



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

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

MONTHLY MONITORING REPORT
DECEMBER 2021

CONTENTS

ACRONYMS	iii
CHAPTER-1: INTRODUCTION	3
1.1 PROJECT PROFILE	3
1.2 PROJECT DESCRIPTION	3
1.2.1 Project Development Objectives	3
1.2.2 Project Objectives – General & Quantitative	3
1.2.3 Project Beneficiaries	4
1.2.4 Project Components	4
1.2.5 Project Targets	5
CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS	6
2.1 OBJECTIVES	6
2.2 SCOPE OF THE SERVICES	6
2.3 MONITORING STRATEGY	7
2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS	9
CHAPTER 3: MONTHLY MONITORING REPORT	10
3.1 INTRODUCTION	10
3.2 OBJECTIVE OF MONTHLY MONITORING REPORT	10
3.3 REPORTING PERIOD	10
CHAPTER 4: ACTIVITIES DURING THE REPORTING PERIOD	11
4.1 REGULAR MONITORING OF INTERVENTIONS IN THE FIELD	11
4.1.1 Regular Monitoring of Interventions in the Field - ICT Zone	11
4.1.2 Regular Monitoring of Interventions in the Field Punjab Zone	11
4.1.3 Regular Monitoring of Interventions in the Field KP - Zone	11
4.1.4 Regular Monitoring of Interventions in the Field - Balochistan Zone	11
4.2.1 Regular Monitoring of Interventions in the Field - ICT Zone	12
4.2.2 Regular Monitoring of Interventions in the Field - Punjab Zone	12
4.2.2.1 Field Visits Details - Punjab Zone	12

4.2.3	Regular Monitoring of Interventions in the Field –KP Zone	13
4.2.4	Regular Monitoring /Field Visits Details - Balochistan Zone	14
4.2.4.1	Field Visits detail – District Pishin and Kanozai	14
4.2.4.2	Field Visits detail – District Mastung and Kalat	16
4.2.4.3	Field Visits detail – District Ziarat and Khanozai	18
4.3	ONLINE DATA ENTRY IN ANDROID BASED APPLICATION	20
4.4	MEETINGS OF ME&IE CONSULTANTS WITH STAKEHOLDERS REGARDING PROJECT PROGRESS / ISSUES	20
4.4.1	Meetings of ME&IE Consultants – Punjab Zone	20
4.4.2	In House Review Training Zonal Office Punjab	21
4.4.3	Meetings of ME&IE Consultants – KP Zone	22
4.4.4	Meetings of ME&IE Consultants – Balochistan Zone	24
4.5	ICT ASSIGNMENT	26
4.5.1	Data collection of interventions in MIS/GIS database	26
4.5.2	Designing of Dashboard of Project Interventions	26
4.5.3	Implementation of MIS Dashboard	26
4.6	MONITORING / DATA COLLECTION ON SOCIAL AND GENDER COMPONENT	27
4.6.1	Sites Selected for Case Studies in Punjab Zone	29
4.7	SUCCESS STORIES OF THE PROJECT INTERVENTIONS	29
4.7.1	Punjab: Success Story of Project Intervention - Water User Association	29
CHAPTER 5: WORK PLAN-ACTIVITIES OF THE CURRENT QUARTER		32
	Pre Field Activities	32
	Field Activities	32
	ICT Assignment	32
	Coordination	32
	Deliverables	32
	Matrix of Responsibilities	33
CHAPTER 6: ISSUES / BOTTLENECKS		34
LIST OF TABLES		
Table:-ES 1: Compliance Status of Tentative Work Plan (1st October to 31st December 2021)		2
Table 2. 1: Monitoring Strategy for ME&IE Activities		7
LIST OF FIGURES		
Figure 1.1 Pakistan Targets		5
Figure 1.2: Zonal Target		5
LIST OF ANNEXURES		
ANNEX - A: TENTATIVE WORK PLAN OF QUARTER		37
ANNEX - B: MATRIX OF RESPONSIBILITIES		38
ANNEX - C: MONITORING LOG-FRAME		40
ANNEX - D: DELIVERABLES/REPORTING REQUIREMENTS		46
ANNEX - E: MEDIA COVERAGE OF NPC VISIT TO BALOCHISTAN		47
ANNEX - F: DATA COLLECTION FROM KP ZONE FOR DASHBOARD		50

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 December 2021” comprises 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 twelfth (12th) Monthly

Monitoring Report (MMR) covers the period from December 01, 2021 to December 31, 2021.

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

- Data collection from OFWM Department/NWMC for Baseline survey/regular monitoring
- Regular Monitoring of Interventions in the Field
- Data Collection of the Interventions in the Field
- Baseline survey field visits plan
- Data acquisition from Client, Data entry, Data cleaning, Data processing and analysis
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring / Data Collection on Social and Gender Component
- Finalization of NPIWC-II website
- Data collection of interventions in MIS/GIS database
- Dashboard of Project Interventions
- Data collection of interventions in MIS/GIS database
- Success Story - Case Study on the Project Intervention

Chapter-5 of this report covers the details of ME&IE Consultants’ activities initiated during the Quarter (October 1, 2021 to December 31, 2021) are listed below.

- Field Activities
- ICT Assignment
- Coordination
- Deliverables

Time span detail for 1st Quarter of year 2022 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 (1st October to 31st December 2021)

No.	Activities Planned for the Reporting Quarter		Status
1	Field Activities:		
1.1	Regular Monitoring of Interventions in the Field		Complied
1.2	Data collection of the interventions in the field		Complied
1.3	Online data entry in android based application		Complied
2	ICT Assignment:		
2.1	Development of Website of NPIWC-II		Complied
2.3	Monitoring online data collection and Data entry		Complied
2.3	Monitoring Android based Mobile Application under implementation by field staff.		Complied
2.4	Data collection of interventions in MIS/GIS database		Complied
2.5	Designing of Dashboard of Project Interventions		Complied
3	Coordination		
3.1	Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues		Meetings conducted on regular basis
3.2	Meeting of DTLs with respective DTL of NWMC		Meetings conducted on regular basis
4	Deliverables:		
4.1	Monthly Monitoring Report (MMR)	10 th MMR (Oct 2021)	Submitted
		11 th MMR (Nov 2021)	Submitted
		12 th MMR (Dec 2021)	To be submitted in stipulated time
4.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Oct-Dec 2021	Will be submitted in stipulated time
4.4	Baseline Survey Report Ph-2 (Draft)		Will be submitted in stipulated time

CHAPTER-1: INTRODUCTION

1.1 PROJECT PROFILE

Project Name	National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)
Project Areas	Punjab, KP, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)
Sponsoring Agency	Ministry of National Food Security & Research
Executing Agencies (EAs)	1. Federal Project Management Unit (FPMU), 2. DGA OFWM Punjab 3. DG OFWM KP 4. DGA OFWM Balochistan 5. Director Irrigation and Small Dams, AJK 6. Director WM, GB 7. Director Agriculture Extension Services (AES) ICT
Project Period	5 Year (2019-2024)
Total Project Cost	154,542.355 million (Umbrella PC-1, including Sindh)
ME&IE Consultancy Period	4 year
ME&IE Consultant:	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
ME&IE Consultant Mobilized	November 20, 2020

1.2 PROJECT DESCRIPTION

1.2.1 Project Development Objectives

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

1.2.2 Project Objectives – General & Quantitative

1) General Objectives:

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

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

2) Quantitative Objectives:

The quantitative objectives of the Project are as under:

Project outputs

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

- Reduction in Water Logging and salinity in project areas to the extent of 10%.
- Cropping intensity is expected to increase by 5-20%.
- 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 at 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.

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

1.2.5 Project Targets

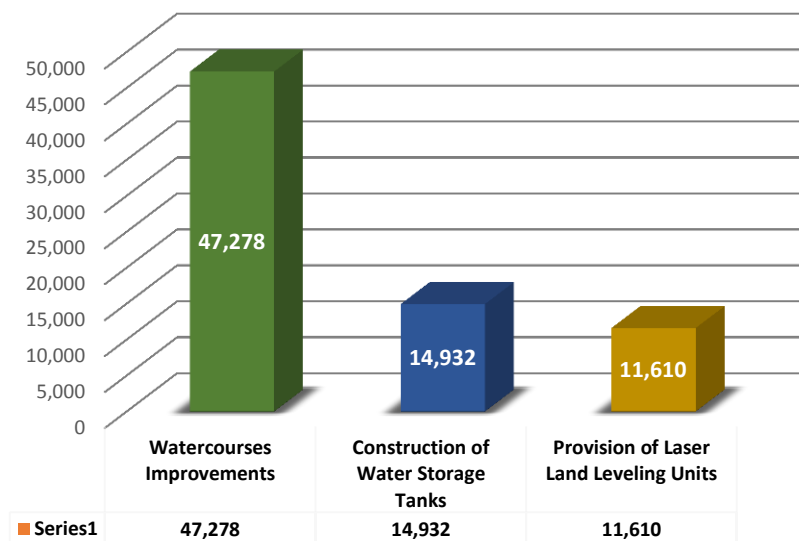


Figure 1.1 Pakistan Targets

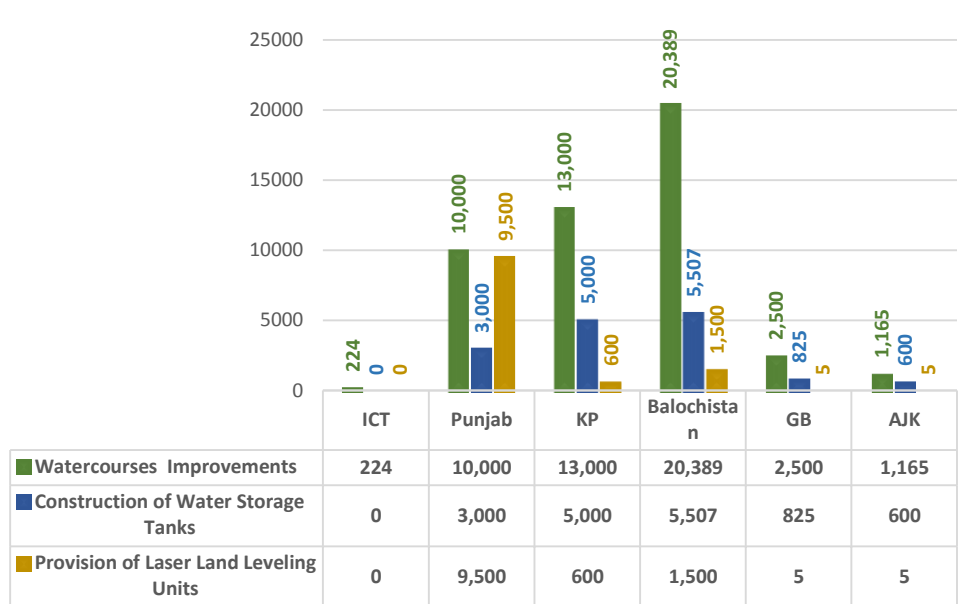


Figure 1.2: Zonal Target

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

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

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

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

2.3 MONITORING STRATEGY

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

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

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

2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

The framework and Results-Based Monitoring (RBM) Indicators are identified in Table-2.2 of Inception Report. The indicators will be further enhanced and refined in consultation with the client as well as the 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 carried 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 Twelfth Monthly Monitoring Report (MMR) covers the period from December 01, 2021 to December 31, 2021.

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

CHAPTER 4: ACTIVITIES DURING THE REPORTING PERIOD

During the reporting month Consultants carried out different field as well as in-house activities related to ME&IE.

4.1 REGULAR MONITORING OF INTERVENTIONS IN THE FIELD

The routine monitoring is containing 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.

The regular monitoring assignments under NPIWC-II 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.

Monitoring activities carried out by the ME&IE consultants during the reporting period are summarized below:

4.1.1 Regular Monitoring of Interventions in the Field - ICT Zone

Monitoring activities in field remained suspended in the ICT Zone due to various gaps identified in the first draft of Baseline report. Moreover, the Interviewing schedules were also significantly revised. ICT team remained engaged to review and make amendments in monitoring tools in the light of comments received from client on 1st baseline report. Monitoring tools are updated to remove the deficiencies observed in the 1st baseline survey report.

4.1.2 Regular Monitoring of Interventions in the Field Punjab Zone

Monitoring/Visits of various interventions, in the field is one of the important regular features of field teams. The Field activities start from collecting / reviewing basic data of an interventions viz watercourse improvement, Water User Association, Water Storage Tank and Laser Land Leveler. The ME&IE consultants have carried out selection of

interventions as per prescribed criteria in the respective area on each sub zone.

4.1.3 Regular Monitoring of Interventions in the Field KP - Zone

During the reporting month activities of ME&IE consultants KP Zonal remained slow and were confined to the collection of data from the Director General OFWM KP office for the Dashboard by the Manager ICT along with the field team members. Several meetings with Project Director Dr. Rab Nawaz were held regarding data collection process and also the draft schedule of trainings of KP OFWM district staff was shared with him to launch KP online Dashboard.

Data of all completed schemes of Watercourses and Water Storage Tanks for the year “2019-20 & 2020-21” were collected by ME&IE consultants from the files provided by all districts directors OFWM for “Online Dashboard”. During data collection of NPIWC-II, 8 team members of field were kept engaged in collection of data from the files provided by the Water Management Department KP and transferred to the computers in close coordination with ICT Expert Mr. Rizwan Saleem, Incharge of ICT Team.

Schemes’ files of all the districts except (D.I. Khan, Tank, Laki Marwat and South Waziristan) of KP were provided by Directorate of OFWM Peshawar to ME&IE consultants for data collection. For the collection of the data for the four missing districts a team of four members was deputed to D.I. Khan. The team stayed in D. I. Khan for six days for this task and collected data of 690 Schemes.

4.1.4 Regular Monitoring of Interventions in the Field - Balochistan Zone

The Balochistan ME&IE Consultants’ team conducted several activities during the reporting month. Detail of activities carried out by Balochistan Zonal team is listed below:

- i. Site visits with NPC, FPMU, NPIWC-II.
- ii. Selected sites for Case Studies / Impact of Project interventions.
- iii. Meetings.
- iv. Prepared Field Plan of 1st Quarter (Jan. to Mar. 2022) – Balochistan.

4.2 DATA COLLECTION OF THE INTERVENTION IN THE FIELD

Filed activities of remained relatively slow during the reporting period. However, field teams remained gathering data from client offices for dashboard and other relevant information. Consultants also conducted meetings with provincial client offices for planning 2nd baseline survey. Detail of activities of all the Zonal offices during the reporting period is given below:

4.2.1 Regular Monitoring of Interventions in the Field - ICT Zone

Monitoring activities in field remained suspended in the ICT Zone due to various gaps identified in the first draft of Baseline report. Moreover, the Interviewing schedules were also significantly revised. The provincial DTLs were engaged in revising/improving the interviewing schedules. A number of gaps were identified. Dr. Umar Farooq is intended to arrange/conduct an on-line meeting/workshop to finalize the interviewing schedule for future use as these shall be used on new constructions of water courses and the structures.

4.2.2 Regular Monitoring of Interventions in the Field –Punjab Zone

Monitoring / Visit of various interventions, in the project area, is one of the important regular features of ME&IE Consultants. The Field activities Start from collecting / reviewing basic data of an interventions viz watercourse improvement, Water User Association, Water Storage Tanks and Laser Land Leveler. The selection of interventions is carried out as per prescribed criteria in district, the respective area on each sub zone.

For the purpose of facilitation of regular monitoring and other field activities like baseline survey, interview of the beneficiaries of an intervention, basically a team is responsible for field activities in each sub zone. Punjab zone has been sub-divided into three sub-zones. Field team or any one of the members may be posted to work anywhere in the field depending at the work load in the area. Allocated of districts in each sub zones are as shown in table 4.2.1 below:

Table 4.2.1: Allocation of Districts in Each Sub-Zone

Subzone – 1	Subzone – 2	Subzone – 3
Districts		
Faisalabad	Gujranwala	Bahawalpur
Jhang	Hafizabad	R. Y Khan
Chiniot	Narowal	Bahawalnagar
T.T. Singh	Sialkot	D. G. Khan
Sahiwal	M. B. Din	Muzaffargarh
Pakpattan	Gujrat	Layyah
Okara	Sargodha	Rajanpur
Lahore	Khushab	Multan
Sheikhupura	Bhakkar	Khanewal
Nankana Sahib	Mianwali	Vehari
Kasur		Lodhran

Rawalpindi is excluded from the list because it has only one intervention i.e., Water Storage Tanks Administratively this division is put under field team of zonal office Islamabad.

4.2.2.1 Field Visits Details - Punjab Zone

Field visit was made on December 24, 2021 to the site of watercourse improvement intervention by Mr. Muhammad Yousaf Bhatti Deputy Team Leader ME & IE Consultants Lahore, along with the following officials of OFWM, Figure 4.2.1 to 4.2.3.

1. Dr. Kifayat Zaman D.G Federal Water Management Cell Ministry of food security Research, Islamabad
2. Dr. Maqsood Ahmed Director OFWM Training Institute, Lahore
3. Mr. Sami Ullah Khan Niazi Assistant Director (Agri) OFWM, Lahore City
4. Mr. Muhammad Sajjad Field Engineer, NWM Consultant, Lahore.
5. Mr. Shahzad Aamir Supervisor, ADA Lahore Cantt office, Lahore



Fig. 4.2.1: D.G. Federal Water Management Cell along with others visiting the site of the watercourse



Fig. 4.2.2: D.G. Federal Water Management Cell, Enquiring about the quality of work from NWMC Field Engineer



Fig. 4.2.3: DG Federal Water Management Cell Inspecting Work of Water Course Improvement

The profile of the watercourse improvement visited is given in table 4.2.2 as under:

Table 4.2.2: Brief Profile of the Watercourses Visited on 24-12-2021

Watercourse	2560/L
Location / Village	Ghowind
Tehsil	Lahore Cantt
District	Lahore
Name of Distributary / Minor	Jamman Minor
Quality of underground water	Saline
Naccas to be installed	30
Culverts to be installed	22
Culverts to be Installed	
Watercourse Type	Additional
No of Beneficiaries	19
Area served	450 Acres
Total Length of Watercourse	5220 Meters
Lining Length	1097 Meters
Status	ICR – II

Mr. Kifayat Ullah Federal D.G Water Management cell asked various questions about execution of the water course improvement to the relevant person. He also visited/checked the improvement/execution of the watercourse at various spots. He has shown his satisfaction with the overall performance of all concerned.

Then a detailed discussion was also held among all the visitors (beneficiaries) about the impact of the watercourse improvement. It was also noted with concern that water is reaching towards the end of the watercourse. Its flow has increased significantly and the yield of the main crops is likely to be increased in the tail area. There are only two main crops Wheat and Rice whereas commercial crops like fodder, vegetables are grown on nominal acreage. The main reason described by the farmers for not growing the commercial crops was the shortage of labor. The village is situated in a suburban area of Lahore.

4.2.3 Regular Monitoring of Interventions in the Field –KP Zone

Field activities remained slow during the month of December 2021, however, the teams remained engaged in collection data from OFWM offices. The data for the four districts out 33, were not available in the DG WM KP, for that purpose a team of four persons were deputed to D. I. Khan District to collect

the data personally from the files for the Dashboard. The team stayed in D. I. Khan for Six days for this task and collected data of 690 Schemes. Following team members collected data from D. I. Khan:

1. Mr. Fawad Ahmad ICT Manager
2. Mr Inamullah FTI
3. Mr. Mehmoodul Hasan FTI
4. Mr. Farhan Tayyab FTE
5. Mr. Zahid Driver

Overall data of 1704 completed water courses and 560 water storage tanks was collected and transferred to computers. Detail of the progress regarding the data collection of 32 districts of KP for dashboard is given as **Annex-F**

4.2.4 Regular Monitoring /Field Visits Details - Balochistan Zone

During the current month the National Project Coordinator (NPC), FPMU, NPIWC-II visited the Balochistan from 11th to 16th December 2021 with his team. NPC FPMU NPIWC-II and Director General, OFWM Balochistan visited several Watercourses, PVC Pipes and Water Storage Tanks in different districts of Balochistan. The ME&IE Consultants Balochistan Zone also joined the NPC team for all field visits.

The team visited;

- 01 Watercourse (PVC Pipe) and 03 Water Storage Tanks in District Pishin.
- 01 Water Storage Tank in Khanozai.
- 01 Watercourse (PVC Pipe) in District Mastung and
- 01 Water Storage Tank in District Kalat
- 01 Water Storage Tank and 01 Watercourse (PVC Pipe) in District Ziarat.

Detail of site visits is as under. While pictures of media coverage to NPC visit is given as **Annex-E**.

4.2.4.1 Field Visits detail – District Pishin and Khanozai

Following were the participants of field visit to District Pashin and Khanozai with NPC:

1. Mr. Tahir Anwar, NPC/Federal DG, National Programme.

2. Mr. Ali Raza Jamali, DG, OFWMC, Balochistan
3. Mr. Abdul Wahab, Director, Water Management, Agriculture Department, Balochistan
4. Mr. Saif-ul-Islam, DNPC, NPIWC-II
5. Mr. Asif Kakar, Deputy Coordinator
6. Dr. Tahmina Iqbal, Deputy Director
7. Mr. Abdul Wali, DD, Technical, OFWM, Balochistan
8. Dr. Ali Raza, Team Leader, NWMC, Islamabad
9. Mr. Khalid Mehmood, Deputy Team Leader, NWMC, Balochistan
10. Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants Balochistan Zone
11. Mr. Naseeb Jan, M&E Expert, ME&IE Consultants and Concerned Deputy Director and OFWM Staff.

1) Field Visit Date: 12th Dec. 2021

Scheme:	Water Storage Tank
Name of Farmer:	Ahmed Khan
Name of village:	Ahmed Khan
Union council:	Bostan
Chairman WUA:	Ahmed Khan
District:	Pishin
Tehsil	Bostan
Source of irrigation:	Tub well
Size of WST:	40X40
Command area of watercourse:	30 Acres
Cultivated Area	20 Acres
No of beneficiaries:	08
Financial Year	2020-21
Cropping intensity increased	Yes
Crops yield increased	Yes
Poverty reduction through generation of employment.	Yes
General Observation	<ul style="list-style-type: none"> • Cultivation of vegetables increased. • Farming activities are being affected owing to heavy load shading of 16-20 hours in a day. • Farmer was satisfied by this tank as before this intervention he had no

	<p>source to store the water due to this reason his cultivation was suffering badly.</p> <ul style="list-style-type: none"> Mr. Tahir Anwar, NPC/Federal DG, National Programme met with farmer and community personals and said that FPMU, NPIWC-II will extend its full support to provide best possible facilities to the farmer.
--	---



The NPC, FPMU-NPIWC-II and DG, OFWM, Balochistan n discussion with Farmer



Participants of visit with NPC, FPMU-NPIWC-II and DG, OFWM, Balochistan

2) Field Visit Date – 12th December 2021

Scheme:	Water Storage Tank
Name of Farmer:	Khan Muhammad
Name of village:	Nighanda
Union council:	Balozai
Chairman WUA:	Khan Muhammad
District:	Pishin
Tehsil	Karezat
Source of irrigation:	Tube well

Size of WST	60x60
Total Command Area	20 Acres
Cultivated Area	12 Acres
Financial Year	2020-21
Cropping intensity increased	Yes
Crops yield increased	Yes
Equity in water distribution increased	Yes
Reduction in water disputes/thefts	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> Cultivated area increased by this intervention. Farmer was happy and satisfied with the scheme.

3) Field Visit Date: 12th December 2021

Scheme:	Watercourse "PVC Pipe"
Name of Farmer:	Muhammad Khan
Name of village:	Nighanda
Union council:	Balozai
Chairman WUA:	Khan Muhammad
District:	Pishin
Tehsil	Karezat
Source of irrigation:	Tube well
Total length of PVC Pipe:	2000 RFT
Cultivated Area	15 Acres
No of beneficiaries:	05
Financial Year	2019-20
Cropping intensity increased	Yes
Crops yield increased	Yes
Equity in water distribution increased	Yes
Reduction in water disputes/thefts	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> Cultivated area increased by this intervention. Water Loses reduced



4) Field Visit Date – 12th December 2021

Scheme:	Water Storage Tank
Name of Farmer:	Farhan Zaib
Union council:	Khanozai
Chairman WUA:	Farhan Zaib
District:	Pishin
Tehsil:	Karezat
Source of irrigation:	Tube well
Size of WST	40x40
Total Command Area	30 Acres
Cultivated Area	20 Acres
Financial Year	2020-21
Cropping intensity increased	Yes
Crops yield increased	Yes
General Observations	<ul style="list-style-type: none"> The farming activities were suffering badly due to have load shading. Cultivated area increased through this intervention



5) Field Visit Date – 12th December 2021

Scheme:	Water Storage Tank
Name of Farmer:	Abdul Wajid
Name of village:	Khanozai
Union council:	Balozai
Chairman WUA:	Abdul Wajid
District:	Pishin
Tehsil:	Karezat
Source of irrigation:	Tube well
Size of WST	60x60
Total Command Area:	20 Acres
Cultivated Area:	12 Acres
Financial Year	2020-21
Cropping intensity increased	Yes
Crops yield increased	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> Farmer was not available at site. The NPC, FPMU and DPC, NPIWC-II gave some advice/suggestion to improve the scheme.



4.2.4.2 Field Visits detail – District Mastung and Kalat

Following were the participants of field visit to Mastung and Kalat with NPC.

1. Visited by Mr. Tahir Anwar, NPC/Federal DG, National Programme
2. Mr. Ali Raza Jamali, DG, OFWMC, Balochitan

3. Mr. Abdul Wahab, Director, Water Management, Agriculture Department, Balochistan
4. Mr. Saif-ul-Islam, DNPC, NPIWC-II
5. Mr. Asif Kakar, Deputy Coordinator
6. Dr. Tahmina Iqbal, Deputy Director
7. Mr. Abdul Wali, DD, Technical, OFWM, Balochistan
8. Dr. Ali Raza, Team Leader, NWMC, Islamabad
9. Mr. Khalid Mehmood, Deputy Team Leader, NWMC, Balochistan
10. Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants Balochistan Zone
11. Mr. Tariq Khoso, M&E Expert, ME&IE Consultants and Concerned Deputy Director and OFWM Staff.

1) Field Visit Date – 13th Dec, 2021

Scheme:	Water Storage Tank
Name of Farmer:	Din Muhammad
Name of village:	Johan
Union council:	Johan
Chairman WUA:	Din Muhammad
District:	Kalat
Tehsil	Mungochar
Source of irrigation:	Tub well
Size of WST:	50x50
Command Area:	50 Acres
No of beneficiaries:	08
Financial Year	2019-20
Reduction in Water Logging and salinity	No Waterlogging or salinity in this area.
Cropping intensity increased	Yes
Crops yield increased	Yes
Poverty reduction through generation of employment.	Yes
Overall feedback of Farmer / Beneficiary	<ul style="list-style-type: none"> Water saving increased and Conveyance loss decreased Increased cropping of vegetables. Facing difficulties due to electricity shortage.

General Observations	<p>Almost 16-20 hours load Shedding.</p> <ul style="list-style-type: none"> Johan is in remote area of District Kalat. There is no pakka road, it is about 40 KM away from National Highway. The NPC, FPMU and his team appreciate to DG, OFWM, Balochistan and DD, OFWM, Kalat on site selection keeping in view farmer's need which ease to cultivate and produce the better yield of crops. The farmers and community peoples were very much happy and satisfied with intervention of NPIWC-II, now they are able to cultivate, wheat, barley, almond and apricot sufficiently. Mr. Tahir Anwar, NPC/Federal DG, National Programme met with farmer and community personals and said that FPMU, NPIWC-II will extend its full support to provide best possible facilities to the farmer.
-----------------------------	---





NPC Field Visit of WST of Johan, District Kalat alongwith his team and Farmers

2) Field Visit Date – 13th December 2021

Scheme:	Watercourse (PVC Pipe)
Name of Farmer:	Yasir Arfat
Name of village:	Piringabad
Union council:	Dasht-e-Baba
Chairman WUA:	Yasir Arfat
District:	Mastung
Tehsil	Mastung
Source of irrigation:	Tube well
Total length of watercourse:	2000 rft
Command area of watercourse:	30 Acres
No of beneficiaries:	05
Financial Year	2019-20
Cropping intensity increased	Yes
Crops yield increased	Yes
Equity in water distribution increased	Yes

Reduction in water disputes/thefts	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> The NPC, FPMU and DPC, NPIWC-II gave some advice/suggestion to improve the scheme.



NPC with his team on field visit of WC (PVC Pipe) Yasir Arfat, District Mastung

4.2.4.3 Field Visits detail – District Ziarat and Khanozai

Following were the participants of field visit to District Ziarat and Khanozai with NPC

1. Mr. Tahir Anwar, NPC/Federal DG, National Programme
2. Mr. Ali Raza Jamali, DG, OFWMC, Balochitan
3. Mr. Abdul Wahab, Director, Water Management, Agriculture Department, Balochistan
4. Mr. Saif-ul-Islam, DNPC, NPIWC-II
5. Mr. Asif Kakar, Deputy Coordinator
6. Dr. Tahmina Iqbal, Deputy Director
7. Mr. Abdul Wali, DD, Technical, OFWM, Balochistan
8. Dr. Ali Raza, Team Leader, NWMC, Islamabad

9. Mr. Khalid Mehmood, Deputy Team Leader, NWMC, Balochistan
10. Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants Balochistan Zone
11. Mr. Saleem Abro, M&E Officer, ME&IE Consultants and Concerned Deputy Director and OFWM Staff.

1) Field Visit Date – 14th Dec, 2021

Scheme:	Water Storage Tank
Name of Farmer:	Haji Ameer Jan
Name of village:	Killi Maghzian, Werchom
Union council:	Zargi Spezindi
Chairman WUA:	Haji Ameer Jan
District:	Ziarat
Tehsil:	Ziarat
Source of irrigation:	Tube well
Size of WST	60x60
Command area:	20 Acres
No of beneficiaries:	04
Financial Year	2019-20
Cropping intensity increased	Yes
Crops yield increased	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> The cultivated area increased through this intervention of NPIWC-II The NPC, FPMU and DPC, NPIWC-II gave some advice / suggestions to improve the scheme.



Water Storage Tank Haji Ameer Jan District Ziarat.

2) Field Visit Date – 14th December 2021

Scheme:	Watercourse (PVC Pipe)
Name of Farmer:	Saifullah
Name of village:	Kan Bangla
Union council:	Kach
Chairman WUA:	Saifullah
District:	Ziarat
Tehsil:	Ziarat
Source of irrigation:	Tube well
Total length of PVC Pipe:	1000 rft
Command area of watercourse:	30 Acres
No of beneficiaries:	05
Financial Year	2019-20
Cropping intensity increased	Yes
Crops yield increased	Yes
Equity in water distribution increased	Yes
Reduction in water disputes/thefts	Yes
Poverty reduction through generation of employment.	Yes
General Observations	<ul style="list-style-type: none"> The cultivated area increased through this intervention of NPIWC-II The farmer was happy and demanding a WST through NPIWC-II. The NPC, FPMU and DPC, NPIWC-II gave some advice / suggestion to improve the scheme.





NPC with his team, ME&IE Consultants and Farmers during Field visit of WC (PVC Pipe) Saifullah, district Ziarat

4.3 ONLINE DATA ENTRY IN ANDROID BASED APPLICATION

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

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

4.4.1 Meetings of ME&IE Consultants – Punjab Zone

Date	December 23, 2021
Venue	Directorate General of Agriculture (OFWM), Davis Road Lahore
Participants	
1) Mr. Kifayat Zaman Director General Federal Water Management Cell Ministry of National Food Security and Research Government of Pakistan, Islamabad.	
2) Malik Muhammad Akram Director General (AGRI) OFWM, Punjab Lahore.	
3) Mr. Hafiz Qaiser Yasin Director Agriculture OFWM (H.Q) Lahore.	
4) Mr. Tahir Mehmood Assistant Director Agriculture (Technical) OFWM Lahore	
5) Mr. Tariq Khan Deputy Team Leader NWMC, Lahore.	
6) Muhammad Yousaf Bhatti Deputy Team	

Leader, ME & IE Consultants Punjab Zone
Lahore

Meeting Agenda:

1. Review of OFWM, Activities in Punjab zone.
2. Briefing on NWM Consultants activities and ME & IE Consultants Punjab zone
3. Punjab Water Policy.



View of the Meeting held in D.G (AGRI) OFWM Lahore

Date	December 24, 2021
Venue	Office of the Chief Strategic Planning and Reforms Unit (SPRU), Irrigation Secretariat Old Anarkali, Lahore
Participants	
1. Mr. Muhammad Aamir Khan Chief – SPRU, Irrigation Department, Lahore	
2. Dr. Muhammad Javed Director Social and Environment Management SPRU, Irrigation Department Lahore.	
3. Mr. Kifayat Zaman Director General Federal Management Cell Islamabad	
4. Dr. Maqsood Ahmed Director OFWM, Training Institute Lahore	
5. Muhammad Yousaf Bhatti Deputy Team Leader, ME & IE Consultants Punjab Zone, Lahore	
Meeting Agenda:	
1. Punjab Water Policy	
2. Availability of Surface and ground water.	
3. Pricing and usage of water.	



View Of Meeting held in office of Chief SPRU, Irrigation Department, Lahore

Coordination with Field Staff of OFWM

ME&IE Consultants' coordination with field staff of OFWM is a regular activity. The ME&IE consultants remained in close contact with OFWM staff throughout the period under review. Such Coordination at District/Tehsil Levels facilitated the consultants for smooth operation of baseline survey and monitoring of interventions.

4.4.2 In House Review Training Zonal Office Punjab

In House Review Training

During the period under review, the field activities remained limited. Intensive efforts were made towards in-house review training to the field teams on ongoing activities and activities to be carried over in the near future. The in-house review training pertained to the following aspects.

1. General objectives/goals of the projects and field operations by Dr. Muhammad Abdul Quddus Agri. Economist (National office).
2. Briefing / Explanation of reviewed Monitoring Tools. ----- by Muhammad Yousaf Bhatti Deputy Team Leader, Punjab Zone (Also reviewed Monitoring Tools were submitted to National Office, for further necessary)
3. Field plan/guideline including observations /collection of data on success story/ Case study, Tour notes ----- Muhammad Yousaf Bhatti Team Leader, Punjab Lahore
4. Case study on social and gender, particularly woman participation Guideline/data collection instructions as prepared by Ms.

5. Economical use of expenses during field visits and reporting the expenses. Abdul Samee Manager Admin & Accounts
6. Mock exercise by the field teams on collection of data from various respondent in the field



Dr. Abdul Quddus (Agri) Economist describing objective/goal of the project with field teams



Mr. Abdul Samee Manager Admin & Accounts discussing Economical use of field expenses reporting to FTIs



Mr. Muhammad Yousaf Bhatti Deputy Team Leader, explaining the reviewed MTs to the Field Teams



Mock Exercise by the field team members

4.4.3 Meetings of ME&IE Consultants – KP Zone

Meeting Date	05 December 2021
Venue	On Farm Water Management Office, Peshawar
Participants	<ol style="list-style-type: none"> 1. Dr. Rab Nawaz Project Director OFWM Peshawar 2. Dr. Humayun Khan, Deputy Team Leader (G3 Consultants) 3. Fawad Ahmad, ICT/Technology Specialist (G3 Consultants)
Meeting Agenda	<p>Agenda of the meeting was data sharing by department and progress till date</p> <p>Following discussions were held in the meeting</p> <ol style="list-style-type: none"> 1. This meeting was in continuation of our previous meetings held for the same purpose. The meeting was started with the greeting note by Fawad Ahmad. Mr. Dr. Rab Nawaz welcomed M&E consultant. 2. Dr. Rab Nawaz was asked about the project activities progress and how they will share the data files of each district with M&E consultants.

Following discussions held at the meeting.

1. Dr. Rab Nawaz shared the Workplan of 2019-2020 & 2020-2021 (Physical and Financial) with M&E consultants.
2. As the work plan of 2021-2022 is not approved and is with steering committee for approval, so it will be shared later on once approved.
3. All the data files maintained from start of the project till date of each district will be provided to M&E consultants for data entry process.
4. Peshawar and near districts files will be provided to M&E consultants at Peshawar OFWM office.
5. Other far distanced districts will be covered by visiting one district and near districts will bring data to that district for M&E consultants for data entry.
6. Dr. Rab Nawaz told that they will ask Districts to include the financial payments dates column and WUA registration number information in future.

Dr. Rab Nawaz told that his office will support M&E consultants in providing data every time M&E consultants ask for data. Also, department will cooperate with M&E consultants regarding data sharing at every stage.



DTL KP Zone in meeting with Dr. Rab Nawaz, Project Coordinator OFWM KP

Date of Meeting	December 16, 2021
Venue	On Farm Water Management Office, Peshawar
Participants	<ol style="list-style-type: none"> 1. Dr. Rab Nawaz, Project Director OFWM Peshawar 2. Dr. Humayun Khan, Deputy Team Leader (G3 Consultants) 3. Fawad Ahmad, ICT/Technology Specialist (G3 Consultants)

Agenda of the Meeting

Agenda of meeting was data sharing by department and progress till date. This meeting was just a reminder of our previous meetings held for the same purpose. The meeting was started with the greeting note by Fawad Ahmad. Mr. Dr. Rab Nawaz welcomed M&E consultant.

Dr. Rab Nawaz was asked about the project activities progress and how they will share the data files of each district with M&E consultants.

Following discussions held at the meeting.

- Dr. Rab Nawaz shared the Workplan of 2019-2020 & 2020-2021 (Physical and Financial) with M&E consultants.
- All the data files maintained from start of the project till date of each district will be provided to M&E consultants for data entry process.
- Peshawar and near districts files will be provided to M&E consultants at Peshawar OFWM office.
- Other far distanced districts will be covered by visiting one district and near districts will bring data to that district for M&E consultants for data entry.
- Dr. Rab Nawaz told that they will ask Districts to include the financial payments' date column and WUA registration number information in future.

Dr. Rab Nawaz told that they have and will support M&E consultants in providing data every time M&E consultants ask for data. Also, department will cooperate with M&E consultants regarding data sharing at every stage.

3. Mr. Javid Iqbal, DG OFWM KP Peshawar
4. Mr. Yaseen Marwat, DG Soil Conservation, Peshawar
5. Nazir Abbas Bangash, Director Agriculture Engineering, Peshawar
6. Dr. Rab Nawaz, Project Director OFWM Peshawar
7. Dr. Humayun Khan, Deputy Team Leader (G3 Consultants)
8. Engg Ilyas, DTL NESPAK, TPV consultants-NPIWC-II
9. Engg Nasir, AGES Consultants, Peshawar
10. Fawad Ahmad, ICT/Technology Specialist (G3 Consultants)

Agenda of the Meeting

Agenda of the meeting was to review the ongoing project in Agriculture sector in KP.

The Project Management Unit called a general review meeting (JRM) in the PMU Office Peshawar that was scheduled at 3.00 pm. Secretary Agriculture, Livestock, and Cooperative Department of KP chaired the meeting.

Following discussions held at the meeting.

- i. General discussions were made by the participants of the meeting about the ongoing projects activities taking place in agriculture sector in KP.
- ii. All other participants also shared progress of their respective projects.

Dr. Muhammad Israr ended the meeting with a vote of thank. The participants were served with a cup of tea at the end of the meeting.

Note: Minutes of the meeting have not been issued. When these are issued, will be shared by the participant



DTL KP Dr. Humayun Khan in 10th JRM of the projects under Prime Minister Agriculture Emergency Programme

Meeting Date	December 21, 2021 10 th Joint Review meeting (JRM) of the projects under Prime Minister Agriculture Emergency Programme
Venue	Project Management Unit Office, 35 C/111 Gul Mahar Lane University Town Peshawar
Participants	
<ol style="list-style-type: none"> 1. Dr. Muhammad Israr, Secretary Agriculture, KP 2. Mr. Muhammad Afzal, Director PMU, Peshawar 	

Meeting Date	27 to 28 December 2021
Venue	ME/IE Consultants Zonal Office, Peshawar
Participants	Dr. Humayun Khan DTL zonal office Peshawar Mr. Naeem Akhter DPC National office Islamabad Mr. Afzal Hayat Gender Specialist BAWCP KP Fawad Ahmad ICT/Technology Specialist (G3 Consultants)
Agenda of the Meeting	
It was a surprise visit of Mr. Naeem Akhter DNPC. However, there was no specific agenda of the meeting. This was just a surprise visit of the DPC. The DTL warmly welcomed the DPC.	
Following discussions held at the meeting. In this meeting. In general progress on the project activities were discussed by the participants.	
	
DTL KP Zone in meeting with DNPC in ME&IE Consultants Zonal office KP	

- vii. Mr. Abdul Wahab, Director, Water Management, Agriculture Department, Balochistan
- viii. Mr. Ihtisham, Section Officer, Agriculture Department, Govt. of Balochistan. Quetta.
- ix. Dr. Ali Raza, Team Leader, NWMC, Islamabad
- x. Mr. Khalid Mehmood, Deputy Team Leader, NWMC, Balochistan
- xi. Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Balochistan
- xii. Mr. Tariq Khoso, M&E Expert, ME&IE Consultants, Balochistan.

Meeting Agenda/Points discussed:

- The Secretary, Agriculture Deptt, GoB, Balochistan briefed by NPC, FPMU-NPIWC-II about NPIWC-II activities and highlight the major interventions of the project.
- All participants shared project updates with Secretary and gave suggestions for further improvement
- Both Consultants of NPIWC-II shared updated progress of the project and role of consultants.
- The ME&IE Consultants appreciated the support and cooperation of DG, Balochistan and DDs of OFWM, Balochistan during field visits.
- The Secretary, Agriculture ensured to NPC, FPMU, NPIWC-II and Consultants about ample departmental support at all times.

4.4.4 Meetings of ME&IE Consultants – Balochistan Zone

Date	14 th December, 2021
Venue	Office of the worthy Secretary, Agriculture Department, Govt. of Balochistan, Civil Secretariate, Quetta.
Participants	
<ul style="list-style-type: none"> i. Mr. Umaid Ali Khokhar, Secretary, Agriculture Department, Govt. of Balochistan, Quetta. ii. Mr. Tahir Anwar, NPC/Federal DG, National Programme. iii. Mr. Saif-ul-Islam, DPD, NPIWC-II iv. Mr. Asif Kakar, Deputy Coordinator, Enhancing Command Area in Barani Areas v. Dr. Tahmina Iqbal, Deputy Director vi. Mr. Ali Raza Jamali, DG, OFWMC, Balochistan 	

Date	15th December, 2021
Venue	Office of the ME&IE Consultants, Chiltan Road, Cant, Quetta.
Participants	
<ul style="list-style-type: none"> i. Mr. Tahir Anwar, NPC, FPMU, NPIWC-II ii. Mr. Saif-ul-Islam, DPD, NPIWC-II iii. Mr. Asif Kakar, Deputy Coordinator, Enhancing Command Area in Barani Areas iv. Dr. Tahmina Iqbal, Deputy Director v. Mr. Abdul Wali, Deputy Director, Technical, OFWM, Balochistan, Quetta vi. Mr. Yasir, Agriculture Officer, OFWM, Balochistan, Quetta. vii. Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Balochistan 	
All Field and Support Staff of ME&IE Consultants, Balochistan	

Meeting Agenda/Points discussed:

- The NPC, FPMU, NPIWC-II visited the ME&IE Office and Guest House, Quetta.
- The DTL, Quetta shared updated progress with NPC, FPMU.
- The NPC, PFMU met with all ME&IE staff and talked with them on their role and responsibilities.
- The NPC, PFMU and Deputy Project Coordinator, NPIWC-II checked different documents and record. They were provided different records/data by M&E Office on their desire.
- The meeting ended with vote of thanks from the NPC, PFMU.



Mr. Tahir Anwar NPC along with his team, Mr. Behram Mulghani, Agriculture Officer, OFWM, Quetta and ME&IE Consultants in meeting during of visit of NPC

Date	21 st December, 2021
Venue	Office of the Director General, OFWM, Rani Bagh, Sariab Road, Quetta

Participants

- Mr. Ali Raza Jamali, Director General, OFWM, Agriculture Department, GoB, Quetta.
- Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Quetta.

Meeting Agenda/Points discussed:

- The DG, OFWM requested to provide the missing data of F.Y. 2019-20 and 2020-21 as earlier possible.
- The DTL, Balochistan requested to DG, OFWM to provide available beneficiary data of F.Y. 2020-21 so that Baseline Survey Phase-2 activities could be started as earliest possible.

Date	22 nd December, 2021
Venue	Office of the Director General, OFWM, Rani Bagh, Sariab Road, Quetta

Participants

- Mr. Ali Raza Jamali, Director General, OFWM, Agriculture Department, GoB, Quetta.
- Mr. Rizwan Ahmed, Deputy Team Leader, ME&IE Consultants, Quetta.
- Mr. Behram Mulghani, Agriculture Officer, OFWM, Quetta.

Meeting Agenda/Points discussed:

- The DG, OFWM advised to Mr. Behram, Agriculture Officer, OFWM to provide required data to ME&IE Consultants.
- Mr. Behram Mulghani, Agriculture Officer provided Laser Land Leveler data to ME&IE Consultants.

Date	23 rd December, 2021
Venue	Office of the Director General, OFWM, Rani Bagh, Sariab Road, Quetta

Participants

- Mr. Behram Mulghani, Agriculture Officer, OFWM, Quetta.
- Mr. Saleem Abro, M&E Officer, ME&IE Consultants, Quetta.

Meeting Agenda/Points discussed:

- M&E Officer, ME&IE Consultants met with Mr. Behram, Agriculture Officer, OFWM regarding data of F.Y. 2019-20, 2020-21 and 2021-22.
- Mr. Behram provided Laser Land Leveler data to M&E Consultants.



View of meeting with Mr. Behram Mulghani, Agriculture Officer, OFWM, Quetta.

4.5 ICT ASSIGNMENT

4.5.1 Data collection of interventions in MIS/GIS database

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

- Now the data cleaning & validation is in process and this activity will be completed in the mid of January 2022, after that the data will be published into Dashboard and Dashboard implementation phase will start in KP Zone and implement in the end of January 2022 and the progress of Interventions will be live on the Dashboard.
- In KP Zone data collection from all 32 districts has been completed. Detail is given in **Annex-F**. The data collection for dashboard is in progress in the Balochistan zone as well, but more of the data provided/gathered here is incomplete. However, the situation is worst in Punjab, due to the non-provision of data from the OFWM department the implementation phase in Punjab Province has not started yet.

4.5.2 Designing of Dashboard of Project Interventions

This activity has been completed by the end of May 2021; earlier source code submitted to Client in CD form.

ME&IE Consultants rented in Cloud based web server on monthly basis in May 2021. Dashboard was uploaded to Cloud based server to make it live by the month of May 2021.

In June it was presented in NPC office, Login was shared with Client.

This milestone has been completely achieved.

4.5.3 Implementation of MIS Dashboard

The Dashboard has been implemented in AJK, and the progress of Interventions is live on the Dashboard application since the 4th of November 2021. In ICT and KP Zones implementation phase of Dashboard is very near to being completed.

As defined in the submitted working paper of dashboard implementation on 26 Aug 2021, three stages were defined.

Stage-I - Digitize and Migrate the Data

- As ME&IE Consultants was not allowed for direct communication with any of Provincial departmental Head and NWMC, so that the data for dashboard supposed to receive through FPMU. Despite lot of communication for providing data on required format which was shared to FPMU, ME&IE Consultants did not receive positive response. To resolve the issue the Client arranged a joint meeting of ME&IE & Implementation consultants in the NPC office on 15th November 2021. In continuation of this meeting, a follow-up meeting was held in NWMC National Office Islamabad on 16th November 2021. The ICT Technology Specialist of ME&IE Consultants conveyed all requirements, along with the format on which the data was required, to NWMC Consultants. However, the data is still awaited to date from NWMC consultants after this meeting.
- Upon this bottleneck, ME&IE Consultants took initiative with the approval of NPC to digitize the field progress data of AJK, ICT and KP units, which was not defined in ME&IE TORs.
- However, ME&IE Consultants also completed the task in KP zone during the month of December 2021.
- On the completion of digitization of data, ME&IE process the preliminary data cleaning and validation.
- After cleaning and validation, ME&IE will submit the data to the concern PD for their review and comments.
- After receiving comments & suggestions the data will be update accordingly to the MIS database.

Stage II – Meetings with all Stakeholders and Shortlist the Nominations

- On the successful completion of Stage-I, ME&IEC will hold meetings with PD of KP and shortlist the nominations for data collection.

Stage III - Training and Capacity Building

- With the consultation of PD of KP and under the approval of NPC, ME&IEC will hold capacity building workshop in the third week of January 2022.

4.6 MONITORING / DATA COLLECTION ON SOCIAL AND GENDER COMPONENT

Social and gender specialist worked on the process of impact assessment discussions with teams and structure of case studies were shared with the teams. Impact assessments will be focused how programs affected the lives of poor and less marginalized. This will cover social uplift, income growth asset building and reduction of vulnerability. Case studies will help in impact evaluation and this will help to improve or redesign an initiative so that benefits can be reaped. It will help client and consultants to measure effectiveness of the program activities and in judging the significant changes. The data to be collected during case studies will help to improve and outreach communication will also improve. These case studies will help before and after real time situation and replicable model can be made. This analysis will be exploratory and results can clearly be explained.

Women authorization has become vibrant issue on the development program. Rank of irrigational activities in agricultural sector cannot be left out. Keeping in view the objectives of the NPIWC-II monitoring and evaluation consultancy services, it was anticipated to get a strong and vivid picture from field about women participation and empowerment in agricultural based activities through monitoring and evaluations.

To achieve the increased agricultural productivity and decrease poverty, women participation is very important as women play important role in building

an enable environment for the wellbeing of their family and society.

CASE STUDIES

The case studies are intended to offer all stakeholders an opportunity to unpack and understand the role of gender differences in driving agriculture and effects of irrigational outcomes, how program impacted, identify, and whether the program also promotes gender equality and women's empowerment. The cases are not meant to be perfect examples of how gender differences are identified and managed, but are meant as a learning tool intended to:

1. Provide insight into specific areas where gender differences exist.
2. Showcase real programs that have intentionally worked to integrate a gender lens into their delivery, whether from the outset or as a course correction.
3. Examine challenges and emerging lessons about integrating gender across programming and policy.

Case studies consists of three phases:

1. The base line phase focuses on an assessment of local conditions and practices and builds relationships The assessment covers four areas:
 - program and policy environment;
 - current conditions and practices;
 - physical conditions; and
 - social and cultural conditions
2. During the implementation phase staff and partners work with community members through a participatory approach for mapping the landscape of current practices. How the project activities impacting local lives social financially measuring the effects at midline.
3. Finally, in the post implantations phase, conduct follow-up household visits, attend community meetings, and share technical advice for maintaining and facilitate to ensure the communities remain after the program's completion.

Provincial teams will select sites for case studies, total 25 for each province during the period month Jan 2022 to June 2022. List of some sites selected in Punjab and Balochistan is given below.

Sustainable development goals targets are on the top of government agenda and this flagship program is directly helping to achieve the targets

The agriculture sector is well-placed to contribute to the Sustainable Development Goals (SDGs, also known as the “post-2015 “

The broad objectives of the project are:

- Social mobilization through capacity building of WUAs/ FOs
- Minimization of conveyance and field application losses
- Reduction in water logging and salinity
- Equity in water distribution
- Reduction in water disputes/thefts/litigation
- Motivation/participation of farmers
- Poverty reduction through employment generation vu1.
- Increase in crops yield/sufficiency in food

All development programs are liked with SDGs. More than any other sector agriculture is the common thread which holds the 17sdgs together , investing in agriculture sector can address not only hunger and mal nutrition but also other challenges including poverty production and climate and water . This program is directly contributing to achieve targets of government of Pakistan.

Agriculture activities directly link with the following sustainable development Goals and the target set by the government under each goal can be easily achieved and assisted by NPIWC II activities. List of the related SGDs are given below. Poverty analysis will be undertaken through case studies and focus group discussions to access the achievement of the program activities:

SGD 1 No Poverty

SGD 2 Zero Hunger

SGD 3 Good Health and Well Being

SGD 5 Gender Equality

SGD 6 Clean Water and Sanitation

SGD 7 Affordable and Clean Energy

SGD 8 Decent Work and Economic Growth

SGD 9 Industry, Innovation and Infrastructure

SGD 12 Responsible Consumption and Production

SGD 13 Climate action

SGD 17 Partnership for the Goals

Sites Selected for Case Study in Balochistan Zone Site-1

Profile of Intervention

District	:	Naseerabad
Village	:	Haji Qamar Din
Union Council	:	Quba Sher Khan
Tehsil	:	Dera Murad Jamali
Scheme	:	Watercourse
Beneficiary Name	:	Munawar Ali
Source of Irrigation	:	Canal
Year	:	2020-21
	:	

Site-2

Profile of Intervention

District	:	Sohbatpur
Village	:	Muhammad Ali
Union Council	:	Ghuri
Tehsil	:	Fareedabad
Scheme	:	Watercourse
Beneficiary Name	:	Shehzad Ali
Source of Irrigation	:	Canal
Year	:	2020-21

Site-3

Profile of Intervention

District	:	Naseerabad
Village	:	Javaid Ahmed
Union Council	:	Chattar
Tehsil	:	Chattar
Scheme	:	Water Storage Tank
Beneficiary Name	:	Israr Ahmed

Source of Irrigation	:	Canal
Year	:	2020-21
	:	

Site-4

Profile of Intervention

District	:	Mastung
Village	:	Mammani
Union Council	:	Dasht
Tehsil	:	Mastung
Scheme	:	Watercourse
Beneficiary Name	:	Abdul Ghani
Source of Irrigation	:	Barani

4.6.1 Sites Selected for Case Studies in Punjab Zone

Site-1

Profile of Interventions

It is a well know universal truth that women have always been a striving factor behind the men for the long race for a progressive society. In this regard, a Pakistani woman with a verve ambition has joined hands with the OFWM department of Pakistan serving as Deputy Director agriculture stationed at Toba Tek Singh to form a progressive and advanced irrigation for the Pakistani farmer community.

Farhana Jamil	DDA T.T Singh
Contact No	0305- 5314270

Site-2

Profile of Intervention

Intervention	WST
District	Hafizabad
Name of Farmer	Nusrat Tahira
Area (Acre)	19 Acres
CNIC	34301-60284202
Contact No	0300-6522400
Tehsil	Hafizabad
Chak No	Kasokee

Intervention	WST
District	M.B. Din
Name of Farmer	Zubaida Bibi
Area (Acre)	9
CNIC	34403-02244268
Contact No	0345-5863647
Tehsil	Phalia
Chak No	Kadar Gharbi

Site-2

Profile of Intervention

Intervention	WUA
WC Name	26590 L
Address	Mozah Shadi Khan Munda, Kot Addu, Muzaffar Garh
WUA Chairman	Bashir Ahmed
Contact Number	0344-7044574
WC Type	Additional
Status of WC	ICR-1
Sanctioned Lining Length	1874 m
Total Length	3400 m
CCA	237 acres

4.7 SUCCESS STORIES OF THE PROJECT INTERVENTIONS

4.7.1 Punjab: Success Story of Project Intervention - Water User Association

Water Users Association "A Backbone of Water Course Improvement"

"Gone are the days now when there were conflicts on water thefts and unequitable distribution of water. All the Farmers are now quite happy and satisfied with the parabolic watercourses which have increased the irrigation rate of the lands and elevated the yields of the crops."

*Bashir Ahmed
Chairman WUA 26590 L
Kot Addu, Muzaffar Garh*

The Intervention

Establishment of a Water Users Association is a pre-requisite for another intervention that is improvement of the watercourse. Water user association allows the participation of farmers democratically and effective participation in the execution main of improvement of the watercourse as OFWM department provides technical given and support.

The Location

In the southern part of the Punjab province lies a flat plain city which is most idyllic for agriculture; Kot Addu. From the Indus River two main canals converge into Kot Addu i.e., Muzaffargarh and Taunsa Panjad (T.P) link Canal. The city is prone to an arid climate with blazing hot summers and mild winters. Cotton, rice, sugarcane, corn, wheat, tobacco are the main crops of the region. While Mangoes, citrus, guavas, and pomegranates are the main fruits.

Brief Profile of Watercourse and association

The brief profile of the watercourse is given as under:

WC Name	26590 L
Address	Mozah Shadi Khan Munda, Kot Addu, Muzaffar Garh
WUA Chairman	Bahir Ahmed
WC Type	Additional
Satus of WC	ICR-1
Sanctioned Length	1874 m
Total Length	3400 m
CCA	237 acres
Financial Year	2020-21

The Water User Association was organized as per the procedure of the OFWM department. A description beneficiary of the association members is given as under:

WC No.	Beneficiary Name	Location on WC	Area / Acres	
			Owned	Operated Area
26590 /L	Abdul Razaq	Head	15	15
	Sabir Hussain	Middle	15	15
	Bashir Ahmed	Tail	8	8
	Abul Aziz	Tail	10	10
	Gulam Fareed	Tail	18	18
	Muhammad Nawaz	Tail	40	40

In the vicinity of Kot Addu lies Mozah Shadi Khan Munda where Bashir Ahmed and his fellow farmers have their land in the vicinity of the watercourse. They were facing a dilemma of water shortage due to water theft and the continuous rupture of katcha watercourse. This dilemma had a great impact on their yields and were not able to cultivate and irrigate the remaining part of their lands due to less share of water. Which also had an impact on their income.

The farmers in this predicament, relying on the golden rule "every man for himself" appointed some surveillance duties to the respective people. But this was also in vain, as the theft of water was still unfolded

Collaboration in Organization WUA

Under the umbrella of NPIWC-II, rehabilitation and construction of watercourses along with other interventions was started in Punjab. Bashir Ahmed along with other fellow farmers got together and contacted OFWM Kot Addu and formed WUA mutually. OFWM guided that by using the Parabolic watercourses the theft of the watercourses is minimized by using concreted controlled structures and the flow of the watercourse is maximize.



ME&IE Field Team Interviewing Farmers

Impact of the Intervention

While interviewing the chairman and other beneficiaries of the water course all had same positive thoughts about the construction of the water course. The benefits mainly were that the flow had now increased and now was distributed in an equitable manner to the land which were long

the head middle and tail of the water course. Land was now irrigated from 3 / 4 acres to 8 / 9 acres. The water theft issue had now been resolved.



A View of Parabolic Watercourse



Rice Paddy Grown at the Fields

CHAPTER 5: WORK PLAN-ACTIVITIES OF THE CURRENT QUARTER

The ME&IE Consultants' activities initiating during the fourth Quarter of year 2021 (October 1, 2021 to December 31, 2021) are listed below. A tentative Work Plan for 1st Quarter of the year 2022 (January 1, 2022 to March 31 2022) showing time span detail is given as **Annex-A**.

Pre Field Activities

- i) Preparation for Baseline Survey 2nd Phase field visit

Field Activities

- ii) Data collection from OFWM Department /NWMC for Baseline survey/regular monitoring
- iii) Data acquisition from Client for Dashboard
- iv) Data entry of Training Session of field staff and Key staff on Survey Manual of MTs and Android Base System
- v) Training of Measurement of water flow-Pygmy current meter
- 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 is as under:

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted
Monthly Monitoring Report-First (DEC 2020-JAN 2021)	Submitted
Monthly Monitoring Report-Second (FEB 2021)	Submitted
Monthly Monitoring Report-Third (MAR 2021)	Submitted
Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021)	Submitted
Monthly Monitoring Report-Fourth (APR 2021)	Submitted
Monthly Monitoring Report-Fifth (MAY 2021)	Submitted
Monthly Monitoring Report-Sixth (JUNE 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021)	Submitted
Monthly Monitoring Report-Seventh (JULY)	Submitted
Monthly Monitoring Report-Eighth (AUGUST 2021)	Submitted
Annual Monitoring & Evaluation Report	Submitted
Baseline Survey Report (Final Draft)	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Third (JULY - SEPTEMBER 2021)	Submitted
Special Reports submitted: 1) Monitoring Tools 2) Survey Manual 3) PAM 4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard	Submitted
Monthly Monitoring Report-Tenth (OCTOBER 2021)	Submitted
Monthly Monitoring Report-Eleventh (NOVEMBER 2021)	Submitted
Monthly Monitoring Report-Twelfth (DECEMBER 2021)	To be submitted within stipulated time

Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021)	To be submitted within stipulated time
---	--

Deliverables/Reporting Requirements is placed at
Annex-D.

Matrix of Responsibilities

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

CHAPTER 6: ISSUES / BOTTLENECKS

The ME&IE Consultants are continuously 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.
- ME&IE consultants till date have not received data from OFWM for dashboard.

ANNEXES A to F

ANNEX-A: TENTATIVE WORK PLAN

ANNEX - A: TENTATIVE WORK PLAN OF QUARTER

TENTATIVE WORK PLANNED FOR 4th QUARTER (October To December 2021)												Legend			
												Activity starts	↓		
												Activity Ends	↓		
												Activity Span	---		
ACTIVITIES		3 Months-Year 2022 (Weeks)													
		January				February				March					
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4		
Pre-Field Activities															
1.1	Preparation for 2nd-Phase Baseline Survey	↓	↓												
1.2	Improvement of Questionnaires in the light of experience of 1st-Baseline Survey	↓	↓												
1.3	Training of Field Staff for 2nd-Phase Baseline Survey	↓	↓	↓											
Field Activities															
2.1	Regular Monitoring of Interventions in the Field	↓													↓
2.2	Data collection of the interventions in the field		↓												↓
2.3	Baseline Survey stage - 2		↓				↓								
2.4	Online data entry in android based application	↓													↓
ICT Assignment															
3.1	Development / Improvement of website of NPIWC-II														
3.2	Monitoring online data collection and Data entry														
3.3	Monitoring Android based Mobile Application under implementation by field staff.														
3.4	Data collection of interventions in MIS/GIS database												↓		
Coordination															
4.1	Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues														
4.2	Meeting of DTLs with respective DTL of PC & concerned OFWM Departments														
Deliverable															
5.1	Monthly Monitoring Report	↓	↓			↓	↓			↓	↓				
5.2	Quarterly Monitoring Report (Oct-Dec 2021)	↓	↓												
5.3	Baseline Survey Report 2nd-Phase					↓				↓					

ANNEX - B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

SR. NO.	DELIVERABLE / ACTIVITIES	LEGEND			
		<p>● Primary Responsibility</p> <p>○ Secondary Responsibility</p> <p>○ Assistance</p>			
		NPC-FPMU	Agriculture Dept. (CEWM)	Project Consultants	ME&IE Consultants
1	Provision of Pre-requisite data of project components for starting of Field Activities: • Organization of Water Users Associations, • Watercourses Improvement, • Water Storage Tanks, • Laser Land Levelers,	○	●	-	-
2	Certification of operational documents of the project, • Design, cost estimates, completion reports of watercourses, • Design, cost estimates, completion reports of water storage tanks,	○	○	●	-
3	Undertake baseline, midline and endline surveys of the project activities/interventions in all the project areas.	-	-	-	●
4	Develop monitoring strategy, framework and Result Based Monitoring (RBM) indicators,	-	-	-	●
5	Assessing the water saving per annum on watercourse and water storage tanks as well as aggregate due to the project interventions.	-	-	-	●
6	Assessing the improvement in water availability due to provision of conveyance system.	-	-	-	●
7	Assessing the economic benefits to the agriculture in terms of increase in yield, irrigated area, cropping pattern, cropping intensity, farm income and employment in command area of watercourses and water storage tanks.	-	-	-	●
8	Assessing the extent of community mobilization, financial and administrative sustainability of Water Users' Associations and ensuring the maintenance of watercourses, water storage tanks and laser land levelers.	-	-	-	●
9	Economic Impact of project interventions.	-	-	-	●
10	Carryout impact evaluation of the project investment on the economy and stakeholders.	-	-	-	●
11	Preparation of Monthly, Quarterly and Annual Monitoring, Evaluation and Validation Reports of the project activities.	-	-	-	●
12	Develop a website containing information of facilities and services, applications, procedures, watercourses, water storage tanks, and laser levelers database etc. (Maintaining website should be the responsibility of project staff).	-	-	-	●
13	Provide technical support for the development of a custom-designed mobile application (Android) to capture on-site project progress, geo tagged photos; should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the	-	-	-	●

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 Improvements	Improvement of 47,278 watercourses on cost sharing basis: 40% farmers in terms of labour, and 60% funded by project.	<p>a) Establishment 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"> • Precast concrete parabolic lining (PCPL) segments, or • Rectangular brick masonry, or any other method as approved by the project 	<p>a) 47,278 WCAs established;</p> <p>b) 47,278 WCAs registered;</p> <p>c) 47,278 watercourses improved and lined;</p>	<p>a) Conveyance 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>a) Increase in 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>a) Increase in 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>a) The water flow 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"> • Cropping pattern before and after the improvement; • Cropping intensities before and after improvement; • Before and after crop yields;
-------------------------------	--	--	--	---	---	--	--

							<ul style="list-style-type: none"> • Before and after employment; d) The difference between before and after will be considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise.
C3: Construction of Water Storage Tanks (WSTs)	a) Construction of 14,932 water storage tanks	a) 14,932 small farmers mobilized to construct water storage tanks for irrigation b) They agree to contribute 40% of the cost c) Agree to first construct the tank with his/her own funds and then	a) 14,932 WSTs constructed b) 14,932 WSTs operated and maintained	a) Water which was otherwise largely going to be wasted is saved b) Irrigation provided at critical stages of the crops c) Flexibility achieved for irrigation	a) More area irrigated b) Increased cropping intensities	a) Increased crop yields b) Increased total crop output quantum c) Increased farm income d) Increased farm employment	a) 2-5% sample of WSTs will be surveyed b) A data collection form will be designed to measure water saving due to WSTs c) The forms used for baseline and impact surveys in case of

		received subsidy at 40% on issuance of FCR					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 productivity increased by 24%	e) Increased area under irrigated crops; f) Enhanced crop yields g) Increased farm income	a) The land levelling is expected to save irrigation water and result in better and even germination of seeds which can enhance crop yields. The crop yields thus affected will be reflected in agriculture sample surveys. b) 2-4% sample units will be visited by ME&IE Consultants

							<p>teams after one years of delivery</p> <p>c) The unit will be verified</p> <p>d) Area treated during the year will be collected</p> <p>e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</p>
--	--	--	--	--	--	--	---

ANNEX - D: DELIVERABLES/REPORTING REQUIREMENTS

Deliverables/Reporting Requirements

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

بقیہ **طاہر انور** **24**

انہسینگ کمانڈ ایریا ان بارانی ایریا آف پاکستان کے ڈپٹی کوارڈینیٹر ز محمد آصف کاکڑ، پیشل پروگرام فار امپورومنٹ آف واٹر گورنرز آف پاکستان کے ڈپٹی کوارڈینیٹر سیف السلام، ڈپٹی ڈائریکٹر ڈاکٹر تہینہ اقبال ودیگر بھی موجود تھے۔ اس موقع پر سیکرٹری زراعت نے نہ صرف اپنی طرف سے بلکہ محکمہ زراعت کے آفیسران اور عملے کو ہدایت کی ہے کہ وہ وفاقی پروڈیکٹس سے متعلق عملے اور سیکسٹنس کے ساتھ ہر ممکن تعاون کرے۔ ان پروڈیکٹس کے ذریعے بلوچستان میں آبی گزرگاہوں کی بہتری اور بارانی علاقوں کے کمانڈ ایریا کو بڑھایا جاسکتا ہے جس سے زراعت کے شعبے پر مثبت اثرات مرتب ہونگے۔ دریں اثناء وزیراعظم انجینئر زوائر سیکٹرز کے پروڈیکٹس کے پیشل کوارڈینیٹر محمد طاہر انور نے محمد آصف کاکڑ، سیف السلام ودیگر کے ہمراہ پاکستان میں آبی گزرگاہوں کی بہتری اور بارانی علاقوں کے کمانڈ ایریا بڑھانے کے پروگرام کے تحت ضلع قلات اور مستونگ کے مختلف علاقوں میں جاری ترقیاتی اسکیمات کا معائنہ کیا۔ محمد طاہر انور نے قلات میں ڈپٹی ڈائریکٹر واٹر مینجمنٹ سکندر شاہ کی کارکردگی کی تعریف کی اور امید ظاہر کی کہ وہ اسی طرح محنت جاری رکھیں گے، ودیگر اضلاع کے ڈپٹی ڈائریکٹرز برائے واٹر مینجمنٹ کو چاہیے کہ وہ سکندر شاہ کی طرز پر کام کریں

وزیراعظم ایجنٹل انیشیٹیو زو انریسکٹرز پروڈیجیٹس
کے وفد سیکرٹری زراعت سے ملاقات
کوئٹہ (پ ر) وزیراعظم ایجنٹل انیشیٹیو زو انریسکٹرز
کے پروڈیجیٹس کے چیئرمین کوادرانڈینٹر محمد طاہر انوری
قیادت میں وفد نے پیر کے روز صوبائی سیکرٹری
زراعت امید علی کھوکھر سے ملاقات کی اس موقع پر
وفد نے وفاقی پروڈیجیٹس سے متعلق تفصیلی رپورٹ
پیش کی اور اس سلسلے میں درپیش مشکلات سے
سیکرٹری زراعت کو آگاہ کیا گیا اس موقع پر چیئرمین
پروگرام برائے بجٹ نمبر 24 صفحہ 10 پر

محکمہ زراعت و فائبرٹائی منصوبوں میں بہتر پانی کی فراہمی اور بارانی علاقوں کے کمانڈ ایریا کو بڑھایا جاسکتا ہے وفد سے گفتگو

بلوچستان میں آبی گزرگاہوں کی بہتری اور بارانی علاقوں کے کمانڈ ایریا کو بڑھایا جاسکتا ہے وفد سے گفتگو

وزیراعظم آجمل انیشیو زواٹر سکٹرز کے پروجیکٹس کے نیشنل کوارڈینیٹر کی ملاقات، قلات اور مستونگ کا دورہ

کوئٹہ (آئی این بی) وزیراعظم آجمل انیشیو زواٹر سکٹرز کے پروجیکٹس کے نیشنل کوارڈینیٹر محمد طاہر انوری کی قیادت میں وفد نے پیر کے روز صوبائی سکریٹری زراعت امید علی کوکھر سے ملاقات کی اس موقع پر وفد نے وفاقی پروجیکٹس سے متعلق تفصیلی رپورٹ پیش کی اور اس سلسلے میں درپیش مشکلات سے سکریٹری زراعت کو آگاہ کیا گیا۔ اس موقع پر نیشنل پروگرام برائے انیسٹیک کمانڈ ایریا ان بارانی ایریا آف پاکستان کے ذیلی کوارڈینیٹر

محمد آصف کا کڑ، نیشنل پروگرام فار امپروومنٹ آف واٹر کورسز آف پاکستان کے ذیلی کوارڈینیٹر سیف السلام، ڈپٹی ڈائریکٹر ڈاکٹر حمید اقبال و دیگر بھی موجود تھے۔ اس موقع پر سکریٹری زراعت نے محمد آصف کا کڑ، سیف السلام و دیگر کے ہمراہ پاکستان میں آبی گزرگاہوں کی بہتری اور بارانی علاقوں کے کمانڈ ایریا بڑھانے کے پروگرام کے تحت ضلع قلات اور مستونگ کے مختلف علاقوں میں جاری ترقیاتی اسکیمات کا معائنہ کیا



ANNEX - F: DATA COLLECTION FROM KP ZONE FOR DASHBOARD

Data Collection Status of KP Zone								
Districts	2019-20	2020-21	2021-22	WC Overall Total	2019-20	2020-21	2021-22	WST Overall Total
Abbottabad	7	9		16	4	5		9
Bajaur	3	17		20	1	9		10
Bannu	38	15		53	2	2		4
Battagram	15	10		25	6	16		22
Buner	16	14		30	4	12		16
Charsadda	70	26		96	13			13
Chitral	12	29		41	4	2		6
Dera Ismail Khan	419		36	455	71		5	76
Dir Lower	21	24		45	3	4		7
Dir Upper	15	12		27	6	8		14
Hangu	30	3		33	14			14
Haripur	17	12		29	7	6		13
Karak	17	19		36	13	16		29
Khyber	6	13		19	1	9		10
Kohat	52	18		70	2	1		3
Kohistan	8	10		18	3	6		9
Kurram	3	5		8	1	1		2
Lakki Marwat	34	22		56	10	8		18
Malakand	27	18		45	7	5		12
Mansehra	35	13		48	5	8		13
Mardan	40	50		90	9	7		16
Mohmand	4	39		43	1	40		41
North Waziristan	2	3		5		8		8
Nowshera	28	43		71	13	18		31
Orakzai		1		1		2		2
Peshawar	43	16		59	9	8		17
Shangla	19	6	5	30	8	6	3	17
South Waziristan	5	10		15		15		15
Swabi	65	14	1	80	7	2		9
Swat	67	58		125	42	51		93
Tank	29	10		39	10	6		16
Torghar	2	3	6	11	3	2	2	7
Overall Total	1149	542	48	1739	279	283	10	572