FEDERAL PROJECT MANAGEMENT UNIT
MINISTERY OF NATIONAL
FOOD SECURITY & RESEARCH
ISLAMABAD - PAKISTAN

MONTHLY MONITORING REPORT

JANUARY 2023

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

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

A Joint Venture of
G3 Engineering Consultants (Pvt.) Ltd. Lead Firm
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
JANUARY 2023

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LIST OF ANNEXURES

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
DAE	Directorate of Agriculture Engineering
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
S&WC	Soil & Water Conservation
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

This Report reflects the progress and monitoring activities of the Project *"Water Conservation of Barani Areas in Khyber Pakhtunkhwa (WCBA KP)"*, it includes, introduction to Client and Consultants of the Project, scope of Consultancy Services, and Deliverables. All these details are covered in different chapters. The MMR for January 2023 is comprised of 4 Chapters along with annexes.

Chapter-1 of the MMR explains profile of the Project including Executing Agencies, ME&IE Consultants of the Project, 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 and Pakistan is becoming a fast water-scarce country. Even then, a considerable amount of water from natural resources is not being harnessed. 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 5 years. The project aims to conserve water in Barani Areas of KP through following Interventions.

ES- 1: Interventions Under WCBA KP Project

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 provides detail of Scope of Consultancy Services and the Consultants for ME&IE of WCBAKP Project. For Monitoring, Evaluation & Impact Evaluation (ME&IE) of the WCBA KP, 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 Joint Venture of M/s G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD), ADA Consultants Inc. Canada and S&S Associates has been selected as ME&IE Consultants for WCBA KP. Formal contract agreement between Consultants the Client (Federal Project Management Unit (FPMU) was signed on November 27, 2020. Immediately after singing the contract agreement consultants mobilized its staff to start the assignment.

The Scope of the Consultants' Services for the assignment are to conducting, 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. provides status of consultants' activities conducted during the reporting month. The consultants' activities include field visits / monitoring of the project interventions, coordination meetings held with relevant Government Departments (Client) and other stakeholders of the project, including farmers. This chapter also describes the purpose of preparation and submission of Monthly Monitoring Report (MMR) and explains the procedure developed by the consultants to conduct the assignment

Chapter-4 is related to the Quarterly Work Plan / Activities Schedule set by the consultants to perform the quarterly activities. This chapter also provides the status of reports and documents submitted by the consultants as per schedule of deliverable under the contract agreement. The schedule is as **Annex-E** to this MMR.

CHAPTER – 1: PROJECT INTRODUCTION

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 (WCBA KP)

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 and S&S Associates.
ME&IE Consultant Mobilized	December 24, 2020

1.2 PROJECT DESCRIPTION

Detail of the Project "WCBA KP" is as under:

1.2.1 Introduction

The common features of Barani and Arid lands are low precipitation, high temperature, high evaporation, low humidity, poor rainwater 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.

1.2.2 Background of WCBA KP

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 its fertile topsoil. 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.

1.2.3 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. The proposed project is closely related to the recently completed water conservation schemes, which form an essential element of the integrated rural development program within the agriculture sector.

1.2.4 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 listed 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.

1.2.5 Project Targets and Outputs

Project targets and outputs of both components are presented in **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	Enough water will be provided to about 2,500 acres of land for irrigation in rod kohl 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.

S.#	Input	Output
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: SCOPE AND SERVICES OF ME&IE CONSULTANTS

2.1 THE ME&IE CONSULTANTS

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

Client conducted 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 and S&S Associates 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) are responsible for monitoring, evaluation, and Impact Evaluation (ME&IE) of the project interventions conducted by implementation Consultants and in this context 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.

2.3 CONSULTANTS PROCEDURE FOR ME&IE ASSIGNMENT

The Consultants are conducting ME&IE of WCBA KP in two parts.

The First Part of monitoring is being conducted through field visits and surveys of water storage reservoirs, micro-watersheds, check dams, tube-wells, etc., and all other water conservation activities under the WCBA KP project. The processes, timelines and physical progress against targets set are marked in the Annual Work Plans (AWPs). The monitoring activities include baseline, midline and end-line surveys. The water saving assessment will be simultaneously conducted 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. For each monitoring activity checklists have been developed based on planned SOPs (Modus Operandi) and timelines. The activities are being monitored according to the checklists.

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

The Second Part of the ME&IE assignment is development, operation, maintenance and handing over the Management Information System (MIS) to

the client at the end of the project. Major 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. Consultants proposed to develop, set up and implement a Web Based Monitoring Information System (MIS) useful for:

- Monitoring 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.

➢ 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.

➢ 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.

➢ 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.

➢ The following project information will be always accessible:

- 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 briefly 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.

➢ The multiple data that can be represented in the dashboard includes:

- Activity/indicator completion rates
- Budget expenditures
- Information disaggregated by localities (map views)
- Timelines, etc.

➢ 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.

- 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.

- 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.

2.4 MONITORING STRATEGY OF CONSULTANTS

The basics of ME&IE system for WCBA KP Project, being developed by consultants is explained below in detail.

2.4.1 Basics of ME&IE System

The ME&IE of 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 evaluate and determine whether 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 for WCBA KP are formulated based upon the project's logical framework (log-frame), which is one type of program logic model. A log-frame is a useful 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. The Monitoring Log-frame developed for WCBAKP is placed at **Annex-A**.

The matrix in **Table 2.1** 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 2.1: 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	The short term and medium-term objectives in terms of benefits to the	**Outcome indicators**	Outcome indicators describe the medium-term effects of an

Log-frame objectives definitions		Objectively verifiable indicators that measure objectives	
Specific Objective)	project beneficiaries due to the intervention's outputs; the project can only indirectly control achievement of outcomes; behavior change is often a key component.		intervention's outputs (e.g., % change in cropping pattern and intensities, crop yields etc.)
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, labor by the communities)

2.4.2 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 workload 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.

2.4.3 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 will be conducted 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.

2.5 MONITORING, EVALUATION AND IMPACT EVALUATION PLAN

This section presents brief introduction about the ME&IE and Impact Evaluation Plan of ME&IE Consultants.

The monitoring and evaluation functions are interrelated 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.

2.5.1 Framework for ME&IE System

The initial steps for designing monitoring and evaluation system are:

i) A review of the project objectives 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 immense value to sectoral management in its policy formulation role.

Monitoring must 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.

2.5.2 Monitoring and Managing of Project Progress

The primary goal is to monitor project progress, given that the project has been carefully appraised, i.e., 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 is on monitoring of project progress and the delivery of the inputs to the intended recipients. The main source for this aspect of monitoring is meticulously 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 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 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.

2.5.3 Project Progress Reporting Framework (PPRF)

The Project Progress Reporting Framework (PPRF) developed by the consultants, 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 is being gathered / transmitted through Android based application using smart phones. The PPRF format is given as **Annex-B.**

2.5.4 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 met or not. 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.

2.5.1 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 substantial 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.

2.5.2 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 interrelated 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.

CHAPTER – 3: CONSULTANTS' ACTIVITIES DURING THE MONTH OF JANUARY

This chapter of the Monthly Monitoring Report (MMR) provides detail of consultants completed the activities during month of January 2023. The activities included submission of regular MMR and its objectives, Field visits & Monitoring of project interventions in the field, Consultants' coordination meetings with Client and other stakeholders of the project, including farmers.

3.1 SUBMISSION OF MMR

MMR explains the understanding towards all activities of ME&IE assignment to be carried out as per TORs and their completion within stipulated time frame. As per deliverables of the assignment, Consultants have submitted 24 MMRs till the month of December 2022, and current 25th MMR for January 2023 is under preparation and will be submitted shortly.

3.1.1 Objectives of MMR

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

3.2 ACTIVITIES DURING JANUARY 2023

3.2.1 Orientation of New Staff

A Short orientation of newly appointed staff was arranged to get the staff up to date of the progress and working of the Project.

Different aspects of the Project were discussed and elaborated to the staff to ensure they undertake the upcoming visits and data collection as well as input in ODK.

3.2.2 Monitoring and Impact Field Visits

Till reporting period, the M&E Field teams of ME&IE Consultants conducted monitoring and baseline survey visits for overall **160** interventions / schemes across **18** districts of Khyber Pakhtunkhwa (KPK) and conducted monitoring and Impact survey visits for **68** interventions / schemes across **14** districts of Khyber Pakhtunkhwa (KPK).

During the reporting period, the M&E Field teams of ME&IE Consultants conducted monitoring and Impact survey visits for **05** interventions/schemes across 03 in Bannu and 02 in Karak districts of Khyber Pakhtunkhwa (KPK). A summary provided in the table below.

Table: Summary of schemes visited for collection of field data during reporting month

Date	Team	Survey.#	Zone	District	Activity	Name of Respondent
02-Jan-2023	Team-3	Impact	Zone-4	Bannu	Check Dam	Mir saadullah
03-Jan-2023	Team-3	Impact	Zone-4	Bannu	Check Dam	Taj Muhammad
04-Jan-2023	Team-3	Impact	Zone-4	Bannu	Gated Field Inlet Outlet/Spillway	Muhammad Sajjad
05-Jan-2023	Team-3	Impact	Zone-4	Karak	Solarization of Tube Well	Hassan ullah
06-Jan-2023	Team-3	Impact	Zone-4	Karak	Solarization of Tube Well	Zarmarjan

3.2.3 Way Forward

The ME&IE team has shared 3 months (January to March 2023) plan for field visits for Impact & monitoring to the management for review and release of expenditure for the facilitation of field teams. Further visits for surveys are subjected to the release of expenses from the management.

3.2.4 Strengthening Coordination with the Stakeholders

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

i) Meeting

Date:	11 January 2023
Venue:	FPMU
Participants:	
i) Mr. Muhammad Asif Kakar (Chair) ii) Mr. Ali Raza Naqvi iii) Mr. Yaseen Wazir iv) Mr. Ch Saifullah v) Mr. Abdur Rauf vi) Mr. Nazeer Abbas vii) Mr. Muhammad Shahid viii) Dr. Fazli Hakim Khattak ix) Mr. Muhammad Naeem Akhter x) Mr. Tahir Kamran Marwat xi) Mr. Abdul Hanan xii) Mr. Salman	
Meeting Agenda:	
• Status of Baseline/Midline Reports • Development of Dashboard • Website of the Project • Progress of Activities • Consultants' Financial Progress	
Discussions held:	
The chair welcomed the participants in the meeting and briefly explained the purpose of the meeting. In his briefing, he said that the monitoring & evaluation are the main tools in providing feedback to decision makers towards achievements of the project's objectives. He informed that ME&IE Consultant was engaged to provide the following services to the project: • Undertake baseline, midline and end line surveys for the project activities / interventions in all the project areas. • Assessing the soil and water conserved (per anum) through various project interventions. • Economics impact of interventions. • Develop a website containing information on the available facilities and services, application, procedures, water ponds, water reservoirs, check dams, etc. • Development of web-based GIS Applications as a dashboard interface for comprehensive representation of all spatial and tabular information. The implementation status of different activities assigned to ME&IE Consultant, as per contract agreement, were discussed in details and it was observed that: The Consultant displayed 1st time the dashboard, in front of FPMU, prepared for the monitoring and evaluation of the project. It was observed that the dashboard contains the data for the agriculture component only and data of data of soil and water component were missing in dash board. During the review of website of the project, many shot falls were pointed out which need to be addressed by the ME&IE Consultants. The chair was informed that during August, 2022, an email from FPMU side was generated to Team Leader regarding necessary correction/changes in website but no response was received from ME&IE consultant. The consultant was asked about Financial Progress and Utilization report of funds released to ME&IE Consultants which was to be presented during this meeting. But ME&IE consultant could not provide the same and Mr. Saifullah Ejaz Chaudhary, the Director, M/s Engineering Consultants committed to provide the utilization report on January 12, 2023 to NPC Office. The Consultant will ensure the compliance of above decisions by 15th February, 2023 positively. The Consultant will not request for extension in time to deliver the above outputs/deliverables. In case of failure/ inaction, the Clause 2.9 of General Condition of the Contract Agreement will be invoked without any notice to the Consultant.	

ii) Meeting with S&WC

Date:	17 January 2023
Venue:	DG S&WC
Participants:	
Mr. Yaseen Wazir Ms. Shagufta - Focal Person DGSWC-WCBAKP Mr. Salman -Field Engineer WCBAKP Mr. Kaiser Khan – Accounts Manager	
Meeting Agenda:	
• Discussion on questionnaire for capturing relevant data and removing irrelevant items.	
Discussions held:	
Data collections questionnaires were discussed at lengthy point by point and notes takes for betterment of the tool. A hardcopy of questionnaire with remarks by the S&WC team was updated with their comments for further process.	

iii) Meeting with AGES

Date:	18 January 2023
Venue:	AGES Consultants
Participants:	
Mr. Tahir Kamran Marwat TL AGES Mr. Salman – Field Engineer ME&IE Mr. Kaiser Khan Accounts Manager	
Meeting Agenda:	
• Discussion on questionnaire for capturing relevant technical data and removing irrelevant items.	
Discussions held:	
Discussions were held on the technical data capturing in questionnaires. TL AGES expressed his will to fully support & facilitate in all respect.	

(Consultants' staff with TL AGES, Discussions on questionnaire)

iv) Meeting with DAE Tarnab

Date:	18 January 2023
Venue:	DAE Tarnab
Participants:	
Mr. Adnan (DAE) Mr. Salman Mr. Kaiser Khan	
Meeting Agenda:	
• Meeting Discussions were on questionnaire related to DAE interventions earlier designed for capturing relevant data and removing irrelevant items.	
Discussions held:	
Discussions on updating the Questionnaires related to Installation & Solarization of Tube well were held. Mr. Adnan provided his feedback in details about which items should be added and some items which he deemed irrelevant were marked.	

3.3 ICT ASSIGNMENT

The ICT Technology Team of ME&IE Consultants WC-KP team has performed the following activities during the month of January 2023.

Data entry by Consultants' staff at DGSWC for missing data from S&WC files onto the ODK. The Consultants' team compiled & tabulated large amount of data from the interventions files that was missing earlier from the forms being updated by the S&WC staff.

(Consultants' staff with S&WC member for data input of missing columns)

The Consultant's team in support of ICT visited S&WC district offices for the same data and compiled it with great speed.

(Consultants' staff with S&WC member for data input of missing columns)

Data collection for MIS dashboard has been started and the DAE department has provided complete data for FY 2019-20 & 2020-21 while working to complete data for FY 2021-22. The S&WC department has earlier provided some data for FY 2019-20 & 2020-21 which has a lot of missing columns and difference in formats. The ME&IE ICT team along with field staff managed to compile that data from DG S&WC office. The team is working on fulfilling the requirements for project MIS dashboard.

3.3.1 Development of Customized Android Based Applications

The ICT Technology Team of ME&IE Consultants WC-KP has developed a Customized Android Based Applications for data collection. Data entry in this application will be done directly by the field monitoring teams of all the zonal/ regional/ districts offices and will be uploaded to the MIS system. The data will be observed and monitored by the ICT team of the ME&IE Consultants.

Departmental officials and field staff who will use the customized android app, shall be trained by the ME&IE ICT team accordingly.

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:

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

3.3.2 Data collection of interventions in MIS/GIS dashboard

The activity of data collection of all the completed Interventions in MIS/GIS database is in progress. Some data has been taken from the departments in the form of SFTs (Social, Technical & Financial) sheets which were developed by the departments, project consultants (Ages) and the provincial PMU.

After completion of the project interventions data for FY 2019-20, 2020-21, & 2021-22 the team will start collecting data for FY 2022-23 and training of the departmental staff for the collection of data through ODK/ Android Application.

3.3.3 Data Collection Formats for Directorate of Agriculture Engineering (DAE) Interventions

The ICT team was thru in consecutive meetings and coordination with the officials of Directorate of Agriculture Engineering. The data collection formats for DAE interventions were finalized with the department and the data provided by department in the form of SFTs (Social, Financial & Technical) spreadsheets was fed into the formats but the national ICT specialist has made some changes in the formats according to the necessitating requirements of the dashboard. The formats are now finalized with the department and the department was asked to fill out the missing columns. The department reshared the formats with all the data filled in mid of June which were forwarded to the national team for review and further action.

Data for FY 2019-20, 2020-21 & 2021-22 is completed. The department is now working on compiling data for FY 2022-23.

Summary tables of DAE interventions i.e., Establishment of Tube wells and Solarization of Tube wells completed during 2019-20 and 2020-21 financial years are given below. The same has been reflected in data collection formats for the project MIS dashboard.

STATION & DISTRICTWISE SOLAR SCHEMES

Station	Districts	FY 2019-2020		FY 2020-2021	
		Targets	Achievement	Targets	Achievement
Peshawar	Peshawar	9	9	6	6
	Charsadda	6	6	5	5
	Nowshera	14	14	7	7
Mardan	Mardan	5	5	6	6
	Swabi	5	5	5	5
Kohat	Kohat	5	5	7	7
	Hangu	3	3	1	1
Bannu	Karak	5	5	6	6
	Bannu	5	5	5	5
	Lakki Marwat	4	4	4	4
D.I. Khan	D.I.Khan	6	6	4	4
	Tank	2	2	5	5
Mansehra	Mansehra	1	1	6	6
	Battagram	0	0	0	0
	Tor Ghar	0	0	0	0
	Kohistan	0	0	0	0
Haripur	Abbatabad	1	1	0	0
	Haripur	5	5	7	7
Malakand	Malakand	5	5	8	8
	Lower Dir	2	2	3	3
	Upper Dir	0	0	0	0
Chitral	Chitral	0	0	0	0
Swat	Swat	2	2	6	6
	Buneer	5	5	4	4
	Shangla	0	0	0	0
NMAS	Merge Districts	0	0	18	18
Total		*90*	*90*	*113*	*113*

STATION & DISTRICTWISE TUBEWELL SCHEMES

Station	Districts	FY 2019-2020		FY 2020-2021	
		Targets	Achievement	Targets	Achievement
Peshawar	Peshawar	1	1	2	2
	Charsadda	1	1	2	2
	Nowshera	3	3	3	3
Mardan	Mardan	3	3	2	2
	Swabi	0	0	2	2
Kohat	Kohat	1	1	2	2
	Hangu	0	0	1	1
Bannu	Karak	1	1	2	2
	Bannu	1	1	2	2
	Lakki Marwat	2	2	1	1
D.I. Khan	D.I.Khan	2	2	2	2
	Tank	0	0	2	2
Mansehra	Mansehra	1	1	3	3
	Battagram	0	0	0	0
	Tor Ghar	0	0	0	0
	Kohistan	0	0	0	0
Haripur	Abbatabad	1	1	0	0
	Haripur	0	0	4	4
Malakand	Malakand	0	0	5	5
	Lower Dir	1	1	0	0
	Upper Dir	0	0	0	0
Chitral	Chitral	0	0	0	0
Swat	Swat	1	1	3	3
	Buneer	0	0	2	2
	Shangla	0	0	0	0
NMAS	Merge Districts	0	0	0	0
Total		*19*	*19*	*40*	*40*

An Android based app shall be developed for the DAE and the DAE officers shall be trained for the data entry of ongoing project interventions after the finalization of data collection formats and on-line dashboard.

3.3.4 Data Collection Formats for S&WC Interventions

Data Collection Formats for the S&WC interventions have also been developed. The formats were shared with the department for their review and comments and have been discussed several times in the S&WC directorate. The department shared their observations and comments which were discussed with the department and the WCKP team. The formats were revised several times and presented to the department. These formats are now revised by national ICT specialist as per the dashboard requirements. These formats are now finalized with the department and duly filled with the SFTs data provided by the department, however, there are a lot of missing columns in the finalized formats which are conversated to the department. Now the team is in coordination with the S&WC officials to fill the missing data columns. At the end of reporting month, the ME&IE ICT team had consecutive meetings in department and also trained the departmental field/ district staff regarding the filling of missing data and formatting of the data collection formats.

3.3.5 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:

- Homepage (Landing page)
- Project Introduction
- Project Components
- Project activities
- Progress Reports
- Monitoring Reports
- Impact Reports
- Project Progress
- Procurement
- Procurement of Goods, Services & works
- Evaluations and Results
- Career
- Media Gallery
- Contact
- FAQs (Frequently Asked Questions)

3.3.6 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 all the interventions of S&WC department as well as DAE 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 has been started. DAE has provided complete data for FY 2019-20 & 2020-21 while they are now working on the data for FY 2021-22 while the S&WC has provided some data for FY 2019-20 & 2020-21 which still have a lot of missing columns and the department is now working on the sheets to complete the missing data.

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 must 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 must 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.

CHAPTER – 4: QUARTERLY WORK PLAN / ACTIVITIES SCHEDULE

The ME&IE Consultants' activities planned during the 1st & 2nd Quarter of year 2023 (Jan 01, 2023, to June 30, 2023) showing time span detail given as **Annex-E** are listed below:

i) Complete the Baseline Survey of the Project Activities

a) Preparation of Zero Baseline Survey Report and sharing with Stakeholders for comments
b) Incorporation of comments
c) Submission BLS Report after incorporation the comments of Client and other Stakeholders
d) Training of field team for Regular Monitoring of the Project Interventions in the field
e) Field data collection
f) Data cleaning, processing and analysis
g) Writing of Draft Monitoring Report & Success Stories
h) Submission of Final Monitoring

ii) Develop Monitoring Strategy, Framework, and result-based Monitoring (RBM) Indicators

a) Meeting with the Stakeholders on ME&IE
b) Draft monitoring tools for each activity to distribute among Stakeholders for Comments
c) Incorporation of comments
d) Monitoring tools' programming in Android Base Application
e) Training of field staff
f) Field data collection
g) Submission of Final MR & Success Story
h) Data collection of the intervention in the field
i) Baseline & Impact Impact Survey
j) Online data entry I android based application

iii) Meetings with Stakeholders and Coordinators

iv) Economic Impact of Project interventions. Preparation of success story of one of the S&WC activities (Mid-Level)

a) Listing and selection of competed activities
b) Data collection / FGD/analysis
c) Documentation / script writing
d) Draft preparation of booklet and video
e) Final preparation of booklet and video

v) Preparation of monthly, quarterly, and annual Monitoring and Evaluation Reports of the Project Activities.

vi) Development of Website containing Information of facilities, services and application, procedures, for WCBA KP activities data base

a) Development of website of WCBA KP
b) Designing of dashboard of the project interventions
c) Monitoring online data collection and Data Entry
d) Data collection of interventions in MIS/GIS Database

vii) Provide Technical Support for development of custom-design 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

Deliverables

The detail of documents submitted to Client ME&IE Consultants as per contract agreement is given below, while Deliverables/Reporting Requirements is placed at **Annex-D.**

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted
Monthly Monitoring Report-First (DEC 2020-JAN 2021)	Submitted
Monthly Monitoring Report-Second (FEB 2021)	Submitted
Monthly Monitoring Report-Third (MAR 2021)	Submitted
Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021)	Submitted
Monthly Monitoring Report-Fourth (APR 2021)	Submitted
Monthly Monitoring Report-Fifth (MAY 2021)	Submitted
Monthly Monitoring Report-	Submitted

Sixth (JUNE 2021)	
Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021)	Submitted
Monthly Monitoring Report-Seventh (JUL 2021)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Baseline Survey Report (Final Draft)	Submitted
Monthly Monitoring Report-Ninth (SEPT 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Third (JULY - SEPT 2021)	Submitted
Special Reports submitted: 1) Monitoring Tools 2) PAM 3) Survey Training Report	Submitted
Monthly Monitoring Report-Tenth (OCT 2021)	Submitted
Monthly Monitoring Report-Eleventh (NOV 2021)	Submitted
Monthly Monitoring Report-Twelfth (DEC 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCT – DEC 2021)	Submitted
Monthly Monitoring Report-Thirteenth (JAN 2022)	Submitted
Annual Monitoring & Evaluation Report Jan 2021 – Jun 2021 (1st AM&ER)	Submitted
Monthly Monitoring Report-Fourteenth (FEB 2022)	Submitted
Monthly Monitoring Report-Fifteen (MAR 2022)	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JAN – MAR 2022)	Submitted
Monthly Monitoring Report-Sixteen (APR 2022)	Submitted
Monthly Monitoring Report-Seventeenth (MAY 2022)	Submitted
Monthly Monitoring Report – Eighteenth (JUN 2022)	Submitted
Quarterly Monitoring & Evaluation Report-2nd Quarter year 2022 (APR – JUN 2022)	Submitted
2nd Annual Monitoring & Evaluation Report (July 21 – JUN 22)	Submitted
Monthly Monitoring Report – Nineteenth (JUL 2022)	Submitted
Monthly Monitoring Report – Twentieth (AUG 2022)	Submitted
Monthly Monitoring Report – Twenty-first (SEP 2022)	Submitted
Quarterly Monitoring & Evaluation Report-3rd Quarter year 2022 (JUL – SEP 2022)	Submitted
Monthly Monitoring Report – Twenty-second (OCT 2022)	Submitted
Monthly Monitoring Report – Twenty-third (NOV 2022)	Submitted
Monthly Monitoring Report – Twenty-fourth (DEC 2022)	Submitted
Quarterly Monitoring & Evaluation Report- 4th Quarter year 2022 (OCT – DEC 2022)	Submitted
Monthly Monitoring Report – Twenty-Fifth (January 2023)	Ready to submit

4.1 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.

4.2 WORK SCHEDULE / ACTIVITIES (Jan 01, 2023, TO June 30, 2023)

Bi-annually activity plans (01 Jan 2023 to 30 June 2023) is attached as **Annex-E**.

ANNEXES A TO E

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.
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	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	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 conducted 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		
		received subsidy at 80% on issuance of FCR*				provided with short term employment during the construction period of the intervention.	
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 80% on issuance of FCR	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. Fish farming, livestock and forestry will be improved. Overall 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 be benefited from the scheme.	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 conducted here as in WSPs (1)
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)

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
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 80% on issuance of FCR*	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)
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	Approx. 7,000 acres of the area will be converted into agriculture/	02 micro watershed developed	Culturable wasteland will be converted into an agricultural	Developing micro-watersheds will improve climatic condition of the area; floods chances will be minimized by harvesting	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
		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*	forest land which will improve the aesthetic value of the area.		productive land. Farmer's income will be increased through agriculture, livestock, fisheries and forestry etc.	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 permanently. Approximately 14,000 labors will be directly benefited during the process of micro-watersheds development.	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).
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	a) In each ALCI village small farmers mobilized to ALCI	Approx. 2000 acres of land will be	2000 various low-cost	More area will bring under cultivation;	Land will be protected from erosion; infiltration will be	a) Adopting the Sampling formula/ sample of water ponds farmer will be surveyed

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
	interventions (ALCI)	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*	protected from erosion by these interventions.	small interventions	economic condition of the local community will be improved.	improved during rainfall; livestock will be benefited. Approximately 2400 farmers will permanently engage in agriculture. These will also provide short term employment to about 2400 labors.	b) A data collection form will be designed to measure water saving due to ALCI s 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
13	700 on-site training of farmers in adaptation of new techniques for	a) 5,000 small farmers mobilized to construct water ponds	Irrigation water Pumping cost will be reduced by	> 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	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

Project Sub-component	Target	Activities	Outputs	Outcome		Goal/ impact	Methodology for Measuring Results
				Baseline indicator	Target after completion of Project		
	pumping sub-surface water.	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*	adopting solar technology.			to increase crop yield and Farm income.	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 (1–12)	Years 2 (13–24)	Years 3 (25–36)	Years 4 (37–48)
	DELIVERABLES				
1	Draft Inception Report	↓ 2			
2	Final Inception Report	↓ 2			
3	Monthly Monitoring Report	↓ 1–12	↓ 13–24	↓ 25–36	↓ 37–48
4	Baseline Survey Report [1]	↓ 5	↓ 18	↓ 30	
5	Midline Survey Report		↓ 24		
6	End Line Survey Report				↓ 45
7	Quarterly Monitoring and Evaluation Report	↓ 3, 6, 9, 12	↓ 15, 18, 21, 24	↓ 27, 30, 33, 36	↓ 39, 42, 45, 48
8	Annual Monitoring and Evaluation Report	↓ 12	↓ 24	↓ 36	↓ 48
9	Draft Assignment Completion Report				↓ 47
10	Final Assignment Completion Report				↓ 48
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: SCHEDULE FOR SUBMISSION OF VARIOUS REPORTS

Schedule for the Submission of Various Reports the Consultants

Sr. No.	Document	Copies	Due
1	Draft Inception Report	5	45 days after the effectiveness of the Consulting Services Agreement.
2	Final Inception Report	15	One week after the issuance of comments by the Client on Draft Inception Report
3	Monthly Progress Report (Physical & Financial)	10	10th of the following month
4	Baseline, Midline and End Line Survey Reports	10	With different timelines
5	Quarterly Progress Report (Physical & Financial)	10	10th of the first month of following quarter
6	Annual Progress Report (Physical & Financial)	10	During first month of the following year
7	Draft Assignment Completion Report	5	At completion of physical works/ activities
8	Establishment of First Phase of PMIS	1	1 months after start of the assignment
9	Establishment of Second Phase of PMIS	1	3 months after the start of the assignment
10	Establishment of Final Phase of PMIS	1	4 months after the start of the assignment
11	Maintenance of the PMIS	1	Throughout the project
12	Final Assignment Completion Report	25	At completion of works as well as financial transactions
13	Special Reports	10	As and when required.

ANNEX - E: WORK PLAN / ACTIVITIES FOR 1st & 2nd QUARTER YEAR 2023

Bi Annually Activity Plan (01 Jan to 30 June 2023)-ME&IE Consultants for Soil & Water Conservation in the Barani Areas of KP

S#	Deliverable / Activities	Jan 31st				Feb 28th				Mar 31st				Apr 30th				May 31st				June 30th			
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 & 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 Stakeholders on M&E/IE																								
	b. Draft monitoring tools for each activity disturbed among stakeholders 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 stakeholders & 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																								

S#	Deliverable / Activities	Jan 31st				Feb 28th				Mar 31st				Apr 30th				May 31st				June 30th			
	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 or 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																								