FEDERAL PROJECT MANAGEMENT UNIT
MINISTRY OF NATIONAL
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ISLAMABAD - PAKISTAN

MONTHLY MONITORING REPORT

MARCH 2022

WATER CONSERVATION IN BARANI AREAS OF KHYBER PAKHTUNKHWA (WC-KP)

MONITORING, EVALUATION AND IMPACT EVALUATION (ME&IE) CONSULTANTS

A Joint Venture of
G3 Engineering Lead Firm Consultants (Pvt.) Ltd.
EASE-PAK
ADA Consultants Inc.
In Association with S&S Associates

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

Monitoring, Evaluation and Impact Evaluation (ME&IE) Consultants
For
Water Conservation in Barani Areas of Khyber Pakhtunkhwa

MONTHLY MONITORING REPORT
MARCH 2022

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ACRONYMS

ADA	Assistant Director Agriculture
AF	Acre-Feet
ALCI	Agronomic Low-Cost Interventions
AWPB	Annual Work Plan and Budget
AWPs	Annual Work Plans
BCR	Benefit Cost Ratio
CB	Capacity Building
CMS	Content Management System
CSRD	Center for Social Research and Development
DDA	Deputy Director Agriculture
DGW&SC	Directorate General of Water & Soil Conservations
EAs	Executing Agencies
EIRR	Economic Internal Rate of Return
ES-QPR	Environmental and Social Quarterly Progress Reports
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
GIS	Geographic Information System
GoP	Government of Pakistan
GoKP	Government of Khyber Pakhtunkhwa
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Intermediate Completion Report
ICT	Islamabad Capital Territory
ICT	Information & Communication Technology
IRR	Internal Rate of Return
KP	Khyber Pakhtunkhwa
LFT	land for Terracing
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
MT	Monitoring Template
MTE	Mid-Term Evaluation
MWA	Micro-Watershed Areas
NPC	National Project Coordinator
NPV	Net Present Value
OFWM	On Farm Water Management
PC	Project Consultants

PC-1	Planning Commission-(Form-One)
PDO	Project Development Objectives
PIC	Project Implementation Committee
PIES	Project Impact Evaluation Study
PPRF	Project Progress Reporting Framework (PPRF)
PQC	Pre-Qualification Committee
RBM	Results-Based Management
RWD	Responsive Web Design
SBS	Stream Bank Stabilization
SDS	Sand Dunes Stabilization
SOPs	Standardized Operating Procedures
SPS&TW	Solar, Pumping System and Tube Wells
SPSS	Statistical Package for Social Sciences (Software)
SSCs	Supply and Service Companies
TABs	Tablets
TOR	Terms of Reference
TPV	Third Party Validation
TWRD	Tail-Water Recovery Ditch
WCA	Water Conservation Activity
WCBAKP	Water Conservation in Barani Areas of Khyber Pakhtunkhwa
WG	Women Group
WR	Water Reservoir
WSHG	Water Seepage Harvesting Galleries
WSP	Water Storage Pound
WST	Water Storage Tank
WUAs	Water Users Associations

EXECUTIVE SUMMARY

The current Monthly Monitoring Report (MMR) for the Month of March 2022 comprises of 5 Chapters.

Chapter-1 describes the Objectives and background of Water Conversation in Barani Areas of Khyber Pakhtunkhwa.

The proposed project is in line with both, the mandate of the government and objectives of National Water Policy. The Prime Minister's 100 days' agenda stresses on massively expanding water conservation efforts through smart interventions to reduce water losses. Similarly, National Water Policy of the country aims at: (i) reduction of 33% in 46 MAF river flows that are lost during conveyance –watercourses lining especially in saline and semi-saline areas; and (ii) increase at least 30% in efficiency of water use by producing "more crop per drop of water".

Water is getting scared day by day. Therefore, there is a serious need to conserve this vital resource to ensure sustainable high level crop production for food security and safeguarding the socio-economic status of the farming community of KP Province.

To mitigate this problem Executive Committee of National Economic Council (ECNEC) approved this project "Water Conservation in Barani Areas of KP" on September 29, 2019 at a cost of Rs. 14.177 billion at 80:20 costs sharing between Government and the beneficiaries/ farmers. The implementation period of the project is 60 months. The aim of the project is to conserve water in Barani Areas of KP through listed below interventions.

S.#	Interventions	S.#	Interventions
1.	Construction of 5,000 water ponds	8.	Constructing 370 numbers of water Seepage harvesting Galleries
2.	Construction of 3,000 Check dams	9.	800 numbers of Agronomic low-cost interventions
3.	Construction of 330 Water Reservoir	10.	230 acres of Sand Dunes stabilization
4.	Construction of 2,500 Stream bank stabilization.	11.	500 Nos. Capacity Building
5.	Construction of 1,000 Gated field Inlet Outlet/Spillway	12.	Procurement and installation of 700 Solar, pumping System and 300 Tube Wells.
6.	Development of 370 acres land for terracing	13.	700 on-site training of farmers in adaptation of new techniques for pumping sub-surface water.
7.	Development of 70 numbers of micro-watershed areas		

Chapter-2 gives detail of ME&IE Consultants of the WCBAKP Project. To evaluate the impact of this project Government has engaged Consultants "Monitoring, Evaluation and Impact Evaluation (ME&IE) Consultants" through Federal Project Management Unit (FPMU) Federal Water Management Cell, Ministry of National Food Security & Research, Islamabad.

The project has been awarded to the Joint Venture of M/s G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD) and ADA Consultants Inc. Canada. Consultants signed contract agreement with the Government of Pakistan on November 27, 2020 and mobilized its staff to start the assignment.

Chapter-3 describes the objectives of Consultancy Services of ME&IE Consultants. The ME&IE Consultants of WCBA KP have to carry out, but not limited to the following activities:

i) Undertake baseline, midline and end line surveys of 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 and Evaluation of the project activities.
iv) Assessing the improvement in water availability and soil losses due to project interventions.
v) Assessing the water saving per annum due to the project interventions.
vi) Assessing the economic benefits to the agriculture in terms of changes in irrigated area, area under cultivation, crop yields, cropping pattern, cropping intensity, farm income and employment.
vii) Assessing the extent of community mobilization, financial and administrative sustainability of Soil & Water Conservation Associations (SWCAs) and ensuring the maintenance of project interventions.
viii) Carryout impact evaluation of the project investment on the economy and stakeholders.

Chapter-4 Describes the purpose of preparation and submission of Monthly Monitoring Report (MMR). The current MMR explained the updated status of consultants' activities up to the reporting month.

Chapter-5 describes the consultants' activities carried out during the current month. This chapter also includes details of coordination meetings held by the ME&IE consultants with client and other stakeholders of the project.

CHAPTER – 1: INTRODUCTION TO WATER CONSERVATION IN BARANI AREA

This section of the Monthly Monitoring Report includes profile and brief introduction of Water Conservation in Barani Area (WCBA) and background of Water Conservation in Barani Area of Khyber Pakhtunkhwa (WCBAKP)

1.1 PROJECT PROFILE

Project Name	Water Conservation in Barani Areas of Khyber Pakhtunkhwa
Project Areas	Project covers 35 Districts of Khyber Pakhtunkhwa falling under Malakand, Hazara, Peshawar & Mardan, Kohat & Bannu, and Dera Ismail Khan Divisions.
Sponsoring Agency	Ministry of National Food Security & Research
Executing Agencies (EAs)	Federal Project Management Unit (FPMU), Federal Project Management Unit (FPMU) Federal Water Management Cell
Project Period	5 Year (2019-2024)
ME&IE Consultancy Period	4 years
ME&IE Consultant:	JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD) and ADA Consultants Inc. Canada
ME&IE Consultant Mobilized	December 24, 2020

1.2 INTRODUCTION

The common features of Barani and Arid lands are; low precipitation, high temperature, high evaporation, low humidity, poor rain water efficiency, water percolation and low productivity. These lands can be made more productive for cultivation and crop production through soil and water conservation activities, as this is need of the hour to overcome scarcity of water and food for the human as well as for livestock. Barani areas are facing huge shortage of water. Therefore, to overcome this shortage Govt. of Pakistan has established Provincial Soil & Water Conversation Departments. These Departments are providing services to the farmers for agricultural purpose through district governments. Main tasks of Soil & Water Conservation which are considered important are following:

- To contain soil erosion process in the cultivable area and the adjoining uncultivated lands and to save these areas from further degradation.
- To make maximum use of run-off water by conserving it into the field by various moisture conservation measures.
- To bring more area under cultivation through reclamation and gully control techniques.
- Exploitation of water resource through various means of providing assured water supply for irrigation purposes (mini dams and ponds)

Some of the works being undertaken for soil and water conservation are:

- Construction of Mini Dams
- Water Storage Tanks
- Construction of Water Outlet Structures
- Retaining Walls
- Land Reclamation through Gully Plugging
- Stream Bank Training
- Moisture Conservation Practices such as Terrace Forming & Deep Ploughing.

1.3 BACKGROUND OF WCBAKP

Khyber Pakhtunkhwa (KP) borders the mountainous regions except to the South-East portion of the province. Therefore, geographically the province is intertwined with various rivers, floods waterways and hill torrent runoff water resources. Water is the limiting factor in the rain- fed Districts of KP that hinder the production of crops and adversely affects

human and animal life. Precipitation received through these mountains of the region drains out of the watershed quickly because of the undulating topography; the uneven terrain of the foothills which drain the areas quickly. Hence enormous amounts of water are being lost through runoff without being utilized, carrying with it fertile top-soil. These waters induce flash floods on one hand and decrease the storage capacity of the dams due to siltation, on the other. The runoff water, if harvested and stored in small units at local level, can be used to supplement irrigation for increase in agriculture production, stabilize the ground water table by inducing ground water recharge, can be used for human and animal use and improve climatic conditions of the rain- fed areas.

While the plains of Peshawar valley (comprising of district Peshawar, Charsadda, Mardan, Swabi and Nowshera) is irrigated by the river Kabul and its tributaries, D.I. Khan which are being irrigated through the CRBC canal from the Indus and steps being taken for Gomal Zam dam, majority of the agriculture lands of the province need to be supplemented through local water harvesting because of the uneven terrain.

In relation to the scope of the problem and the opportunity at hand, previously the idea of conversion of rain fed agriculture to irrigated agriculture have not been taken as it should have been. The conservation of these vital resources is a need of the hour to ensure sustainable high level crop production for food security and safeguarding the socio-economic status of the farming community of KP.

The runoff water, if harvested and stored in small units at local level, can be used to supplement irrigation for increase in agriculture production, stabilize the ground water table by inducting ground water recharge, can be used for human and animal use and improve climatic conditions of the rain-fed areas.

The Directorate General Soil & Water Conservation Khyber Pakhtunkhwa is functional in 24 Districts of the province and is striving for the protection and conservation of agricultural lands and rain water through conservation structures like Inlet and outlet structures, field spillways, cemented water storage ponds, Spurs and protection bunds/walls cemented, G.I. wire spurs and protection bunds, runoff diversion structures and source development, rain fed water retention reservoirs, earthen ponds and earthen embankments, contours and terraces. In addition, water harvesting interventions such as check dams, water reservoirs etc.

1.3.1 Project Objectives

The main objective of agriculture sector is to make the country self-sufficient in food grains and make raw' material available for agriculture-based industries. The project will be encouraging the farming community through financial assistance for water conservation for ensuring timely irrigation. The project has designed to achieve the following long-run objectives:

- *To conserve land and water resources through various interventions for supplemental irrigation, livestock, farm forestry and fish farming*
- *To increase cropping intensity and per unit of land and water productivity*
- *To improve livelihood standards of poor fanners*
- *To improve socio-economic stability*

The project objectives in quantifiable terms are as follows:

i) To induce aquifer/ground water recharge by pounding water in> 300 water storage reservoirs.
ii) To convert 15,032 acres of culturable wastelands into productive agriculture lands through development of 70 micro-watersheds.
iii) To reduce soil erosion by containing flash floods through provision of soil & water conservation structures and check gulley erosion by plugging gullies through 3,000 check dams.
iv) Minimize the adverse effects of drought by maximizing the irrigation water supplies through exploitation of sub-surface water from tube wells.
v) Conversion of around 43,225 acres of rain fed land into irrigated land through installation of 300 agricultural tube wells and solarization of 700 existing/new tube wells.
vi) To enhance the capacity of the stakeholders in water harvesting and for sustainable use of land and soil resources for increased agriculture production.

vii) To improve the socio-economic status of the farmer community.

The project is in line with specific objectives of National Water Policy and Provincial Implementation Plan of the agriculture sector for enhancing water productivity, efficient and harvesting runoff water to ensure farm productivity, economic uplift of small farmers and improving economy of the country as a whole. The proposed project is closely related to the recently completed water conservation schemes, which form an important element of the integrated rural development program within the agriculture sector.

1.3.2 Project Components

The project has two components; Component - A & B.

- **Component-A**

Component-A is being executed by the Directorate General Soil & Water Conservation KP through its provincial setup. It comprises the following activities as in **(Table 1.1)**.

Table 1.1: Activities under Component A (Executed by Soil & Water Conservation KP)

Sr. No.	Name of Activity	Sr. No.	Name of Activity
1.	Water Ponds	2.	Check Dams
3.	Water Reservoir	4.	Stream-bank stabilization
5.	Gated field Inlet Outlet/ Spillway	6.	Terracing
7.	Micro-Watershed Development	8.	Water Seepage harvesting Galleries
9.	Agronomic low-cost interventions	10.	Sand Dunes stabilization
11.	Capacity Building		

- **Component-B**

The Component-B is being implemented by the Directorate of Agricultural Engineering, KP. It comprises of the following activities:

i) Installation of Tube wells.
ii) Solarization of Agricultural Tube Wells.

1.4 PROJECT TARGETS AND OUTPUTS

Project targets and outputs of both components are presented at **Table 1.2**.

Table 1.2: Project Targets and Outputs

S.#	Input	Output
1.	Construction of 5,000 water ponds	Approximately 12,500 acres of agriculture land will be irrigated from these interventions.
2.	Construction of 3,000 Check dams	Approximately 7,500 acres of the land will be reclaimed.
3.	Construction of 330 Water Reservoir	Approximately 9,900 acres of land will be irrigated from this intervention.
4.	Construction of 2,500 Stream bank stabilization.	Protecting/ reclaiming about 6,250 acres of agricultural land from erosion with floods water.
5.	Construction of 1,000 Gated field Inlet Outlet/Spillway	Sufficient amount of water will be provided to about 2,500 acres of land for irrigation in rod kohi areas of the province.
6.	Development of 370 acres land for terracing	Farmer's income will be increased by increasing agricultural land due to terraces development.

7.	Development of 70 numbers of micro-watershed areas	Approx. 7,000 acres of the area will be converted into agriculture/ forest land which will improve the aesthetic value of the area.
8.	Constructing 370 numbers of water Seepage harvesting Galleries	Approx. 925 acres of land will be irrigated from this intervention.
9.	800 numbers of Agronomic low-cost interventions	Approx. 2000 acres of land will be protected from erosion by these interventions.
10.	230 acres of Sand Dunes stabilization	Approx. 230 acres land of sand dunes will be stabilized by growing kana plants.
11.	500 Nos Capacity Building	An estimated 500 trainings will be conducted for stakeholders including farmers and departmental staff.
Agricultural Engineering Component		
12.	Procurement and installation of 700 Solar, pumping System and 300 Tube Wells.	Irrigation of 17,500 hectares (43,225 acres) of land.
13.	700 on-site training of farmers in adaptation of new techniques for pumping sub-surface water.	Irrigation water Pumping cost will be reduced by adopting solar technology.

CHAPTER – 2: ME&IE CONSULTANTS FOR WCBAKP PROJECT

2.1 THE ME&IE CONSULTANTS

Chapter 2 explains the selection of ME&IE consultants for WCBAKP and scope of consultants' services.

Client carried out a competitive bidding process for selection of ME&IE consultants for Water Conservation of Barani Areas in Khyber Pakhtunkhwa (WCBAKP). A Joint Venture of companies' M/s G3 Engineering Consultants (Pvt.) Ltd., Ease-Pak Engineering Services (Pvt.) Ltd., Centre for Social Research and Development (CSRD) and ADA Consultants Inc. Canada has been selected as ME&IE Consultants of the project. After signing the contract agreement with client, consultants mobilized its Team Leader on 15 December 2020 and other staff on December 24, 2020 to start project activities.

2.2 SCOPE OF ME&IE CONSULTANTS' SERVICES

The scope of the ME&IE Consultants is as follow:

The ME&IE Consultants for Water Conservation in Barani Areas of Khyber Pakhtunkhwa (WCBA KP) will be responsible for monitoring, evaluation and Impact Evaluation (ME&IE) of the project interventions carried out by implementation Consultants and in this context will carry out, but not limited to the following activities:

i) Undertake baseline, midline and end line surveys of 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 and Evaluation of the project activities.
iv) Assessing the improvement in water availability and soil losses due to project interventions.
v) Assessing the water saving per annum due to the project interventions.
vi) Assessing the economic benefits to the agriculture in terms of changes in irrigated area, area under cultivation, crop yields, cropping pattern, cropping intensity, farm income and employment.
vii) Assessing the extent of community mobilization, financial and administrative sustainability of Soil & Water Conservation Associations (SWCAs) and ensuring the maintenance of project interventions.
viii) Carryout impact evaluation of the project investment on the economy and stakeholders.

CHAPTER – 3: CONSULTANTS' APPROACH AND METHODOLOGY FOR THE ASSIGNMENT

The chapter briefly discusses the basics of ME&IE system being developed by consultants for WCBA KP Project.

3.1 BASICS OF ME&IE SYSTEM

The ME&IE at WCBAKP Project is grounded in Results-Based Management (RBM), which is a management strategy focusing on the performance and achievement of results in terms of outputs, outcomes and impacts. It is a tool used for strategic control. It uses feedback loops to help managers monitor and then (hopefully) achieve strategic goals. These goals may take the form of physical outputs, organizational or behavioral changes, workflow changes, or form contribution to some other higher-level goal. A key function of ME&IE is therefore, to test and determine whether or not the project's objectives and causal analysis (i.e., the sequence of expected results based on certain inputs and activities) articulated in the project design holds true; and if not, why not, and what should be done to address this and learn lessons.

The ME&IE systems at WCBAKP are formulated based upon the project's logical framework (log-frame), which is one type of program logic model. A log-frame is an important tool in project design and management, mapping the multiple levels of objectives and associated results (measured through indicators) in the short, medium, and long term. Indicators are units of measurement in the form of qualitative and quantitative that determines whether the objectives formulated in the log-frame have been achieved or not. Log-frame developed for WCBAKP is placed at **Annex-A**.

The matrix in **Table 3.1** summarizes standard log-frame objectives and results, and the types of indicators used to measure them, which form the basis of a project ME&IE system and plan.

Table 3.1: Matrix for Levels of Log-frame Objectives and Indicators

Log-frame objectives definitions		Objectively verifiable indicators that measure objectives	
Impact (Goal/Overall Objective)	Higher level project objectives in terms of long-term benefits to beneficiaries and the wider benefits to society. The goal will not be achieved by the project alone. The project aims to contribute to its goal.	**Project impact indicators**	Impact indicators measure this long-term change in conditions of the community (e.g., % change in household income, reduction in poverty, etc.)
Outcome (Purpose Specific Objective)	The short term and medium-term objectives in terms of benefits to the project beneficiaries due to the intervention's outputs; the project can only indirectly control achievement of outcomes; behavior change is often a key component.	**Outcome indicators**	Outcome indicators describe the medium-term effects of an intervention's outputs (e.g., % change in cropping pattern and intensities, crop yields etc.)

Log-frame objectives definitions		Objectively verifiable indicators that measure objectives	
Output (Results)	The output produced by undertaking a series of activities. This is what will be achieved to the intended beneficiaries or target group, and it should be possible for project management to be held accountable for this delivery	**Output (indicators)**	Output indicators describe the immediate effects of an activity, tangible products, goods and services, and other immediate changes that lead to the achievement of outcomes (e.g., number of Wisps, Check dams, WR, SBS, Solar TW, etc.).
Activities	The tangible goods and services delivered by the project (e.g., provision of material inputs, staff, etc.)	**Process indicators**	Process indicators describe the activities undertaken (e.g., process of Wisps, Check dams, WR, SBS, Solar TW, etc.), process of delivering these activities.
Inputs	The financial, human, and material resources used for the development intervention	**Input indicators**	Indicators used to measure the utilization of inputs (e.g., utilization of budget, and services of project staff, labour by the communities)

3.2 MIS / GIS FOR ME&IE SYSTEM

For optimal results of ME&IE of the WCBAKP project consultants are developing MIS /GIS for the project. To minimize the complexities and make the MIS/GIS Database a useful tool for Input-output, process and result monitoring, the consultants adopted the following key principles and guidelines during the development and implementation of WCBAKP MIS/GIS Database:

i) Information needs and indicators to capture such information are identified in a participatory manner involving all key stakeholders of the project at all levels;
ii) The potential users of MIS/GIS Database are convinced and understand the usefulness of the MIS/GIS Database and their role in data collection, recording, transmission and use of information;
iii) The system provides a two-way flow of information, such that those who collect and transmit the information receive the feedback;
iv) The MIS/GIS Database does not impose a high work load at any level in PIU and other Implementing Agencies (IAs);
v) There is no information/data 'overload' at any level;
vi) The system is flexible enough to accommodate internal learning changes in future.
vii) The system provides user friendly interfaces to interact with.

The system's outputs are presented in formats that can be easily converted to other formats and data types without human intervention.

3.3 PARTICIPATORY DESIGN OF THE MIS/GIS ACTIVITIES

The proposed approach to design the MIS/GIS is fully participative. Consultants have made utmost efforts to ensure that all key stakeholders are fully involved throughout the ME&IE MIS/GIS design and implementation process.

Before launching the MIS/GIS database system, multiple feedback and validation sessions are in progress with client and all the stakeholders of the project. Finally, a restitution/validation workshop will be conducted to which the key partners would be invited to get the real feedback on the proposals and achievements.

3.4 MONITORING, EVALUATION AND IMPACT EVALUATION PLAN

This section presents brief introduction about the ME&IE and Impact evaluation plan.

3.4.1 Introduction

The monitoring and evaluation functions are related but distinct. Monitoring is the provision of information, and the use of that information, to enable management to assess progress of implementation and take timely decisions to ensure that progress is maintained according to schedule. Monitoring assesses whether project inputs are being delivered, are being used as intended, and are having the initial effects as planned. It is an internal project activity, an essential part of good management practice and therefore an integral part of day-to-day management. Evaluation also assesses the overall project effects, both intentional and unintentional and their impact. It involves comparisons requiring information from outside the project either in time, area, or population. The relative role of monitoring and evaluation varies with type of project.

3.4.2 Framework for ME&IE System

The initial steps for designing monitoring and evaluation system are:

i) A review of the project objectives in order to systematize them in sequence.
ii) Identification of the users of both the monitoring and evaluation information. For monitoring, the users will be the hierarchy of project management. The type of information transmittal will be geared to the needs of each level of project management. The users of evaluation analysis range from project management through the responsible directorate/ ministry, to the national planners.

Evaluation will be drawn on the data generated by the monitoring system to help explain the trends in effects and impact of the project. Monitoring data may reveal significant departure from expectations which may warrant the undertaking of an on-going evaluation exercise to examine the assumptions and premises on which the project design was based. Such a review, as also in the case of ex-post evaluation, can be of great value to sectoral management in its policy formulation role.

Monitoring has to be integrated within the project management structure but evaluation, with its wider horizons requiring comparative information, is not necessarily such an integral component. A central evaluation facility may be justified on the grounds that:

i) The demanding professional skills required to interpret evaluation data are either unavailable or uneconomic for each project individually;
ii) The data needed extend from before a project is initiated to a period long past its completion.

Although the design and analytical facility for evaluation may be centralized, the data collection resources within a project will be used to provide much of the required data. If the same unit is collecting data both for eventual evaluation and for quick, timely monitoring, the latter must not suffer due to the greater demands of the former.

3.4.3 Monitoring and Managing of Project Progress

The primary goal is to monitor project progress, given that the project has been carefully appraised; i.e., that there is a strong assumption towards certain stimuli and inputs will achieve specific outputs, effects and its impact. The role of management in the initial implementation phase is to create the condition that allows this chain of events to be occurred.

In the early years of project implementation, the emphasis will be on monitoring of project progress and the delivery of the inputs to the intended recipients. The main source for this aspect of monitoring is properly organized in project records. The other concerns of management at this stage are to use these inputs and reaction of the recipients.

Adoption rates give management a strong inference whether the project is succeeding or not. Information on the recipients' attitudes and perception is important in order to explain any departure in response behavior to that postulated in the project design. Such unpredicted behavior may determine the success or failure of the project.

The information required for monitoring of project implementation does not require complex data systems. A monitoring system exists even if it is merely a subjective accumulation of impressions by project staff. If common sense rules of good standard management practices are adhered to, the monitoring system can be limited to the minimum of parameters to be recorded regularly over time. The goal is to make the data collection as objective as possible, and to ensure, above all, that the means exist for fast collation, summarization and presentation of the information to the decision makers.

Once management has satisfied itself that the delivery system is working, its attention should shift to the outputs generated; i.e., are they materializing according to expectation. Focus on output measurements must not, however, be at the expense of monitoring the input delivery system. The measurement of outputs is more properly a function of evaluation, for identifying trends is not an easy task in view of the exogenous influences at work, and is often impossible without an extended time series.

The key to successful monitoring is the provision of regular, timely, decision-oriented information to the project management. This can be achieved if the necessary staffs are in place early, are seen to be part of the management team, and are given guidance on the priority information needs of the management.

3.4.4 Project Progress Reporting Framework (PPRF)

The Project Progress Reporting Framework (PPRF) given as **Annex-B** is a format for reporting summary of physical and financial progress achieved during the period for various interventions. A regular flow of this data is expected from Clients, Field Teams/ Project Consultants. However, detailed data on the processes and beneficiaries' feedback will be gathered / transmitted through Android based application using smart phones.

3.4.5 Evaluation - An Assessment of Results

Evaluation aims to determine whether the project objectives set in the ME&IE of expected outputs, effects and impact are being, or will be, met. This leads to an assessment of the results achieved, and the lessons to be drawn for future improvements in a later phase or in similar projects elsewhere.

Output levels are a measure of the result of the input utilization by the beneficiaries. If the changes in outputs are considerable, they may be detected even during the implementation phase of a project. An evaluation system requires the development of a series of data commencing before the project is implemented and continuing well past the completion of the implementation period. Unlike a monitoring system with its emphasis on rapid assessment, an evaluation system requires a longer time span before even tentative conclusions can be drawn.

3.4.6 Impact - Quantification of Tangible Benefits and Assessment on Intangible Benefits of Project Interventions/ Investment

In the ME&IE process, tangible benefits of agricultural projects can arise either from an increased value of production or from reduced costs. The specific forms, in which tangible benefits appear, however, are not always obvious, and valuing them may be quite difficult.

Increased physical production is the most common benefit of the agricultural sector. To maintain better water control so that farmers can obtain higher yields. The project makes resources available for farmers to increase both their operating expenditures for current production-for fertilizers, seeds, or pesticides-and their investment-for water conservations techniques

and solar water tube wells. The benefit is the increased production from the farm. In a large proportion of agricultural projects, the increased production will be marketed through commercial channels. In many agricultural projects, however, the benefits may well include increased production consumed by the farm family itself. The home-consumed production from the projects increased the farm families' net benefit and the national income just as much as if it had been sold in the market. Indeed, we could think of the hypothetical case of a farmer selling his output and then buying it back. Since home-consumed production contributes to project objectives in the same way as marketed production, it is clearly part of the project benefits in both financial and economic analysis.

3.4.7 Design and Development of ME&IE GIS Based Information System

Management Information System (MIS) is the tools and techniques used in project management to deliver information. Project managers use the techniques and tools to collect, combine and distribute information through electronic and manual means. It is used by upper and lower management to communicate with each other.

The monitoring and evaluation functions are related but distinct. Monitoring is the provision of information, and the use of that information, to enable management to assess progress of implementation and take timely decisions to ensure that progress is maintained according to schedule. Monitoring assesses whether project inputs are being delivered, are being used as intended, and are having the initial effects as planned. It is an internal project activity, an essential part of good management practice and therefore an integral part of day-to-day management. Evaluation also assesses the overall project effects, both intentional and unintentional and their impact. It involves comparisons requiring information from outside the project either in time, area, or population. The relative role of monitoring and evaluation varies with the type of project.

Based on the participatory approach, the Information System proposed is being designed and developed as a permanent instrument for the planning, monitoring, evaluation, and adjustment of project management, based on common information tools made available to all stakeholders concerned by the implementation of the project. This approach aims at strengthening the overall results of the project, increasing the sustainability of activities, and improving resource utilization and management of risks and difficulties of the project implementation.

Design & development of ME&IE GIS based Information Management System is based on Agile Methodology as Software Development Process. Under which requirements and solutions evolve through the collaborative effort of self-organizing and cross-functional teams and end user / field experiences. The adaptation of agile development methodology ensured the early completion of task and keeps evaluating it for better results as per the project requirement. It would be helpful to strategize the design and development phase, successful implementation, on-going maintenance, and up-gradation of the GIS based Information System.

Our experience shows that data generated in the field by client, field staff and project consultant is not timely communicated to PMUs. As a result, the dashboard/ Information System remain behind the actual progress on the ground. Therefore, prompt and real time data communication is essential to the Information System. For this purpose, one focal person in each province/ area is required.

3.4.8 Regular Routine Monitoring

Consultants are now onboard for the baseline survey and regular routine monitoring to carryout ME&IE of WCBAKP. This phase of the assignment includes;

(i) The monitoring of input-output and process as defined in the Annual Work Plan and Budget (AWPB) and;
(ii) The tracking of the outcome indicators.

Regular routine monitoring will look at the extent

to which the proposed project activities are being implemented as planned. We also understand that the consultants are responsible for the regular routine monitoring and should work in close collaboration with FPMU-FWMC, Project Coordinator (PC), and respective Departments of Province KP, Directorate General Soil & Water Conservation & Directorate of Agricultural Engineering KP through their district/sub-offices & farmers/ SWCA, etc.

In order to track the indicators' values and measure the project performance, the ME&IE Consultancy have to analyze the relevant ME&IE data and report every quarter, applying the agreed methodology, reporting format and content.

Periodic reports on routine monitoring shall contain, at least:

(i) A brief analysis of the results; calculating achievement rates and establishing trends;
(ii) A summary with any relevant findings that may help or constraint the future data collection activities in the established periods and, if appropriate;
(iii) Propose specific solutions assessing the advantages and disadvantages of each.

As stated in the Project TOR, additional special reports are to be produced "as and when required." We propose that some of these special reports ought to be thematic studies and case studies that can be punctually required at different times of the project implementation as to create knowledge on the implementation and its results, to be shared and further implemented.

CHAPTER – 4: MONTHLY MONITORING REPORT

This chapter of the Monthly Monitoring Report (MMR) describes the brief introduction, objective of the MMR of monthly monitoring report WCBAKP.

4.1 INTRODUCTION

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

4.2 OBJECTIVE OF MONTHLY MONITORING REPORT

Reporting is an integral part of monitoring and evaluation framework. The main objective of MMR is to update the Client about the activities carried out by the ME&IE Consultants during the reporting period along with its procedures.

4.2.1 Consultants Procedure for ME&IE Assignment

The Consultants carried out ME&IE of WCBA KP in two parts.

The First Part of monitoring is carried out through field visits and surveys of water storage reservoirs, micro-watersheds, check dams, tube-wells, etc. All water conservation activities under the project. The processes, timelines and physical progress against targets set in the Annual Work Plans (AWPs) are marked. The monitoring activities includes baseline, midline and end-line surveys. The water saving assessment will be simultaneously carried out with the improvement activities of construction of water storage tanks and installation of tube-wells. The economic benefits to the agriculture sector will also be estimated in addition to the impact evaluation on the stakeholders and economy as a whole. For each monitoring activity one or more checklist(s) will be developed based on planned SOPs (Modus Operandi) and timelines. The activities will be monitored according to the checklists.

All the checklists will get approved from the client before executing in the field. Additional checklists will be devised if required. The outcome of the monitoring activities is expected in three states, i.e., the progress is on track, lagging behind or faster than planned. Reasons for lagging progress will be identified with possible solutions. In case of faster progress, good practices will be identified to replicate in the project. All the physical progress will be monitored for quality as well.

The Second Part of the ME&IE assignment will be the development, operation, maintenance and handing-over the Management Information System (MIS) to the client at the end of the project.

Main features of the MIS are briefly presented as under:

Planning and input-output process monitoring, as well as the tracking of results indicators, assume a critical role in the management of development projects. We propose to develop, set up and implement a Web Based Monitoring Information System (MIS) useful for:

- Monitor the progress of project implementation and provide timely feedback to all project stakeholders,
- Monitor, assess, and summarize achievements (outputs and outcomes),
- Analyze factors affecting the project's implementation and achievements.

a) The basic functions of the MIS are to:

- Enable the FPMU-FWMC and PC to track the outcome indicators and assess progress in implementation against timescales and targets, and resources used against budgets, based on agreed annual work plans.
- Describe the factors and reasons triggering variations,
- Record and reflect new targets, whenever it is required,
- Draw important lessons to guide the decision-making,

- Enable forecasting for project accomplishment in comparison to the currently reported progress,
- Enable the project management to generate reports to funding partners, project beneficiaries and other stakeholders on the status and progress of the project implementation,
- Integrate GIS components to the MIS to complement field-level surveys and measurements.

b) Potential users' profiles could be the following:
- Federal Ministries
- NPC FPMU-FWMC
- WCBA Project Consultants (AGES)
- ME&IE Consultants
- Provincial concerned departments / maintaining system administrators.

c) The MIS will allow the project to enter the Annual Work Plan and Budget (AWPB) to enable process monitoring. This interface should facilitate the user to create activities for the current year and go back in previous years.

d) The following project information will be accessible at all times:
- Project description
- Project's objectives
- Implementation partners
- Locations of implementation
- Timelines
- Project activities (and % of accomplishments)
- Budgets (% of spending)
- The dashboard is a "real-time" user interface showing graphical and tabular information of multiple data sets. Dashboards allow users to appreciate a situation at a glance and aids in making informed decisions. The way in which data are presented directly affects how they are understood and interpreted/ consequently the decisions that are made because of the data.

e) The kind of data that can be represented in the dashboard includes:
- Activity/indicator completion rates
- Budget expenditures
- Information disaggregated by localities (map views)
- Timelines, etc.

f) Notifications/Alerts

For each type of events (e.g., incoming deadlines, new data input, requests, etc.) the user will receive notifications/alerts of said events within the MIS and via e-mail either:

- As the event is created
- Daily / Weekly/ Monthly/Quarterly updates.

When an alert generated and in what form and frequency will be decided in consultation with users/clients.

g) Change Tracking

The system records actions of users such as creating data, removing data, data entry, data validation, etc. (e.g., latest update to an open quarterly report). The system records the name of the user, the date and time of change, actions made, code of items altered. This function is crucial to monitor the ME&IE processes.

h) Key Principles:

Following are the key principles:

- The system provides Excel-like functionality including filtering/sorting columns (reducing data-entry and increasing ease-of-use).
- The data entry and validation of plans and different reports are linked to user profiles
- The system displays an error message when not able to save the data.
- For all operations, the system keeps an audit trail with the user, date and time of the operation.

CHAPTER – 5: CONSULTANTS ACTIVITIES DURING THE REPORTING PERIOD

5.1 ACTIVITIES DURING REPORTING PERIOD

This chapter of 15th MMR covers the progress for the period from 1st March, 2022 to 31st March, 2022.

Following activities completed/ remained in progress during the reporting period are discussed briefly:

5.1.1 Coordination Visits/Meetings of ME&IE Consultants

Consultants conducted / performed various meetings / activities during the reporting period. The basic objectives of these meetings were development of continuous linkages, coordination, and cooperation in order to run the project activities smoothly and efficiently. Details of these meetings / activities are given below.

5.1.1.1 Meeting in AED Headquarter Tarnab Farm to Collect Interventions' Files: 1st March 2022.

Participants of the Meeting:
Miss. Kulsoom, Dy. Director, DAE HQ.
Mr. Haroon, Agriculture Engineer, DAE HQ.
Mr. Adnan, Asstt. Engr. Peshawar Station, DAE
Mr. Nasir Khan, ICT Manager, WC-KP.
Mr. Khaliq uz Zaman, Field Engineer, WC-KP.

The WC-KP team visited HQ DAE, Tarnab to get some files of the interventions in soft/ scanned format as well as in hard form.

- Mr. Adnan, Assistant Engineer, Peshawar Station stated that they cannot provide hard files to take somewhere else, however, can be seen and studied within the office premises.
- Formats for data collection of DAE interventions was shared and discussed with the department officials and asked for scanned files in order to get the formats finalized.

5.1.1.2 Meeting and discussions with Mr. Rizwan Ahmed, National ICT Specialist in WC-KP office Peshawar: 9th March 2022.

Participants of the Meeting:
Mr. Rizwan Ahmed, National ICT Specialist.
Mr. Shumail Mehmood, ICT Specialist.
Mr. Nasir Khan, ICT Manager, WC-KP.

Data Collection formats for the DAE interventions was discussed in detail, each column of the formats was discussed and evaluated for inclusion in the formats or deletion if not necessary. Questions were prepared to be asked from DAE.

Three formats for Water Ponds, Check Dams and Stream Bank Stabilization, that were developed earlier and already discussed with the department were scrutinized, discussed in detail and shared with the S&WC after finalization, however feedback from the department is still awaiting. Later on, data collection formats for Terracing, Water Storage Reservoirs, Micro-watersheds, Water Seepage Harvesting Galleries, and Agronomic Low-Cost interventions were developed and discussed.in detail.

5.1.1.3 Meeting in AED Headquarter Tarnab Farm to discuss the formats for DAE interventions and data collection process for on-line Dashboard: 14th March 2022.

Meeting was held in Dy. Director AED's office in Tarnab Peshawar to discuss, edit and finalize the data collection formats for the AED interventions' back log data. The formats developed by WC-KP team were shared with the AED officials for a quick review, before the meeting.

Participants of the Meeting:
Miss. Kulsoom, Dy. Director, DAE HQ.
Miss Afshan Shareen, Agri Engr. DAE HQ.
Mr. Fawad Ahmad, ICT Manager WC-KP.
Mr. Nasir Khan, ICT Manager WC-KP.

During the meeting, each column of the data collection formats was discussed with the AED

personnel and edited formats according to the department's comments were shared with the management in Islamabad. Later on, the SFTs provided by the department were entered in the finalized format and the team is now in coordination with the AED for remaining or missing data.

5.1.1.4 Meeting with the DD S&WC Nowshera to discuss the visit schedule for monitoring and evaluation of S&WC Interventions on 15 March 2022.

The WC-KP team visited DD S&WC office in Nowshera to discuss the visit schedule.

Figure-5.1: *WC-KP Team with DDS&WC (Nowshera) on 15 March 2022*

The WC-KP team shared the field monitoring schedule with S&WC official, discussed all the S&WC interventions within Nowshera and finalized and visited the interventions. Selection of sites for monitoring was thru in order to cover maximum interventions.

5.1.1.5 Visit to S&WC interventions in District Nowshera on 15 March 2022.

WC-KP team along with the DD S&WC Nowshera set out for the monitoring and evaluation of S&WC interventions.

Intervention 1 (Khan Afzal SBS):
The WC-KP team first visited Khan Afzal Stream Bank Stabilization in Village Garoo, Tehsil Gahangira, District Nowshera. Main points and observations taken during the visit are as under;

- Land owned by the farmer before the intervention was 15 acres while after the improvement, the land has increased half acre and now it is 15.5 acres.
- 0.5-acre area is reclaimed due to the S&WC intervention.
- Irrigated area is 5 acres and source of irrigation is tube well which was installed by the farmer himself.
- Wheat, maize and some vegetables are the crops sown on the irrigated land.
- The cropping intensity is sufficient for the farmer's domestic needs only and the famer does not sale the crops.

Figure-5.2: *WC-KP Team, Monitoring Khan Afzal SBS (Nowshera) on 15 March 2022*

- The farmer was satisfied with the intervention.
- The farmer demanded the team to approve and install solarization of the tube well in order to get rid-off the power issues and billing of electricity.
- The farmer furthered that he has installed tube well by his own but now he has no capacity of installation of solar system for the operation of tube well and therefore, he demanded for the solarization.
- The team expressed the whole procedure of applying for the solarization from the application till installation.

Figure-5.3: *WC-KP Team interviewing the beneficiary of Khan Afzal SBS (Nowshera) on 15 March 2022*

Intervention 2 (Gul Sharaf Check Dam):

After visiting Khan Afzal SBS, the WC-KP team along with the DD S&WC Nowshera moved to Gul Sharaf Khan Check Dam in Village Gandab, Tehsil Gahangira, District Nowshera. Main observations of the WC-KP team are illustrated below;

- Total land owned by the beneficiary of this intervention is 2.4 acres.
- The land is non-irrigated.
- The farmer sow only wheat on this land which has a very limited yield.

Figure-5.4: *WC-KP Team Monitoring Gul Sharaf Check Dam (Nowshera) on 15 March 2022*

- The farmer demanded the team for installation of Tube Well and solarization.
- The farmer said that this area lies in Barani zone and there is no other source of irrigation available in this area. In order to make my land culturable, a tube well and solarization of tube well is demanded.
- The team instructed the farmer about the procedure to apply for the demanded schemes.

Figure-5.5: *WC-KP Team interviewing the beneficiary of Gul Sharaf Khan Check Dam (Nowshera) on 15 March 2022*

Intervention 3 (Said Zaman SBS):

After monitoring and interviewing beneficiary of Gul Sharaf Khan Check Dam, the WC-KP team visited Said Zaman SBS in Village Gandab, Tehsil Gahangira, District Nowshera. The team observed, monitored and noticed the following;

- The owned land of the farmer was 2.5 acres before the intervention while after this SBS, the total owned area has been increased with 0.3 acre and now the farmer owned are is 2.8 acres.
- 0.3 acre of area is reclaimed by the S&WC intervention.
- The area is non-irrigated.
- The farmer sow wheat and oil seeds which has rain as the only source of irrigation and therefore, the cropping intensity is very low.

Figure-5.6: *WC-KP Team Monitoring Said Zaman SBS (Nowshera) on 15 March 2022*

- The farmer was satisfied with the intervention.
- The beneficiary of this scheme is a job holder and therefore he has no time for sowing any crops in his land.

Figure-5.7: *WC-KP Team interviewing the beneficiary of Said Zaman SBS (Nowshera) on 15 March 2022*

5.1.1.6 Visit to S&WC interventions in District Mardan on 16 March 2022.

The WC-KP team visited DD S&WC office in Mardan to discuss the visit schedule.

The WC-KP team shared the field monitoring schedule with S&WC official, discussed all the S&WC interventions within Mardan district and finalized and visited the interventions. Selection of sites for monitoring was thru in order to cover maximum interventions.

Intervention 1 (Sultan Zeb SBS):

Sultan Zeb SBS in Village Berouch, Tehsil Rustam, District Mardan.

- Total land owned by the beneficiary of this scheme is 7.5 acres.
- This scheme is under construction.
- The farmer or any representative from his side was not available during the visit.

Figure-5.8: *WC-KP Team Monitoring Sultan Zeb SBS (Mardan) on 16 March 2022*

- The contractor working on the scheme stated that reclaimed area can be calculated after completion of the scheme.

Intervention 2 (Saleem Khan SBS):

The WC-KP team along with DD S&WC Mardan travelled to Saleem Khan SBS in Village Saleem Abad, Tehsil Rustam, District Mardan. Main points and observations during this monitoring visits are as under;

- Total owned area of the beneficiary of this scheme before the intervention was 25 acres, however, after the SBS the owned area has been increased by 0.5 acre and now the farmer owns 25.5 acres.
- Half acre of area is reclaimed due to the intervention.
- The land is irrigated through a tube well.
- Total area is covered with orchard (oranges).

Figure-5.9: *WC-KP Team Monitoring Saleem Khan SBS (Mardan) on 16 March 2022*

- The farmer was satisfied with the intervention.

Figure-5.10: *WC-KP Team interviewing farmers on Saleem Khan SBS (Mardan) on 16 March 2022*

Intervention 3 (M. Qaseem Khan SBS):

The WC-KP team along with DD S&WC Mardan travelled to M. Qaseem Khan SBS in Village Saleem Abad, Tehsil Rustam, District Mardan. Main points and observations during this monitoring visits are as under;

- Total owned area of the beneficiary of this scheme before the intervention was 20 acres, however, after the SBS the owned area has been increased by 1.5 acre and now the farmer owns 21.5 acres.
- 1.5-acre area has been reclaimed after the intervention.
- The land is irrigated through a tube well.
- Total area except for the reclaimed area is covered with orchard (oranges).

Figure-5.11: *WC-KP Monitoring M. Qaseem Khan SBS (Mardan) on 16 March 2022*

5.1.1.7 Visit to S&WC interventions in District Swabi on 17 March 2022.

The WC-KP team visited DD S&WC office in Swabi to discuss the visit schedule.

The WC-KP team shared the field monitoring schedule with S&WC official, discussed all the S&WC interventions within Swabi district and finalized and visited the interventions. The DD S&WC shared list of all interventions within the District Swabi. After that the team along with the DD S&WC set out for field visits.

Intervention 1 (Imran Khan Check Dam):

The WC-KP team along with DD S&WC Swabi travelled to Imran Khan Check Dam in Village Jhenda, Tehsil & District Swabi. Main points and observations during this monitoring visits are as under;

- Total owned area of the beneficiary of this scheme before the intervention was 25 acres, however, after the check dam the owned area has been increased by 0.5 acre and now the farmer owns 25.5 acres.
- This area is totally non-irrigated.

Figure-5.12: *WC-KP team Monitoring Imran Khan Check Dam (Swabi) on 17 March 2022*

- The famer was satisfied with the intervention.
- The area is not cultivated yet.

Intervention 2 (Irfan Khan Check Dam):

The WC-KP team along with DD S&WC Swabi travelled to Irfan Khan Check Dam in Village Jhenda, Tehsil & District Swabi. Main points and observations during this monitoring visits are as under;

- Total owned area of the beneficiary of this scheme before the intervention was 2.5 acres, however, after the check dam the owned area has been increased by 35 acres and now the farmer owns 37.5 acres.
- 35 acres has been reclaimed by the intervention for which the farmer is very pleased with the intervention.
- The area has been planted with orange plants last year and source of irrigation to these plants is water tanker.

Figure-5.13: *WC-KP team Monitoring Irfan Khan Check Dam (Swabi) on 17 March 2022*

Intervention 3 (Changaiz Khan Terracing):

After visiting Irfan Khan Check Dam, the team travelled to Changaiz Khan Terracing in Village Jhenda, Tehsil & District Swabi. Main points observed during this visit are given below;

- Total owned area after the intervention is 4 acres.
- Before the intervention, there was no culturable area.
- The monitoring team was unsatisfied with the work done.

Figure-5.14: *WC-KP team Monitoring Changaiz Khan Terracing (Swabi) on 17 March 2022*

- The area has been planted with orange plants last year and source of irrigation to these plants is tube well and water is transferred through water tanker.

Intervention 4 (Usman Khan Check Dam):

After visiting Changaiz Khan Terracing, the team travelled to Usman Khan Check Dam in Village Jhenda, Tehsil & District Swabi.

After approaching the site, the team was informed that a check dam was built in this location. Construction of this check dam was completed in Oct 2020 as per S&WC record. However, on the ground no check dam was there. The WC-KP team asked about the check dam, S&WC officials and farmers replied that the check dam is now buried under ground after filling and leveling of the fields.

Figure-5.15: *WC-KP team visiting location of Usman Khan Check Dam (Swabi) on 17 March 2022*

5.1.1.8 Meeting of Team Leader with WC-KP staff in WC-KP office Peshawar on 29 March 2022.

Team leader Dr. Fazli Hakim Khattak visited WC-KP office in Peshawar to discuss about the project.

Administrative issues, technical issues, financial situation and activities progresses was discussed during the meeting.

5.1.1.9 Monitoring and Baseline Survey Field Activities

Till the reporting month, the M&E field teams of ME&IE Consultants conducted overall **67** monitoring and baseline survey visits across **14 districts** of Khyber Pakhtunkhwa (KPK). A summary provided in the table below.

Table: District wise/Intervention wise detail of overall activity units performed till Reporting Month

Districts & Interventions	Count of Activity Units
Bannu	**3**
Check Dam	1
Water Pond	1
Water Reservior	1
Charsadda	**4**
Check Dam	1
Stream Bank Stabilization	3
Dera Ismail Khan	**5**
Check Dam	1
Gated Field Inlet Outlet/Spillway	1
Solarization of Tube Well	1
Water Pond	1
Water Reservior	1
Haripur	**2**
Installation of Tube Well	1
Solarization of Tube Well	1
Karak	**2**
Solarization of Tube Well	2
Kohat	**4**
Solarization of Tube Well	1
Water Pond	2
Water Reservior	1
Lakki Marwat	**6**
Check Dam	1
Gated Field Inlet Outlet/Spillway	1
Solarization of Tube Well	1
Stream Bank Stabilization	1
Water Pond	1
Water Reservior	1
Malakand	**4**
Check Dam	2
Water Pond	2
Mansehra	**4**
Installation of Tube Well	1
Stream Bank Stabilization	2
Water Pond	1
Mardan	**9**
Check Dam	3
Gated Field Inlet Outlet/Spillway	1
Installation of Tube Well	2
Stream Bank Stabilization	1
Water Pond	1

Districts & Interventions	Count of Activity Units
Water Reservior	1
Nowshera	**3**
Check Dam	1
Stream Bank Stabilization	1
Water Pond	1
Peshawar	**9**
Check Dam	1
Stream Bank Stabilization	3
Water Pond	5
Swabi	**8**
Check Dam	3
Installation of Tube Well	1
Solarization of Tube Well	1
Stream Bank Stabilization	2
Water Pond	1
Tank	**4**
Check Dam	1
Gated Field Inlet Outlet/Spillway	1
Stream Bank Stabilization	1
Water Pond	1
Grand Total	67

5.2 Development of Android Based

Android is a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touch screen mobile devices such as smart phones and tablets.

Data collection android application would have following features:

i) Well optimized application for better work in online/offline environment User friendly interface
ii) Consume less internet bandwidth for better connectivity at low internet/remote areas
iii) Data is automatically uploaded when a connection is detected
iv) Data immediately available right after it's collected
v) signatures, photos and much more
vi) Strong safeguards against data loss
vii) Synchronize data via SSL, ensures data can't be read by a third party
viii) Encrypted data will be saved at device and server

5.3 DEVELOPMENT OF WEBSITE FOR THE PROJECT

The development of Website for WCKP was started by the month of February 2021. The following activities have been completed: -

- Held meetings with the Stakeholders to identify the project website requirements
- Website layout structure prepared
- Design & Development of website completed in June 2021.

The Revision/up-dation of the Project website has been presented to NPC office on 15 September 2021. Minor modifications were proposed by the Client during the 3rd PBOM meeting on 9th November 2021, which have been incorporated accordingly as per requirements of the Client. However, before uploading the final version of the Website, it will be presented to the Client for final approval.

A website is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. All publicly accessible websites collectively

constitute the World Wide Web. Nowadays, the website is the primary communication tool as well as the front face of organization. In development projects, the prime purpose of the website is to communicate the project activities, outcome, impact reports and the publication of the notices like; tenders and bid evaluation reports for the transparent procurement processes. To develop the project website, Content Management System (CMS) will be used. By the implementation of CMS based website it will ensure the interactivity at website and easy update page content, images, documents, and integration with analytical systems to track pages and site performance.

Website structure is the main content planning phase. To finalize the structure of website a close consultation with key stakeholders is required. A preliminary structure of the website will have the following pages:

i) Homepage (Landing page)
ii) Project Introduction
iii) Project Components
iv) Project activities
v) Progress Reports
vi) Monitoring Reports
vii) Impact Reports
viii) Project Progress
ix) Procurement
x) Procurement of Goods, Services & works
xi) Evaluations and Results
xii) Career
xiii) Media Gallery
xiv) Contact
xv) FAQs (Frequently Asked Questions)

5.4 DEVELOPMENT OF MIS/GIS SYSTEM

Designing of Dashboard of Project Interventions / Web-based GIS integrated MIS (PMIS System) has been Completed in the mid of August 2021. Data collection of interventions in MIS/GIS database is under progress.

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

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

The GIS based MIS will provide the means of:

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

It is proposed that the Management Information System (MIS) for WCBA KP be implemented using a phased approach although due to Agile Software Development Methodology few activities will interrelate between phases. The following 2 phases are considered:

Phase-I – MIS Development
Requirement & GAP Analysis – (Completed)

The ME&IE Consultants performed Requirement Analysis to review the project processes.

A thorough assessment of any existing IT infrastructure'

a. Perform needs assessment of the current IT capacity of individual stakeholder's and identify any infrastructure gaps and recommend necessary upgrades in IT infrastructure.

b. *Identify hardware and network infrastructure requirements and specification at the core, access, and distribution layers along with endpoint*
c. *Determine the technical parameters of the solution based on the Bandwidth requirement based on the total number of anticipated users with a redundancy plan*

Phase-II – Data Collection Format

The ME&IE Consultants has prepared the data collection formats for three types of S&WC interventions and two AED interventions according to shared files/ data and sent to department for approval. Later, all these formats were discussed with the departments thoroughly. Edited formats according to the departments' comments and requirements. The data collection process will be started after the finalization of these formats with the departments.

GIS Integrated MIS Development – (Completed)

Based on the requirements gathered, develop an application framework that includes user management, access control, security, and workflow for publishing information. This application framework should be based on Modular Architecture to enable modules to be added in the future and be able to share data with other applications. Test the application framework with the real users and gather feedback on the system.

Based on the feedback received from the testing by the real users, finalize the web-based/ mobile-friendly application.

MIS / Android Application Deployment and Testing (Beta Run) - (Completed)

The ME&IE Consultant deployed the MIS at the designated web server and handed over the documented source code. The ME&IE Consultant also conducted functional and operational testing. A User Acceptance Test (UAT) is to be carried out (either as part of the deployment or after).

Digitize and Migrate the Data – (Under Progress)

During this time, a lot of data has been generated, it can be in digital form or may be in hard copy form. The ME&IE Consultant has to digitize the hard copy data and has to migrate the complete data in the respective database forms.

Designing and Development of Dashboard of Project interventions have been completed. The final presentation of Web-Based PMIS, integrated with GIS and M&E system was presented to NPC office and received the approvals.

Implementation of GIS Integrated MIS Dashboard - Under Progress

Operational and User Manual

Based on the feedback received from the testing by the real users, finalize and prepare operational documentation and user manuals for orienting the users. Make the user manual as a help file to the online application so that the user can refer to the manual as and when needed.

Submission of a comprehensive Operation and User Manual followed by handing over of the completed MIS. The ME&IE Consultant will submit a Soft and Hard Copy of the Operation and User Manual for the operation of the overall MIS. This manual will also be available online for users from their logins, the online manual should be properly indexed and searchable as web pages on a secured area.

Training and Capacity Building

Training and Capacity Building of staff on MIS and Android Application is an essential and final part of this assignment. Training modules will have to be designed for multiple groups of users as per their needs and requirements. Potential user groups could be the following:

- *NPC – FPMU*
- *Provincial DGs (of relevant Departments)-PMU*
  - *Regional Directors*
  - *Deputy Directors*
  - *Field Teams*
- *Project Consultants*
- *ME&IE Consultants*

A comprehensive document of the training plan has to compile for this phase. As each user group has different requirements for training as mentioned below:

NPC – FPMU __ *National Project Coordinator and Federal Project Management Unit's need the insight of overall national level progress and impact reports. This group will not submit any primary data. Android application training will not be delivered to the users of this group.*

Project Consultants __ *Project Consultants requires the MIS access and training and the Android application training as well to access and submit the data generated by Project Consultant like certifications.*

Although PCs provided the names for training, but ME&IE Consultants are of the view that PCs needs to revisit their nominations.

ME&IEC __ Monitoring Evaluation and Impact Evaluation Consultants provided the Android Application trainings to its field staff as well and will submit the Baseline, Edline data and Progress Monitoring and Impact Reports.

5.5 WORK SCHEDULE AND PLANNING FOR DELIVERABLE

The project Work Schedule and planning matrix for deliverables is attached to the report as **Annex-C** which shows the progress till the reporting month.

5.6 WORK SCHEDULE / ACTIVITIES FOR FIFTH & SIXTH QUARTER (JANUARY TO JUNE 2022)

Work Plan / Activities planned for the 1st & 2nd Quarters January 2022 to June 2022 are attached as **Annex-D** to this report.

ANNEXES A TO D

ANNEX - A: MONITORING LOG-FRAME

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
Component A. Soil & Water Conservation Component							
1.	- Construction of 5,000 water ponds (WSPs)	a) 5,000 small farmers mobilized to construct water ponds b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Approximately 12,500 acres of agriculture land will be irrigated from these interventions.	2,000 water ponds	Crop production per unit area will increase by conserving runoff water/ water from perennial springs. Livestock will be increased; ultimately farmer's living standards will improve.	Approximately 12,500 acres of the land will be changed into crop fields and fruits orchids, which will increase farmer's income. More than 25,000 farmers will permanently engage in agriculture sector. These will provide short term employment to approximately 40,000 labors during the construction period of the interventions.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to WSPs c) The survey will determine: • Cropping pattern before and after the improvement; • Cropping intensities before and after improvement; • Before and after crop yields; • Before and after employment; d) The difference between before and after will be considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise.

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
2.	Construction of 3,000 Check dams (CD)	a) In each Check dam village, (small farmers mobilized will be to construct check dams b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Approximately 7,500 acres of the land will be reclaimed.	2,500 check dams	Approximately 7500 acres of the land will conserve; ground water table of the nearby wells will rise.	Land value of the project area will increase; more than 7,500 acres of the land will bring under cultivation. Climatic condition of the area will improve and livestock will be benefited. More than 15,000 people will permanently engage in agriculture activities in the project area. More than 24,000 labors will be provided with short term employment during the construction period of the intervention.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to check dams c) The forms used for baseline and impact surveys in case of WSP will also be used for Check dams d) Same data analysis will be carried out here as in WSPs (1)
3.	Construction of 330 Water Reservoir (WR)	a) In each Water Reservoir village, (small farmers will be mobilized will be to construct It. b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at	Approximately 9,900 acres of land will be irrigated from this intervention.	250 mini dams	Ground water table will be improved; farmer's income will be increased. Livestock will be benefited.	Culturable wasteland will be developed by supplying stored water. Ground water table will rise up. Fish farming, livestock and forestry will be improved. Over all livelihood of the farmer community will improve. Approximately 19,800 people will permanently engage in agriculture, livestock and fish raring etc. More than 2,640 labors will	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to WRs c) The forms used for baseline and impact surveys in case of WSP will also be used for WRs d) Same data analysis will be carried out here as in WSPs (1)

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
		80% on issuance of FCR				be benefited from the scheme.	
4.	Construction of 2,500 Stream bank stabilization (SBS)	a) In each SBS village, small farmers will be mobilized b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Protecting/ reclaiming about 6,250 acres of agricultural land from erosion with floods water.	15,000 stream bank stabilization structures.	Per unit area of crop production will be saved.	Approximately 6,250 acres of agriculture land will be saved directly from floods water. This will further enhance the life of precious dams and reservoirs. This may engage approximately 12,500 farmers for long time in agriculture sector.20,000 labors will work during construction period of these intervention	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to SBSs c) The forms used for baseline and impact surveys in case of WSPs will also be used for SBSs d) Same data analysis will be carried out here as in WSPs (1)
5.	Construction of 1,000 Gated field Inlet Outlet/Spillway (GFIO/S)	a) In each GFIO/Spillway village, small farmers will be mobilized b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at	Sufficient amount of water will be provided to about 2,500 acres of land for irrigation in rod kohi areas of the province.	1,500 field inlets and spillways.	Farmer's income will increase; fertile land degradation will be minimized.	Approximately 2,500 acres of agriculture land will be benefited directly from this intervention. Approximately 5,000 farmers will permanently engage in agriculture sector for long period of time. These interventions will provide short term employment to about 5,000 labors.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to GFIO/S c) The forms used for baseline and impact surveys in case of WSP will also be used for GFIO/s d) Same data analysis will be carried out here as in WSPs (1)

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
		80% on issuance of FCR*					
6.	Development of 370 acres land for terracing (LFT)	a) In each LT village, small farmers will be mobilized b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Farmer's income will be increased by increasing agricultural land due to terraces development.	500 acres	Per unit production of farmers will increase by converting approximately 370 acres of non-culturable waste land into culturable.	Crop production will increase; land sliding will reduce due to terraces formation; rainwater infiltration will increase. Approximately 740 farmers will permanently engage in agriculture. Approximately 1,850 labors will be benefited from these interventions.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to WSPs c) The forms used for baseline and impact surveys in case of WSP will also be used for LFTs d) Same data analysis will be carried out here as in WSPs (1).
7.	Development of 70 numbers of micro-watershed areas (MWA)	a) In each MWA small farmers mobilized to construct MWA b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Approx. 7,000 acres of the area will be converted into agriculture/ forest land which will improve the aesthetic value of the area.	02 micro watershed developed	Culturable wasteland will be converted into an agricultural productive land. Farmer's income will be increased through agriculture, livestock, fisheries and forestry etc.	Developing micro-watersheds will improve climatic condition of the area; floods chances will be minimized by harvesting rainwater in water harvesting interventions; land sliding and soil erosion will be minimized. Moreover, aesthetic value of the land will be improved. Approximately 14,000 people will engage in agriculture sector	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to MWA s c) The forms used for baseline and impact surveys in case of WSP will also be used for WRs d) Same data analysis will be carried out here as in WSPs (1).

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
						permanently. Approximately 14,000 labors will be directly benefited during the process of micro-watersheds development.	
8.	Constructing 370 numbers of water Seepage harvesting Galleries (WSHG)	a) In each WSHG farmers will be mobilized to construct water ponds b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Approx. 925 acres of land will be irrigated from this intervention.	15 water seepage galleries	More area will bring under cultivation by establishing crop fields and fruits gardens in the project area. Livestock will increase and more people will engage in agriculture sector.	Continuous supply of clean water for agriculture, livestock and human beings will be ensured. Water crises will be minimized in the project area. More than 1,850 number of people will engage in agriculture activities for long period of time. About 1,850 labors will be directly benefited during the construction process.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to WSHG s c) The forms used for baseline and impact surveys in case of WSP will also be used for WRs d) Same data analysis will be carried out here as in WSPs (1)
9.	800 numbers of Agronomic low-cost interventions (ALCI)	a) In each ALCI village small farmers mobilized to ALCI b) They agree to contribute 20% of the cost c) Agree to first construct the tank	Approx. 2000 acres of land will be protected from erosion by these interventions.	2000 various low-cost small interventions	More area will bring under cultivation; economic condition of the local community will be improved.	Land will be protected from erosion; infiltration will be improved during rainfall; livestock will be benefited. Approximately 2400 farmers will permanently engage in agriculture. These will also provide short term	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to ALCI s

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
		with his/her own funds and then received subsidy at 80% on issuance of FCR*				employment to about 2400 labors.	c) The forms used for baseline and impact surveys in case of WSP will also be used for ALCIs d) Same data analysis will be carried out here as in WSPs (1
10.	230 acres of Sand Dunes Stabilization (SDS)	a) In each SDS locality small farmers mobilized to construct water ponds b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Approx. 230 acres land of sand dunes will be stabilized by growing kana plants.	200 acres Sand dunes effects stabilized.	Non-culturable sand dunes will be converted into an economically productive piece of land.	Sand dunes stabilization through plantation will be a direct source of income generation for the local community by making homemade items from the stems of the kana plants. These will also help in improving climatic condition of the project area. Meanwhile about 460 numbers of labor will be benefited.	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed b) A data collection form will be designed to measure water saving due to SDS s c) The forms used for baseline and impact surveys in case of WSP will also be used for SDSs d) Same data analysis will be carried out here as in WSPs (1

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
11.	500 Nos Capacity Building (CB)	500 small farmers capacity will be built on different traits.	An estimated 500 trainings will be conducted for stakeholders including farmers and departmental staff.	2000 Capacity building trainings conducted.	Enhanced capacity for better management of soil and water resources.	Soil and water resources of the province will better be managed with better management practices. The capacity of the stake holder will be enhanced in better management of soil and water resources of the country in general and Khyber Pakhtunkhwa in particular.	a) Pre training and post training evaluation will be conducted from all farmers to estimate the enhancement in their knowledge and skill. b) In this connection same Performa will be used before the conduct of the training after the completion of the training.
Component B Agricultural Engineering Component							
12	Procurement and installation of 700 Solar, pumping System and 300 Tube Wells (SPS&TW).	a) Solar Pumping small farmers mobilized to install SPS&TW b) They agree to contribute 20% of the cost c) Agree to first construct SPS&TW with his/her own funds and then received subsidy at 80% on issuance of FCR*	Irrigation of 17,500 hectares (43,225 acres) of land.	> 650 SPS&TW installed.	Conversion of rain fed land into irrigated land will add more value to the land and the enhance production from crops/Orchard will help in improving the socio-economic condition of the farming community.	Provision of irrigation water will lead to increase Agriculture production and self-sufficiency in food grain.	a) Adopting the Sampling formula/ sample of SPS&TW farmers will be surveyed b) A data collection form will be designed to measure water saving due to SPS&TW s c) The forms used for baseline and impact surveys in case of WSP will also be used for SPS&TW s Same data analysis will be carried out here as in WSPs (1

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
13	700 on-site training of farmers in adaptation of new techniques for pumping sub-surface water.	a) 5,000 small farmers mobilized to construct water ponds b) They agree to contribute 20% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 80% on issuance of FCR*	Irrigation water Pumping cost will be reduced by adopting solar technology.	> 2,000 trainings conducted.	The cropping intensity will be enhanced.	Farmers of the project area will be educated in the modern techniques being adopted in Agriculture and therefore, pay more attention to increase crop yield and Farm income.	d) Adopting the Sampling formula/ sample of trained farmer will be surveyed e) A data collection form will be designed to measure water saving due to trainings f) The forms used for baseline and impact surveys in case of WSP will also be used for trainees Same data analysis will be carried out here as in WSPs (1

ANNEX - B: PROJECT PROGRESS REPORTING FRAMEWORK (PPRF)

Project Title…….

Report Name and Period…….

Area Name ……..

Sr. No.	STRATEGY /ACTIVITIES	Reporting Quarter								Year to Quarter(Cumulative)							
		Physical Progress				Financial Progress				Physical Progress				Financial Progress			
		Unit of Measure	Target/Planned	Actual/Achievement	Variance%	Committed Liability of Previous Year	Budget Allotted(PC-1)	Actual Expenditure	Variance%	Unit of Measure	Target/Planned	Actual/Achievement	Variance%	Committed Liability of Previous Year	Budget Allotted(PC-1)	Actual Expenditure	Variance%
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Area details……..?																	
1	Activity details ……?																
Sub Totals																	
Area details……..?																	
2	Activity details ……?																
Sub Totals																	
Total(s)																	

Note:1-Report Summary will be Prepared Separately from the data consolidated Area wise and Components Wise…..?

2- More columns will be added as per requirements….?

ANNEX - C: WORK SCHEDULE AND PLANNING FOR DELIVERABLES

WORK SCHEDULE AND PLANNING FOR DELIVERABLES

NO.	DELIVERABLE/ ACTIVITY	Years 1												Years 2												Years 3												Years 4											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	DELIVERABLES																																															
1	Draft Inception Report		↓																																													
2	Final Inception Report			↓																																												
3	Monthly Monitoring Report	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	Baseline Survey Report [1]					↓													↓												↓																			
5	Midline Survey Report																								↓																							
6	End Line Survey Report																																												↓			
7	Quarterly Monitoring and Evaluation Report			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓			↓
8	Annual Monitoring and Evaluation Report												↓												↓												↓											↓
9	Draft Assignment Completion Report																																														↓	
10	Final Assignment Completion Report																																														↓
11	Special Reports (As and when required)																																														

(1) The baseline report will be submitted at the end of 4th month provided sites for all interventions are pre-determined and sites are available at the outset. However, if the sites are identified during project implementation then the baseline will be done in phases.

ANNEX - D: WORK PLAN / ACTIVITIES FOR 1st & 2nd QUARTER YEAR 2022

Bi Annually Activity Plan (01 January to 30 June 2022)-ME&IE Consultants for Soil & Water Conservation in the Barani Areas of KP

S#	Deliverable / Activities	Jan, 31	Feb, 28	Mar, 31	Apr, 30	May, 31	Jun, 30
1	Complete the baseline survey of the project activities:						
	a. Zero Draft of BLS sharing with the stakeholders						
	b. Incorporation of comments						
	c. BLS Final Report submission						
	d. Training of the new field team on monitoring tools						
	e. Field data collection						
	f. Data cleaning, processing and analysis						
	g. Writing of Draft Monitoring Report & Success Stories						
	h. Submission of Final Monitoring report						
2	Develop monitoring strategy, framework and results-based monitoring (RBM) indicators.						
	a. Meetings with the Stakeholders on M&E/IE						
	b. Draft monitoring tools for each activity distributed among stake holders for comments						
	c. Incorporation of comments						
	d. Monitoring tools programming in Android						
	e. Training of the field team						
	f. Field data collection, analysis						
	g. Submission of Final MR & Success Stories						

3	Meetings with stake holders & coordinators																										
4	Economic impact of project interventions. Preparation of success story of one of the S&WC activities (Mid-Level) a. Listing and Selection of completed Activities b. Data collection/FGD/analysis c. Documentation/script writing d. Draft preparation of booklet and video e. Final preparation of booklet and video																										
5	Preparation of monthly, quarterly, annual monitoring evaluation and validation reports of the project activities.																										
6	Develop a website containing information of facilities, services and application, procedures, for WC-KP activities database. (Maintaining website should be the responsibility of project staff) a. Development of website of WC-KP b. Designing of dashboard of Project Interventions c. Monitoring online data collection and Data entry d. Data collection of interventions in MIS/GIS database																										
7	Provide technical support for the development of custom-designed mobile application (Android) to capture on site progress, geo tagged photos, should be synchronized with the central MIS/GIS database and application for instant reporting and																										

* In each quarter the ME&IE consultants will prepare success story of one of the S&WC activities which cover socio-economic aspect of the project.