FEDERAL PROJECT MANAGEMENT UNIT
MINISTERY OF NATIONAL
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ISLAMABAD - PAKISTAN

MONTHLY MONITORING REPORT

AUGUST 2021

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

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

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

Federal Project Management Unit (FPMU)
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
AUGUST 2021

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ACRONYMS

ADA	Assistant Director Agriculture
AF	Acre-Feet
ALCI	Agronomic Low-Cost Interventions
AWPB	Annual Work Plan and Budget
AWPs	Annual Work Plans
BCR	Benefit Cost Ratio
CB	Capacity Building
CMS	Content Management System
CSRD	Center for Social Research and Development
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
GIS	Geographic Information System
GoP	Government of Pakistan
GoKP	Government of Khyber Pakhtunkhwa
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Intermediate Completion Report
ICT	Islamabad Capital Territory
ICT	Information & Communication Technology
IRR	Internal Rate of Return
KP	Khyber Pakhtunkhwa
LFT	land for Terracing
LPS	Liter per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring, Evaluation and Impact Evaluation
MIS	Management Information System
MNFSR	Ministry of National Food Security and Research
MT	Monitoring Template
MTE	Mid-Term Evaluation
MWA	Micro-Watershed Areas
NPC	National Project Coordinator
NPV	Net Present Value
OFWM	On Farm Water Management
PC	Project Consultants
PC-1	Planning Commission-(Form-One)
PDO	Project Development Objectives
PIC	Project Implementation Committee
PIES	Project Impact Evaluation Study

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

EXECUTIVE SUMMARY

The current Monthly Monitoring Report (MMR) for the Month of August 2021 comprises of 5 Chapters.

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

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

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

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

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

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

The project has been awarded to the Joint Venture of M/s G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSRD) and ADA Consultants Inc. Canada. Consultants signed contract agreement with the Government of Pakistan on November 27, 2021 and mobilized its staff to start the assignment.

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

i) Undertake baseline, midline and end line surveys of the project activities/interventions in all the project areas.
ii) Develop monitoring strategy, framework and Result Based Monitoring (RBM) indicators.
iii) Preparation of Monthly, Quarterly and Annual

Monitoring and Evaluation of the project activities.

iv) Assessing the improvement in water availability and soil losses due to project interventions.

v) Assessing the water saving per annum due to the project interventions.

vi) Assessing the economic benefits to the agriculture in terms of changes in irrigated area, area under cultivation, crop yields, cropping pattern, cropping intensity, farm income and employment.

vii) Assessing the extent of community mobilization, financial and administrative sustainability of Soil & Water Conservation Associations (SWCAs) and ensuring the maintenance of project interventions.

viii) Carryout impact evaluation of the project investment on the economy and stakeholders.

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

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

CHAPTER – 1: INTRODUCTION TO WATER CONSERVATION IN BARANI AREA

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

1.1 PROJECT PROFILE

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

1.2 INTRODUCTION

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

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

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

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

1.3 BACKGROUND OF WCBAKP

Khyber Pakhtunkhwa (KP) borders the mountainous regions except to the South-East portion of the province. Therefore geographically the province is intertwined with various rivers, floods waterways and hill torrent runoff water resources. Water is the limiting factor in the rain- fed Districts of KP that hinder the production of crops and adversely affects human and animal life. Precipitation received through these mountains of the region drains out of the watershed quickly because of the undulating topography; the uneven terrain of the foothills which drain the areas quickly. Hence enormous amounts of water are being lost through runoff without being utilized, carrying with it fertile top-soil. These waters induce flash floods on one hand and decrease the storage capacity of the dams due to siltation, on the other. The runoff water, if harvested and stored in

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

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

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

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

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

1.3.1 Project Objectives

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

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

The project objectives in quantifiable terms are as follows:

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

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

1.3.2 Project Components

The project have 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 **(Table 1.1)**.

Table 1.1: Activities under Component A Executed by the DG Soil & Water Conservation KP

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

- **Component-B**

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

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

1.4 PROJECT TARGETS AND OUTPUTS

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

Table 1.2: Project Targets and Outputs

S.#	Input	Output
1.	Construction of 5,000 water ponds	Approximately 12,500 acres of agriculture land will be irrigated from these interventions.
2.	Construction of 3,000 Check dams	Approximately 7,500 acres of the land will be reclaimed.
3.	Construction of 330 Water Reservoir	Approximately 9,900 acres of land will be irrigated from this intervention.
4.	Construction of 2,500 Stream bank stabilization.	Protecting/ reclaiming about 6,250 acres of agricultural land from erosion with floods water.
5.	Construction of 1,000 Gated field Inlet Outlet/Spillway	Sufficient amount of water will be provided to about 2,500 acres of land for irrigation in rod kohi areas of the province.
6.	Development of 370 acres land for terracing	Farmer's income will be increased by increasing agricultural land due to terraces development.
7.	Development of 70 numbers of micro-watershed areas	Approx. 7,000 acres of the area will be converted into agriculture/ forest land which will improve the aesthetic value of the area.
8.	Constructing 370 numbers of water Seepage harvesting Galleries	Approx. 925 acres of land will be irrigated from this intervention.
9.	800 numbers of Agronomic low-cost interventions	Approx. 2000 acres of land will be protected from erosion by these interventions.
10.	230 acres of Sand Dunes stabilization	Approx. 230 acres land of sand dunes will be stabilized by growing kana plants.
11.	500 Nos Capacity Building	An estimated 500 trainings will be conducted for stakeholders including farmers and departmental staff.

Agricultural Engineering Component		
12.	Procurement and installation of 700 Solar, pumping System and 300 Tube Wells.	Irrigation of 17,500 hectares (43,225 acres) of land.
13.	700 on-site training of farmers in adaptation of new techniques for pumping sub-surface water.	Irrigation water Pumping cost will be reduced by adopting solar technology.

CHAPTER – 2: ME&IE CONSULTANTS FOR WCBA-KP PROJECT

2.1 THE ME&IE CONSULTANTS

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

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

2.2 SCOPE OF ME&IE CONSULTANTS' SERVICES

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

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

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

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

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

3.1 BASICS OF ME&IE SYSTEM

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

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

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

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

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

Log-frame objectives definitions		Objectively verifiable indicators that measure objectives	
			Solar TW, etc.), process of delivering these activities.
Inputs	The financial, human, and material resources used for the development intervention	**Input indicators**	Indicators used to measure the utilization of inputs (e.g., utilization of budget, and services of project staff, labour by the communities)

3.2 MIS / GIS FOR ME&IE SYSTEM

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

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

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

3.3 PARTICIPATORY DESIGN OF THE MIS/GIS ACTIVITIES

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

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

3.4 MONITORING, EVALUATION AND IMPACT EVALUATION PLAN

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

3.4.1 Introduction

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

3.4.2 Framework for ME&IE System

The initial steps for designing monitoring and evaluation system are:

i) A review of the project objectives in order to systematize them in sequence.
ii) Identification of the users of both the monitoring and evaluation information. For monitoring, the

users will be the hierarchy of project management. The type of information transmittal will be geared to the needs of each level of project management. The users of evaluation analysis range from project management through the responsible directorate/ ministry, to the national planners.

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

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

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

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

3.4.3 Monitoring and Managing of Project Progress

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

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

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

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

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

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

3.4.4 Project Progress Reporting Framework (PPRF)

The Project Progress Reporting Framework (PPRF) given as **Annex-B** is a format for reporting summary of physical and financial progress achieved during

the period for various interventions. A regular flow of this data is expected from Clients, Field Teams/ Project Consultants. However, detailed data on the processes and beneficiaries' feedback will be gathered / transmitted through Android based application using smart phones.

3.4.5 Evaluation - An Assessment of Results

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

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

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

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

Increased physical production is the most common benefit of the agricultural sector. To maintain better water control so that farmers can obtain higher yields. The project makes resources available for farmers to increase both their operating expenditures for current production-for fertilizers, seeds, or pesticides-and their investment-for water conservations techniques and solar water tube wells. The benefit is the increased production from the farm. In a large proportion of agricultural projects, the increased production will be marketed through commercial channels. In many agricultural projects, however, the benefits may well include increased production consumed by the farm family itself. The home-consumed production from the projects increased the farm families' net benefit and the national income just as much as if it had been sold in the market. Indeed, we could think of the hypothetical case of a farmer selling his output and then buying it back. Since home-consumed production contributes to project objectives in the same way as marketed production, it is clearly part of the project benefits in both financial and economic analysis.

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

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

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

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

results of the project, increasing the sustainability of activities, and improving resource utilization and management of risks and difficulties of the project implementation.

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

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

3.4.8 Regular Routine Monitoring

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

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

Regular routine monitoring will look at the extent to which the proposed project activities are being implemented as planned. We also understand that the consultants are responsible for the regular routine monitoring and should work in close collaboration with FPMU-FWMC, Project Coordinator (PC), and respective Departments of Province KP.

Directorate General Soil & Water Conservation & Directorate of Agricultural Engineering KP through their district/sub-offices & farmers/ SWCA, etc.

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

Periodic reports on routine monitoring shall contain, at least:

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

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

CHAPTER – 4: MONTHLY MONITORING REPORT

This chapter of the MMR deals with the introduction and purpose of monthly monitoring report WCBA KP.

4.1 INTRODUCTION

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

4.2 OBJECTIVE OF MONTHLY MONITORING REPORT

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

4.2.1 Consultants Procedure for ME&IE Assignment

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

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

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

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

Main features of the MIS are briefly presented as under:

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

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

a) The basic functions of the MIS are to:

- Enable the FPMU-FWMC and PC to track the outcome indicators and assess progress in implementation against timescales and targets, and resources used against budgets, based on agreed annual work plans.
- Describe the factors and reasons triggering variations,
- Record and reflect new targets, whenever it is required,
- Draw important lessons to guide the decision-making,
- Enable forecasting for project accomplishment in comparison to the currently reported progress,
- Enable the project management to generate reports to funding partners, project beneficiaries and other stakeholders on the status and progress of the project implementation,

- Integrate GIS components to the MIS to complement field-level surveys and measurements.

b) Potential users' profiles could be the following:

- Federal Ministries
- NPC FPMU-FWMC
- WCBA Project Consultants (AGES)
- ME&IE Consultants
- Provincial concerned departments / maintaining system administrators.

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

d) The following project information will be accessible at all times:

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

e) The kind of data that can be represented in the dashboard includes:

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

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

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

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

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

h) Key Principles:
Following are the key principles:

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

CHAPTER – 5: CONSULTANTS ACTIVITIES DURING THE REPORTING PERIOD

5.1 ACTIVITIES DURING REPORTING PERIOD

This chapter of 8th Monthly Monitoring Report (MMR) covers the progress period from 1st August 2021 to 31st August 2021.

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

5.1.1 Coordination Meetings of ME&IE Consultants

Consultants conducted / performed various meetings / activities during the reporting period. Details of these meetings / activities are given below.

5.1.1.1 NPC Visit to WCBA-KP

Mr. Muhammad Tahir Anwar, National Project Coordinator (NPC), WCBA-KP paid visit to Peshawar and held long discussion with Dr. Usman Mustafa, TL and Mr. Muhammad Afzal Khan, Social & Gender Specialist to increase efficiency and effectiveness of the project activities in the months to come **(Figure 5.1)**.

Figure-5.1: Dr. Usman Mustafa, TL & Mr. Afzal Hayat Khan, Social & Gender Specialist in meeting with Mr. Muhammad Tahir Anwar, National Project Coordinator at Peshawar during his surprise visit on 12 August 2021.

5.1.1.2 Combine Meeting of TL-WCBA-KP and TL & DTL of NPIWC-II of KP

A meeting was held amongst Dr. Usman Mustafa, TL, WCBA-KP with Dr. Muhammad Abdul Qudus TL and Dr. Hamyun Khan DTL of NPIWC-II for smooth functioning of the project activities in the barani areas of KP (**Figure 5.2**). It was decided that field team members must be trained on all aspects of baseline survey and monitoring tools and teams will be employed for both project activities.

Figure-5.2: Dr. Usman Mustafa, TL in meeting with Dr. Abdul Qudus TL and Dr. Hamyun Khan, Deputy Team Leader, NPIWC-II on 12 August 2021.

5.1.2 Preparation of Monitoring Tools (Field Survey Questionnaires)

Consultants have prepared 2nd Draft Final version of Monitoring Tools (MTs) for Baseline and Monitoring Surveys. The MTs are finalized in close liaison with client. Draft Final MTs are attached **Annex-C**

For preparation of MTs, Consultants have inducted maximum indicators for optimal ME&IE of the Project.

Work on overall field survey questionnaire on macro and micro activities has been finalized and assessed with field team. Most of the suggestions received from various stake holders have been incorporated. These baseline and monitoring tools were shared with different stake holders for comments to make the questionnaire more useful.

5.1.3 Development of Android Based Application for Field Survey

Development of Android Based application for field survey is in progress. About 60% work has been completed on this task.

Android is a mobile operating system based on

a modified version of the Linux kernel and other open source software, designed primarily for touch screen mobile devices such as smart phones and tablets.
Data collection android application would have following features:

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

Preparation and testing of android based application for field survey is in progress.

5.1.4 Baseline Survey Training

Training is vital because it represents a good opportunity for employees to grow their knowledge base and improve their job skills to become more effective in the workplace. In this connection five days training was arranged for field enumerators at WCBA- KP office. The objectives were to equip enumerators with basic monitoring and evaluation tools and baseline questionnaires.

The training was splited into two parts; the first two days training (27 & 28 August 2021) was held. In order to assess participants knowledge a pre-test assessment questionnaire was filled **(Annexure D).** Same questionnaire will be filled at the end of the training workshop. This will help us in identifying the gaps and success of the training and enumerators' knowledge gap.

In the introduction remarks and brief about WCBA- KP, Baseline Survey, Dr. Usman Mustafa, TL informed workshop participants. Dr. Mansab Ali, Irrigation Agronomist enriched participants with "Land Utilization and Agriculture terminology". Whereas Mr. Muhammad Afzal Hayat, Social and Gender Specialist, enriched participant Gender Role in WCBA – KP. The two days' training cum workshop schedule is attached at **Annexure E**.

Similarly, first review of questionnaire has been completed as well. A mock exercise for all trainees will be arranged in September prior to sending them in the field for Baseline Survey and Monitoring Evaluation. The pictures of the activities are placed at **Figures 5.3 to 5.5**.

Figure-5.3: Field Team (Enumerators) in Baseline Survey Training at WCBA project Peshawar Office from 27-28 August 2021.

The pre training assessment results showed that the knowledge related to the subject is poor. Overall, the participants obtained 4.5 marks out of 10.

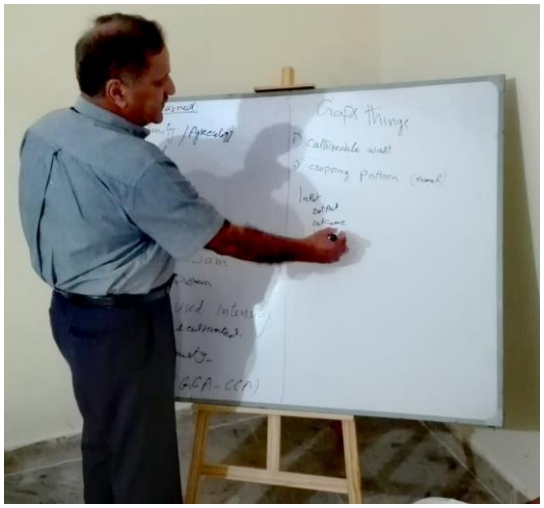

Figure-5.4: Dr. Mansab Ali, Irrigation Agronomist training enumerators in Baseline Survey Training at WCBA project Peshawar Office from 27-28 August 2021.

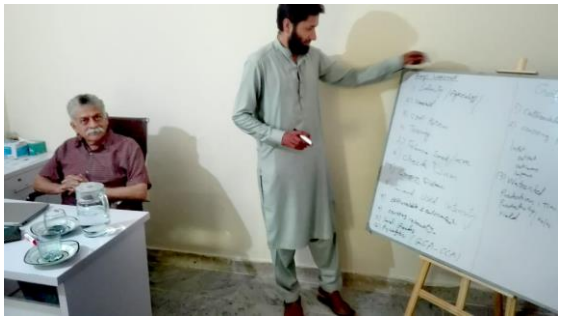

Figure-5.5: Mr. Mumtaz Ullah, a participant is elaborating few points to fellow trainees in Baseline Survey Training at WCBA project Peshawar Office from 27-28 August 2021.

5.1.5 Three Days' Workshop of ME&IE Consultants at National Office Islamabad (NPIWC-II)

In order to filling the gaps of baseline survey of NPIWC-II, three days' workshop was held. The workshop was started on 30th of August, 2021 at Consultants' National Office, Islamabad. Team Leader WCBA-KP also participated in the workshop to share his experience and pay a role in "Baseline Survey of the NPIWC-II.

Methodology, different variables were identified and finalized in the workshop. Besides, these some administrative and logistic measured were decided.

5.2 DEVELOPMENT OF MIS/GIS SYSTEM

Geographic Information System (GIS) is computer based system

5.3 DEVELOPMENT OF WEBSITE FOR THE PROJECT

Development of Project Website is in progress. A prototype version of this assignment will be shared with client and will be launched soon after approval of Client.

A website is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. All publicly accessible websites collectively constitute the World Wide Web. Nowadays, the website is the primary communication tool as well as the front face of organization. In development projects, the prime purpose of the website is to communicate the project activities, outcome, impact reports and the publication of the notices like; tenders and bid evaluation reports for the transparent procurement processes. To develop the project website, Content Management System (CMS) will be used. By the implementation of CMS based website it will ensure the interactivity at website and easy update page content, images, documents, and integration with analytical systems to track pages and site performance.
Website structure is the main content planning phase. To finalize the structure of website a close consultation with key stakeholders is required. A preliminary structure of the website will have the following pages:

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

5.4 WORK SCHEDULE AND PLANNING FOR DELIVERABLE

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

5.5 WORK SCHEDULE / ACTIVITIES FOR THIRD QUARTER (JULY TO SEPTEMBER 2021)

Work Plan / activities planned for the 3rd Quarter (July 2021 to September 2021 is attached as **Annex-G** to this report.

ANNEXES A TO G

ANNEX - A: MONITORING LOG-FRAME

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

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

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

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

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

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

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

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

ANNEX - B: PROJECT PROGRESS REPORTING FRAMEWORK (PPRF)

Project Title……

Report Name and Period…….

Area Name ……..

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

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

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

ANNEX - C: DRAFT FINAL QUESTIONNAIRES

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

(ME&IE CONSULTANTS (WC-KP)

QUESTIONNAIRE

A) Baseline Survey ---------- B) Monitoring Survey---------- C) Impact Survey----------

SR. #	DESCRIPTION	
IDENTIFICATION:		
1.	Questionnaire Unique ID	
2.	Division	
3.	District	
4.	Tehsil	
5.	Union Council	
6.	Village	
RESPONDENT INFORMATION:		
7.	Name of Respondent	
8.	Age (Years) (In Completed Years)	
9.	Level of Education (Completed Years)	
10.	Occupation	
11.	Tribe / cast	
12.	Family Members? (adult equivalent)	
13.	Male-Member full time available for farming (adult equivalent)	
14.	Female-Member full time available for farming (adult equivalent)	
15.	Male-Member part time available for farming (adult equivalent)	
16.	Female-Member part time available for farming (adult equivalent)	
17.	Male-Permanent hired labor (PHL) (adult equivalent)	

SR. #	DESCRIPTION		
18.	Female-Permanent hired labor (PHL) (adult equivalent)		
LAND UTILIZATION:			
19.	Total gross area (acres)		
20.	Total culturable area (acres)		
21.	Total Cultivated area (acres) a) Irrigated (Source of irrigation): Tube well = 1, Tank = 2, Pond = 3, Other = 4 b) Non-irrigated		---------- ---- ---------- ---- ---------- ----
22.	Tenure Status and area (acres): a) Own b) Rented in c) Rented out d) Shared		---------- ---- ---------- ---- ---------- ---- ---------- ----
23.	Cropped area (acres) a) Irrigated b) Non-irrigated c) Rabi area d) Kharif area e) Vegetable area i. Rabi ii. Kharif f) Orchard area	Before Improvement ---------- ---------- ---------- ---------- ---------- ---------- ---------- ----------	After Improvement ---------- ---------- ---------- ---------- ---------- ---------- ---------- ----------
FARM INPUTS & YIELD			

Name of crop	Area(Acres)	24. Land preparation			25. Seed bed preparation			26. Seed sowing / nursery transplanting										27. Seed treatment cost			28. Farm Yard Manure (FYM)			
		Acre	Hr/ acre	Rate /hr	Acre	Hr/ acre	Rate/ hr	Use of seed		Seeding cost/acre		Sowing (CHL)		Plantation (CHL)		Transplantation		Cost / acre	Labour Cost		Area treated	No. of trollies / acre)	Cost per trolley	Labour cost
								Kg/ acre	Rs./ kg	Home Grown	Bought	Male (MD)	Female (MD)	Male (MD)	Female (MD)	Male (MD)	Female (MD)		Male (MD)	Female (MD)				
Rabi wheat/ barley																								
Rabi Fodder																								
Rabi Oilseeds																								
Rabi Pulses																								
Rabi Vegetables																								
Kharif Maize																								
Kharif Fodder																								
Kharif Oilseeds																								
Kharif Pulses																								
Kharif Vegetables																								

Name of crop	Area(Acres)	24. Land preparation			25. Seed bed preparation			26. Seed sowing / nursery transplanting										27. Seed treatment cost			28. Farm Yard Manure (FYM)			
		Acre	Hr/ acre	Rate /hr	Acre	Hr/ acre	Rate/ hr	Use of seed		Seeding cost/acre		Sowing (CHL)		Plantation (CHL)		Transplantation		Cost / acre	Labour Cost		Area treated	No. of trollies / acre)	Cost per trolley	Labour cost
								Kg/ acre	Rs./ kg	Home Grown	Bought	Male (MD)	Female (MD)	Male (MD)	Female (MD)	Male (MD)	Female (MD)		Male (MD)	Female (MD)				
Sugarcane																								
Orchard																								
Any other																								

Name of crop	29. Use of Fertilizers (No. of bags)/acre												30. Number of hoeing/ thinning			31. Mulching / pruning / stalking			32. Canal irrigation / acre		33. Tube well irrigation		
	Urea		DAP		Potash (SOP)		NP (23-23)		Other Name		Cost of hired labour		No.	CHL Rs.		No.	CHL Rs.		No. of irrigation per acre	Abyana & taxes per crop			
	Qty bags	Price/ bag	Qty bags	Price/ bag	Qty bags	Price / bag	Qty bags	Price/ bag	Qty bags	Price/ bag	Male (MD)	Female (MD)		Male (MD)	Female (MD)		Male (MD)	Female (MD)			Hour/acre	Cost/hour	Area irrigated
Rabi wheat/																							

Name of crop	Area(Acres)	24. Land preparation			25. Seed bed preparation			26. Seed sowing / nursery transplanting										27. Seed treatment cost			28. Farm Yard Manure (FYM)			
		Acre	Hr/ acre	Rate /hr	Acre	Hr/ acre	Rate/ hr	Use of seed		Seeding cost/acre		Sowing (CHL)		Plantation (CHL)		Transplantation		Cost / acre	Labour Cost		Area treated	No. of trollies / acre)	Cost per trolley	Labour cost
								Kg/ acre	Rs./ kg	Home Grown	Bought	Male (MD)	Female (MD)	Male (MD)	Female (MD)	Male (MD)	Female (MD)		Male (MD)	Female (MD)				
barley																								
Rabi Fodder																								
Rabi Oilseeds																								
Rabi Pulses																								
Rabi Vegetables																								
Kharif Maize																								
Kharif Fodder																								
Kharif Oilseeds																								
Kharif Pulses																								
Kharif Vegetables																								

Name of crop	Area(Acres)	24. Land preparation			25. Seed bed preparation			26. Seed sowing / nursery transplanting										27. Seed treatment cost			28. Farm Yard Manure (FYM)			
		Acre	Hr/ acre	Rate /hr	Acre	Hr/ acre	Rate/ hr	Use of seed		Seeding cost/acre		Sowing (CHL)		Plantation (CHL)		Transplantation		Cost / acre	Labour Cost		Area treated	No. of trollies / acre)	Cost per trolley	Labour cost
								Kg/ acre	Rs./ kg	Home Grown	Bought	Male (MD)	Female (MD)	Male (MD)	Female (MD)	Male (MD)	Female (MD)		Male (MD)	Female (MD)				
Sugarcane																								
Orchard																								
Any other																								

Name of crop	34. Spray to control weeds (weedicide)			35. Spray to control diseases (fungicide etc.)			36. Spray to control insects (insecticide)			37. Picking of Cotton / Orchard / Vegetables			38. Harvesting/ picking							39 Crop yield & prices					
	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of picking	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Harvest material Cost (Wheat & Rice)	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Cost of labour for Harvesting in Rs.	Cost of Threshing	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Area (acre)	Yield Product (40 Kgs)	Yield By-product (40 Kgs)	Prices Product price (Rs./ 40 Kg)	Prices By-Product (Rs. /40 Kg)	In case sold as such Rs. /acre for fruit plants only
Rabi wheat/ barley																									
Rabi Fodder																									
Rabi Oilseeds																									
Rabi Pulses																									
Rabi Vegetables																									
Kharif Maize																									
Kharif Fodder																									
Kharif Oilseeds																									
Kharif Pulses																									
Kharif Vegetables																									
Sugarcane																									

Name of crop	34. Spray to control weeds (weedicide)			35. Spray to control diseases (fungicide etc.)			36. Spray to control insects (insecticide)			37. Picking of Cotton / Orchard / Vegetables			38. Harvesting/ picking							39 Crop yield & prices					
	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of spray (per acre)	Cost of sprays	Cost of hired labour	No. of picking	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Harvest material Cost (Wheat & Rice)	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Cost of labour for Harvesting in Rs.	Cost of Threshing	CHL Rs. Male (MD)	CHL Rs. Female (MD)	Area (acre)	Yield Product (40 Kgs)	Yield By-product (40 Kgs)	Prices Product price (Rs./ 40 Kg)	Prices By-Product (Rs. /40 Kg)	In case sold as such Rs. /acre for fruit plants only
Orchard																									
Any other																									

SOCIAL MOBILIZATION THROUGH CAPACITY BUILDING OF WCAS, REDUCTION IN WATER DISPUTES, MOTIVATION / PARTICIPATION OF FARMERS:				
40.	Is WCA formed at your water sources (WS)? Yes / No. If No move to Q 56.	[ ]		
41.	Name of chairman			
42.	Contact # of chairman			
43.	Who contributed for improvement of	Govt.	Farmer	Both
44.	Has the WS been useful to you, Yes / No	[ ]	[ ]	
45.	If no, what in your view is lacking in WS? (cannot be left open ended, kindly provide options)	----------		
46.	Are you a member of Water Conservation's Association (WCA)? Yes / No	[ ]	[ ]	
47.	Is there any female member in WCA? Yes/ No.	[ ]	[ ]	
48.	Are female members involved in decision making? Yes / No.	[ ]	[ ]	
49.	Was your participation voluntary? Yes / No.	[ ]	[ ]	
50.	Who motivated you to be a member?	WCA Member	OFWM	Neighbor Farmer
51.	Did you pay any membership contribution to become member of WCA? Yes / No.	[ ]	[ ]	[ ]
52.	Do all the WCA members are water users? Yes / No	[ ]	[ ]	
53.	How many water disputes solved by WCA till to-date? (numbers)			
54.	Is there any grievances re-dressal committee regarding water disputes? Yes / No.	[ ]	[ ]	[ ]
55.	Are you willing to contribute your labor or in case affordable money towards the work to be carried out by the organization for the development of your area? Yes / No.	[ ]		[ ]
56.	Does WCA hold regular meetings of the association? Yes / No.	[ ]		[ ]

57.	Do you participate in the WCA meetings? Yes / No.	[ ]	[ ]
58.	Do you know that the minutes are recorded and got approved in the next meeting? Yes / No.	[ ]	[ ]

59.	To what extent are you satisfied with the maintenance of the irrigation system?	Not at all	To some extent	To large extent	
60.	Do decisions make democratically? Yes / No.		[ ]	[ ]	
61.	Do majority of the members participate in the meetings? Yes / No.		[ ]	[ ]	
62.	What is the frequency of WCA meetings?	Every month	Quarterly	Once a year	As per need arises
63.	Do you aware about functions and responsibilities of the Association? Yes / No.		[ ]	[ ]	
64.	Do you think WCA helps in solving your farming problems? Yes / No.		[ ]	[ ]	
65.	Do you Know that your water conservation structure is going to be newly lined/additionally lined/ reconstructed? Yes / No.		[ ]	[ ]	

SOCIAL INFORMATION AND WOMEN PARTICIPATION:

66.	Do women participate in farming activities? Yes / No	[ ]	[ ]
67.	Have you (female) heard about WC-KP Project? Yes / No	[ ]	[ ]
68.	Do you (female) know about WC-KP Yes / No	[ ]	[ ]
69.	Are you (female) member of WCA Yes / No	[ ]	[ ]
70.	Do (female) participate in WCA meetings? Yes / No	[ ]	[ ]

ENVIRONMENTAL ISSUES:

71.	Total number of trees on the Water Conservation Structure (WCS)?	(Start) [ ]	(Middle) [ ]	(End) [ ]
72.	Will any tree be cut down on this WCS? Yes/No.	(Start) [ ]	(Middle) [ ]	(End) [ ]
73.	No. of trees to be cut down on this WCS?	(Start) [ ]	(Middle) [ ]	(End) [ ]

74.	No. of trees planted on this WCS	(Start) [ ]	(Middle) [ ]	(End) [ ]

REDUCTION IN WATER LOGGING AND SALINITY, MINIMIZATION OF CONVEYANCE LOSSES, EQUITY IN WATER DISTRIBUTION:

75.	Do you know the depth of Water table of your land? Yes / No.	[ ]
76.	How much depth of water table was 01 year ago	[ ]

LIVESTOCK/ ANIMALS:

	Entity	**Number**	**Value (Rs)**
77.	Livestock		
78.	Buffaloes		
79.	Cows		
80.	Bullocks		
81.	Sheep		
82.	Goats		
83.	Camels		
84.	Poultry		
85.	Horses		
86.	Donkeys		

INCOME & EXPENSES

87.	Income from crops from whole year	
88.	Income from livestock from whole year	
89.	Income from labor (from outside farm) per annum	
90.	Any other source----------	
91.	Total income (Per year)	
92.	Total family expenditure (Per Year)	

93.	If expenditure more than income how you	Loan (relat	Loan	Loan	Sale of	Any

	manage?	ive)	(friend)	(banks)	assets	other

HOW MANY TIMES HAVE THE FOLLOWING AGENTS OR REPRESENTATIVES OF THE AGENCIES VISITED YOUR FARM OR YOU VISITED THEM DURING THE LAST TWO SEASONS?			
94.	a) S&WC Directorate representative	No of times [ ]	Benefit achieved
95.	b) Agri. Engineering representative	No of times [ ]	
96.	c) AGES Consultants representative	No of times [ ]	
97.	d) Agriculture extension agent	No of times [ ]	
98.	e) Pesticides company agent	No of times [ ]	
99.	f) Fertilizer company representative	No of times [ ]	
100.	g) Agriculture credit officer	No of times [ ]	

AGRICULTURE EQUIPMENTS:			
101.	Do you own a Tractor? Yes / No	[ ]	If Yes value Rs----------
102.	Do you own Thresher?	[ ]	[ ]
103.	Do you own Seed drill?	[ ]	[ ]
104.	Do you own Rotavator?	[ ]	[ ]
105.	Do you own Reaper?	[ ]	[ ]

Interviewed By:----------

Checked By:----------

ACTIVITY 1. WATER POND

DEMOGRAPHIC, DIMENSIONS & STRUCTURE						
1	Water Pond Location	Address ----------	GPS ----------	Coordinate ----------		
2	Water Pond Number					
3	Source of Water & harvested from	Runoff		Perennial springs		
4	Water Pond Size (feet)	Length----	Width ----	Depth ------		
5	Water Pond Shape	Rectangular	Square	--------	-------	
6	Water Pond Structure	Cemented	Earthen	---------	-------	
7	a. a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes	No No			
Water Used For						
8	Crop production / irrigation	Yes	No			
9	Command area of pond (acre)					
10	Community & Livestock Drinking	Yes	No			
11	If Yes in Q 10 (distance & time) for fetching for water	Before	Distance Decrease (km)	Time Reduced (hours)		
12	Ground Water Recharge	Yes	No			
Fish Rearing						
13	Fish Rearing	Yes	No, go to Q 22			
14	Fish Type (Catla, Rohu, Common, Chinese, Silver & Salmon Crap, Trout, Tilapia etc.)					
15	Fish Feed	Roughage	Cow dung	Poultry waste	Other	
16	Total cost	----------Rs per year				
17	Production	----------kg per year				
18	Price	----------Rs per Kg				
19	Fish Consumption per year	----------Rs Sold	Home (kg) Before-----	Home(kg) After-----		
20	Problems/issues in fish farming: Plz rank Availability of fingerlings, seedlings etc. Diseases Manuring / feeds Marketing Any other	Yes	Rank	No		
EMPLOYMENT ENGAGED IN FISH FARMING						
21	Employment Permanent Casual Daily wages	Before	After			

BENEFICIARY FEED BACK				
22	After submission of application, how much period took to complete the water pond?		Months	Days
23	The Water Pond was completed as per approved standards and specifications		Yes	No
24	If No in Q 23 than any variations in specifications and		Yes	No
25	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment
26	How you assess survey and design process	Fast Track	Lengthy	No comment
27	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
28	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
29	How you feel maintenance of Water Pond	Easy	Difficult	No comment
30	Do you think Water Pond encourages mosquito population	Yes	No	No comment
31	If yes what measures you take to control it	Sprays	None	No comment
32	Any comment/observation you want to share?			

ACTIVITY 2. CHECK DAM

DEMOGRAPHIC, DIMENSIONS & STRUCTURE										
1	Check Dam Location									
2	Check Dam Number									
3	Source of Water & harvested from				Ditches	Stream	Channels	Gullies	Other	
4	Check Dam Type				Land filled			Stone Masonry		
5	Check Dam Purpose	Productive -farming	Flood control –flood water	Intercepting sediments-	Water storage- irrigation	Rock check-stabilizing vegetation or reducing bed gradient	Gully check-control gully development		Others	
6	Check Dam Structure				Cemented	Gravel bags	Sand bags	Stone Masonry	-------	
7	Soil Reclamation (acres)									
8	a. Approval by S&WC Directorate b. Validated by Consultant (AGES)					Yes Yes		No No		

BENEFICIARY FEED BACK				
9	After submission of application, how much period took to complete the check dam?		Months	Days
10	The Check dam was completed as per approved standards and specifications		Yes	No
11	If No in Q 23 than any variations in specifications and		Yes	No
12	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment
13	How you assess survey and design process	Fast Track	Lengthy	No comment
14	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
15	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
16	How you feel maintenance of Water Pond	Easy	Difficult	No comment
17	Do you think Water Pond encourages mosquito population	Yes	No	No comment
18	If yes what measures you take to control it	Sprays	None	No comment

19	Any comment/observation you want to share?	

ACTIVITY 3. WATER RESERVOIR

DEMOGRAPHIC, DIMENSIONS & STRUCTURE					
1	Water Reservoir Location	Address ----------	GPS ----------	Coordinate ----------	
2	Water Reservoir Number				
3	Source of Water & harvested from	Rainfall /runoff	Flowing water /perennial springs		
4	Water Reservoir Type	Cemented	Earthen		
5	Water Reservoir Shape	Rectangular	Square	Irregular	-------
6	Water Reservoir Structure	Stone	Masonry		
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes	No No		
Water Used For					
8	Crop production / irrigation	Yes	No		
9	Command area of pond (acre)				
10	Community & Livestock Drinking	Yes	No		
11	If Yes in Q 10 (distance & time) for fetching for water	Before	Distance Decrease	Time Reduced (hours)	
12	Water table (feet)	Before (-------)	After (-------)		
Fish Rearing					
13	Fish Rearing	Yes	No, go to Q 22		
14	Fish Type (Catla, Rohu, Common, Chinese, Silver & Salmon Crap, Trout, Tilapia etc.)				
15	Fish Feed	Roughage	Cow dung	Poultry waste	Other
16	Total cost	----------Rs per year			
17	Production	----------kg per year			
18	Price	----------Rs per Kg			
19	Fish Consumption per year	----------Rs Sold	Home (kg) Before-----	Home(kg) After-----	
20	Problems/issues in fish farming: Please rank Availability of fingerlings, seedlings etc. Diseases Manuring / feeds Marketing Any other	Yes	Rank	No	
EMPLOYMENT ENGAGED IN FISH FARMING					
21	Employment Permanent Casual Daily wages	Before	After		

BENEFICIARY FEED BACK				
22	After submission of application, how much period took to complete the water reservoir?		Months	Days
23	The Water Pond was completed as per approved standards and specifications		Yes	No
24	If No in Q 23 than any variations in specifications and		Yes	No
25	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment
26	How you assess survey and design process	Fast Track	Lengthy	No comment
27	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
28	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
29	How you feel maintenance of Water Reservoir	Easy	Difficult	No comment
30	Any comment/observation you want to share?			

ACTIVITY 4. STREAM BANK STABILIZATION (SBS)*

DEMOGRAPHIC, DIMENSIONS & STRUCTURE						
1	Stream Bank Stabilization (SBS) Location	Address ----------	GPS ----------	Coordinate ----------		
2	SBS Number					
3	Source of Water & harvested from	Rainfall /runoff	Flood water			
4	SBS Type	a. Vegetative	b. Structural i. Protection bunds ii. Spurs etc.	Combination a & b		
5	SBS Structure	Stone	Gravel bags	Sand bags	Masonry	Any other -------
6	SBS Purpose	To reduce erosion especially in rainy season				
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes	No No			
Water Used For						
8	Erosion control	Yes	No			
9	How much land is protected (Acres)					
BENEFICIARY FEED BACK						
10	After submission of application, how much period took to complete the SBS?	Months	Days			
11	The SBS was completed as per approved standards and specifications	Yes	No			
12	If No in Q 11 than any variations in specifications and	Yes	No			
13	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment		
14	How you assess survey and design process	Fast Track	Lengthy	No comment		
15	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment		
16	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment		
17	How you feel maintenance of SBS	Easy	Difficult	No comment		

18	Any comment/observation you want to share?	_____ _____ _____

* Protection wall for erosion control

ACTIVITY 5. GATED FIELD INLET OUTLETS/SPILLWAYS

DEMOGRAPHIC, DIMENSIONS & STRUCTURE				
1	Gated field inlet outlets (GFIO) & Field Spillways Location	Address ----------	GPS ----------	Coordinate ----------
2	GFIO & Field Spillways Number			
3	Source of water & harvested from	Rainfall/ Rod-Kohi		Mountains/ Sailaba
4	GFIO & Field Spillways Structure	Cemented		Masonry
5	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes		No No
Water Used For				
6	Crop production / irrigation	Yes		No
7	Command area of GFIO (acre)			
8.	Ground Water Recharge due to GFIO	Yes		No
BENEFICIARY FEED BACK				
9	After submission of application, how much period took to complete the GFIO?	Months		Days
10	The GFIO was completed as per approved standards and specifications	Yes		No
11	If No in Q 10 than any variations in specifications and material used	Yes		No
12	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment
13	How you assess survey and design process	Fast Track	Lengthy	No comment
14	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
15	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
16	How you feel maintenance of GFIO	Easy	Difficult	No comment
17	Any comment/observation you want to share?			

ACTIVITY 6. TERRACING

DEMOGRAPHIC, DIMENSIONS & STRUCTURE					
1	Terracing Location	Address ----------	GPS ----------	Coordinate ----------	
2	Terracing Activity Field Number				
3	Terracing Type	Contour	Bench	Broad	Etc. …….
4	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes		No No	

Land Used For			
5	Crop production	Yes	No
6	How much area brought under terracing (acre)		

BENEFICIARY FEED BACK				
7	After submission of application, how much period took to complete the terracing?	Months	Days	
8	The terracing was completed as per approved standards and specifications	Yes	No	
9	If No in Q 8 than any variations in specifications and material used	Yes	No	
10	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comment
11	How you assess survey and design process	Fast Track	Lengthy	No comment
12	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
13	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
14	How you feel maintenance of terracing	Easy	Difficult	No comment
15	Any comment/observation you want to share?	_____ _____ _____		

ACTIVITY 7. MICRO-WATERSHED DEVELOPMENT

DEMOGRAPHIC, DIMENSIONS & STRUCTURE									
1	Micro-Watershed Development (MWD) Location	Address ----------		GPS ----------		Coordinate ----------			
2	MWD Number								
3	Source of Water & Harvested from	Rainfall/runoff		Flowing water /perennial springs					
4	MWD Type	Small (< 1 acre)		Medium (> 1 acres)		Large (1000 Sq Km)			
5	MWD Purpose	Soil Conservation		Water Conservation		Both			
6	Micro-Watershed Consist of	Water ponds	Mini dams	Check dams	Protection bunds	Spurs	Contour ploughing	Etc.	
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes		No No					
MWD Used For									
8	Land /crop production	Yes		No					
9	How much area converted to agriculture land (acres)								
BENEFICIARY FEED BACK									
10	After submission of application, how much period took to complete the MWD?	Months		Days					
11	The MWD was completed as per approved standards and specifications	Yes		No					
12	If No in Q 11 than any variations in specifications and material used	Yes		No					
13	How your application was attended by S&WC staff	Promptly		Took lot of time		No Comment			
14	How you assess survey and design process	Fast Track		Lengthy		No comment			
15	Quality of S&WC staff behavior	Friendly / supportive		Indifferent		No comment			
16	The subsidy was paid	Within reasonable time		Required lot of efforts		No comment			

17	How you feel maintenance of MWD	Easy	Difficult	No comment
18	Any comment/observation you want to share?			

ACTIVITY 8. WATER SEEPAGE HARVESTING GALLERIES

DEMOGRAPHIC, DIMENSIONS & STRUCTURE				
1	Water Seepage Harvesting Galleries (WSHG) Location	Address ----------	GPS ----------	Coordinate ----------
2	WSHG Number			
3	Source of Water & harvested from	Sub-surface ground water collection system (tank) with perforated pipes		
4	WSHG Type	Shallow in depth	Constructed in a sloppy area	
5	WSHG Purpose	Irrigation	Drinking	
6	.Approval by S &WC Directorate Validated by Consultant (AGES)	Yes Yes	No No	
WSHG Used For				
7	Land /crop production	Yes	No	
8	How much area converted to agriculture land (acres)			
BENEFICIARY FEED BACK				
9	After submission of application, how much period took to complete the WSHG?	Months	Days	
10	The WSHG was completed as per approved standards and specifications	Yes	No	
11	If No in Q 10 than any variations in specifications and material used	Yes	No	
12	How your application was attended by S&WC staff	Promptly	Took lot of time	No Comm
13	How you assess survey and design process	Fast Track	Lengthy	No comment
14	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comme
15	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
16	How you feel maintenance of WSHG	Easy	Difficult	No comment
17	Any comment/observation you want to share?			

ACTIVITY 9 i. AGRONOMIC LOW-COST INTERVENTION

DEMOGRAPHIC, DIMENSIONS & STRUCTURE					
1	Agronomic Low Cost Intervention (ALCI) Location	Address ----------	GPS ----------	Coordinate ----------	
2	ALCI Number				
3	Cover Crops	Legume cover crops (peas, peanut, gram, beans etc.)	Non-legume cover crops (wheat, barley, rye etc.)	Mustard, radish, turnip etc.	Etc.
4	Cover Crops Availability		Yes	No	
5	ALCI Improve	Livelihood	Conserve soil	Conserve water	All
6	ALCI Purpose	Cover soil surface & control soil erosion			
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)			Yes Yes	No No
Cover Crops to					
8	Conserve soil & water			Yes	No
9	Control soil erosion			Yes	No
10	Increased yield			Yes	No
11	Improve livelihood			Yes	No
BENEFICIARY FEED BACK					
12	After submission of application, how much period took to complete the Agronomic Low Cost Intervention?			Months	Days
13	The Agronomic Low Cost Intervention was completed as per approved standards and specifications			Yes	No
14	If No in Q 13 than any variations in specifications and material used			Yes	No
15	The duration of subsidy paid	Within reasonable time	Required lot of efforts		No comment
16	How you assess survey and design process	Fast Track	Lengthy		No comment
17	Quality of S&WC staff behavior	Friendly / supportive	Indifferent		No comment
18	How you feel adoption of Agronomic Low Cost Intervention	Easy	Difficult		No comment
19	Do you think Agronomic Low Cost Intervention encourages insect/disease spread	Yes	No		No comment
20	If yes what measures you take to control it	Sprays	None		No comment

21	Any comment/observation you want to share?	

ACTIVITY 9 ii. LOW COST BRUSH WOOD CHECK DAM

DEMOGRAPHIC, DIMENSIONS & STRUCTURE					
1	Low Cost Brush Wood Check Dam (LCBWC) Location	Address ----------	GPS ----------	Coordinate ----------	
2	LCBWC Dam Number				
3	Material Used	Bushes	trees	--------	
4	LCBWC Structure	Posts		Brush	
5	LCBWC Dam Improve	Livelihood	Conserve soil	Conserve water	All
6	LCBWC Dam Purpose	Hold fine material carried by flowing water in the gully			
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)	Yes Yes	No No		
Low Cost Brush Wood Check Dam to					
8	Conserve soil & water	Soil	Water	Both	
9	Control soil erosion	Yes	No		
10	Increased yield	Yes	No		
11	Improve livelihood	Yes	No		
BENEFICIARY FEED BACK					
12	After submission of application, how much period took to complete the Agronomic Intervention?		Months	Days	
13	The Agronomic Intervention was completed as per approved standards and specifications		Yes	No	
14	If No in Q 13 than any variations in specifications and material used		Yes	No	
15	The duration of subsidy paid	Within reasonable time	Required lot of efforts	No comment	
16	How you assess survey and design process	Fast Track	Lengthy	No comment	
17	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment	
18	How you feel maintenance of Low Cost Brush Wood Check Dam	Easy	Difficult	No comment	
19	Any comment/observation you want to share?	_____ _____ _____			

ACTIVITY 9 iii. LOOSE STONE CHECK DAM

DEMOGRAPHIC, DIMENSIONS & STRUCTURE							
1	Loose Stone Check Dam Location	Address ----------		GPS ----------		Coordinate ----------	
2	Loose Stone Check Dam Number						
3	Material Used	Stones		----------			
4	Loose Stone Check Dam Area Catchment	100m		<2 ha		--------	
5	Large Stone Check Dam Working / used for	Initial	Small gullies	Gully network	------		
6	Loose Stone Check Dam Purpose	Control channel erosion along gully bed		Stop water fall erosion by stabilizing gully heads		Both	
7	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)			Yes Yes		No No	

Loose Stone Check Dam to Control			
8	Channel erosion	Yes	No
9	Waterfall erosion	Yes	No
10	Increased yield	Yes	No
11	Improve livelihood	Yes	No

BENEFICIARY FEED BACK				
12	After submission of application, how much period took to complete Loose Stone Check Dam?	Months		Days
13	The Loose Stone Check Dam was completed as per approved standards and specifications	Yes		No
14	If No in Q 13 than any variations in specifications	Yes		No
15	The duration of subsidy paid	Within reasonable time	Required lot of efforts	No comment
16	How you assess survey and design process	Fast Track	Lengthy	No comment
17	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
18	How you feel maintenance of Loose Stone Check Dam	Easy	Difficult	No comment
19	Do you think Loose Stone Check Dam encourages insect/disease spread	Yes	No	No comment
20	If yes what measures you take to control it	Sprays	None	No comment

21	Any comment/observation you want to share?	_____ _____ _____

ACTIVITY 10. SAND DUNES STABILIZATION

DEMOGRAPHIC, DIMENSIONS & STRUCTURE				
1	Sand Dunes Stabilization Location	Address ----------	GPS ----------	Coordinate ----------
2	Sand Dunes Stabilization Number			
3	Stabilization of sand dunes methods	Herbaceous plantation	Kana (Saccharum mujga L.)	----------
4	Stabilization of sand dunes purpose	Controlling of sand dunes through plantation		
5	Stabilization of sand dunes increased	Crop Yield	Value addition (homemade items)	---------- ---
6	a. Approval by S &WC Directorate b. Validated by Consultant (AGES)		Yes Yes	No No
Land Used For				
7	Crop production		Yes	No
8	Fruit / Forest		Yes	No
9	Livestock		Yes	No
10	Community		Yes	No
BENEFICIARY FEED BACK				
11	After submission of application, how much period took to complete Sand Dunes Stabilization?		Months	Days
12	The Sand Dunes Stabilization was completed as per approved standards and specifications		Yes	No
13	If No in Q 12 than any variations in specifications and material used		Yes	No
13	The duration of subsidy paid	Within reasonable	Required lot of efforts	No comment
14	How you assess survey and design process	Fast Track	Lengthy	No comment
15	Quality of S&WC staff behavior	Friendly / supportive	Indifferent	No comment
16	How you feel maintenance of Stabilization of sand dunes	Easy	Difficult	No comment
17	Do you think Stabilization of sand dunes encourages insect / disease spread	Yes	No	No comment
18	If yes what measures you take to control it	Sprays	None	No comment

19	Any comment/observation you want to share?	

ACTIVITY 11. CAPACITY BUILDING

1	Capacity Building Location					
2	Capacity Building Number					
3	Number of Participants					
4	Trainee	Farmers	Field staff	Officer/Official	mixed	
5	Resource Person (RP)	Local/district	Provincial	National		
6	Quality of Delivery of RP	Excellent	Good	Average	Poor	Very Poor
7	Capacity Building Type	Training	Exposure visit	----------		
8	Capacity Building in Soil & Water Conservation Techniques	Highway water harvesting	Ground water recharging wells	Sub-surface check dams	Mini dams	--
9	Capacity Building to Solar Pump/TW	a. Solar Pump	b. Tube Well	Both: a+b		
10	How would you rate the trainings?	Excellent	Good	Average	Poor	Very Poor
11	Do you find contents/brochures of the training relevant to your farming and use of technology(s) demonstrated?	Yes	No			
12	Has training enhanced your technical capacity for service provision?	Yes	No			
13	Do you think the training influence adoption of demonstrated technology(s) in this area?	Yes	No			
14	What is the potential within the community for income generating activities using demonstrated technology(s)?	V. High	High	Average	Poor	V. Poor
15	Would this technology resolve Farmers' problems if adopted?	Yes	No			
16	Do you think that demonstrated technology(s) is feasible for your area?	Yes	No			
17	Do you think the technology(s) demonstrated could increase crop productivity and farm income?	Yes	No			
18	Would you invest on your own to adopt the demonstrated technology(s) at your own	Yes	No			
19	What is role of women in using this demonstrated technology(s)?					

20	Do you think that technology is feasible for your area?				
21	Do you think the technology demonstrated could increase crop productivity and farm income?	Yes	No		
22	What type of facilitation is available for adoption?				
23	If facilitation is not available, then what type of facilitation is required for adoption	Technical	Loan	Subsidy	Other
24	After attending this training/workshop are you able to install technology by yourself	Yes	No		
25	What are the constraints for adoption?				
26	Are the materials required for installation of ----------available in your area?	Yes	No		
27	Do you face any problem regarding your technology?	Yes	No		
28	Please explain your problem				

ACTIVITY 12. INSTALLATION OF TUBE WELLS

DIMENSIONS & STRUCTURE							
1	Tube Well Location	Address ----------	GPS ----------	Coordinate ----------			
2	Tube Well Number						
3	Source of Power	Diesel	Peter pump	Tractor	Electric	Solar	--------
4	Suction pipe diameter (inch)	----------					
5	Depth of water level (boring)	----------					
6	Water discharge	Normal	Below normal	Above normal	-----		
7	Water Re-charge	Sufficient	Insufficient	Delay			
8	a. Approval by Directorate of Agriculture Engineering b. Validated by Consultant (AGES)	Yes Yes	No No				
Water Used For							
9	Crop Production	Yes	No				
10	Orchard / Forest						
11	Community & Livestock Drinking	Yes	No				
12	If Yes (distance & time)	Before	Distance	Time Reduced (hours)			
13	Fish Rearing	Yes	No, go to Q 22				
Fish Rearing							
14	Fish Type (Catla, Rohu, Common, Chinese, Silver & Salmon Crap, Trout, Tilapia, etc.)						
15	Fish Feed	Roughage	Cow dung	Poultry waste	Other		
16	Total cost	----------Rs per year					
17	Production	----------kg per year					
18	Price	----------Rs per Kg					
19	Fish Consumption per year	----------Rs Sold	Home (kg) Before-----	Home(kg) After-----			
20	Problems/issues in fish farming: Plz rank k) Availability of fingerlings, seedlings etc. l) Diseases m) Manuring/ feeds n) Marketing o) Any other	Yes	Rank	No			
EMPLOYMENT ENGAGED IN FISH FARMING							

21	Employment vii. Permanent viii. Casual ix. Daily wages	Before (No.)	After (No.)

BENEFICIARY FEED BACK				
22	After submission of application, how much period took to complete the Tube Well installation?		Months	Days
23	The Tube Well installation was completed as per approved standards and specifications		Yes	No
24	If No in Q 23 than any variations in specifications and material used		Yes	No
25	How your application was attended by Agriculture Engineering staff	Promptly	Took lot of time	No Comment
26	How you assess survey and design process	Fast Track	Lengthy	No comment
27	Quality of Directorate of Agriculture Engineering staff behavior	Friendly / supportive	Indifferent	No comment
28	The subsidy was paid	Within reasonable time	Required lot of efforts	No comment
29	How you feel maintenance of Tube Well	Easy	Difficult	No comment
30	Do you think cropping intensity increased on your farm after Tube Well	Yes	No	No comment
31	Do you think your crops / orchards yield increased after Tube Well	Yes	No	No comment
32	Any comment/observation you want to share?			

ACTIVITY 13. SOLARIZATION OF TUBE WELLS

DIMENSIONS & STRUCTURE					
1	Solar Pumping System (SPS) Location	Address ----------	GPS ----------	Coordinate ----------	
2	SPS Number				
3	Source of Power (Solar)	Existing/upgraded	New	Combine	
4	Optimum discharge depend on	Panel type ----------	Panel size ----------	Motor type ----------	Motor size ----------
5	Suction pipe diameter (inch)	----------			
6	Depth of water level (boring)	----------			
7	Water discharge	Normal	Below normal	Above normal	----------
8	Water Re-charge	Sufficient	Insufficient	Delay	
9	a. Approval by Directorate of Agriculture Engineering b. Validated by Consultant (AGES)	Yes Yes	No No		
Water Used For					
10	Cropping	Yes	No		
11	Orchard / Forest				
12	Community & Livestock Drinking	Yes	No		
13	If Yes (distance &	Before	Distance Decrease	Time Reduced (hours)	
14	Fish Rearing	Yes	No, go to Q 22		
Fish Rearing					
15	Fish Type (Catla, Rohu, Common, Chinese, Silver & Salmon Crap, Trout, Tilapia, etc.)				
16	Fish Feed	Roughage	Cow dung	Poultry waste	Other
17	Total cost	----------Rs per year			
18	Production	----------kg per year			
19	Price	----------Rs per Kg			
20	Fish Consumption per year	----------Rs Sold	Home (kg) Before-----	Home(kg) After-----	
21	Problems/issues in fish farming: Plz rank p) Availability of fingerlings, seedlings etc. q) Diseases r) Manuring / feeds s) Marketing t) Any other	Yes	Rank	No	

EMPLOYMENT ENGAGED IN FISH FARMING				
22	Employment x. Permanent xi. Casual xii. Daily wages	Before	After	
BENEFICIARY FEED BACK				
23	The Tube Well installation was completed as per approved standards and specifications	Yes	No	
24	If No in Q 23 than any variations in specifications and material used	Yes	No	
25	How your application was attended by Agriculture Engineering staff	Promptly	Took lot of time	No Comment
26	How you assess survey and design process	Fast Track	Lengthy	No Comment
27	Quality of Directorate of Agriculture Engineering staff behavior	Friendly / supportiv	Indifferent	No Comment
28	The subsidy was paid	Within reasonabl	Required lot of efforts	No Comment
29	How you feel maintenance of Tube Well	Easy	Difficult	No Comment
30	Do you think cropping intensity increased on your farm after Tube		Yes	No
31	Do you think your crops / orchards yield increased after Tube Well		Yes	No
32	Any comment/observation you want to share?			

ANNEX - D: PRE-TESTING ASSESSMENT

Water Conservation in Barani Area, KP

"Four Days Training Workshop of Field Staff"

August – September, 2021

1. Pre-Training Assessment

We welcome you to the ***"Training Workshop"*** course at WC- KP, ME&IE Consultants. We will try our best to make this training useful, productive and interactive. We would like to conduct a pre-training assessment of the knowledge of the participants on the subject mater. Please, remember this is not a test or examination of individual but a reflection of participation about to the subject. This will help us deliver lectures according the level of participants and will enable us in assessing the effectiveness of the training course.

Q1. Geographical area is calculated by:

a) Pakistan Agricultural Research Council
b) Survey of Pakistan
c) Agriculture Department, KP
d) None of the above

Q2. Cultivated area is:

a) The cropped area
b) Net area sown + current fallow
c) Area sown once in the year
d) All of above

Q3. One hectare is equal to:

a) 1.561 acres
b) 16.231 kanals
c) 2.471 acres
d) 20.471 marlas

Q4. Crops sown in October / November are:

a) Perennial crops
b) Kharif crops
c) Rabi crops
d) None of the above

Q5. Cropping intensity is:

a) Net sown area + current fallow
b) Net sown area/total cropped area *100
c) Area sown in kharif and Rabi season
d) All of the above

Q6. Pakistan is a water stressed country and ranks:

a) 1st
b) 2nd
c) 3rd
d) 4th

Q7. Bringing more area under high value crops using innovative technologies / interventions we may be able to achieve four pillars of food security:

a) Accountability, accessibility, utilization and success-ability
b) Productivity, accountability, utilization and stability
c) Availability, accessibility, utilization and stability
d) None of above

Q8. A Check Dam is:

a) Productive dams
b) Flood control dams
c) Water-storage dams
d) All of above

Q9. Field spillways/ Gated Filled Inlet Outlets (GFIO/Spillway) are:

a) Area provides the controlled release of excess flow of water.
b) Channel provides the controlled release of excess flow of water
c) Mini dam provides the controlled release of excess flow of water
d) Structure provides the controlled release of excess flow of water from field to a downstream area.

Q10. What is Terracing?

a) Bunds
b) Small reservoirs
c) Water storage tanks in a hill
d) Field steps in a slope

ANNEX - E: TWO DAYS' TRAINING WOKSHOP OF FIELD STAFF

Two Days' Training Workshop of Field Staff
Water Conservation in Barani Area, KP
Activity Schedule

First Day

No.	Activity	Resource Person	Timing
A	**Inauguration Session**		
1	Registration		9:00 to 10:00 am
2	Recitation from Holly Quran		10:01 to 10:05 am
3	Pre - Training Assessment		10:6 to 10:20 am
4	Introduction WC- KP, Baseline Survey, and about the training workshop	UM*, MA, and AHK*	10:20 to 11:00 am
Tea Break			11:00 to 11:30 pm
B	**First Technical Session**		
1	Land Utilization and Agriculture terminology	MA	11:30 to 12:15 am
2	Gender Role in WCBA - KP	AHK*	11:30 to 13: 00 am
Lunch and Jumma Prayer Break			13:00 to 14:15 pm
D	**Second Technical Session**		
1	Farmer General Questionnaire	UM, MA, and AHK	14:15 to 15:00pm
Tea Break			15:00 to 15:30
E	**Third Technical Session**		
1	Water pond, water reservoirs, Stream bank stabilizer (SBS), Field-spillways/ Gated Filled Inlet Outlets (GFIO/Spillway)	UM, MA, and AHK	15:30 to 16:30
2	Tube Wells, Solar Pumping System	UM, MA, and AHK	16:30 to 17:00 pm

Second Day: Tools in house Exercise

1	Briefing about exercise	UM	9:00 to 9:30 am
2	Exercise	Field Enumerators	9:30 to 11:00 am
Tea Break			11:00 to 11:30 am
1	Discussion on Exercise	UM, MA, and AHK	16:30 to 17:00 pm
2	Briefing about field – do and don't do	UM	

* UM = Dr. Usman Mustafa, MA = Dr. Mansab Ali, and AHK, Mr. Afzal Hayat Khan

ANNEX - F: WORK SCHEDULE AND PLANNING FOR DELIVERABLES

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

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

ANNEX - G: WORK PLAN / ACTIVITIES FOR 3RD QUARTER (JULY 2021 TO SEPTEMBER 2021)

Quarterly Action Plan (01 July to 30 September, 2021)-ME&IE Consultants for Soil & Water Conservation in the Barani Areas of KP

S#	Deliverable/Activities	July 2021				August 2021				September 2021			
		WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4
1	Undertake the baseline surveys of the project activities / interventions in all the project areas.												
	a. Draft Questionnaire distributed among stake holders for comments												
	b. Incorporation of comments												
	c. Questionnaire's programming in Android												
	d. Training of enumerators/field team												
	e. Field data collection												
	f. Data cleaning, processing and analysis												
	g. Draft report preparation												
	h. Final report												
2	Develop monitoring strategy, framework and results-based monitoring (RBM) indicators. Monitoring tools for ongoing monitoring of soil and water conservation (S&WC) activities includes:												
	a. Draft monitoring tools for each activity distributed among stake holders for comments												
	b. Incorporation of comments												
	c. Monitoring tools s programming in Android												
	d. Training of enumerators/field team												
	e. Field data collection												
	f. Data cleaning, processing and analysis												
	g. Draft report preparation												
	h. Final report												
3	Meetings with Stake holders and Coordination												

4	Economic Impact of Project Innervation. Preparation of success story of one of the S&WC activities*:												
	a. Listing of S&WC activities												
	b. Selection of activity/s												
	c. Data collection/FGD/analysis												
	d. Documentation/script writing												
	e. Draft preparation of booklet and video												
	f. Final preparation of booklet and video												
5	Preparation of monthly, quarterly, annual monitoring evaluation and validation reports of the project activities												
6	Develop a website containing information of facilities, services and application, procedures, for WC-KP activities database. (maintaining website should be the responsibility of project staff).												
	a. Development of website of WC-KP												
	b. Designing of dashboard of Project Interventions												
	c. Monitoring online data collection and Data entry												
	d. Data collection of interventions in MIS/GIS database.												
7	Provide technical support for the development of custom-designed mobile application (Android) to capture on site progress, geo tagged photos, should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the client:												
	a. Designed mobile application (Android).												
	b. Monitoring Android based Mobile Application under implementation by field staff												
	c. Data collection of interventions in MIS/GIS database.												