-style-type: none"> <li>Cultivated area has been increase by 5 to 7 acres.</li> </ul>	

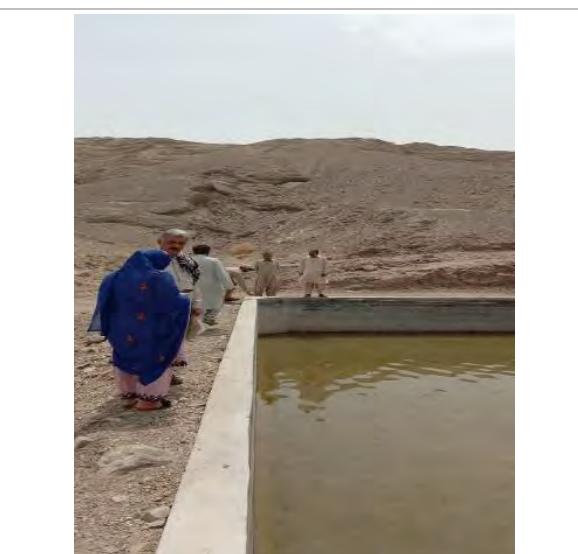


Figure 4.51: View of Water Storage Tank

## 2) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Shahnawaz Khan
<b>Name of village:</b>	Batto
<b>Union council:</b>	Ahmedwaal
<b>Chairman WUA:</b>	Shahnawaz Khan
<b>District:</b>	Nuhski
<b>Tehsil</b>	Nushki
<b>Source of irrigation:</b>	Tube Well
<b>Total length of watercourse:</b>	1160.4 Meters 4000 ft.
<b>Estimated length of lining:</b>	610.4 Meter 2002.72 ft.
<b>Command area of watercourse:</b>	40 Acres
<b>No of beneficiaries:</b>	10
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Good
<b>Observations</b>	<ul style="list-style-type: none"> <li>Files of scheme were not available with OFWM staff.</li> <li>The ME&amp;IE Consultants felt great difficulties in monitoring due to non-available of files</li> <li>Electricity problem</li> <li>Solar System is more feasible for this area.</li> <li>WC is not feasible due to heavy sand in this</li> </ul>

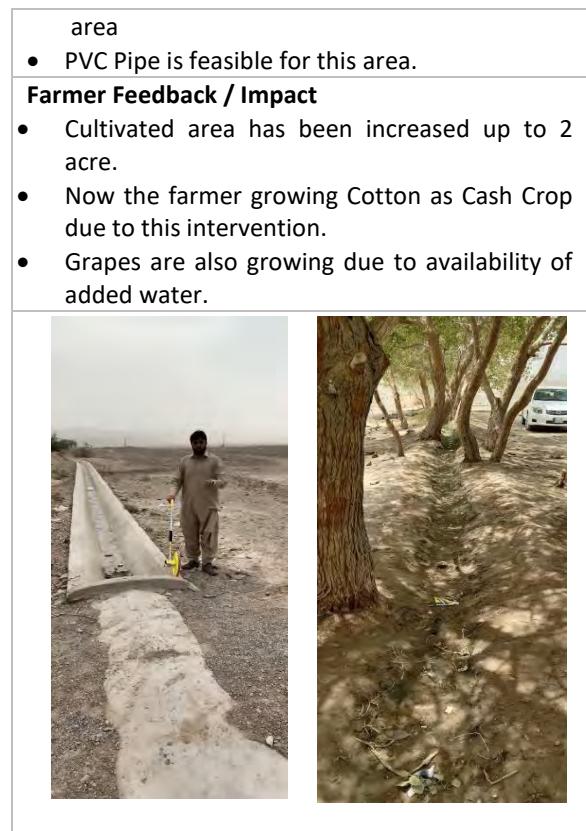


Figure 4.52: RCC Culvert of WC New Construction (Left), View of Kacha WC, farmer demanding for Pakka WC in upcoming schemes (Right)

## 3) Field Visit Date – 29<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Ameer Hamza
<b>Name of village:</b>	Batto Landi
<b>Union council:</b>	Ahmedwaal
<b>Chairman WUA:</b>	Ameer Hamza
<b>District:</b>	Nuhski
<b>Tehsil</b>	Nushki
<b>Source of irrigation:</b>	Tube Well
<b>Total length of watercourse:</b>	609.57 Meters 2000 ft.
<b>Estimated length of lining:</b>	609.57 Meter 2000 ft.
<b>Command area of watercourse:</b>	45 Acres
<b>No of beneficiaries:</b>	10
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available

<b>Quality of work</b>	Satisfactory
<b>Observations</b>	
• Files of scheme were not available with OFWM staff.	
• The ME&IE Consultants felt great difficulties in monitoring due to non-available of files	
• Due to PVC water conveyance system improved lot	
• Loses of water reduced up to 20%	
• Load Shading of 20 hours are being observed.	
• Low voltage causes of heavy damages of machinery.	
<b>Farmer Feedback / Impact</b>	
• Cultivated area increased 2 acre	
• Melon are being cultivated by farmer	
	

Figure 4.53: View of Signboard and PVC Pipe

#### 4) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme</b>	Water Storage Tank
<b>Name of Farmer</b>	Abdul Ghaffar
<b>Name of village:</b>	Sasnak
<b>Union council:</b>	Manna
<b>Chairman WUA:</b>	Abdul Ghaffar
<b>District:</b>	Ziarat
<b>Tehsil</b>	Ziarat
<b>Source of irrigation:</b>	Spring
<b>Shape of water storage tank:</b>	Square
<b>Size of water storage tank:</b>	50x50 ft.
<b>Depth of WST:</b>	4.5 ft.
<b>Command area of water storage tank:</b>	45 Acres
<b>No of beneficiaries:</b>	This Scheme was community based. Number of beneficiaries were 08
<b>Starting date:</b>	Not available

<b>Completion date:</b>	Not available
<b>Construction Cost of water storage tank:</b>	Not available
<b>Quality of work</b>	Satisfactory
<b>Observations</b>	
• Files of scheme were not available with OFWM staff.	
• The ME&IE Consultants felt great difficulties in monitoring due to non-available of files	
<b>Farmer Feedback / Impact</b>	
• Water Losses reduced 20% due to PVC Scheme	
• They need a WC of 20,000 ft on community-based to be covered about 10 beneficiaries.	
 	

Figure 4.54: Spring as source of water (Above) and Field Team with beneficiaries (Below)

#### 5) Field Visit Date – 30<sup>th</sup> July, 2021

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Shah Muhammad
<b>Name of village:</b>	Sasnak
<b>Union council:</b>	Manna
<b>Chairman WUA:</b>	Shah Muhammad
<b>District:</b>	Ziarat
<b>Tehsil</b>	Manna
<b>Source of irrigation:</b>	Tube Well
<b>Total length of watercourse:</b>	304.78 Meters 1000 ft.
<b>Estimated length of lining:</b>	304.78 Meter 1000 ft.
<b>Command area of watercourse:</b>	4 Acres

<b>No of beneficiaries:</b>	3
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Satisfactory

**Observations**

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files

**Farmer Feedback / Impact**

- Water loses reduced 20%, now getting water in proper due to PVC Pipe.



Figure 4.55: View of Sign board (Above) and Field team taking data from beneficiary (Below)

**6) Field Visit Date – 30<sup>th</sup> July, 2021**

<b>Scheme</b>	Watercourse
<b>Name of Farmer</b>	Raaz Muhammad
<b>Name of village:</b>	Zandra
<b>Union council:</b>	Zandra
<b>Chairman WUA:</b>	Raaz Muhammad
<b>District:</b>	Ziarat
<b>Tehsil</b>	Ziarat
<b>Source of irrigation:</b>	Tube Well
<b>Total length of</b>	304.78 Meters

<b>watercourse:</b>	1000 ft.
<b>Estimated length of lining:</b>	304.78 Meter 1000 ft.
<b>Command area of watercourse:</b>	5 Acres
<b>No of beneficiaries:</b>	1
<b>Starting date:</b>	Not available
<b>Completion date:</b>	Not available
<b>Cost of Construction of WC:</b>	Not available
<b>Quality of work</b>	Satisfactory

**Observations**

- Files of scheme were not available with OFWM staff.
- The ME&IE Consultants felt great difficulties in monitoring due to non-available of files
- The farmer was requesting to revise the share of farmer from 25% to 10%.

**Farmer Feedback / Impact**

- Water loses reduced 20%, now getting water in proper due to PVC Pipe.



Figure 4.56: View of Signboard and PVC Pipe

**4.2.4.4 Social and Gender Component**

Gender is an important consideration in development of any country. It is a way of looking at how social norms and power structures impact on the lives and opportunities available to different groups of men and women. The women are playing substantial rule in agriculture sector throughout Pakistan. The women's role in Balochistan's agriculture sector is limited due to Tribal customs. In most of districts they are not allowed to work at farms, however, they participate in different agriculture related activities at home i.e. like seed cleaning, threshing, grain cleaning, livestock, crops

production, drying and storage of crops, medicinal plants for treating many ailments.

During the current month Team-3 was assigned to collect data regarding Social and Gender from different districts. Team collected data from district Noshki and Ziarat by covering North and South Zones both. The detail of visits and data collected is given below:

**1) Field Visit Date –29<sup>th</sup> July 2021**

**District: Noshki**

**Tehsil: Noshki**

**UC: Ahmad waal**

**Village: Batto Landi**

**Monitored by: Mis Mahgul, M&E Officer**

<b>Farmer's Name:</b>	Ameer Hamza
<b>Scheme</b>	Watercourse
<b>Name of Respondent:</b>	Rasheeda
<b>Age of Respondent:</b>	28
<b>Level of Education:</b>	Illiterate
<b>Occupation:</b>	Agriculture
<b>Single/Married:</b>	Married
<b>Do you Own piece of Agricultural Land?</b>	No
<b>Owner/Tenant:</b>	Tenant
<b>Do you Participate in farming activities?</b>	Yes
<b>Do you face Problem in irrigation water?</b>	No
<b>Are you Consulted in farming decisions?</b>	Never
<b>Are you consulted in spending income at your household?</b>	Never
<b>Are you consulted in making household decisions?</b>	Never
<b>What household activities are performed by you?</b>	Cooking, looking after elders, washing clothes and dishes, cleaning of house, caring of children, bringing drinking water, bringing fire wood
<b>Have you heard about NPIWC-II project?</b>	No

<b>Do you know about water user Association?</b>	No
<b>Do you wash clothes at washing pad at watercourse?</b>	It was PVC Pipe scheme. There is not washing pad as per design.
<b>Are culverts sufficient for crossing at watercourse?</b>	It was PVC Pipe scheme. There is not washing pad as per design.
<b>Comments:</b>	
<ul style="list-style-type: none"> <li>• There is no educational institution.</li> <li>• There are no health facilities in enclose, they travel about to 17 kms on bumpy road to reach any hospital.</li> <li>• She doesn't know about NPIWC-II and Water User Association.</li> <li>• She doesn't consult in making decisions about household matters, spending income, and in farming.</li> <li>• She worked at farms with his family male members.</li> <li>• Her others female family members are also worked on farms.</li> <li>• The females not having knowledge about hygiene.</li> <li>• They not allowed taking a picture due to tribal customs.</li> </ul>	

**2) Field Visit Date –30<sup>th</sup> July 2021**

**District: Ziarat**

**Tehsil: Ziarat**

**UC: Manna**

**Village: Sasnak**

**Monitored by: Mis Mahgul, M&E Officer**

<b>Farmer's Name:</b>	Abdul Ghafar
<b>Scheme</b>	WST
<b>Name of Respondent:</b>	Hameeda
<b>Age of Respondent:</b>	35
<b>Level of Education:</b>	Intermediate
<b>Occupation:</b>	Lady Health Worker
<b>Single/Married:</b>	Single
<b>Do you Own piece of Agricultural Land?</b>	Don't Know

<b>Owner/Tenant:</b>	The owner of land were her brothers
<b>Do you Participate in farming activities?</b>	No
<b>Do you face Problem in irrigation water?</b>	Not known
<b>Are you Consulted in farming decisions?</b>	Never
<b>Are you consulted in spending income at your household?</b>	Never
<b>Are you consulted in making household decisions?</b>	Never
<b>What household activities are performed by you?</b>	Cooking, looking after elders, washing clothes and dishes, cleaning of house
<b>Have you heard about NPIWC-II project?</b>	No
<b>Do you know about water user Association?</b>	No
<b>Do you wash clothes at washing pad at watercourse?</b>	No
<b>Are culverts sufficient for crossing at watercourse?</b>	No
Comments:	<ul style="list-style-type: none"> <li>• There is no educational institution.</li> <li>• The females are not allowed to work in Farms.</li> <li>• She doesn't know about NPIWC-II and Water User Association.</li> <li>• She doesn't consult in making decisions about household matters, spending income, and in farming.</li> <li>• They not allowed taking a picture due to tribal customs.</li> </ul>

<b>Name of Respondent:</b>	Razia
<b>Age of Respondent:</b>	29
<b>Level of Education:</b>	Middle
<b>Occupation:</b>	Housekeeping
<b>Single/Married:</b>	Married
<b>Do you Own piece of Agricultural Land?</b>	Not Known
<b>Owner/Tenant:</b>	Her husband is owner of land
<b>Do you Participate in farming activities?</b>	No
<b>Do you face Problem in irrigation water?</b>	Not known
<b>Are you Consulted in farming decisions?</b>	Never
<b>Are you consulted in spending income at your household?</b>	Never
<b>Are you consulted in making household decisions?</b>	Never
<b>What household activities are performed by you?</b>	Cooking, looking after elders, washing clothes and dishes, cleaning of house, caring of children
<b>Have you heard about NPIWC-II project?</b>	No
<b>Do you know about water user Association?</b>	No
<b>Do you wash clothes at washing pad at watercourse?</b>	No
<b>Are culverts sufficient for crossing at watercourse?</b>	No
Comments:	<ul style="list-style-type: none"> <li>• There is no educational institution.</li> <li>• The females are not allowed to work in Farms.</li> <li>• She doesn't know about NPIWC-II and Water User Association.</li> <li>• She doesn't consult in making decisions about household matters, spending income, and in farming.</li> <li>• They did not allow taking a picture due to tribal customs.</li> </ul>

### 3) Field Visit Date –30<sup>th</sup> July 2021

**District:** Ziarat  
**Tehsil:** Ziarat  
**UC:** Manna  
**Village:** Sasnak  
**Monitored by:** Mis Mahgul, M&E Officer

<b>Name of Farmer:</b>	Abdul Ghafar
<b>Scheme</b>	WST

#### 4.3 ONLINE DATA ENTRY IN ANDROID BASED APPLICATION

Data collection is being carried out through Android Based Application developed by ICT Specialist of ME&IE Consultants NPIWC-II.

Data entry is directly by the field monitoring teams of all the zonal offices and is uploaded in the MIS system. The data is being observed and monitored by the ICT Expert of ME&IE Consultants.

#### 4.4 MEETINGS OF ME&IE CONSULTANTS WITH STAKEHOLDERS REGARDING PROJECT PROGRESS / ISSUES

##### 4.4.1 Meetings of ME&IE Consultants with Stakeholders Regarding Project Progress / Issues – ICT Zone

Date	27 July 2021, 11:00 AM
Venue	OFWM Department, Attock
<b>Participants</b>	
i.	Mr. Sajjad Shah, Deputy Director WM
ii.	Mr. Muhammad Idrees, Assistant Director WM
iii.	Hafiz Waqas, WM Supervisor
iv.	Mr. Ebadat-ur-Rehman, FTI (ICT & AJK)
v.	Miss Sana Gull, ME&IE Officer
vi.	Miss Maryam Iqbal, ME&IE Officer
<b>Meeting Agenda:</b> A meeting was held with the Deputy Director Water Management of Attock District at OFWM Department, Attock. The meeting agenda is as follow:	
i.	FTI Ebadat-ur-Rehman explained the purpose of Monitoring Surveys.
ii.	Team got the files of targeted watercourses and filled the required basic data.
iii.	Mr. Sajjad Shah explained the technical aspects and other general details of WSTs being constructed in Attock District under NPIWC-II.
iv.	Mr. Sajjad Shah asked Assistant Director of Tehsil Attock to accompany the field team for the successful monitoring visits.



Figure 4.57: Meeting of Field Team (ICT & AJK) with the Deputy Director OFWM, Attock

Date	28 July 2021, 01:45 PM
Venue	Department of Irrigation and Small Dams, Mirpur
<b>Participants</b>	
i.	Mr. Javed Qamar, Deputy Director WM
ii.	Mr. Mohammad Ali, WMO
iii.	Mr. Ebadat-ur-Rehman, FTI (ICT & AJK)
iv.	Miss Sana Gull, ME&IE Officer
v.	Miss Maryam Iqbal, ME&IE Officer

**Meeting Agenda:** A meeting was held with the Deputy Director Water Management of Mirpur District at Department of Irrigation & Small Dams, Mirpur. The meeting agenda is as follow:

- FTI Ebadat-ur-Rehman explained the purpose of Monitoring Surveys.
- Mr. Mohammad Ali explained the technical aspects and other general details of WHS & WCs being constructed in Mirpur District under NPIWC-II.
- Team got the files of targeted watercourses and filled the required basic data.

After the meeting, the field team surveyed 1 Water Harvesting Structure and 1 Watercourse at tehsil Mirpur.



Figure 4.58: Meeting of Field Team (ICT & AJK) with the Deputy Director OFWM, Mirpur.

**4.4.2 Meetings of ME&IE Consultants with Stakeholders Regarding Project Progress / Issues – Punjab Zone**

<b>Date</b>	8 July 2021
<b>Venue</b>	Director General (DG) Agriculture (OFWM) Office 21 Davis Road Lahore
<b>Participants</b>	
i.	Mr. Tahir Mehmood- Assistant Director (OFWM) (Technical) D.G OFWM, Office, Lahore.
ii.	Mr. Muhammad Yousaf Bhatti Deputy Team Leader, ME&IE Consultants, Punjab Zone, Lahore.
iii.	Mr. Awais Jahangeer Field Team In-Charge, ME&IE Consultants, Punjab Zone, Lahore.
<b>Meeting Agenda:</b>	
<ul style="list-style-type: none"> <li>• Field Activities so far carried over</li> <li>• Plan for Three months (July- September 2021)</li> </ul>	



Figure 4. 59: Meeting with AD Technical Punjab OFWM

iii.	Mr. Muhammad Yousaf Bhatti Deputy Team Leader, ME&IE consultants Punjab Zone, Lahore.
iv.	Syed. Shahzaib Gillani Supporting Staff Member, ME&IE Consultants, Punjab Zone, Lahore
<b>Meeting Agenda:</b>	
<ul style="list-style-type: none"> <li>• Briefing on ME&amp;IE consultant Field activities in general and of Lahore Division in particular.</li> <li>• Three-month field visits plan in Lahore Division.</li> </ul>	



Figure 4. 60: Meeting with Director Agriculture Lahore

More detail of meetings/ Coordination with OFWM Departments / Field Officers is given in below tables.

<b>Date</b>	29 July 2021
<b>Venue</b>	Director (Agri) OFWM Lahore Division, Thokar Naiz Baig, 13Km Multan Road, Lahore
<b>Participants</b>	
i.	Mr. Tariq Maqbol Director Agriculture, OFWM, Lahore Division, Lahore.
ii.	Mr. Azhar Mehmood Agri. Engineer/ Assistant Director OFWM, Lahore Division, Lahore.

**Field Team Subzone – 1**

Sr. No	Name	Designation	District	Tehsil	Contact Number
1	Abdul Hakeem	ADA	Sahiwal	Cheecha watni	0300-9692974
2	Aqeel Sultan	Supervisor	Sahiwal	Sahiwal	0302-5007291
3	Ateeq ur Rehman	Supervisor	Sahiwal	Sahiwal	0300-4527221
4	Kazim Sattar	WMO	Sahiwal	Sahiwal	0312-6930551
5	Muhammad Amir	Supervisor	Sahiwal	Sahiwal	0300-6019326
6	Shan Akram	Supervisor	Sahiwal	Sahiwal	0307-6932894

Field Team Subzone – 2

Sr No	Name	Designation	District	Tehsil	Contact Number
1	Waheed Uz Zaman	Deputy Director Agriculture OFWM	Hafizabad	Hafizabad	0333-6758700
2	Zafar Iqbal	Assistant Director Agriculture OFWM	Hafizabad	Hafizabad	0305-8872152
3	Muhammad Sajad	Sub-Engineer	Hafizabad	Hafizabad	0303-4716217
4	Abuzar Saleem	Assistant Director Agriculture OFWM	Hafizabad	Pindi Bhattian	0300-6607013
5	Ishafiq Ahmad	Water Management Officer	Hafizabad	Pindi Bhattian	0300-7936853
6	Muhammad Zaman	Sub-Engineer	Hafizabad	Pindi Bhattian	0304-6809026
7	Muhammad Qamar	Sub-Engineer	Hafizabad	Pindi Bhattian	0300-4029312
8	Imran Shokat	Sub-Engineer	Hafizabad	Pindi Bhattian	0345-6284570
9	Hafiz Usman	Sub-Engineer	Hafizabad	Pindi Bhattian	0332-6609325

Field Team Subzone – 2

Sr. No	Name	Designation	District	Tehsil	Contact Number
1	Ijaz Ahmed	Deputy District Agri Multan	Multan	Multan	03007727650
2	Qaiser	In charge Development NPIWC-II Project	Multan	Multan	03004582847
3	Muhammad Arshad	Supervisor	Multan	Shujabad	03003579736
4	Munawar Hussain	Supervisor	Multan	Multan	03015898809
5	Saeed Gardezi	Supervisor	Multan	Multan	

**4.4.3 Meetings of ME&IE Consultants with Stakeholders Regarding Project Progress / Issues – KP Zone**

<b>Date</b>	12 July, 2021
<b>Venue</b>	Directorate of OFWM KP
<b>Participants</b>	
1.	Mr. Naseebur Rehman, Director OFWM KP
2.	Dr. Rabnawaz, District Director/ Coordinator NPIWC Peshawar
3.	Dr. Humayun, DTL KP Zone ME&IE consultants
4.	Mr. Muhammad Bilal, Member ME&IE consultants Team
<b>Meeting Agenda:</b>	
Request for the district wise data of the water courses and water storage tanks completed under the NPIWC during the year 2020-21	
Under the Agenda item completed WCs and WSTs were discussed in detail. The findings are reported as below.	
The DTL KP zone expressed concern over the delay in providing to the Director OFWM. In response Dr. Rabnawaz, District Director/ Coordinator NPIWC Peshawar addressed our concern and directed the concerned district directors to expedite the process of supplying of the required data to the ME&IE consultants.	
Follow-Up Actions:	

It was communicated that the proposed date will be collected by Dr. Rabnawaz (District Director) from all the district of KP and will be communicated as and when compiled by the concerned district directors of OFWM department.

<b>Date</b>	July 30, 2021.
<b>Venue</b>	PMU office University Town Peshawar
<b>Participants</b>	
1.	Mr. Asad Dy Coordinator PMU Peshawar
2.	Mr. Saeedur Rehman PMU Peshawar
3.	Dr. Humayun Khan DTL KP zone
4.	Mr. Muhammad Bilal, Member ME&IE consultant Team
<b>Meeting Agenda:</b>	
To get acquaintance regarding Field Issues	
The DTL KP zone shared different issues facing the ME&IE consultants regarding the data collection from different quarters. The team requested the PMU officials for sharing the minutes of General Review Meetings of the PMU so that to get acquaintance with issues they face during monitoring of the schemes.	



Figure 4.61: T.L. ME&IE Consultants in meeting with Director OFWM and District Director / Coordinator NPIWC Peshawar

#### 4.4.4 Meetings of ME&IE Consultants with Stakeholders Regarding Project Progress / Issues – Balochistan Zone

Date	July 13, 2021
Venue	OFWM Office, Sherani
Participants	
i.	Mr. Muhammad Essa, Deputy Director, OFWM, Sherani
ii.	Mr. Naseeb Jan, ME&IE Consultants, Zhob
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>The M&amp;E Expert, ME&amp;IE Consultants shared the tentative work plan of regular monitoring with OFWM staff.</li> <li>The M&amp;E Expert, ME&amp;IE Consultants shared the Baseline Tentative Work Plan with DD, OFWM and briefed him about Baseline/Benchmark activities/concept.</li> <li>The OFWM extend their full support at field for ME&amp;IE Consultants.</li> </ul>	



Figure 4.62: The M&E Expert Mr. Naseeb Jan met with DD, Sharani to discuss ME&IE field activities

Date	July 14, 2021
Venue	OFWM Office, Zhob
Participants	
i.	Mr. Habib Ullah Khan, WMO, OFWM, Zhob
ii.	Mr. Umar Khan, WMO, OFWM, Zhob
iii.	Mr. Naseeb Jan, ME&IE Consultants, Zhob
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>The M&amp;E Expert, ME&amp;IE Consultants shared the tentative work plan of regular monitoring with OFWM staff.</li> <li>The OFWM extend their full support at field for ME&amp;IE Consultants.</li> </ul>	



Figure 4.63: A meeting was conducted with Mr. Habib Ullah and Umar Khan, WMOs of OFWM at Zhob Agriculture office to collect data for Regular Monitoring of F.Y. 2019-20 and 2020-21

Date	July 26, 2021
Venue	Meeting held at Project Consultants Office, Arbab Karam Khan Road, Quetta.
Participants	
i.	Mr. Khalid Mehmood, DTL, Project Consultants, NESPAK, Quetta
ii.	Mr. Rizwan Ahmed, DTL, ME&IE Consultants, G3EC, Quetta
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> <li>The both DTLs discussed the file works of all interventions of F.Y. 2019-20 and 2020-21.</li> <li>The DTL, NESPAK to DTL, ME&amp;IE Consultants the file works of F.Y. 2020-21 are under process by OFWM</li> <li>The DTL, NESPAK also told to DTL, ME&amp;IE Consultants that project consultants are making ensure that OFWM staff should complete the file works before visit of Project Consultants.</li> </ul>	

#### 4.5 INTERNAL MEETINGS OF ME&IE CONSULTANTS

Date	July 09, 2021
Venue	Zoom meeting.
Participants	
i.	Hafiz Abdul Rouf, CEO-EASE-PAK
ii.	Dr. Muhammad Abdul Quddus Team Leader
iii.	Muhammad Yousaf Bhatti Dy. Team Leader
iv.	Dr. Sarwar Zahid. Dy. Team Leader, IST
v.	Rizwan Ahmed, Dy. Team Leader, Balochistan
vi.	Mr. Bilal, Acting DTL, KPK
vii.	Rizwan Saleem, Dy. Team Leader, Quetta
Meeting Agenda/Points discussed:	
•	It was discussed the TORs particularly the Scope of Work of the ME&IE Consultants.
•	The mandate of ME&IE Consultants during monitoring of all interventions.
•	All participants give their opinion on above as per Consultant's TORs

randomly for regular monitoring / spot checking.

- The issues regarding field activities were also discussed



Figure-4.1:

Figure 4.64: A meeting was held at Zonal Office, Quetta to discuss and preparation of Field Work Plan for Regular and Baseline Survey Field activities in compliance of TL instructions.

Date	July 24, 2021
Venue	Zoom meeting.
Participants	
i.	Dr. Muhammad Abdul Quddus Team Leader
ii.	Muhammad Yousaf Bhatti Dy. Team Leader
iii.	Dr. Sarwar Zahid. Dy. Team Leader, IST
iv.	Rizwan Ahmed, Dy. Team Leader, Balochistan
v.	Mr. Bilal, Acting DTL, KPK
Meeting Agenda/Points discussed:	
•	Discuss and share the Work Plan of Regular Monitoring with TL
•	The strategy regarding Regular Monitoring / Spot Checking discussed in detail, all DTLs submitted their point of view and shared field problems.
•	All DTL given the instructions from TL to make a comprehensive work plan, team wise and submit to TL for concurrence.

#### 4.6 ICT ASSIGNMENT

##### 4.6.1 Development of web site of NPIWC-II

The development of Website of NPIWC-II has been started in the month of February 2021. The following activities have been completed:-

- Held meetings with the Stakeholders to identify the requirements
- Website layout structure prepared
- Design & Development of website completed

The Revision/up-dation of the Project website has presented to NPC office and got approval on all changes. Currently all changes has been incorporated accordingly as per requirements of the Client.

As far as activity is concerned it has been complied. Refinement is under process.

##### 4.6.2 Data collection of interventions in MIS/GIS database

The activity regarding data collection of Interventions in MIS/GIS database has been completed.

Date	July 26, 2021
Venue	Meeting at Zonal Office, Quetta.
Participants	
i.	DTL, Balochistan
ii.	ME&IE Experts
iii.	ME&IE Officers
Meeting Agenda/Points discussed:	
•	The forum discussed the Work Plan of Regular Monitoring of 15 districts of Balochistan in compliance of Team Leader instructions.
•	The ME&IE field teams get finalized sample size

#### 4.6.3 Designing of dashboard of Project Interventions

The designing/development of MIS/GIS system followed the software engineering methods. Thus, user requirements elicitation, requirements analysis, system design, system implementation and maintenance were done in a circular fashion. Thereafter, evaluation will be done to test the efficacy, effectiveness, and efficiency of the management information system in the real environment. In the system development, both structured system analysis, design, object-oriented analysis, and design approaches will be used.

An established Management Information System will enable Federal and Provincial PMUs to demonstrate to key stakeholders whether the project is achieving the stated goals, outcomes, and outputs in accordance with targeted time frame.

The GIS based MIS will provide the means of:

- i) Comprehensively tracking the project inputs and outputs, using mainly the set of key performance indicators outlined under each component at frequent intervals;
- ii) Monitoring of project outcome indicators;
- iii) Robustly analyzing the relevant ME&IE data;
- iv) Reporting progress on an open-access and regular basis, to support knowledge sharing, greater transparency, and improved project governance.

Designing of Dashboard of Project interventions has been completed. According to the quarterly work plan, the final presentation of Web-Based PMIS, integrated with GIS and M&E system was presented to NPC office and received the approvals. By the month of June, the implementation methodology of the MIS system will be presented to NPC office for the approval. Upon that the implementation activities will be started and will lead from the trainings of OFWM's Field Teams of all Zones/Units towards the live field data collection for the live monitoring will be initiated.

## CHAPTER 5: WORK PLAN-ACTIVITIES OF THIRD QUARTER

The ME&IE Consultants' activities initiating during the Third Quarter 2021 (July 1, 2021 to September 30, 2021) and activities carried out during the reporting period are listed below. Time span detail is mentioned in the Tentative Work Plan. **Annex-A.**

### Pre-Field Activities

Training sessions regarding Testing of Monitoring tools and Android based system and their hands on practice were conducted at ME&IE Zonal offices during the course of reporting period.

### Field Activities

- i) Data collection from OFWM Department /NWMC for Baseline survey/regular monitoring
- ii) Training Session of field staff and Key staff on Survey Manual of MTs and Android Base System
- iii) Training of Measurement of water flow-Pygmy current meter
- iv) Determinants of Sample size at District/Tehsil levels with the assistance from ADA/DDA (OFWM)
- v) Baseline survey field visit
- vi) Data entry, Data cleaning, Data processing & data Analysis
- vii) Regular Monitoring

### ICT Assignment

- i) Development of website of NPIWC-II.
- ii) Development of Android based Mobile Application.
- iii) Testing of Monitoring tools on Android based system.
- iv) Data collection of interventions in MIS/GIS database.
- v) Designing of dashboard of Project Interventions.

### Coordination

- i) Meeting of DTLs with respective DTL of NWMC
- ii) Meetings of Team Leader and for refinement of Monitoring Tools.

### Deliverables

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

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted
Monthly Monitoring Report-First (DEC 2020-JAN 2021)	Submitted
Monthly Monitoring Report-Second (FEB 2021)	Submitted
Monthly Monitoring Report-Third (MAR 2021)	Submitted
Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021)	Submitted
Monthly Monitoring Report-Fourth (APR 2021)	Submitted
Monthly Monitoring Report-Fifth (MAY 2021)	Submitted
Monthly Monitoring Report-Sixth (JUN 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021)	Submitted
Monthly Monitoring Report-Seventh (JUL 2021)	To be submitted on Stipulated time.
Baseline Survey Report	Under Completion
Annual Monitoring & Evaluation Report	Under Completion
Monthly Monitoring Report-Eighth (AUG 2021)	Will be submitted on Stipulated time.
Monthly Monitoring Report-Ninth (SEP 2021)	Will be submitted on Stipulated time.
Quarterly Monitoring & Evaluation Report-Third (JUL-SEPT. 2021)	Will be submitted on Stipulated time.

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

### Matrix of Responsibilities

Matrix of Responsibilities is placed at **Annex-B.**

## CHAPTER 6: ISSUES / BOTTLENECKS

The ME&IE Consultants have been facing following constraints for timely initiating the activities:

- Non availability of Technical Sanctions of the watercourses required for baseline survey
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments & NWMC (NESPAK) till to date.
- Due to non-availability of NWMC (NESPAK) deliverables/reports, ME&IE Consultants are facing hurdles to evaluate working of NWMC. In this regard the cooperation of NWMC and respective Directorates is required.

# ANNEXES A to D

## ANNEX-A: TENTATIVE WORK PLAN

## ANNEX - A: TENTATIVE WORK PLAN OF 3RD QUARTER

TENTATIVE WORK PLANNED FOR 3rd QUARTER (JULY TO SEPTEMBER 2021)													Legend						
No.	ACTIVITIES	3 Months-Year 2021 (Weeks)																	
		July				August				September									
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	Activity starts		Activity Ends		Activity Span	
<b>1</b>	<b>Field Activities</b>																		
	1.1 Regular Monitoring of Project Interventions in the field																		
	1.2 Data collection of the Project interventions in the field																		
	1.3 Online data entry in android based application																		
<b>2</b>	<b>ICT Assignment</b>																		
	2.1 Development of website of NPIWC-II																		
	2.2 Monitoring online data collection and Data entry																		
	2.3 Monitoring Android based Mobile Application under implementation by field staff.																		
	2.4 Data collection of interventions in MIS/GIS database																		
	2.5 Designing of dashboard of Project Interventions																		
<b>3</b>	<b>Coordination</b>																		
	3.1 Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues																		
	3.2 Meeting of DTLs with respective DTL of PC																		
<b>4</b>	<b>Desk Studies &amp; Presentations</b>																		
	4.1 Preparation of Draft Baseline Survey Report (BSR)																		
	4.2 Data compilation for and Preparation of MMRs																		
	4.3 Preparation Progress Review Presentation for NPC																		
	4.4 Progress Review Presentation to NPC on _____																		
<b>5</b>	<b>Deliverable</b>																		
	5.1 Monthly Monitoring Report (June 2021)																		
	5.2 Quarterly Monitoring Report (March to June 2021)																		
	5.3 Submission of Draft Baseline Survey Report																		

## ANNEX - B: MATRIX OF RESPONSIBILITIES

**MATRIX OF RESPONSIBILITIES**

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

## ANNEX - C: MONITORING LOG-FRAME

### Annex-C: Monitoring Log-frame

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
C1: Organization of Water Users' Associations (WUAs)	Reactivation of existing / organization of water users' associations. Ensuring one on each target watercourse. Total WUAs ensured 47,278.	a) Community mobilization at 47,278 watercourses	a) Total 47,278 WUAs reactivated / established/registered	a) Right of way of 47,278 watercourses available b) Skilled and unskilled labour required for watercourse improvement available c) Construction material for civil works of watercourses procured d) Alternate arrangement for water conveyance during construction made e) Watercourse improved	a) Disputes among the water users settled b) Farmers' branched improved c) Water allocation made amicably d) Maintenance of watercourses, WST and laser units done e) Cooperation among farmers increased	a) 47,278 watercourses improved and 15 percentage points conveyance losses reduced b) Litigation among farmers reduced	a) The functioning of the WUAs will be established through sample interview surveys of WUAs members twice during the project period
C2: Watercourses	Improvement of	a) Establishment	a) 47,278 WCAs	a) Conveyance	a) Increase in	a) Increase in	a) The water flow

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

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		the project					<ul style="list-style-type: none"> <li>after crop yields;</li> <li>• Before and after employment;</li> <li>d) The difference between before and after will be considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise.</li> </ul>
C3: Construction of Water Storage Tanks (WSTs)	a) Construction of 14,932 water storage tanks	<ul style="list-style-type: none"> <li>a) 14,932 small farmers mobilized to construct water storage tanks for irrigation</li> <li>b) They agree to contribute 40% of the cost</li> </ul>	<ul style="list-style-type: none"> <li>a) 14,932 WSTs constructed</li> <li>b) 14,932 WSTs operated and maintained</li> </ul>	<ul style="list-style-type: none"> <li>a) Water which was otherwise largely going to be wasted is saved</li> <li>b) Irrigation provided at critical stages of the crops</li> <li>c) Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>a) More area irrigated</li> <li>b) Increased cropping intensities</li> </ul>	<ul style="list-style-type: none"> <li>a) Increased crop yields</li> <li>b) Increased total crop output quantum</li> <li>c) Increased farm income</li> <li>d) Increased farm employment</li> </ul>	<ul style="list-style-type: none"> <li>a) 2-5% sample of WSTs will be surveyed</li> <li>b) A data collection form will be designed to measure water saving due to WSTs</li> </ul>

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		c) Agree to first construct the tank with his/her own funds and then received subsidy at 40% on issuance of FCR		achieved for irrigation			c) The forms used for baseline and impact surveys in case of watercourses will also be used for WSTs d) Same data analysis will be carried out here as in case of watercourses.
C4: Provision of Land Leveling Units	a) Provision of 11,610 laser land leveling units to farmers and service providers on a cost sharing basis: 50% by farmer / service provider and 50% by the project.	a) 11,610 laser units provided to farmers / service providers; b) Farmers trained in using the units.	a) 11,610 farmers / service providers received PLL units; b) Farmers / service providers received training in using the units.	a) Land levelled on Farmers' / service providers' farms; b) Land levelled on fellow farmers on rent; c) Total 3.483million acres levelled by 11,610 units.	a) Water application efficiency increased at field level; b) Even germination of seed. c) Field application losses reduced by 10 percentage points d) Water	e) Increased area under irrigated crops; f) Enhanced crop yields g) Increased farm income	a) The land levelling is expected to save irrigation water and result in better and even germination of seeds which can enhance crop yields. The crop yields thus affected will be reflected in agriculture sample surveys.

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
				productivity increased by 24%			<ul style="list-style-type: none"> <li>b) 2-4% sample units will be visited by ME&amp;IE Consultants teams after one years of delivery</li> <li>c) The unit will be verified</li> <li>d) Area treated during the year will be collected</li> <li>e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</li> </ul>

## ANNEX - D: DELIVERABLES/REPORTING REQUIREMENTS

## Deliverables/Reporting Requirements

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