



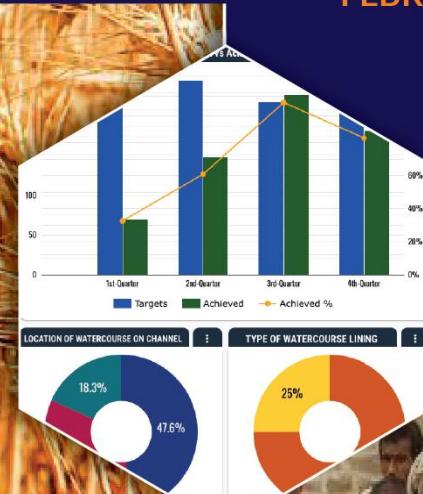
FEDERAL PROJECT MANAGEMENT UNIT
FEDERAL WATER MANAGEMENT CELL
MINISTRY OF NATIONAL
FOOD SECURITY & RESEARCH
ISLAMABAD - PAKISTAN

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

MONITORING, EVALUATION
AND IMPACT EVALUATION
CONSULTANTS

MONTHLY MONITORING REPORT

FEBRUARY 2024



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



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
National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)

MONTHLY MONITORING REPORT
FEBRUARY 2024

CONTENTS

| | |
|--|-----------|
| EXECUTIVE SUMMARY | 1 |
| CHAPTER-1: PROJECT INTRODUCTION | 3 |
| 1.1 PROJECT PROFILE..... | 3 |
| 1.2 PROJECT DESCRIPTION | 3 |
| 1.2.1 Project Development Objectives | 3 |
| 1.2.2 Project Objectives – General & Quantitative..... | 3 |
| 1.2.3 Project Beneficiaries | 4 |
| 1.2.4 Project Components | 4 |
| 1.2.5 Project Targets..... | 5 |
| CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS..... | 7 |
| 2.1 OBJECTIVES OF CONSULTING SERVICES | 7 |
| 2.2 SCOPE OF CONSULTING SERVICES | 7 |
| 2.3 MONITORING STRATEGY OF CONSULTANTS | 8 |
| 2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS | 11 |
| CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH..... | 12 |
| 3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR) | 12 |
| 3.2 ACTIVITIES ICT UNIT – FEBRUARY 2024..... | 12 |
| 3.2.1 Overall Progress:..... | 12 |
| 3.2.2 Quarterly Work and Visit Plan – Islamabad Unit | 12 |
| 3.2.3 Meetings / Coordination ICT-Zone | 23 |
| 3.3 ACTIVITIES PUNJAB ZONE – FEBRUARY 2024 | 24 |
| 3.4 ACTIVITIES KP ZONE – FEBRUARY 2024..... | 25 |
| 3.4.1 Description of Progress:..... | 26 |
| 3.4.2 Assisting/Guidance to the OFWM staff on Android Application | 26 |
| 3.4.3 Limitations/Hurdles of ME&IE Consultants facing in achieving the required Targets | 27 |
| 3.4.4 Key Challenges | 27 |
| 3.4.5 Recommendations:..... | 27 |
| 3.4.6 Quarterly Work Plan – KP Zone | 27 |
| 3.5 ACTIVITIES DONE BY BALOCHISTAN ZONE – FEBRUARY 2024 | 27 |
| 3.5.1 Updated Progress of ME&IE Consultants – Balochistan | 27 |
| 3.5.2 Updated Status of Technical Sanctions..... | 28 |

| | | |
|---|--|-----------|
| 3.5.3 | Updated Status of Dashboard Balochistan | 29 |
| 3.5.4 | Meetings: | 32 |
| 3.6 | SUMMARY OF SOCIAL & GENDER ACTIVITIES BALOCHISTAN ZONE – FEBRUARY 2024 | 33 |
| 3.7 | ICT TEAM ASSIGNMENTS | 34 |
| 3.7.1 | Implementation of MIS Dashboard | 34 |
| 3.7.2 | On-Going Data Validation & Cleaning | 36 |
| CHAPTER 4: QUARTERLY WORK PLAN-ACTIVITIES (JANUARY 2024 TO MARCH 2024) | | 37 |
| 4.1 | PRE-FIELD-ACTIVITIES | 37 |
| 4.2 | FIELD ACTIVITIES | 37 |
| 4.3 | ICT ASSIGNMENT | 37 |
| 4.4 | COORDINATION | 37 |
| 4.5 | DELIVERABLES | 37 |
| 4.6 | MATRIX OF RESPONSIBILITIES | 38 |
| CHAPTER 5: ISSUES / BOTTLENECKS | | 39 |

LIST OF ANNEXURES

| | | |
|-------------|--|----|
| ANNEXURE A: | TENTATIVE WORK PLAN FOR THE 3 RD QUARTER OF 2023-24 (JAN TO MARCH-2024) | 41 |
| ANNEXURE B: | MATRIX OF RESPONSIBILITIES | 42 |
| ANNEXURE C: | MONITORING LOG-FRAME | 43 |
| ANNEXURE D: | DELIVERABLES / REPORTING REQUIREMENTS | 48 |
| ANNEXURE E: | ECOLOGICAL ZONE PHYSICAL TARGETS OF VARIOUS INTERVENTIONS FOR YEAR 2023-24 | 49 |
| ANNEXURE F: | PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY | 50 |
| ANNEXURE G: | PUNJAB - WSP DATA SUBMISSION – SUMMARY | 51 |
| ANNEXURE H: | PUNJAB - PLL DATA SUBMISSION – SUMMARY | 52 |
| ANNEXURE I: | KP - WATERCOURSE DATA SUBMISSION – SUMMARY | 53 |
| ANNEXURE J: | KP - WST DATA SUBMISSION – SUMMARY | 54 |
| ANNEXURE K: | KP - PLL DATA SUBMISSION – SUMMARY | 55 |
| ANNEXURE L: | BALOCHISTAN - WATERCOURSE DATA SUBMISSION – SUMMARY | 56 |
| ANNEXURE M: | BALOCHISTAN - WST DATA SUBMISSION – SUMMARY | 57 |
| ANNEXURE N: | BALOCHISTAN - PLL DATA SUBMISSION – SUMMARY | 58 |
| ANNEXURE O: | GB - WATERCOURSES DATA SUBMISSION – SUMMARY | 59 |
| ANNEXURE P: | GB - WST DATA SUBMISSION – SUMMARY | 60 |
| ANNEXURE Q: | AJK- WATERCOURSES DATA SUBMISSIONS – SUMMARY | 61 |
| ANNEXURE R: | AJK - WST/WHS DATA SUBMISSIONS – SUMMARY | 62 |
| ANNEXURE S: | ICT - WATERCOURSE DATA SUBMISSION – SUMMARY | 63 |

ACRONYMS

| | |
|-------|---|
| ADA | Assistant Director Agriculture |
| AES | Agriculture Extension Services |
| AF | Acre-Feet |
| AJK | Azad Jammu & Kashmir |
| AOSM | Adjustable Orifice Semi-Module |
| AWPB | Annual Work Plan and Budget |
| AWPs | Annual Work Plans |
| BCR | Benefit Cost Ratio |
| CFT | Cubic Feet |
| CMS | Content Management System |
| CSRD | Center for Social Research and Development |
| DAES | Director Agriculture Extension Services |
| DDA | Deputy Director Agriculture |
| DGA | Director General Agriculture |
| DTL | Deputy Team Leader |
| EAs | Executing Agencies |
| EIRR | Economic Internal Rate of Return |
| FCR | Financial Completion Report |
| FCRs | Final Completion Reports |
| FMFSR | Framework for Federal Financial Management System |
| FOs | Farmers Organizations |
| FPMU | Federal Project Management Unit |
| FTI | Field Team In charge |
| FWMC | Federal Water Management Cell |
| GAP | Gender Action Plan |
| GB | Gilgit Baltistan |
| G3EC | G3 Engineering Consultants |
| GIS | Geographic Information System |
| HEIS | High Efficiency Irrigation System |
| IAs | Implementing Agencies |
| ICR | Interim Completion Report |
| ICT | Islamabad Capital Territory |
| IRR | Internal Rate of Return |
| ICT | Information & Communication Technology |
| JV | Joint Venture |
| KP | Khyber Pakhtunkhwa |
| LLL | Laser Land Leveler |
| LPS | Liter per Second |
| M&E | Monitoring and Evaluation |
| MAF | Million Acre Feet |
| ME&IE | Monitoring Evaluation and Impact Evaluation |
| MIS | Management Information System |
| MNFSR | Ministry of National Food Security and Research |
| MMR | Monthly Monitoring Report |
| MT | Monitoring Template |

| | |
|--------|--|
| MTE | Mid-Term Evaluation |
| NESPAK | National Engineering Services Pakistan |
| NPC | National Project Coordinator |
| NPIWC | National Program for Improvement of Watercourses |
| NPV | Net Present Value |
| NWMC | National Water Management Consultants |
| ODK | Open Data Kit |
| OFWM | On-Farm Water Management |
| PC-1 | Planning Commission-(Form-One) |
| PDO | Project Development Objectives |
| PIC | Project Implementation Committee |
| PIES | Project Impact Evaluation Study |
| PQC | Pre-Qualification Committee |
| QM&ER | Quarterly Monitoring and Evaluation Report |
| RBM | Results-Based Management |
| RFT | Running Feet |
| RWD | Responsive Web Design |
| SFT | Square Feet |
| SOPs | Standardized Operating Procedures |
| SPSS | Statistical Package for Social Sciences (Software) |
| SSCs | Supply and Service Companies |
| TABs | Tablets |
| TL | Team Leader |
| TOR | Terms of Reference |
| TPV | Third Party Validation |
| TWRD | Tail-Water Recovery Ditch |
| WG | Women Group |
| WST | Water Storage Tank |
| WUAs | Water Users Associations |

EXECUTIVE SUMMARY

The “Monitoring Report for the month of February 2024” comprises five chapters:

Chapter-1 describes the detailed introduction and description of the project. The Government of Pakistan is implementing a project entitled “National Program for Improvement of Watercourses in Pakistan Phase-II” (NPIWC-II) at a total cost of PKR 154,542.355 million (Umbrella PC-I including Sindh) over a period of 05 years. This project will cover Punjab, Khyber Pakhtunkhwa (KP), Baluchistan and Gilgit Baltistan (GB), Azad Jammu & Kashmir (AJ&K) as well as Islamabad Capital Territory (ICT). The present project is beneficial for the country.

The NPIWC-II comprises four components to be implemented in Punjab, KP, Balochistan, GB, AJ&K, and ICT:

- i) C1: Organization of Water Users Associations
- ii) C2: Watercourse Improvements: 47,278 Nos.
- iii) C3: Construction of Water Storage Tanks: 14,932 Nos.
- iv) C4: Provision of Laser Land Leveling Units: 11,610 Nos.

Chapter-2 elaborates the objectives and scope of work of the ME&IE Consultants for the project. Since the ME&IE Consultants are going to monitor implementation of all criteria set, procedures defined, and timeline agreed for implementation of various components. All these are reproduced in this report as ready reference to devise / design M&E strategy, methodology, procedures for monitoring and impact assessments of the project interventions.

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

Chapter-3 explains the purpose of the Monthly Monitoring Report (MMR). This current MMR covers the period from 1st February 2024 to 29th February 2024.

This chapter also covers the activities of ME&IE Consultants, carried out during the reporting period which are summarized below:

- Regular Monitoring of Interventions in the Field
- Baseline and Endline Impact survey Field visits
- Monitoring online data collection and Data entry
- Monitoring Android-based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Submitted the MMR for the Month of January 2023.
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues

Chapter-4 highlights the quarterly work plan from 1st January 2024 to 31st March 2024. The work plan consists of the following activities:

- Pre-field Activities
- Field Activities
- ICT Assignment
- Coordination Meetings
- Deliverables

The detailed time span for the 1st quarter of year 2024 is provided in the Tentative Work Plan Annex-A.

Chapter-5: Issues / problems faced by the consultants during the reporting period of the assignment are described in this Chapter.

Table-1: Compliance Status of Tentative Work Plan during Reporting Period

| No. | Activities Planned for the Reporting Quarter | | Status |
|----------|--|----------------------------------|--|
| 1 | Pre-Field Activities | | |
| 1.1 | Refresher Training of Field Staff for Baseline & Endline Impact Survey | | Completed |
| 2 | Field Activities: | | |
| 2.1 | Regular Monitoring of Interventions in the field | | In Progress |
| 2.2 | Data collection of the interventions in the field | | In Progress |
| 2.3 | Baseline and Endline Impact survey Field visits | | In Progress |
| 2.4 | Online data entry in android-based application | | In Progress |
| 3 | ICT Assignment: | | |
| 3.1 | Improvement of website of NPIWC-II | | In Progress |
| 3.2 | Monitoring online data collection and Data entry | | In Progress |
| 3.3 | Monitoring Android based Mobile Application under implementation by field staff. | | In Progress |
| 3.4 | Data collection of interventions in MIS/GIS database | | In Progress |
| 3.5 | Capacity Building Trainings / Refresher of Departments | | In Progress |
| 3.6 | Data Cleaning. | | In Progress |
| 4 | Coordination | | |
| 4.1 | Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues | | Meetings conducted on regular basis |
| 4.2 | Meeting of DTLs with respective DTL of NWMC | | Meetings conducted on regular basis |
| 4.3 | Internal Meetings of ME&IE Consultants | | Weekly meetings conducted on regular basis |
| 5 | Deliverables: | | |
| 5.1 | Monthly Monitoring Reports (MMRs) | 36 th MMR (Dec 2023) | Submitted |
| | | 37 th MMR (Jan) 2024) | Submitted |
| | | 38 th MMR (Feb) 2024) | Report in Hand |
| 5.2 | Quarterly Monitoring & Evaluation Report (QM&ER) | QM&ER Oct-Dec 2023 | In printing process |
| 5.3 | Special Reports (Various) | | In process |

CHAPTER-1: PROJECT INTRODUCTION

1.1 PROJECT PROFILE

This section covers the following detail of the project:

| | |
|--|---|
| Project Name: | National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II) |
| Project Areas: | Punjab, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT) |
| Sponsoring Agency | Ministry of National Food Security & Research |
| Executing Agencies (EAs): | <p>Following are different EAs:</p> <p>Federal Project Management Unit (FPMU),</p> <ul style="list-style-type: none"> i. DGA OFWM Punjab ii. DG OFWM KP iii. DGA OFWM Baluchistan iv. Director Irrigation and Small Dams, AJ&K v. Director WM, GB vi. Director Agriculture Extension Services (AES) ICT |
| Project Period: | 5 Year (2019-2024) |
| Total Project Cost: | Rs. 154,542.355 million (Umbrella PC-1, including Sindh) |
| ME&IE Consultancy Period: | 4 years |
| ME&IE Consultant: | JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSR&D), ADA Consultants Inc. Canada, and S&S Associates. |
| ME&IE Consultant Mobilized: | November 07, 2020 |

1.2 PROJECT DESCRIPTION

Project description includes followings i.e., the project development objectives, project objectives, project benefits, project components, etc.

1.2.1 Project Development Objectives

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

1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

1) General Objectives:

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

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

2) Quantitative Objectives' Outputs and Impacts:

The quantitative objectives' outputs and impacts of the Project are as under:

Project outputs

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

with 60% subsidy through cost sharing arrangements with the expectation to save about 50% irrigation water for wheat and about 68% of irrigation water for paddy crops.

Project impacts

- i) Reduction in Water Logging and salinity in project areas to the extent of 10%.
- ii) Cropping intensity is expected to increase by 5-20%.
- iii) Crop's yield is estimated to increase by 10-15%.
- iv) Equity in water distribution increased by about 30%.
- v) Reduction in water disputes/thefts and litigation amongst the Farmers over water distribution by about 80%.
- vi) Help poverty reduction through generation of employment.
- vii) Self-sufficiency in food through utilization of water saved including edible oil seed production.

Project indirect benefits to industry/economic activities

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

Awareness support to farmers

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

1.2.3 Project Beneficiaries

Majority of the direct beneficiaries of the project constitute the number of farmers (owners as well as tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming 35 farmers on each watercourse, the total number of the farmers benefiting from the activity comes to 1.655 million. The same number will be benefited due to Water Users' Associations (WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 farmers will be directly benefited from Water Storage Tanks and 11,620 as recipients of Laser Land Leveling Units. Thus, total gross direct beneficiaries are expected to be around 3.336 million households. However, net beneficiaries are

expected to be 1.668 million.

Taking family size at five, total net population benefitting is expected to be 8.34 million people.

1.2.4 Project Components

The NPIWC-II project comprises four components.

C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:

Establishment/ reactivation of Water Users Associations (WUAs) through community driven implementation approach. Following are the scope of WUAs:

- i) Provide right of way for constructing watercourse,
- ii) Arrange skilled and unskilled labour required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,
- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of Naccas, distribution of work, etc.
- v) Make alternate arrangements for conveyance of water during execution of improvement works,
- vi) Carry out civil works in accordance with standards and specifications under the supervision of OFWM field staff,
- vii) Regularly undertake O&M of improved watercourses after its construction.

C2: WATERCOURSE IMPROVEMENTS:

47,278 Watercourses are planned to be improved /reconstructed and lined adopting the following criteria:

- i) New watercourses that are not yet improved under earlier programs / projects,
- ii) Reconstruction of more than 20 years old watercourses that outlived their economic / useful life,
- iii) Additional lining up to 50% of already improved watercourses.

C3: CONSTRUCTION OF WATER STORAGE TANKS:

The project will construct 14,932 Water Storage Tanks (WSTs). Following will be the benefits of WSTs:

- i) Store water during the rainy season and times of no use in the commands of perennial / non-perennial canals for subsequent irrigations at the critical crop growth stages,
- ii) Provide flexibility for storage of plentiful canal and rainfall runoff water for its more expedient use subsequently,
- iii) Collect, store and filter water from:
 - Small Dams, springs, streams, mullahs etc.
 - Rainfall runoff over agricultural catchment during rainy season
 - Tube-wells and dug wells of low flows
 - Tail-waters from agricultural fields

- iv) Regulate the flows so that it can be used efficiently when needed at large flow rates.

C4: PROVISION OF LASER LAND LEVELING UNITS:

Provision of 11,610 Laser Land Leveling (LLL) units to the farmers; the component is strengthening LLL services in the country through provision of LLL Units to farmers / service providers on 50% subsidized rates.

1.2.5 Project Targets

Project aims at achieving the targets for 5 years starting from the year 2019-20 to 2023-24, presented in **Figure-1.1**. Whereas the targets for each Province / Zone (excluding Sindh) are presented in **Figure-1.2**.

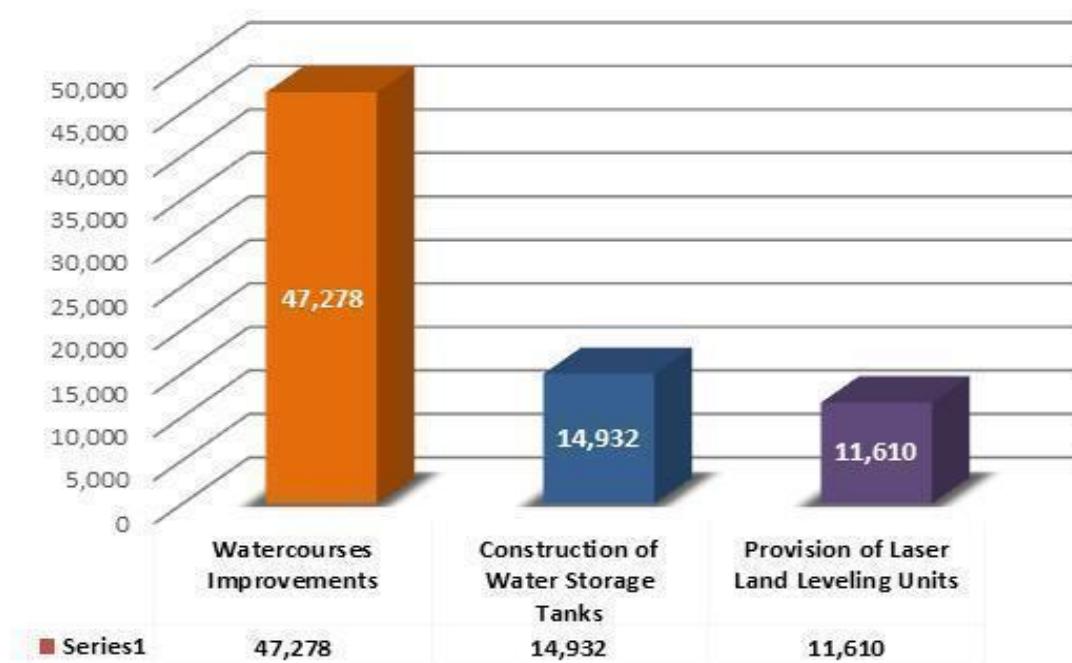


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

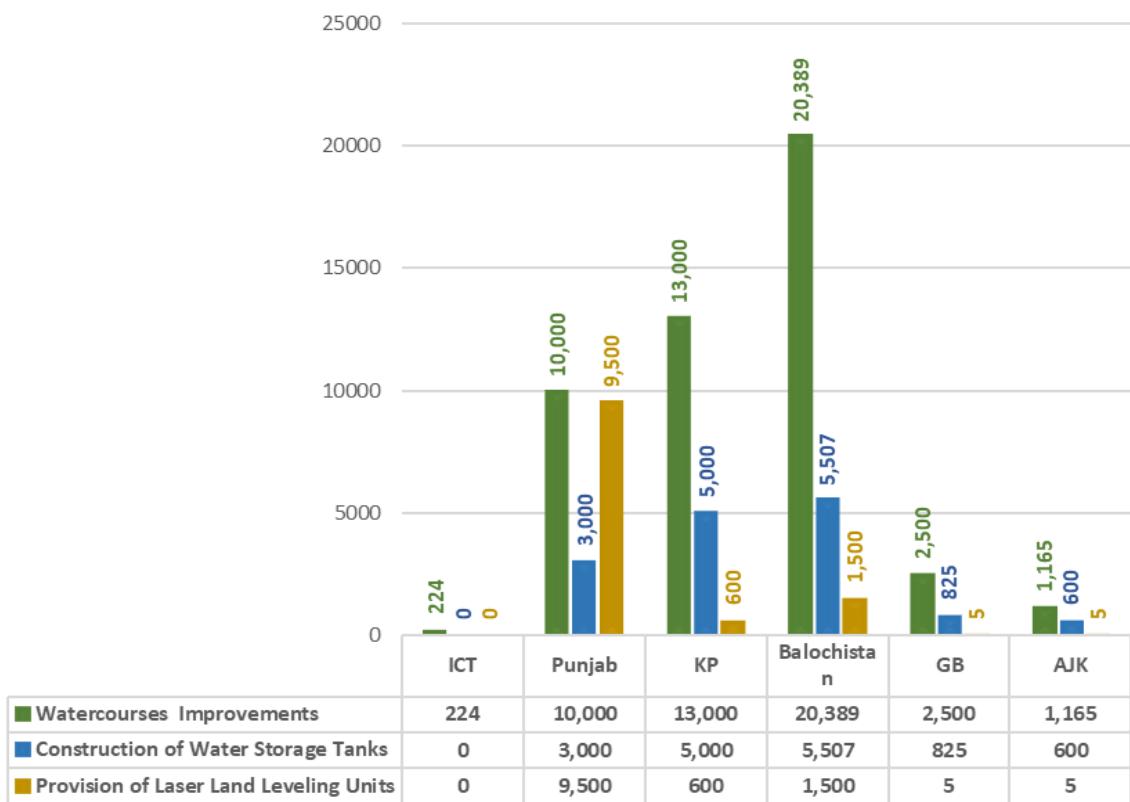


Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target

CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS

The ME&IE Consultants' services are designed to be provided through a multi-disciplinary team of qualified professionals. All the firms in the joint venture have rich experience in the field of monitoring and evaluations (M&E). The team deputed for this task in the project, comprises highly qualified professionals having long practical experience of such projects earlier launched in Pakistan. The consultants are developing a "State-of-the-Art Management Information System" (MIS) with "Geographical Information System" (GIS) focused for NPIWC-II to monitor progress on project interventions and to carry out an effective monitoring process. The MIS is helping decision makers to make informed decisions.

2.1 OBJECTIVES OF CONSULTING SERVICES

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

2.2 SCOPE OF CONSULTING SERVICES

The ME&IE Consultants are responsible for monitoring, evaluation and impact evaluation (ME&IE), and in this context are carrying out the following activities:

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

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

The said requirement is based on the following functional features:

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

2.3 MONITORING STRATEGY OF CONSULTANTS

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in **Table-2.2**. However, detailed methodology and procedures to

carry out the ME&IE of the project interventions were explained in Chapter 6 of Inception Report.

Table 2.2: Monitoring Strategy for ME&IE Activities

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

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

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

2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

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

The improvement of indicators is a continuous process throughout the project implementation in the light of real and on ground situations.

CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH

As a regular part of the ME&IE assignment, routine field visits & monitoring of project interventions in the field remained continued by ME&IE consultants. The Consultants also carried out different in-house activities related to ME&IE assignment:

3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)

As per contractual obligation, the consultants have submitted thirty-seven MMR (January 2024). While the thirty eighth MMR (the Report in hand) for the month of February 2024 (1st February 2024 to 29th February 2024) is being submitted.

Monthly Monitoring Report (MMR) explains the understanding towards all activities to be carried out as per TORs of ME&IE consultants' assignment and their completion within stipulated time frame. The activities include but are not limited to pre-field/ in-house activities, field monitoring activities i.e., monitoring of project interventions, ICT assignments including monitoring of online data collection in the field, and development / improvement of project dashboard and website etc. Consultants of ICT Team also remained in contact with Clients' officials for entering data in Dashboard and provided assistance when and where was required by client. All the activities of the current month were in compliance with the quarterly work plan of the consultants. Hence, the main objective of the Monthly Monitoring Report is to update the Client about the activities carried out by the ME&IE Consultants during the reporting month. Reporting is an integral part of the monitoring and evaluation framework.

3.2 ACTIVITIES ICT UNIT – FEBRUARY 2024

The report presented below provides a brief overview of the significant actions that ICT-UNIT ME&IE consultants have addressed and illustrated in the presentation of monthly monitoring report, February 2024:

- Regular Monitoring visit and spot checking of Water Storage Tank conducted in Kallar Sayedan areas of Village 'Maira Sangal', District Rawalpindi,
- The PC-1 revision team, one member from this unit representing, has revised budget from all the provinces and now just waiting to reconcile

with the input from all the provincial approvals of PDWP in order to put up the draft of the PC1,

- Submitted the MMR Jan-2024 after editing, verifying, and processing through the respective stakeholders,
- Capacity building held of four team members from the national office Islamabad for 5 days at the training institute of AKHNCRD,
- Scheduled regular and periodic meetings were held with Coordinating/Client, cooperating, and internal technical personnel, as well as the Administration and Finance departments of the Zonal and National Offices to accomplish the targeted deliverables, timely, and
- Routine Admin and Financial liabilities were supervised by the Team Leader and Deputy Team Leader of the ICT-Unit as well as National Offices at Islamabad.
- Working on the drafting of special reports viz., "Monitoring and Impact Evaluation of Precision (Laser) Land Levelling" of NPIWC-II Project.

3.2.1 Overall Progress:

The up dated activities of the ME&IE consultants, Islamabad Unit, is presented as they had completed the Baseline- I &II, Midline Impact survey while Baseline-III & Endline survey as well as the ongoing and routine regular monitoring and spot-checking activities are in progress in collaboration with cooperating field operational departments including OFWM, Water Users Associations and beneficiaries of the targeted schemes (i.e., WC, WST). From inception to date, the ME&IE Consultants ICT field team conducted baseline vis-a' vis impact surveys of **43** watercourses in AJK & ICT as well as baseline vis-a'-vis impact surveys of more than **18** water storage tanks in AJK and **19** in Potohar region of Punjab Zone. The details about those schemes have already been presented in the tabular and graphic forms in the previous MMRs.

3.2.2 Quarterly Work & Visit Plan – Islamabad Unit

The ME&IE consultant's ICT & AJK Units have revised the tentative visit schedule for conducting the remaining field visits of Baseline-III & endline surveys, regular monitoring, spot checking and impact surveys/case studies. These surveys will be focused on sampled households benefiting from the project's targeted schemes including WC, WST, and PLL. The field work plan for 30 days (March to April -2024) is given in below Table.

Table 3.1: Tentative Field Survey Schedule for the Sampled Schemes during March and April 2024

| Sr # | Date | Zone | District | Village | Wc/WST -ID | Scheme | Purpose |
|------|---|--------|---------------|------------------------|-------------------------|--------|---|
| 1 | 1-Mar-24 | ICT | ICT | Mauza Nilor | Imran Khan | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | | Adnan Rasheed | WC | |
| 2 | 4-Mar-24 | ICT | ICT | Mauza Chak Shehzad | Ghulam Mustafa | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | | Talib Hussain | WC | |
| 3 | 5-Mar-24 | ICT | ICT | Mauza Chirah | Nafees Azad | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Mauza Kinjah | Tariq Hussain | WC | |
| 4 | 6-Mar-24 | Punjab | Rwp | Chakri | Ch. Hassan Mehmood | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 5 | 7-Mar-24 | Punjab | Rwp | Mahota | Muhammad Naveed | WST | |
| 6 | 11-Mar-24 | Punjab | Rwp | Gandian | M. Israar Ahmed | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 7 | 12-Mar-24 | Punjab | Rwp | Salmon | Ch. Tahir Mehmood | WST | |
| 8 | 13-Mar-24 | Punjab | Texila | Kurab Usman | Abdur Rehman | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | 14-Mar-24 | Punjab | Texila | Shah pur | Syed Akhtr Hussain | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 9 | 18 th to 20 th Mar-24 | AJK | Mzd | Musa Agarr | Muhammad Safeer | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Tehriyan Bala | SheharYar Ali | WST | |
| | | | | eKanoor | Nasir Abbas | WC | |
| 10 | 22-Mar-24 | AJK | Mirpur | Bung | Sher Abbas | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 11 | 24-Mar-24 | Punjab | Texila | Ghazi Khohli | Muhammad Younas | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 12 | 1-Apr-24 | AJK | Mirpur | Mirpur | Raja Jageer | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | 2-Apr-24 | Ajk | Mirpur | Dadyal (darrai West 1) | Nisar Ahmed | Wst | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | 3-Apr-24 | Punjab | Chakwal | Chak Malook | Zaqham Khan | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 13 | 15 th to 17 th Apr-24 | AJK | Jehlum Valley | Chakhama | Abdul Hameed | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Langla | M. Munir Khan | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Kohoriyan | Nasir Abbas | WST | |
| 14 | 18-Apr-24 | AJK | Kotli | Khoirata | WcBeyal (Munir Hussain) | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | 19-Apr-24 | AJK | Kotli | Nain Sukh | Shabir Ahmed | WST | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 15 | 12 to 14 Apr-24 | AJK | Poonch | Mangar | Manzoor Ahmed | WHS | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Arricot Natar | Muhammad SaqibRiaz | WHS | |
| | | | | WC-Kanyann | Muhammad Saleem Khan | WC | |

| Sr # | Date | Zone | District | Village | Wc/WST -ID | Scheme | Purpose |
|------|---|------|----------|---------------|--------------------|--------|---|
| 16 | 22 & 23 Apr-24 | AJK | Mirpur | Balloh | shakir Hussain | WHS | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Mawa | shakir Hussain | | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 16 | 24 th to 26 th Apr-24 | AJK | Poonch | Mangar | Mazoor Ahmed | WHS | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Arricot Natar | Muhammad SaqibRiaz | | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Wc- Kanayan | M. Saleem Khan | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| 17 | 29 th & 30 th Apr | AJK | Bhimber | Khol-1 | Shakeel Ahmed Khan | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |
| | | | | Wc-Sakrana | Sikandar Azam | WC | Impact/End Line survey & Spot Check/ Regular Monitoring |

Water Storage Tanks in Barani Zone (Kallar Sayedan Areas)

| | |
|-----------------------|--------------------|
| Date of Visit | 02-02-2024 |
| Scheme | Water storage Tank |
| Farmer Name | Raja Zulfiqar Ali |
| Name of village: | Maira Sangal |
| District | Rawalpindi |
| Province | Punjab |
| Source of irrigation: | Bore |
| Shape of WST | Square |
| Length, width | 25X25 Sq. feet |
| Command Area | 3.5 Acres |
| No of beneficiaries: | 1 |



WST, Maira Sangal Village



Domestic Level Goat Yard



Discussion with Beneficiary by the monitoring team
ICT-Unit



Image of Mixed vegetables (Potato and some salad) at Maira Sangal



Pea's vegetable crop, Maira Sangal, Rwp



Garlic (local and NARC-G1) Potatoes and Peas crop
Maira Sangal, Rwp



Discussing the issues and opportunities between
OFWM Supervisor, Beneficiary and M&E Consultants

Field Observations by the Team Members

- The beneficiary, Mr. Raja Zulfiqar Ali (Number Dar of the village) has total area of 11.25 Acres in which 3.5 Acre has been irrigated by the intervention (WST) and he is mostly cultivating vegetables by own sources; while the other 7.75 Acres of land was rented out on 50:50 share cropping arrangements.
- Of the total area, 2.5 Acres of the land there were vegetables grown including Peas, Onion, coriander, Potatoes, Desi garlic and Garlic NARC G-1 type.
- One acre of the farmer's land was being used for wheat production.
- They were using mostly Organic as well as chemical fertilizers (DAP) for vegetable and wheat production.

- The farmer has reduced the number of laborers from the last years due to short of reliable labor as well as expensive that tend to less profitable his farming entrepreneur. Presently, he has hired a family of two members (a couple of male and female) on account of payment of PKR. 35 thousand per month as a remuneration. In addition to this, the farmer has to hire casual labor @Rs. 1000-1500 per day at the peak season of their farming operation especially at the stages of seed bed preparation, seedling plantation, hoeing and harvesting.
- The source of WST's water is tube well (TW) fetching water from the depth of 350feet. The energy source for running the TW was solar system which was also arranged by the farmer through the subsidy program in vogue by another scheme of OFWM Department. Furthermore, the farmer has also established the drip irrigation system which was also arranged through the facility of subsidy program launched by OFWM program. Hence, the farmer was very happy with the services of OFWM, as well as with their after installation services.
- In addition to hard core farming operations, the farmer has been rearing 3 goats with 6 suckling goat babies as a hobby farming on the interest of farmer's wife. No doubt they are yielding benefits out of the goat rearing in the form of goat milk for domestic uses as well as extra bucks through selling @ Rs. 15000 per goat in the markets.
- Few poultry birds were also seen which were kept by the family of permanent hired labor residing at the farm for only meeting the domestic needs.

Spot checking Observations:

- The intervention visited during the survey was found well maintained and according to the Design of Technical Sanctioned (TS) issued.
- No damages/leakages found in the structure of WST. The structure sides were completely supported by earth filled work. Hence it was open from the ceiling but was clean and de-silted properly.
- The Permanently Hired Farmer on monthly basis seemed to be better skilled and responsible. Since, he has been provided the residence at the farm stead to look after the day to day farming chores. Although the WST was sufficiently enough for irrigating the available command area designed for with the

source of water plying through the given capacity of Solar Panel. However, the farmer was unhappy due to non-availability of proper marketing of his farm's produce of vegetables. Because of farmer's opinion, lack of access of Farm to the Market mechanism including quantum of the produce vis-à-vis harvesting, packing and transportation costs which are very high against the market prices fetched to farmer. Moreover, he was also unsatisfied when considering his produces' profit margins comparing to the prices of input output ratios. According to the saying of the farmer, this situation is more prevalent from the recent few

years due to higher prices of all the inputs as a factor of stag inflationary.

- Farmer was not being back supported form the Institutional cooperation especially, the agricultural extension department which was not addressing on spot problems and opportunities like the WST intervention has created the opportunity of water saving that led to sure supply of water at the critical stages of plant growth. Thus, they should have recommended, and open up the awareness avenues, for the introduction of high value crops like fruits and vegetable, etc.

Capacity Building: Five Days Training on "Disaster Management Issues and Strategies"



Group Photo of the Training Participants at NCRD, Islamabad

Monday 12 February, 2024

| | | |
|-----------------------|---|---|
| 0900-1000 hrs. | Registration of Participants | |
| | Inaugural Session | |
| | Recitation from the Holy Quran | |
| 1000-1030 hrs. | NCRD Introduction | Mr. Ahsan Jamil, Research Officer, NCRD |
| | Course Introduction | Ms. Maira Razzaq, Assistant Director (Trg) |
| | Getting Acquainted | Mr. Israr Mohammad Khan, Director General, NCRD |
| 1030-1130 hrs. | Basic Terms and Concepts | Ms. Sana Noor, Deputy Project Coordinator, NIDM, Islamabad |
| 1130-1200 hrs. | Break | |
| 1200-1300 hrs. | Disaster Context and Learning from the Experience in Pakistan | Ms. Sana Noor, Deputy Project Coordinator, NIDM, Islamabad |
| 1300-1400 hrs. | Flood Management in Pakistan | Ms. Shazia Akhtar, Deputy Manager, NIDM, NDMA, Islamabad |

Tuesday 13 February, 2024

| | | |
|-----------------------|--|--|
| 0900-1000 hrs. | Climate Change – Disaster Nexus in Pakistan | Dr. Usman Mustafa, ME & IE Consultant, Federal Water Management Cell, Ministry of Food Security, Islamabad |
| 1000-1100 hrs. | -do- | |
| 1100-1130 hrs. | Break | |
| 1130-1230 hrs. | Risk Assessment & Mapping Using Hazard Analysis and Vulnerability Assessment | Ms. Zahra Hassan, GIS Lead/Senior Manager, National Disaster Management Authority (NDMA) Pakistan, Islamabad |
| 1230-1330 hrs. | -do- | |

Wednesday 14 February, 2024

| | | |
|-----------------------|---|---|
| 0900-1000 hrs. | DM, DRM and DRR Concepts and Cycle National and International DRR Policies and Protocols | Dr. Salman Atif, Associate Professor, Institute of Geographical Information Systems (IGIS), NUST, |
|-----------------------|---|---|

| | | |
|------------------------|---------------------------------|--|
| 1000-1100 hrs. | Disaster Management in Pakistan | Islamabad |
| 1100-1130 hrs. | Break | |
| 1130-1230 hrs. | Rescue During Disasters | Ms. Azra Shahid, Rescue & Safety Officer, Rescue 1122, Rawalpindi |
| 12300-1330 hrs. | Rescue 1122 – Case Study | |

Thursday 15 February, 2024

| | | |
|-----------------------|---|--|
| 0900-1000 hrs. | Disaster Resilience – A Proactive Concept | Brig Fayyaz Hussain Shah, Former DG, NIDM, Islamabad |
| 1000-1100 hrs. | Maximizing Resilience by Minimizing Disaster Risk | |
| 1100-1130 hrs. | Break | |
| 1130-1200 hrs. | Emergency Preparedness: Creating a Family Disaster Plan | Ms. Maira Razzaq, Assistant Director NCRD |
| 1200-1230 hrs. | Psychological First Aid after Disaster | Ms. Anam Akram, Assistant Director NCRD |
| 1230-1330 hrs. | Group Activity | Ms. Maira & Ms. Anam |

Friday 16 February, 2024

| | | |
|-----------------------|---|--|
| 0900-1000 hrs. | First Aid Technique: What to Do And What Not to Do during emergencies and disasters | Ms. Azra Shahid, Rescue & Safety Officer, Rescue 1122, Rawalpindi |
| 1000-1100 hrs. | Practical Demonstration for the First Aid | |
| 1100-1130 hrs. | Course Learning Assessment | |
| 1130-1145 hrs. | Course Evaluation | Director General and Faculty Members |
| 1145-1200 hrs. | Concluding Session & Award of Certificates | |

Introduction

In an era marked by rapid urbanization, climate change, and increasing global interconnectivity, the frequency and intensity of disasters have surged, necessitating a comprehensive and proactive

approach to disaster management. This 5-day training program on "Disaster Management: Issues and Strategies" aims to equip participants with the knowledge and skills required to navigate the complex landscape of disaster preparedness, response, recovery and mitigation.

As the global community grapples with the multifaceted challenges posed by natural and man-made disasters, the significance of effective disaster management strategies becomes paramount. This training program delves into the critical issues surrounding disaster management, offering insights into the latest trends, technologies, and best practices that can enhance the resilience of communities and organizations.

Throughout the five days, participants will engage in interactive sessions, case studies, and practical simulations, fostering a deep understanding of the key elements involved in disaster management. From analyzing the root causes of disasters to formulating proactive mitigation plans and coordinating efficient response efforts, this training will provide a holistic perspective on the entire disaster management cycle.

Moreover, the program will address the evolving landscape of disaster management, acknowledging the impact of climate change, technological advancements, and socio-economic factors. Participants will explore innovative strategies to address emerging challenges and adapt to the dynamic nature of disasters.

By the end of the training, attendees will be equipped with the knowledge and tools necessary to contribute actively to their organizations' disaster management initiatives. This report will document the insights gained, lessons learned, and recommendations formulated during the course of this comprehensive and timely training program on disaster management.

Objectives & Purpose of Training

The primary objective of a training programme was to raise employees' performance and productivity by enhancing current skills and acquiring new ones. The purpose of training was to train participants on the concept of Disaster Management Issues and strategies. Training included various topics such as Participatory Development, Participatory Planning, Role of Local Government Representatives and various skills and traits required for effective participatory planning.

Methodology of Training

The training methodology was interactive as the trainers ensured that knowledge was not only disseminated but accurately perceived and understood by the participants. And in order to ensure this, trainers engaged participants in discussions and kept the forum open for feedback,

queries and suggestions. Discussions and interactive sessions of the training course were supported during training through power point presentations.



Participants attending the Training Session at NCRD, Islamabad

What is a Disaster?

"A disaster is a serious problem occurring over a period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources."

Importance of Emergency Preparedness

Natural and man-made disasters can strike at any time. Even with advance warning, any disaster, an hurricane, tornado, or a nuclear accident can catch you off guard and put you in grave danger. A little planning and practice before you're in danger can help you and your family survive even from the worst disasters.

Components of a Family Disaster Plan

- Establishing communication channels
- Evacuation routes and meeting points
- Shelter-in-place procedures
- Emergency contacts & medical information
- Pet care plans (if applicable)
- Special considerations for elderly or disabled family members

Importance of Staying Informed

- Vital for personal safety and well-being
- Enables proactive responses to potential threats.
- Empowers individuals to make informed decisions in emergencies.



Training Participants at NCRD Islamabad

Climate Change – Disaster Nexus in Pakistan

- Key Vulnerabilities
- Environment
- Flood
- Causes of Flood
- Indus River System
- Climate Change
- The Most Vulnerable Victims
- Flood Preparedness
- National Disaster Management System
- Questions and Answers

Key Vulnerabilities in Pakistan

- Pakistan regularly experiences some of the highest max. temp. in the world, with many regions experiencing temp. of 38°C and above on an annual basis.
- When weather patterns converge to deliver prolonged periods of heat wave, serious human health impacts can result. During the 2015 heat wave in Pakistan over 65,000 people were hospitalized with heat stroke.
- Pakistan's annual median probability of severe meteorological drought is around 3% and projected to increase further under all emissions pathways, with very strong increases under higher emissions pathways.
- Between 1997–2015, Pakistan experienced about 126 heat waves, around 7 per year. Over 1,200 people's deaths resulted from a severe heat wave in 2015, primarily focused in Sindh Province. The multi-model ensemble projects an increase in the median annual probability of a heat wave in any given region from 3% to 4% depending on the emissions pathway.
- While uncertainty is high, the model ensemble projection would suggest that severe drought conditions

- Drought incidence frequency is increasing in arid and semi-arid areas. The frequency of severe drought is increasing in Pakistan's western- northern areas.
- Projected increases in warming are certain, but less certain projected increases in extreme rainfall events can lead to flooding disasters such as those experienced in 2010, thus the monitoring mechanisms need to be implemented to reduce these impacts.
- The low-lying coastal regions of Pakistan including the city of Karachi are at significant risk from projected sea-level rise, facing up to 40cm rise by the end of the 21st century even under conservative scenarios.
- Rising temperatures and the increased potential of record-breaking heat waves could place severe stress on food production in arid regions leading with the implications for disaster response.



Image of participants attending the training in NCRD

Environment

- 1: the circumstances, objects, or conditions by which one is surrounded
- 2 a: the complex of physical, chemical, and biotic factors (as climate, soil, and living things) that act upon an organism or an ecological community and ultimately determine its form and survival
b: the aggregate of social and cultural conditions that influence the life of an individual or community
- 3: the position or characteristic position of a linguistic element in a sequence

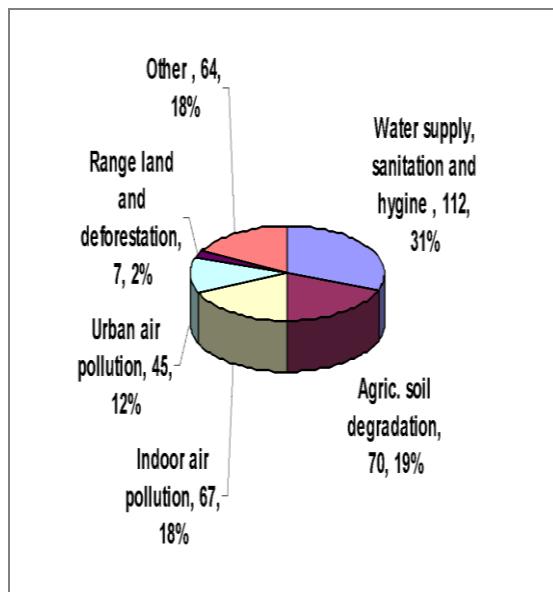
4: a computer interface from which various tasks can be performed, a programming environment.

Environmental Degradation

- Global warming is increasing in the average temperature of the Earth's near-surface air and oceans since the mid-20th century and its projected continuation.
- Global surface temperature increased by $0.74 \pm 0.18^{\circ}\text{C}$ ($1.33 \pm 0.32^{\circ}\text{F}$) during the 100 years, ending in 2005.
- Changing Env. factor responsible of all diseases in developing countries
- 90% of global burden of malaria – kill 1 in 20 of sub-Saharan Africa under 5 years of age
- Salinity reduces 30% yield
- Food crises – due to global warming
- Connectivity of Environment and poverty vicious cycle

The retreat of Aletsch Glacier in the Swiss Alps (situation in 1979, 1991 and 2002), due to global warming.

Annual losses due to Env. Degradation:



Natural Resources Conservation (NRC)

NR and energy conservation is achieved by managing materials more efficiently. Choose from the efforts and resources below to learn how to conserve resources at home and at work:

What are the Indicators of Climate Change in Pakistan?

In Pakistan, climatic changes are expected to have wide-ranging impacts, such as: reduced agricultural productivity, increased variability of water

availability, increased coastal erosion and sea water incursion, and increased frequency of extreme climatic events.

Multi-Hazard Vulnerability & Risk Assessment (MHVRA)

- MHVRA is robust scientific approach for joint probabilistic analysis of risk by keeping into consideration multiple impending hazards, multiple dimensions of exposure and vulnerability and the coping and adaptive capacities in a study area.
- The aim of assessment is to develop Risk Profile of the study area and to map the expected losses based upon the cumulative risk assessment.

Pakistan and Hazards:

- History of natural disasters in Pakistan
- Vulnerabilities and societies in Pakistan
- Factors contributing to vulnerabilities

Vulnerabilities and Causes:

- Population Growth
- Unplanned Industrialization and migration
- Dependency on a single mode of income
- Poverty
- Lack of institutional capacity
- Climate change and its impacts
- Land use planning

Components of Risk Management Cycle

Preparedness:

- Assessment
- Planning
- Prevention/mitigation
- Awareness and capacity building
- Early warning

Response:

- Search and rescue
- Relief
- Recovery
- Rehabilitation and reconstruction

Psychosocial Reactions to Crisis Situations:

- Feelings of guilt, sadness, relief, anger, fear, anxiety, confusion, uncertainty, hopelessness
- Feeling numb, increased heartbeat, sweating, shaking, trembling or shortness of breath
- Difficulty making decisions and comprehending complex information
- Difficulty in communicating clearly with others

- Feelings of helplessness or powerlessness
- Feeling overwhelmed.

People do not all react at the same time or in the same way to a crisis, because:

- Not everyone needs or wants support,
- Witnesses to a frightening event may also be strongly affected and need support,
- Some people are calm and do not react strongly at the time of an event, but have strong reactions later, and
- Some people have strong reactions, and can manage their situation on their own, or have support from other sources.

Complex Reactions:

- Panic attacks and feelings of overwhelming anxiety
- Anger and aggressive behavior
- Self-harm and suicide
- Harmful coping methods
- Prolonged grief
- Sleeping problem
- Flashbacks

The Aim of Psychological First Aid

The goals of psychological first aid include efforts to:

- Calm people
- Reduce distress
- Make people feel safe and secure
- Identify and assist with current needs
- Establish human connection

- Facilitate people's social support
- Help people understand the disaster and its context
- Help people identify their own strengths and abilities to cope
- Foster belief in people's ability to cope
- Give hope
- Assist with early screening for people needing further or specialized help
- Promote adaptive functioning
- Get people through the first period of high intensity and uncertainty
- Set people up to be able to recover naturally from an event
- Reduce the risk factors of mental illness such as posttraumatic stress disorder as a result of the event.

Five elements of psychosocial support:

- Ensuring safety
- Promoting calm
- Promoting connectedness
- Promoting self-efficacy and group efficacy
- Instilling hope.

Pakistan and hazards:

- History of natural disasters in Pakistan
- Vulnerabilities and societies in Pakistan

Factors contributing to vulnerabilities& Impact:

Earthquakes

| Year | Location | Magnitude | Deaths | Losses (Rs in Million) |
|----------|-------------------------|-----------|--------|-------------------------------|
| Oct 2015 | KP, Punjab, AJ&K and GB | 8.1 | 280 | 98,069 houses and 479 schools |
| Sep 2013 | Awaran | 7.7 | 376 | 6842 houses |
| Oct 2008 | Ziarat | 6.4 | 160 | 5943 houses |
| Oct 2005 | KP & AJK | 7.6 | 73,338 | 208,091 |
| Dec 1974 | Northern Area | 7.4 | 5,300 | 4400 houses |
| Nov 1945 | Makran Coast | 8.3 | 4,000 | - |
| May 1835 | Quetta | 7.7 | 60,000 | - |

Source: NDMP and NDMA reports

| Province | District |
|-------------|--|
| Balochistan | Quetta |
| KP | Abbottabad, Bajaur, Bannu, Charsadda, Chitral, Dir Lower, Malakand, Mardan, Nowshera, Peshawar, Sawat, Shangla and Swabi |
| Punjab | Gujrat, Narowal, Okara, Rawalpindi and Sialkot |
| Sindh | Karachi |
| AJ&K | Bagh, Hattian, Haveli, Kotli, Muzaffarabad, Poonch and Sudhnoti |
| GB | Astore, Diamer, Gilgit and Ghanche |

Source: NDMP

Evaluation Session

At the end of the training, participants were given workshop evaluation forms to share their feedback. In addition, a post-training assessment test was also conducted to help gauge the perceived change in knowledge amongst the participants at the end of the training.

Conclusion

Training and development is considered as a strategy for growth in every organization. It is adopted by the organization to fill the gap between skills and future opportunities. These training programs definitely enhance skills, improve efficiency, and productivity and growth opportunities for the learners/ employees.

3.2.3 Meetings / Coordination ICT-Zone

The management of the project discussed the ongoing progress and suggested to meet the deliverables of the project delineated in the inception report as well as to address the concerns expressed by the Project Board of Management, Project review professional committees and client regarding the quantity and quality improvement of Baselines, Midline/Impacts, and End line project reports. In this connection, three special reports were suggested to be finalized during the upcoming month (Team Leader of the NPIWC-II, project fixed the responsibility of the M&E consultants against each report), including:

- Monitoring and impact evaluation of watercourses improvement (By Dr. Usman Mustafa, TL);
- Monitoring and impact evaluation of precision land levelling (Dr. Ikram Saeed, DTL, ICT-Zone); and
- Monitoring and impact evaluation/ economics of different types of watercourses improvement (Dr. Muhammad Abdul Quddus, Agricultural Economist, NPIWC-II, Project).

| | |
|---|---------------------------|
| Date | 13-02-2024 |
| Venue | National Office Islamabad |
| Participants | |
| 1. Dr. Ikram Saeed, DTL, ICT-Unit. 2. Mr. Amir Habib, Sr. Manager Admin & Finance, ICT-Unit. 3. Mr. Rasheed Ahmed Zehri, FTI AJK & ICT Unit. 4. Ms. Sana Gull ME&IE Officer AJK & ICT. 5. Ms. Abida Munir, Social & Gender Specialist. | |
| Meeting Agenda/Points discussed: | |
| <ul style="list-style-type: none"> ○ Discussion on field visit plan for four main purposes: <ul style="list-style-type: none"> i. Baseline & Endline ii. Regular Monitoring iii. Spot Checks iv. Impact Evaluation, and v. Potential Case Studies ○ Project Progress Review meetings and development of strategies to overcome the issues and look forward the possible opportunities to be addressed with in limited resources and time in order to smooth running the targeted activities of the project. | |
|  | |
| <p><i>In-house meeting of the technical and administrative professionals of the Project at National Office, Islamabad</i></p> | |

Some of the Challenges & Mitigation Measures Adopted Discussed as under

• Some of the Constraints are as Follows:

Field visits haven't been managed as per preplanned, and thus postponed in line with the revised program as mentioned in the earlier section of this report. Some of the limitations discussed as under:

- Non provision of updated list of beneficiaries for the on-going and in-process schemes of the targeted interventions (to determine the sample size, the need of sampling frame is prerequisite).

Recommendations to Manage the Field as well as National Office Plans:

- a. Access to the targeted list of sampling frame through the input of the clients and ICT-Team of the project for the targeted schemes of WCs and WSTs as well as PLLs.
- b. Provision of funds as per submitted budget, complete advance payments to meet the field tours.

3.3 ACTIVITIES PUNJAB ZONE – FEBRUARY 2024

During February 2024, due to certain unavoidable circumstances particularly a financial crunch, the outdoor activities of the ME&IE consultants remained lower than normal. However, Punjab zone has successfully performed/evaluated various activities of the project as follows:

The consultants perform following indoor activities which pertained to:

- i. **Pre-Field Activities:** Planning Stage Discussions among the field team members and Deputy Team Leader were held. The main Pre-Field Activities were the review of the ecological zone wise physical targets of OFWM for the purpose of remaining upcoming impact field surveys. Such Targets are showed in Table 3.1 below:

Table 3.1: Ecological Zone Physical Targets of Various Interventions for this Year 2023-24*

| Ecological zone | Water Courses | | | Water Storage Tanks | Laser Land Leveler |
|-------------------------------|---------------|-------------|-------------|---------------------|--------------------|
| | Regular | Additional | Total | | |
| Barani | 0 | 0 | 0 | 59 | 0 |
| Partial Irrigated Barani Zone | 23 | 140 | 163 | 27 | 37 |
| Irrigated (Rice Zone) | 61 | 572 | 633 | 27 | 288 |
| Irrigated (Mixed Zone) | 67 | 793 | 860 | 35 | 341 |
| Irrigated (Cotton Zone) | 169 | 740 | 909 | 72 | 334 |
| Total | 320 | 2245 | 2565 | 220 | 1000 |

*District Wise Details are given in Annexure-E

- In the barani zone i.e. Rawalpindi division only water storage tanks/ponds were targeted, being the only intervention of the project in this area.
- In the Cotton Zone (South Punjab) the targets of these interventions were the highest, followed by mixed cropping zone.
- Such data provided an overview of the targets of OFWM activities to the consultants for the year 2023-24.
- ii. **Field Activities:** During the Month under review, the ME&IE Consultants performed limited field activities. From inception to the reporting month, the ME&IE Consultants' Punjab field team conducted baseline vis-a' vis impact surveys on a total of **250** watercourses. In addition, they completed baseline and impact surveys for **80** water storage tanks (**61** by Punjab field team and **19** of Potohar Region by ICT Field team) and conducted impact assessments on **148** PLL interventions.
- iii. **Post Field Activities** referred to validation of the accumulated/available data. For PMIS-Dash board. It was a regular activity of the consultant's field team and being carried out as per usual exercise during the month.
- iv. The physical meetings and telephonic conversation of Deputy Team Leader as well as field team with stake holders/ beneficiaries and concerned staff OFWM, were positive signs of coordination. As mentioned earlier, nominal outdoor activities were conducted due to certain reason. During the month under review only one physical meeting in the Directorate General Agriculture (OFWM) could be held.

v. Internal meetings were held as a regular feature during the month. In such meetings between DTL and Field team discussed day to day matters. The main matters discussed were relevant to upcoming field surveys, improvement of the data collection instruments, recording of perceptions and drawing the "Impact" aspects of the project.

1. Meeting Held at Directorate General Agriculture OFWM Lahore

| | |
|--|---|
| Date | 27-02-2024 |
| Venue | Directorate General Agriculture OFWM office Davis Road Lahore |
| Participants | |
| i. | Mr. Tahir Mehmood Focal Person to DGA OFWM/DDA Headquarter (OFWM) / DDA climate change. |
| ii. | Mr. Muhammad Yousaf Bhatti Deputy Team Leader ME&IE Consultants Zonal Office Punjab Lahore. |
| iii. | Dr. Muhammad Abdul Qaddus Agri Economist ME&IE consultants National office Islamabad. |
| iv. | Mr. Rizwan Suleman field team in-charge ME&IE consultants Zonal Office Punjab Lahore. |
| Discussions/Decisions | |
| <ul style="list-style-type: none"> The ME&IE Consultants briefed their outgoing activities and shared their overall performance / achievements. The Focal Person of DGA OFWM appreciated and endorsed the efforts of ME&IE Consultants. ME&IE Consultants requested to Focal Person to DGA OFWM office for the provision of remaining data for PMIS / Dashboard. On this matter Focal Person of DGA OFWM responded that all remaining data will be provided to consultants within a week. Focal Person of DGA OFWM provided Shared data of target for the year 2023-24 on all interventions. The Focal Person DG office showed concerns about the non-functioning of the Dashboard in DG office Lahore. The Consultants team promised to discuss the matter with their ICT department and make it functional as soon as possible | |



A View of Meeting: Meeting of ME&IE Consultants held with Focal person to DGA OFWM to discuss the current status of the NPIWC-II

3.4 ACTIVITIES KP ZONE – FEBRUARY 2024

The ME/IE Consultants are committed to achieving the project objectives well in time. So, It is important to keep cordial relations with all the stakeholders including the OFWM Department, beneficiaries of the NPIWC-II, (those farmers who availed water course/water storage tanks construction or improvement facility of the NPIWC-II project), and other relevant departments engaged in agricultural development activities. The ME&IE consultants KP zone keep close coordination with OFWM Directorate, Agriculture Secretariat, and other office work. What follows next is the activities performed by the KP zonal office staff in Peshawar during February 2024.

Major activities of ME&IE Consultants, KP Zone includes;

- ❖ Monitoring Field Activities
- ❖ Meetings
- ❖ Monitoring of data
- ❖ Verification of WC and WSTs through Google Earth
- ❖ Writing of MMR of January 2024
- **Meetings:**

Routine meetings were held with the OFWM Department relevant official to discuss various issues raised from time to time to the ME/IE Consultants. This is the normal activity of every month. Physical and digital contacts were exercised for collection of relevant information of undergoing schemes. As per the ME&IE discussions with the OFWM Department official, it was found that schemes were mostly completed under NPIWC-II program. New schemes for

construction / improvement of water courses and water storage tanks will be initiated after the release of funds by the authorities.

In addition to these, limited informal meetings were also held with the Focal Person NPIWC at OFWM Directorate to discuss various issues relating to the data entry to the Dashboard.

Meeting with the Focal Person NPIWC-II. The ME/IE Consultants KP Zone always keep in touch with the Focal Person of NPIWC-II to maintain cordial relations with the OFWM Department KP. During the month of February 2024 at least two courtesy visits were paid to the Focal person's office for general discussion about the on-going activities under the NPIW-II program of the OFWM Department.

During these visits general discussion was made on the data entry by the OFWM officials to the dashboard. The ME/IE consultants offered their services for assisting the concerned staff of the OFWM in data entry to the Dashboard.

Monitoring of data: The ME/IE Consultants have trained the officials of the OFWM Department for data entry to the Dashboard. Now they are directly entering the data on android application. The ICT Manager KP zone strictly monitor data entries and make necessary rectification by guiding the concerned staff of the various districts of KP. Also on a daily basis, The ICT/Technology Specialist KP, shares the updated status of dashboard data/schemes with the Focal person of NPIW-II, OFWM-KP and discusses the strategy to complete the data on the dashboard.

- **Verification of WC and WSTs through Google Earth:** ME/IE consultants KP zone made verification of all watercourse, and water storage tank schemes coordinate through Google Earth and identified incorrect coordinates.
- **Writing of MMR of January 2024:** Writing of the MMR of each month is mandatory for ME/IE Consultants. Like the previous month MMR for the month of January 2024 was drafted and submitted to the concerned quarters.

3.4.1 Description of Progress:

During our visits in the month of February 2024 the OFWM Department staff extended all possible help towards the ME/IE consultants. Close contacts though meetings/Telephone calls with different

cadre officials of OFWM department were held regarding the ongoing activities under the NPIW-II during the current reporting month. The purpose of these meetings was to collect the GPS location-based data for dashboard completion and visits of teams to different destinations for baseline surveys. OFWM directorate extends their usual support and provided all the relevant information. The ME&IE Consultants, KP made frequent visits to the directorate of OFWM for acquainting their-selves about the on-going schemes under the NPIW-II by the concerned department. During these meetings general discussion were also made about the perceptions pf the OFWM Department officials and of the farmers about these schemes. As per the OFWM Departments officials most of the farmers were satisfied from the benefits of these schemes in terms of increase of crop productivity, cropping intensities and time saving.

FIELD SURVEYS:

From inception to date the KP field team of ME&IE Consultants conducted baseline vis-a-vis impact surveys of **205** watercourses in KP and **40** in GB. Moreover, the consultants had completed baseline vis-a-vis impact surveys of **79** water storage tanks in KP and **15** in GB. Impact assessment field visits of **05** PLL interventions were also carried out in KP.

Data Entry and GPS validation: During the month of February 2024, KP Teams entered and validated the GPS locations for hundreds of schemes of KP province. The activity was distributed among different team members with help of ICT team of KP OFWM directorate extends their usual support and provided all the relevant information.

3.4.2 Assisting/Guidance to the OFWM staff on Android Application

The ICT team of the ME/IE consultants' have trained the officials of OFWM in Southern, Central and Northern zones for entering data directly to the Dashboard through android applications. Now they are able to enter the data directly to the dashboard from their offices. However, some time they stuck somewhere in this exercise. The ME/IE Consultants continuous support was provided to OFWM officials on telephone for any issue while operating android system and/or data collection process. In this regard the ICT team paid a number of visits to Directorate of OFWM KP and assess the understanding of field staff for utilization of

android application to collect the data of GPS coordinates. It was found that there was some negligence from staff of OFWM in collection of GPS coordinates, which was planned to overcome.

The gaps were filled in the understanding of the field teams of OFWM and ensured that they may follow the principals of the data collection in near future for better data gathering.

3.4.3 Limitations/Hurdles of ME&IE Consultants facing in achieving the required Targets

All the staff members are very devoted and hard-worker towards fulfilling their responsibilities. Similarly, the OFWM staff is extending all possible help and cooperation towards the ME&IE Consultant KP Zone in providing the required information. Overall, ME&IE Consultants' progress has been a little slow in achieving their goals due to client-side financial constraints.

3.4.4 Key Challenges

Some Limitations:

- Due to overall economic situation & liquidity crunches prevailing in the country currently, funds release delays were evident leading to slowing down progress of overall project.
- Directorate remains involved in implementation of other funded projects with the NPIW-II. So, they are not able to give much time to ME&IE Consultants.

3.4.5 Recommendations:

In order to meet the targets well in time following recommendation are forwarded.

- Exposure of Dashboard with its broader perspective and application may present amongst the relevant authorities for its importance and further release of funds for the project activities.
- First aid box, basic necessities (umbrella) must be provided to field team in order to meet any emergency situation.

3.4.6 Quarterly Work Plan – KP Zone

The ME&IE Consultants, KP is committed to accomplish all deliverables on due dates.

3.5 ACTIVITIES DONE BY BALOCHISTAN ZONE – FEBRUARY 2024

3.5.1 Updated Progress of ME&IE Consultants – Balochistan

The ME&IE Consultants, Balochistan, have monitored **17** sites during the pre-testing of Monitoring Tools in different months. A total of **13** sites were monitored during executive visits with high officials. The ME&IE Consultants, Balochistan have conducted three baseline surveys, the first was conducted in 2021, the second was conducted in 2022 and the third was conducted in 2023-24. A total of **351** sites were visited during the baseline surveys, i.e., **203** Watercourses and **148** Water Storage Tanks. The ME&IEC, field teams monitored **07** sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. The Impact Assessment Survey was conducted in the 2022-23 and 2024 in which **351** sites (**203** Watercourses and **148** Water Storage Tanks) have been visited so far. Regular monitoring/spot-checking is another important activity of ME&IE Consultants in which more than **385** sites of different districts have been monitored till the reporting month. In regular monitoring, ME&IE Consultants monitored ongoing / completed sites covering till date. The district wise updated status of the total activities done is given in the table below:

Table-3.1 Summary of District-wise Field Activities in Balochistan Zone

| Sr. # | District | Baseline Survey | | Impact Assessment Survey | | Impact Survey (LLL) |
|------------------|----------------|-----------------|------------|--------------------------|------------|---------------------|
| | | WC | WST | WC | WST | |
| 1 | Quetta | 4 | 15 | 4 | 15 | - |
| 2 | Pishin | 10 | 9 | 10 | 9 | - |
| 3 | Killa Abdullah | 5 | 3 | 5 | 3 | - |
| 4 | Ziarat | 4 | 4 | 4 | 4 | - |
| 5 | Mastung | 9 | 8 | 9 | 8 | - |
| 6 | Nushki | 6 | 3 | 6 | 3 | - |
| 7 | Sibi | 3 | 3 | 3 | 3 | - |
| 8 | Jhal Magsi | 2 | 4 | 2 | 4 | - |
| 9 | Kachhi | 5 | 10 | 5 | 10 | - |
| 10 | Naseerabad | 9 | 6 | 9 | 6 | - |
| 11 | Jaffarabad | 7 | 1 | 7 | 1 | 4 |
| 12 | Sohbatpur | 10 | 1 | 10 | 1 | 3 |
| 13 | Loralai | 17 | 7 | 17 | 7 | - |
| 14 | Dukki | 2 | 2 | 2 | 2 | - |
| 15 | Zhob | 4 | 4 | 4 | 4 | - |
| 16 | Kila-Saifullah | 12 | 6 | 12 | 6 | - |
| 17 | Musa khel | 11 | 2 | 11 | 2 | - |
| 18 | Sherani | 4 | 2 | 4 | 2 | - |
| 19 | Khuzdar | 8 | 7 | 8 | 7 | - |
| 20 | Kalat | 13 | 9 | 13 | 9 | - |
| 21 | Pangur | 8 | 8 | 8 | 8 | - |
| 22 | Awaran | 8 | 4 | 8 | 4 | - |
| 23 | Barkhan | 3 | 3 | 3 | 3 | - |
| 24 | Chaghi | 4 | 3 | 4 | 3 | - |
| 25 | Dera Bugti | 5 | 2 | 5 | 2 | - |
| 26 | Gwadar | 2 | 1 | 2 | 1 | - |
| 27 | Harnai | 2 | 1 | 2 | 1 | - |
| 28 | Kech | 6 | 5 | 6 | 5 | - |
| 29 | Kharan | 4 | 2 | 4 | 2 | - |
| 30 | Kohlu | 3 | 2 | 3 | 2 | - |
| 31 | Lasbela | 10 | 8 | 10 | 8 | - |
| 32 | Surab | 2 | 2 | 2 | 2 | - |
| 33 | Washuk | 1 | 1 | 1 | 1 | - |
| Sub-Total | | 203 | 148 | 203 | 148 | 7 |

3.5.2 Updated Status of Technical Sanctions.

The DG of OFWM issued numerous Technical Sanctions (TS) for different zones in the month of January 2024. The details of TS issuance district-wise are mentioned below:

Detail of TS Shared with ICT Team in Feb. 2024.

| S. No. | District | Year |
|--------|------------|-------|
| 1 | Mosa Khail | 21-22 |
| 2 | Harnai | 21-22 |
| 3 | Mosa Khail | 22-23 |
| 4 | Washuk | 21-22 |

| S. No. | District | Year |
|--------|----------|-------|
| 5 | Chaghi | 22-23 |
| 6 | Zhob | 21-22 |
| 7 | Lasbella | 21-22 |
| 8 | Quetta | 22-23 |
| 9 | Kharan | 22-23 |
| 10 | Sherani | 21-22 |
| 11 | Sibi | 22-23 |
| 12 | Harnai | 22-23 |
| 13 | Panjgor | 21-22 |
| 14 | Pishin | 21-22 |

3.5.3 Updated Status of Dashboard Balochistan.

The DTL, Balochistan zone has diligently undertaken several visits to the DG, OFWM Office, and these efforts have attained positive results, with the OFWM staff responding positively and cooperatively.

Furthermore, the Office of Water and Flood Management (OFWM) staff has been extremely supportive, demonstrating a commendable level of responsiveness. Their cooperation has been instrumental in providing the necessary data, covering the fiscal year 2020-21 comprehensively.

This significant data is forward in achieving our objectives for the Dashboard of Balochistan.

- **District-wise Progress of Dashboard, Balochistan (Watercourses)**

| Division | District | 2019-20 | | 2020-21 | | 2021-22 | | TOTAL | |
|--------------|----------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|
| | | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM |
| Kalat | Awaran | 140 | 76 | 22 | 22 | 0 | 0 | 162 | 98 |
| Kalat | Kalat | 97 | 0 | 28 | 28 | 158 | 123 | 283 | 151 |
| Kalat | Khuzdar | 139 | 0 | 17 | 0 | 9 | 6 | 165 | 6 |
| Kalat | Lasbela | 110 | 0 | 35 | 0 | 44 | 35 | 189 | 35 |
| Kalat | Mastung | 102 | 93 | 30 | 1 | 66 | 60 | 198 | 154 |
| Kalat | Surab | 20 | 20 | 11 | 11 | 11 | 11 | 42 | 42 |
| Total | | 608 | 189 | 143 | 62 | 288 | 235 | 1039 | 486 |
| (%) | | 31% | | 43% | | 82% | | 47% | |
| Loralai | Barkhan | 61 | 0 | 0 | 0 | 3 | 0 | 64 | 0 |
| Loralai | Duki | 27 | 27 | 15 | 15 | 1 | 1 | 43 | 43 |
| Loralai | Loralai | 158 | 157 | 47 | 43 | 132 | 130 | 337 | 330 |
| Loralai | Musakhail | 100 | 99 | 86 | 44 | 1 | 0 | 187 | 143 |
| Total | | 346 | 283 | 148 | 102 | 137 | 131 | 631 | 516 |
| (%) | | 82% | | 69% | | 96% | | 82% | |
| Makran | Gwadar | 12 | 0 | 11 | 0 | 0 | 0 | 23 | 0 |
| Makran | Kech | 68 | 68 | 20 | 20 | 44 | 44 | 132 | 132 |
| Makran | Panjgur | 124 | 73 | 25 | 25 | 5 | 5 | 154 | 103 |
| Total | | 204 | 141 | 56 | 45 | 49 | 49 | 309 | 235 |
| (%) | | 69% | | 80% | | 100% | | 76% | |
| Nasirabad | Jaffarabad | 53 | 53 | 32 | 32 | 56 | 56 | 141 | 141 |
| Nasirabad | Jhal Magsi | 16 | 0 | 6 | | 5 | 0 | 27 | 0 |
| Nasirabad | Kachi | 81 | 81 | 18 | 18 | 3 | 3 | 102 | 102 |
| Nasirabad | Nasirabad | 52 | 0 | 35 | 35 | 82 | 82 | 169 | 117 |
| Nasirabad | Sohbatpur | 14 | 14 | 20 | 20 | 45 | 41 | 79 | 75 |
| Total | | 216 | 148 | 111 | 105 | 191 | 182 | 518 | 435 |
| (%) | | 69% | | 95% | | 95% | | 84% | |
| Quetta | Killa Abdullah | 106 | 0 | 2 | 0 | 2 | 0 | 110 | 0 |
| Quetta | Pishin | 99 | 97 | 39 | 2 | 52 | 52 | 190 | 151 |
| Quetta | Quetta | 41 | 25 | 10 | | 33 | 26 | 84 | 51 |
| Total | | 246 | 122 | 51 | 2 | 87 | 78 | 384 | 202 |
| (%) | | 50% | | 4% | | 90% | | 53% | |
| Rakhshan | Chaghi | 49 | 49 | 28 | 28 | 0 | 0 | 77 | 77 |
| Rakhshan | Kharan | 23 | 23 | 3 | | 55 | 55 | 81 | 78 |
| Rakhshan | Nushki | 38 | 38 | 25 | 25 | 40 | 39 | 103 | 102 |

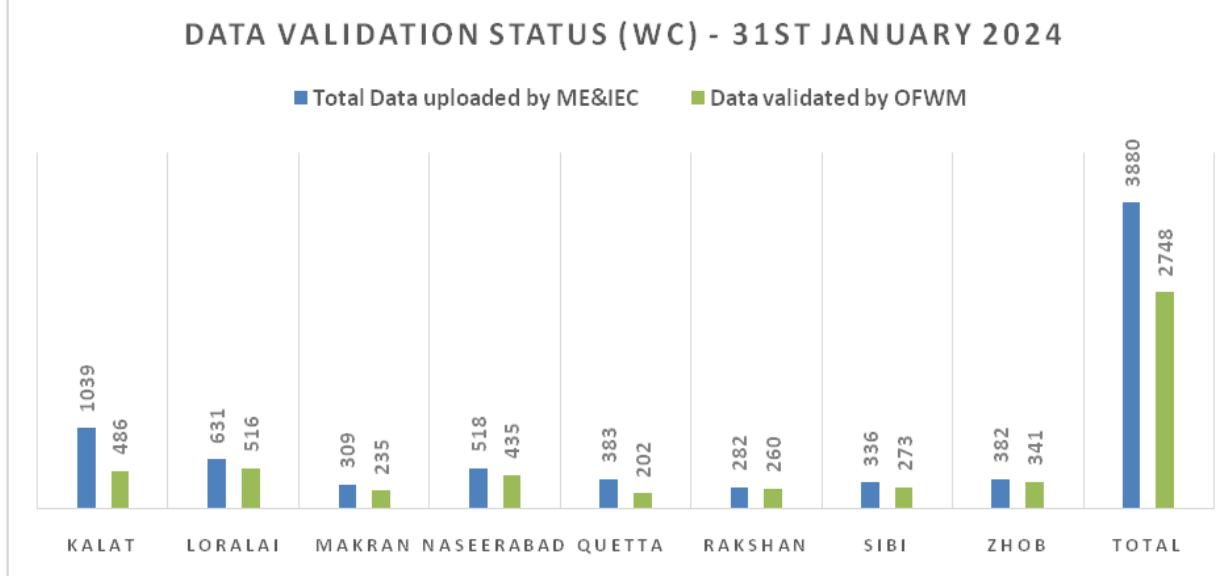
| Division | District | 2019-20 | | 2020-21 | | 2021-22 | | TOTAL | |
|----------|--------------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|
| | | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM |
| Rakhshan | Washuk | 18 | 0 | 2 | 2 | 0 | 0 | 20 | 2 |
| | Total | 128 | 110 | 58 | 55 | 95 | 94 | 281 | 259 |
| | (%) | 86% | | 95% | | 99% | | 92% | |
| Sibi | Dera Bugti | 34 | 0 | 0 | 0 | 65 | 65 | 99 | 65 |
| Sibi | Harnai | 23 | 0 | 19 | 15 | 0 | 0 | 42 | 15 |
| Sibi | Kohlu | 41 | 41 | 17 | 17 | 0 | 0 | 58 | 58 |
| Sibi | Sibi | 33 | 33 | 6 | 6 | 25 | 25 | 64 | 64 |
| Sibi | Ziarat | 54 | 54 | 17 | 15 | 2 | 2 | 73 | 71 |
| | Total | 185 | 128 | 59 | 53 | 92 | 92 | 336 | 273 |
| | (%) | 69% | | 90% | | 100% | | 81% | |
| Zhob | Killa Saifullah | 158 | 124 | 38 | 38 | 39 | 39 | 235 | 201 |
| Zhob | Sherani | 19 | 18 | 8 | 8 | 39 | 38 | 66 | 64 |
| Zhob | Zhob | 55 | 55 | 23 | 20 | 3 | 1 | 81 | 76 |
| | Total | 232 | 197 | 69 | 66 | 81 | 78 | 382 | 341 |
| | (%) | 85% | | 96% | | 96% | | 89% | |
| | GRAND TOTAL | 2165 | 1318 | 695 | 490 | 1020 | 939 | 3880 | 2747 |
| | (%) | 61% | | 71% | | 92% | | 71% | |

• District-wise Progress of Dashboard, Balochistan (Water Storage Tanks)

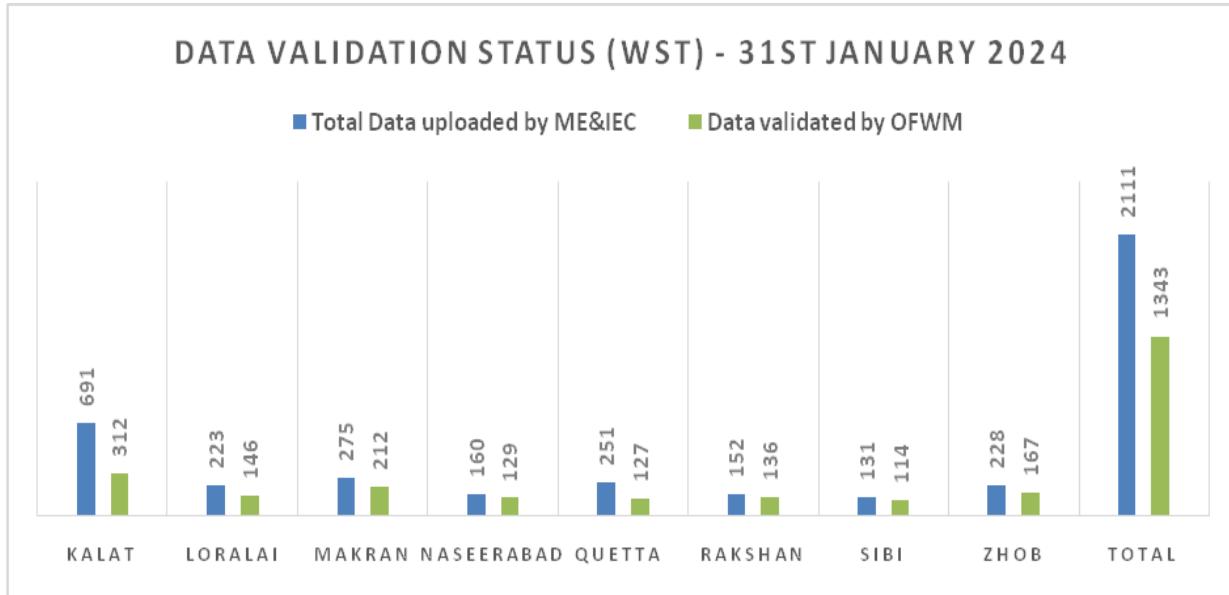
| Division | District | 2019-20 | | 2020-21 | | 2021-22 | | TOTAL | |
|-----------|----------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|
| | | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM |
| Kalat | Awaran | 12 | 12 | 27 | 27 | 48 | 0 | 87 | 39 |
| Kalat | Kalat | 20 | 2 | 32 | 32 | 127 | 65 | 179 | 99 |
| Kalat | Khuzdar | 20 | 0 | 30 | 0 | 89 | 68 | 139 | 68 |
| Kalat | Lasbela | 20 | 0 | 24 | 0 | 106 | 45 | 150 | 45 |
| Kalat | Mastung | 20 | 18 | 32 | 2 | 55 | 12 | 107 | 32 |
| Kalat | Surab | 3 | 3 | 9 | 9 | 17 | 17 | 29 | 29 |
| | Total | 95 | 35 | 154 | 70 | 442 | 207 | 691 | 312 |
| | (%) | 37% | | 45% | | 47% | | 45% | |
| Loralai | Barkhan | 15 | 0 | 0 | 0 | 39 | 6 | 54 | 6 |
| Loralai | Duki | 7 | 7 | 9 | 9 | 13 | 13 | 29 | 29 |
| Loralai | Loralai | 22 | 22 | 32 | 3 | 59 | 59 | 113 | 84 |
| Loralai | Musakhail | 11 | 11 | 16 | 16 | 0 | 0 | 27 | 27 |
| | Total | 55 | 40 | 57 | 28 | 111 | 78 | 223 | 146 |
| | (%) | 73% | | 49% | | 70% | | 65% | |
| Makran | Gwadar | 3 | 0 | 4 | 0 | 0 | 0 | 7 | 0 |
| Makran | Kech | 29 | 18 | 24 | 0 | 46 | 46 | 99 | 64 |
| Makran | Panjgur | 18 | 18 | 29 | 25 | 122 | 105 | 169 | 148 |
| | Total | 50 | 36 | 57 | 25 | 168 | 151 | 275 | 212 |
| | (%) | 72% | | 44% | | 90% | | 77% | |
| Nasirabad | Jaffarabad | 0 | 0 | 8 | 8 | 9 | 9 | 17 | 17 |
| Nasirabad | Jhal Magsi | 7 | 0 | 0 | 0 | 23 | 0 | 30 | 0 |
| Nasirabad | Kachi | 18 | 18 | 24 | 24 | 40 | 40 | 82 | 82 |
| Nasirabad | Nasirabad | 0 | 0 | 8 | 8 | 9 | 9 | 17 | 17 |
| Nasirabad | Sohbatpur | 4 | 4 | 8 | 8 | 2 | 1 | 14 | 13 |
| | Total | 29 | 22 | 48 | 48 | 83 | 59 | 160 | 129 |
| | (%) | 76% | | 100% | | 71% | | 81% | |
| Quetta | Killa Abdullah | 22 | 0 | 34 | 0 | 0 | 0 | 56 | 0 |
| Quetta | Pishin | 22 | 22 | 36 | 33 | 61 | 61 | 119 | 116 |
| Quetta | Quetta | 9 | 9 | 17 | | 50 | 32 | 76 | 41 |
| | Total | 53 | 31 | 87 | 33 | 111 | 93 | 251 | 127 |
| | (%) | 58% | | 38% | | 84% | | 51% | |
| Rakhshan | Chaghi | 10 | 10 | 23 | 23 | 14 | 14 | 47 | 47 |

| Division | District | 2019-20 | | 2020-21 | | 2021-22 | | TOTAL | |
|--------------------|-----------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|-------------------------------|-------------------|
| | | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM | Total Data uploaded by ME&IEC | Validated by OFWM |
| Rakhshan | Kharan | 3 | 3 | 12 | | 14 | 14 | 29 | 17 |
| Rakhshan | Nushki | 9 | 9 | 23 | 23 | 30 | 30 | 62 | 62 |
| Rakhshan | Washuk | 4 | | 10 | 10 | 0 | 0 | 14 | 10 |
| Total | | 16 | 12 | 45 | 33 | 44 | 44 | 152 | 136 |
| (%) | | 75% | | 73% | | 100% | | | 89% |
| Sibi | Dera Bugti | 11 | 11 | 0 | 0 | 28 | 28 | 39 | 39 |
| Sibi | Harnai | 3 | 3 | 6 | 6 | 12 | 0 | 21 | 9 |
| Sibi | Kohlu | 9 | 9 | 18 | 18 | 0 | 0 | 27 | 27 |
| Sibi | Sibi | 8 | 8 | 5 | 5 | 10 | 5 | 23 | 18 |
| Sibi | Ziarat | 4 | 4 | 6 | 6 | 11 | 11 | 21 | 21 |
| Total | | 35 | 35 | 35 | 35 | 61 | 44 | 131 | 114 |
| (%) | | 100% | | 100% | | 72% | | | 87% |
| Zhob | Killa Saifullah | 30 | 20 | 32 | 32 | 56 | 56 | 118 | 108 |
| Zhob | Sherani | 4 | 4 | 6 | 6 | 15 | 15 | 25 | 25 |
| Zhob | Zhob | 15 | 10 | 24 | 24 | 46 | | 85 | 34 |
| Total | | 49 | 34 | 62 | 62 | 117 | 71 | 228 | 167 |
| (%) | | 69% | | 100% | | 61% | | | 73% |
| GRAND TOTAL | | 382 | 245 | 545 | 334 | 1137 | 747 | 2111 | 1343 |
| (%) | | 64% | | 61% | | 66% | | | 64% |

- Division-wise Graphical Progress of Dashboard, Balochistan (Watercourses)



- Division-wise Graphical Progress of Dashboard, Balochistan (Water Storage Tank)



3.5.4 Meetings:

| | |
|--------------|---|
| Date | 5 th Feb 2024 |
| Venue | Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta. |

Participants

- Mr. Khalid Ahmed Engineer NPIWC-II, Quetta.
- Qari Basit Ahmed Engineer NPIWC-II Quetta.
- Mr. Naseeb Jan FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
- Mr., Basit Ahmed FTI ME&IEC, NPIWC-II Balochistan Quetta
- Mr. Saleem, FTI, ME&IEC, NPIWC-II.

Meeting Agenda/Points discussed:

- The meeting commenced with a comprehensive review of the updated progress with Engineer, OFWM, Balochistan in his good office.
- The FTIs, Balochistan provided a detailed overview of the ongoing projects, highlighting achievements, challenges, and areas requiring immediate attention.
- The meeting was adjourned at 2:00 pm, acknowledging the constructive discussions and proposed actions for resolving the identified issues.



Figure-4.3: View of meeting with Mr. Khalid Ahmed and Qari Abdul Basit Engineer, NPIWC-II held at Quetta Office

| | |
|--------------|---|
| Date | 13 th Feb 2024 |
| Venue | Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta. |

Participants

- Mr. Behram Mulghani, Focal Person, NPIWC-II, OFWM, Quetta.
- Mr. Naseeb Jan FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
- Mr. Saleem, FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
- Mr. Basit Ahmed, FTI, ME&IE Consultants, NPIWC-II, Balochistan, Quetta.

Meeting Agenda/Points discussed:

- The FTIs, Balochistan provided a detailed overview of the ongoing projects, highlighting achievements, challenges, TS Update and areas requiring immediate attention.



Figure-4.3: View of meeting with Mr. Behram, Focal Person, NPIWC-II, held at DG Office, Quetta

| | |
|-------|---|
| Date | 21 st Feb 2024 |
| Venue | Office of the DG, Agriculture, GoB, Rani Bagh, Sariab Road, Quetta. |

Participants

1. Mr. Qasim Shah Sb, DD, OFWM, Quetta.
2. Mr. Manzoor Ahmed Kasi, DTL, ME&IE Consultants, NPIWC-II, Balochistan, Quetta
3. Mr. Saleem, M&E Officer, ME&IE Consultants, NPIWC-II, Balochistan, Quetta

Meeting Agenda/Points discussed:

- The meeting commenced with a comprehensive review of the updated progress within the Balochistan zone.
- The DD shared updated status of data validation of Quetta district for Dashboard, Balochistan.



Figure-4.3: View of meeting with Mr. Qasim Alli Shah, DD, FPMU, NPIWC-II held at Quetta Office

3.6 SUMMARY OF SOCIAL & GENDER ACTIVITIES BALOCHISTAN ZONE – FEBRUARY 2024

The report presented below provides a brief overview of the significant actions addressed by the social and Gender team during the month of February 2024.

The gender team was also working on documents pertaining to gender.

Held frequent meetings on need-based basis, to monitor progress, plan, and strategize to begin the Project's targeted activities.

The Social & Gender team main activities for this month included the following:

- S & G specialist attended 05 days' training course titled "Disaster Management Issues and strategies ". in the upcoming month, at NCRD Akhtar Hameed National Center for Rural Development. (Training report attached)
- The S&G key Specialist and provisional S&G specialists of Balochistan & KP worked on tentative quarter work plan (April-June 2024) for impact surveys and FGD visits for all zones i.e., AJK, ICT, Punjab, Balochistan and KPK.
- Regular meeting with DTL, TL and Gender experts on Gender related activities & documents.
- Frequent meetings on gender-related activities and documents with DTL, TL, and gender experts.
- Draft "Social and Gender impact Report" is under final review of S&G key Specialist for finalization.

Next Planning

1. S & G specialist will conduct field visit in next Quarter according to approved plan.
2. Case studies will be prepared in next Quarter.

3.7 ICT TEAM ASSIGNMENTS

3.7.1 Implementation of MIS Dashboard

The Dashboard has been implemented in Punjab, KP, Balochistan, AJK and ICT zones:

The progress of Interventions is live on the Dashboard application.

| Punjab – WC Data - Summary | | | | | |
|----------------------------|----------|----------|----------|---------|---------|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022-23 | Overall |
| Bahawalpur | 167 | 197 | 326 | 15 | 705 |
| D.G Khan | 154 | 78 | 263 | 1 | 496 |
| Faisalabad | 88 | 61 | 203 | 35 | 387 |
| Gujranwala | 63 | 28 | 109 | 1 | 201 |
| Gujrat | 44 | 30 | 125 | 0 | 199 |
| Lahore | 72 | 42 | 134 | 7 | 255 |
| Multan | 168 | 81 | 311 | 2 | 562 |
| Sahiwal | 94 | 86 | 222 | 0 | 402 |
| Sargodha | 100 | 95 | 357 | 3 | 555 |
| Overall | 950 | 698 | 2050 | 64 | 3762 |

A total of **3762** Watercourses data have been received from Punjab zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-F**)

| Punjab – WSP Data Summary | | | | |
|---------------------------|---------|---------|---------|---------|
| Division | 2019-20 | 2020-21 | 2021-22 | Overall |
| Bahawalpur | 23 | 46 | 91 | 160 |
| D.G Khan | 27 | 30 | 25 | 82 |
| Faisalabad | 24 | 48 | 57 | 129 |
| Gujranwala | 0 | 4 | 2 | 6 |
| Gujrat | 2 | 10 | 29 | 41 |
| Lahore | 0 | 9 | 5 | 14 |
| Multan | 16 | 25 | 26 | 67 |
| Rawalpindi | 0 | 174 | 194 | 368 |
| Sahiwal | 9 | 15 | 15 | 39 |
| Sargodha | 6 | 32 | 47 | 85 |
| Bahawalpur | 23 | 46 | 91 | 160 |
| Overall | 107 | 393 | 491 | 991 |

Total **911** Water Storage Ponds data have been received from Punjab zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-G**)

| Punjab – PLL Data Summary | | | | | |
|---------------------------|----------|----------|----------|----------|---------|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022 -23 | Overall |
| Bahawalpur | 81 | 324 | 305 | 78 | 788 |
| D.G Khan | 50 | 297 | 190 | 100 | 637 |
| Faisalabad | 93 | 378 | 274 | 99 | 844 |
| Gujranwala | 49 | 231 | 263 | 17 | 560 |

| Punjab – PLL Data Summary | | | | | | |
|---------------------------|----------|----------|----------|----------|---------|--|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022 -23 | Overall | |
| Gujrat | 30 | 106 | 122 | 16 | 274 | |
| Lahore | 64 | 271 | 258 | 95 | 688 | |
| Multan | 102 | 273 | 194 | 79 | 648 | |
| Sahiwal | 71 | 188 | 231 | 98 | 588 | |
| Sargodha | 78 | 266 | 247 | 38 | 629 | |
| Rawalpindi | 22 | 76 | 75 | 15 | 188 | |
| Overall | 640 | 2410 | 2159 | 635 | 5844 | |

So far, Total **5844** PLL data have been received from Punjab zone and available live on GIS Dashboard. All PLL units have been delivered and currently there's no under progress PLL unit as per received data. (Detailed Summary attached as **Annex-H**)

| KP – WC Data Summary | | | | | | |
|----------------------|----------|----------|----------|----------|----------|---------|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022 -23 | 2023 -24 | Overall |
| Bajaur | 3 | 19 | 39 | 18 | 4 | 83 |
| Bannu | 75 | 35 | 94 | 28 | 0 | 232 |
| D.I Khan | 448 | 12 | 110 | 7 | 0 | 577 |
| Hazara | 86 | 69 | 152 | 67 | 4 | 378 |
| Khyber | 6 | 13 | 7 | 1 | 0 | 27 |
| Kohat | 98 | 40 | 57 | 28 | 18 | 241 |
| Kurram | 3 | 5 | 3 | 0 | 0 | 11 |
| Malakand | 182 | 179 | 479 | 65 | 16 | 921 |
| Mardan | 105 | 64 | 88 | 26 | 23 | 306 |
| Mohmand | 4 | 40 | 17 | 30 | 0 | 91 |
| N.W Agency | 2 | 3 | 5 | 1 | 0 | 11 |
| Orakzai | 0 | 1 | 0 | 0 | 0 | 1 |
| Peshawar | 141 | 89 | 89 | 38 | 0 | 357 |
| S.W Agency | 3 | 12 | 15 | 7 | 0 | 37 |
| Overall | 1156 | 581 | 1155 | 316 | 65 | 3273 |

So far, Total **3273** Watercourses data have been received from KP zone and available live on GIS Dashboard. By which **3115** Watercourses have been lined and remaining **96** watercourses are under progress on different stages like 1st Milestone, 2nd Milestone, and Work Order Issued. The remaining **62** Watercourses are pending with Work Order Approval. (Detailed Summary attached as **Annex-I**)

| KP – WST Data Summary | | | | | | |
|-----------------------|----------|----------|----------|----------|----------|---------|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022 -23 | 2023 -24 | Overall |
| Bajaur | 1 | 10 | 9 | 1 | 0 | 21 |
| Bannu | 13 | 10 | 23 | 2 | 0 | 48 |
| D.I Khan | 81 | 6 | 35 | 0 | 0 | 122 |
| Hazara | 28 | 47 | 84 | 13 | 1 | 173 |
| Khyber | 1 | 9 | 12 | 0 | 0 | 22 |
| Kohat | 27 | 17 | 32 | 14 | 0 | 90 |
| Kurram | 1 | 1 | 0 | 0 | 0 | 2 |
| Malakand | 74 | 97 | 195 | 11 | 8 | 385 |
| Mardan | 16 | 9 | 26 | 4 | 11 | 66 |

| KP – WST Data Summary | | | | | | |
|-----------------------|------------|------------|------------|-----------|-----------|-------------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | Overall |
| Mohmand | 1 | 40 | 69 | 0 | 0 | 110 |
| Orakzai | 0 | 2 | 0 | 0 | 0 | 2 |
| Peshawar | 36 | 25 | 65 | 15 | 0 | 141 |
| S.W Agency | 0 | 15 | 15 | 2 | 0 | 32 |
| N.W Agency | 0 | 8 | 8 | 1 | 0 | 17 |
| Overall | 279 | 296 | 573 | 63 | 20 | 1231 |

Overall Water Storage Tank data submissions are **1231** of which **1140** WST have been completed and **57** are under progress. While **34** Water Storage Tanks Work Order Pending. (Detailed Summary attached as **Annex-J**)

| KP – PLL Data Summary | | | | | |
|-----------------------|----------|----------|-----------|----------|-----------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| D.I Khan | 0 | 0 | 50 | 0 | 50 |
| Overall | 0 | 0 | 50 | 0 | 50 |

So far, Total **50** PLL have been delivered and partial data received from KP zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-K**)

| Balochistan – WC Data Summary | | | | | |
|-------------------------------|-------------|------------|-------------|-----------|-------------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| Kalat | 597 | 143 | 287 | 0 | 1027 |
| Loralai | 344 | 148 | 137 | 37 | 666 |
| Makran | 204 | 56 | 49 | 0 | 309 |
| Nasirabad | 216 | 111 | 191 | 0 | 518 |
| Quetta | 244 | 50 | 87 | 0 | 381 |
| Rakhshan | 126 | 58 | 82 | 0 | 266 |
| Sibi | 184 | 59 | 88 | 0 | 331 |
| Zhob | 232 | 69 | 81 | 3 | 385 |
| Overall | 2147 | 694 | 1002 | 40 | 3883 |

Total **3883** Watercourses data has been received from Balochistan zone of which **3236** Watercourses has been lined, **253** Watercourses are pending at TS Stage and remaining 394 watercourses are under progress and. (Detailed Summary attached as **Annex-L**)

| Balochistan – WST Data Summary | | | | | |
|--------------------------------|------------|------------|-------------|-----------|-------------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| Kalat | 95 | 154 | 442 | 0 | 691 |
| Loralai | 54 | 57 | 111 | 11 | 233 |
| Makran | 50 | 57 | 168 | 0 | 275 |
| Nasirabad | 29 | 48 | 83 | 0 | 160 |
| Quetta | 53 | 87 | 111 | 0 | 251 |
| Rakhshan | 26 | 68 | 58 | 7 | 159 |
| Sibi | 35 | 34 | 61 | 9 | 139 |
| Zhob | 49 | 61 | 117 | 0 | 227 |
| Overall | 391 | 566 | 1151 | 27 | 2135 |

A total of **2135** Water Storage Tank data has been received from Balochistan zone of which **1636** Watercourses have been lined, **102** Water Storage Tank at TS Stage and remaining 397 Water Storage Tanks are under progress. (Detailed Summary attached as **Annex-M**)

| Balochistan – PLL Data Summary | | | | | |
|--------------------------------|----------|-----------|----------|----------|-----------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| Kalat | 0 | 4 | 0 | 0 | 4 |
| Makran | 0 | 11 | 0 | 0 | 11 |
| Nasirabad | 0 | 16 | 0 | 0 | 16 |
| Quetta | 0 | 1 | 0 | 0 | 1 |
| Sibi | 0 | 2 | 0 | 0 | 2 |
| Overall | 0 | 34 | 0 | 0 | 34 |

So far, Total **34** PLL have been delivered and partial data received from KP zone and available live on GIS Dashboard. (Detailed Summary attached as **Annex-N**)

| GB – WC Data Summary | | | | | |
|----------------------|------------|------------|-----------|------------|---------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| Gilgit | 180 | 236 | 29 | 445 | |
| Skardu | 108 | 231 | 25 | 364 | |
| Overall | 288 | 467 | 54 | 809 | |

A total of **809** completed schemes data have been received and live on Dashboard. (Detailed Summary attached as **Annex-O**)

| GB – WST Data Summary | | | | | |
|-----------------------|------------|------------|-----------|------------|---------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | Overall |
| Gilgit | 83 | 95 | 22 | 200 | |
| Skardu | 35 | 82 | 11 | 128 | |
| Overall | 118 | 177 | 33 | 328 | |

A total of **328** completed Water Storage Tanks data have been received and live on Dashboard. (Detailed Summary attached as **Annex-P**)

| AJK – WC Data Summary | | | | | | |
|-----------------------|------------|------------|------------|-----------|------------|------------|
| Division | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | Overall |
| MZD | 30 | 84 | 53 | 29 | 44 | 240 |
| Poonch | 33 | 32 | 30 | 8 | 44 | 147 |
| Mirpur | 37 | 96 | 72 | 21 | 84 | 310 |
| Overall | 100 | 212 | 155 | 58 | 172 | 697 |

A total of **697** Watercourses data has been received from AJK zone of which **534** Watercourses have been lined, **27** Watercourses are pending at TS & Work Order Stage, **136** watercourses are under progress. (Detailed Summary attached as **Annex-Q**).

| AJK – WST Data Summary | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Division | 2019 -20 | 2020 -21 | 2021 -22 | 2022 -23 | 2023 -24 | Overall I |
| MZD | 35 | 56 | 61 | 9 | 26 | 187 |
| Poonch | 13 | 41 | 62 | 34 | 87 | 237 |
| Mirpur | 2 | 15 | 31 | 6 | 40 | 94 |
| Overall | 50 | 112 | 154 | 49 | 153 | 518 |

A total of **518** Water Storage Tank data has been received from AJK zone of which **378** Water Storage Tank have been lined, **17** Water Storage Tanks are pending at TS Stage, **123** Water Storage Tanks are under progress. (Detailed Summary attached as **Annex-R**)

| ICT – WC Data Summary | | | | | |
|-----------------------|-------------|-------------|-------------|-------------|-----------|
| Division | 2019 -20 | 2020- 21 | 2021- 22 | 2022 -23 | Overall |
| ICT | 0 | 20 | 14 | 7 | 41 |
| Overall | 0 | 20 | 14 | 7 | 41 |

A total of **41** completed Watercourse's data have been received and available live on Dashboard. (Detailed Summary attached as **Annex-S**)

3.7.2 On-Going Data Validation & Cleaning

Data submission is an ongoing process & will continue till the end of the project. Zonal Field Staff of AJK, KP, and Balochistan is continuously feeding data through customized Android Application provided & trained by the ICT team of ME&IE consultants.

However, The ICT team is continuously cleaning and validating the received data and communicating mistakes to the concerned Zonal DDs/ADs for correction.

CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (JANUARY 2024 TO MARCH 2024)

The ME&IE Consultants' activities initiating during the 1st Quarter of the year 2024 (1st January 2024 to 31st March 2024) are listed below. A tentative Work Plan for the 1st Quarter of the year 2024 (1st January 2024 to 31st March 2024) showing time span detail is given as **Annex-A**.

4.1 PRE-FIELD-ACTIVITIES

- i. Refresher Training of Field Staff for Baseline & Endline Impact Survey.

4.2 FIELD ACTIVITIES

- i. Regular Monitoring of Interventions in the field
- ii. Data collection of the interventions in the field
- iii. Baseline and Endline Impact survey Field visits
- iv. Online data entry in android-based application

4.3 ICT ASSIGNMENT

- i. Improvement of website of NPIWC-II
- ii. Monitoring online data collection and Data entry
- iii. Monitoring Android based Mobile Application under implementation by field staff.
- iv. Data collection of interventions in MIS/GIS database
- v. Capacity Building Trainings / Refresher of Departments
- vi. Data Cleaning.

4.4 COORDINATION

- i. Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- ii. Meeting of DTLs with respective DTL of P C & concerned OFWM Departments
- iii. ME&IE Consultants Internal Meetings

4.5 DELIVERABLES

- i. Monthly Monitoring Reports
- ii. Quarterly Monitoring & Evaluation Report (QM&ER)
- iii. Special Reports (Various)

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

| Document | Status |
|---|-----------|
| Draft Inception Report | Submitted |
| Final Inception Report | Submitted |
| Monthly Monitoring Report-First (DEC 2020-JAN 2021) | Submitted |
| Monthly Monitoring Report-Second (FEB 2021) | Submitted |
| Monthly Monitoring Report-Third (MAR 2021) | Submitted |
| Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021) | Submitted |
| Monthly Monitoring Report-Fourth (APR 2021) | Submitted |
| Monthly Monitoring Report-Fifth (MAY 2021) | Submitted |
| Monthly Monitoring Report-Sixth (JUNE 2021) | Submitted |
| Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021) | Submitted |
| Annual Monitoring & Evaluation Report (1 st) | Submitted |
| Monthly Monitoring Report-Seventh (JULY) | Submitted |
| Monthly Monitoring Report-Eighth (AUG 2021) | Submitted |
| Baseline Survey Report-I | Submitted |
| Monthly Monitoring Report-Ninth (SEPTEMBER 2021) | Submitted |
| Quarterly Monitoring & Evaluation Report-Third (JULY - SEPTEMBER 2021) | Submitted |
| Monthly Monitoring Report-Tenth (OCTOBER 2021) | Submitted |
| Monthly Monitoring Report-Eleventh (NOVEMBER 2021) | Submitted |
| Monthly Monitoring Report-Twelfth (DECEMBER 2021) | Submitted |
| Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021) | Submitted |
| Monthly Monitoring Report-Thirteenth (JANUARY 2022) | Submitted |
| Monthly Monitoring Report-Fourteenth (MARCH 2022) | Submitted |
| Monthly Monitoring Report-Fifteen (MARCH 2022) | Submitted |
| Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022) | Submitted |
| Monthly Monitoring Report-Sixteen (APRIL 2022) | Submitted |
| Monthly Monitoring Report- | Submitted |

| Document | Status | Document | Status |
|--|-----------|---|------------------|
| Seventeenth (MAY 2022) | | Monthly Monitoring Report-Thirty Sixth (December 2023) | Submitted |
| ‘Monthly Monitoring Report-EIGHTEENTH (JUNE 2022) | Submitted | Monthly Monitoring Report-Thirty Seventh (January 2024) | Submitted |
| Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2022 (APRIL – JUNE 2022) | Submitted | Monthly Monitoring Report-Thirty Seventh (February 2024) | Report in hand |
| Annual Monitoring & Evaluation Report (2 nd) Jul 2021-June 2022 | Submitted | Baseline Survey Report -I | Submitted |
| Monthly Monitoring Report-Nineteenth (JULY 2022) | Submitted | Baseline Survey Report -II | Submitted |
| Monthly Monitoring Report-Twentieth (AUGUST 2022) | Submitted | Baseline Survey Report-II (Updated version WC) | Submitted |
| Monthly Monitoring Report-Twenty First (SEPTEMBER 2022) | Submitted | Baseline Survey Report -II (Draft version of WSTs) | Submitted |
| Quarterly Monitoring & Evaluation Report-3 rd Quarter year 2022 (JUL – SEP 2022) | Submitted | Mid-Line Monitoring & Impact Evaluation Report | Submitted |
| Monthly Monitoring Report-Twenty Second (OCTOBER 2022) | Submitted | Consolidated Baseline Survey Report (Phase-I&II) | Submitted |
| Monthly Monitoring Report-Twenty Third (NOVEMBER 2022) | Submitted | Baseline (Phase I&II) Consolidated Report | Submitted |
| Monthly Monitoring Report-Twenty Fourth (DECEMBER 2022) | Submitted | <i>Mid-Term Monitoring and Impact Evaluation Report</i> | <i>Submitted</i> |
| Monthly Monitoring Report-Twenty Fifth (JANUARY 2023) | Submitted | Special Reports submitted: | |
| Monthly Monitoring Report-Twenty Sixth (FEBRUARY 2023) | Submitted | 1) Monitoring Tools | |
| Monthly Monitoring Report-Twenty Seventh (March 2023) | Submitted | 2) Survey Manual on MTs | |
| Monthly Monitoring Report-Twenty-eighth (April 2023) | Submitted | 3) PAM | |
| Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (JAN – MAR 2023) | Submitted | 4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard. | |
| Monthly Monitoring Report-Twenty-Ninth (May 2023) | Submitted | 5) Survey Methodology & Questionnaires for Baseline Survey Phase-II | |
| Monthly Monitoring Report-Thirtieth (June 2023) | Submitted | 6) Baseline-Endline Manual Survey Manual | |
| Monthly Monitoring Report-Thirty First (July 2023) | Submitted | 7) Android Application PMIS Dashboard Manual | |
| Monthly Monitoring Report-Thirty Second (August 2023) | Submitted | 8) Survey Manual on MTs (Updated) | |
| Monthly Monitoring Report-Thirty Third (September 2023) | Submitted | | Submitted |
| Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (Jul – Sep 2023) | Submitted | | |
| Monthly Monitoring Report-Thirty Fourth (October 2023) | Submitted | | |
| Monthly Monitoring Report-Thirty Fifth (November 2023) | Submitted | | |

Deliverables/Reporting Requirements are placed at Annex-D.

4.6 MATRIX OF RESPONSIBILITIES

The Matrix of Responsibilities is placed at Annex-B.

CHAPTER 5: ISSUES / BOTTLENECKS

The ME&IE Consultants are continuously facing the following issues and constraints for timely instigating the activities:

- Due to non-availability of NWMC (NESPAK) deliverables/reports, ME&IE Consultants are facing problems to monitor & evaluate the working of NWMC. In this regard the cooperation and coordination of NWMCs as well as the relevant Directorates are required.
- Non availability of Technical Sanctions of the watercourses.
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments (OFWM) & NWMCs (NESPAK) till to date.
- Irregularity in the fund releases is also one of the key difficulties in the completion of the required project assignments / tasks, on time.
- While reviewing Dashboard during our in-house exercise we have witnessed some stuck-up cases. Following are different levels/stages in term of days and area of jurisdiction:

| <u>Days</u> | <u>Departments</u> |
|-------------|--------------------|
| 100 to 119 | District |
| 120 to 149 | Division |
| 150 to 164 | NPC/DDPC |

As some of the cases have crossed third level which is execution agency DG, therefore, you are hereby intimated for your personal intervention to sort out these stuck ups.

We have already pointed out Stuck-Up Cases of NPIWC II Watercourses through our office letter No. NPIWC-II / ME&IE / NOISD / 0623-0256 submitted to your office dated 15 June 2023. Your prompt action is required in this matter.

It is also important to mention that when ME&IE Consultants pointed out certain stuck-up cases to FPMU, a quick response has been observed from FPMU vide its Letter dated 12 July 2023 and raise the issue with executing agencies to settle the issue on priority basis.

ANNEXES A to S

ANNEXURE A: TENTATIVE WORK PLAN FOR THE 3RD QUARTER OF 2023-24 (JAN TO MARCH-2024)

| TENTATIVE WORK PLANNED FOR THE QUARTER (January 2024 To March 2024) | | | | | | | | | | | | Legend | |
|--|--|----------------------------|------|------|------|----------|------|------|------|-------|------|--------|------|
| No. | ACTIVITIES | 3 Months-Year 2024 (Weeks) | | | | | | | | | | | |
| | | January | | | | February | | | | March | | | |
| | | WK-1 | WK-2 | WK-3 | WK-4 | WK-1 | WK-2 | WK-3 | WK-4 | WK-1 | WK-2 | WK-3 | WK-4 |
| 1 | Pre-Field Activities | | | | | | | | | | | | |
| | 1.1 Refresher Trainings of Field Staff for Baseline & Endline Impact Surveys | | | | | | | | | | | | |
| 2 | Field Activities | | | | | | | | | | | | |
| | 2.1 Regular Monitoring of Interventions in the field | | | | | | | | | | | | |
| | 2.2 Baseline Survey Phase-III & Impact field survey visits | | | | | | | | | | | | |
| | 2.3 Online data entry in android-based application | | | | | | | | | | | | |
| 3 | ICT Assignment | | | | | | | | | | | | |
| | 3.1 Improvement of website of NPIWC-II | | | | | | | | | | | | |
| | 3.2 Monitoring online data collection and data entry | | | | | | | | | | | | |
| | 3.3 Monitoring Android based Mobile Application under implementation by field staff. | | | | | | | | | | | | |
| | 3.4 Data collection of interventions in MIS/GIS database | | | | | | | | | | | | |
| | 3.5 Capacity Building Trainings / Refresher of Departments | | | | | | | | | | | | |
| | 3.6 Data Cleaning. | | | | | | | | | | | | |
| 4 | Coordination | | | | | | | | | | | | |
| | 4.1 Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues | | | | | | | | | | | | |
| | 4.2 Meeting of DTLs with respective DTL of PC & concerned OFWM Departments | | | | | | | | | | | | |
| | 4.3 ME&IE Consultants Internal Meetings | | | | | | | | | | | | |
| 5 | Deliverable | | | | | | | | | | | | |
| | 5.1 Monthly Monitoring Report | | | | | | | | | | | | |
| | 5.2 Quarterly Monitoring & Evaluation Report (Oct-Dec 2023) | | | | | | | | | | | | |
| | 5.3 Special Reports (Various) | | | | | | | | | | | | |

ANNEXURE B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

| LEGEND | | |
|--------|--------------------------|--|
| ● | Primary Responsibility | |
| ○ | Secondary Responsibility | |
| ○ | Assistance | |

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

| NPC-FPIMU | Agriculture Dept. (CZM/WL) | Project Consultants | ME&IE Consultants |
|-----------|----------------------------|---------------------|-------------------|
| ○ | ● | - | - |
| ○ | ○ | ● | - |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |
| - | - | - | ● |

ANNEXURE C: MONITORING LOG-FRAME

| Project Sub-components | Targets | Activities | Outputs | Outcome-1 | Outcomes-2 | Goals / Impact | Methodology for measuring results |
|---|---|--|--|---|--|--|---|
| C1: Organization of Water Users' Associations (WUAs) | Reactivation of existing / organization of water users' associations. Ensuring one on each target watercourse. Total WUAs ensured 47,278. | i. Community mobilization at 47,278 watercourses | i. Total 47,278 WUAs reactivated / established/register ed | i. Right of way of 47,278 watercourses available ii. Skilled and unskilled labor required for watercourse improvement available iii. Construction material for civil works of watercourses procured iv. Alternate arrangement for water conveyance during construction made v. Watercourse improved | i. Disputes among the water users settled ii. Farmers branched improved iii. Water allocation made amicably iv. Maintenance of watercourses, WST and laser units done v. Cooperation among farmers increased | i. 47,278 watercourses improved and 15 percentage points conveyance losses reduced ii. Litigation among farmers reduced | i. The functioning of the WUAs will be established through sample interview surveys of WUAs members twice during the project period |
| C2: Watercourses Improvements | Improvement of 47,278 watercourses on cost sharing basis: 40% farmers in terms | i. Establishment of 47,278 Water users' associations (WUAs); ii. Registration | i. 47,278 WCAs established; ii. 47,278 WCAs registered; iii. 47,278 watercourses improved and lined; | i. Conveyance losses for improved watercourses decreased by about 15 | i. Increase in cropping intensity on improved watercourses by 5-24%; | i. Increase in farm income; ii. Increase in employment for farm labor; | i. The water flow measurements will be carried out at before and after watercourse |

| Project Sub-components | Targets | Activities | Outputs | Outcome-1 | Outcomes-2 | Goals / Impact | Methodology for measuring results |
|------------------------|--------------------------------------|--|---------|--|--|---|--|
| | of labor, and 60% funded by project. | of 47,278 WUAs; iii. Improvement and realignment of earthen section of 47,278 watercourses ; iv. Lining of up to 50% length of 47,278 watercourses either by: v. Precast concrete parabolic lining (PCPL) segments, or vi. Rectangular brick masonry, or any other method as approved by the project | | percentage points. ii. 1.654 million households benefited from the activity; iii. 11.347 million acres served with improved watercourses | ii. Increase in crop yields. iii. Increase in irrigated area iv. Increase in agriculture output per unit of water by about 37% | iii. Reduction in poverty; iv. Enhanced food security for the country. | improvement on 2-5% sample basis; ii. Agriculture survey before and after watercourse improvement on 2-5% sample basis; iii. The survey will determine: iv. Cropping pattern before and after the improvement; v. Cropping intensities before and after improvement; ● Before and after crop yields; ● Before and after employment; vi. The difference between before and after will be |

| Project Sub-components | Targets | Activities | Outputs | Outcome-1 | Outcomes-2 | Goals / Impact | Methodology for measuring results |
|---|---|---|---------|---|--|--|--|
| | | | | | | | considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise. |
| C3: Construction of Water Storage Tanks (WSTs) | <ul style="list-style-type: none"> i. Construction of 14,932 water storage tanks i. 14,932 small farmers mobilized to construct water storage tanks for irrigation ii. They agree to contribute 40% of the cost iii. Agree to first construct the tank with his/her own funds and then received subsidy at 40% on issuance of FCR | <ul style="list-style-type: none"> i. 14,932 constructed WSTs ii. 14,932 operated WSTs and maintained | | <ul style="list-style-type: none"> i. Water which was otherwise largely going to be wasted is saved i. Irrigation provided at critical stages of the crops ii. Flexibility achieved for irrigation | <ul style="list-style-type: none"> i. More area irrigated ii. Increased cropping intensities | <ul style="list-style-type: none"> i. Increased crop yields ii. Increased total crop output quantum iii. Increased farm income iv. Increased farm employment | <ul style="list-style-type: none"> i. 2-5% sample of WSTs will be surveyed ii. A data collection form will be designed to measure water saving due to WSTs iii. The forms used for baseline and impact surveys in case of watercourses will also be used for WSTs iv. Same data analysis will be carried out here as in case |

| Project Sub-components | Targets | Activities | Outputs | Outcome-1 | Outcomes-2 | Goals / Impact | Methodology for measuring results |
|---|---|---|--|--|--|---|---|
| | | | | | | | of watercourses. |
| C4: Provision of Land Leveling Units | i. Provision of 11,610 laser land leveling units to farmers and service providers on a cost sharing basis: 50% by farmer / service provider and 50% by the project. | i. 11,610 laser units provided to farmers / service providers; ii. Farmers trained in using the units. | i. 11,610 farmers / service providers received PLL units; ii. Farmers / service providers received training in using the units. | i. Land leveled on Farmers' / service providers' farms; vi. Land leveled on fellow farmers on rent; vii. Total 3.483million acres leveled by 11,610 units. | i. Water application efficiency increased at field level; viii. Even germination of seed. ix. Field application losses reduced by 10 percentage points x. Water productivity increased by 24% | i. Increased area under irrigated crops; ii. Enhanced crop yields iii. Increased farm income xi. 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery xii. The unit will be verified xiii. Area treated during the | i. The land leveling is expected to save irrigation water and result in better and even germination of seeds which can enhance crop yields. The crop yields thus affected will be reflected in agriculture sample surveys. xii. The unit will be verified xiii. Area treated during the |

| Project Sub-components | Targets | Activities | Outputs | Outcome-1 | Outcomes-2 | Goals / Impact | Methodology for measuring results |
|------------------------|---------|------------|---------|-----------|------------|----------------|--|
| | | | | | | | year will be collected xiv. Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc. |

ANNEXURE D: DELIVERABLES / REPORTING REQUIREMENTS

Deliverables/Reporting Requirements

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

ANNEXURE E: ECOLOGICAL ZONE PHYSICAL TARGETS OF VARIOUS
INTERVENTIONS FOR THIS YEAR 2023-24

| Ecological zone | Districts | Water Course | | | Water Storage Ponds/Tanks | Laser Land Leveller |
|-------------------------------|----------------|--------------|------------|-------|---------------------------|---------------------|
| | | Regular | Additional | Total | | |
| Barani | Rawalpindi | 0 | 0 | 0 | 15 | 0 |
| | Attock | 0 | 0 | 0 | 15 | 0 |
| | Jehlum | 0 | 0 | 0 | 7 | 0 |
| | Chakwal | 0 | 0 | 0 | 22 | 0 |
| Sub Total | | 0 | 0 | 0 | 59 | 0 |
| Partial Irrigated Barani Zone | Bhakkar | 15 | 70 | 85 | 20 | 15 |
| | Mianwali | 8 | 70 | 78 | 7 | 22 |
| Sub Total | | 23 | 140 | 163 | 27 | 37 |
| Irrigated (Rice Zone) | Gujranwala | 8 | 83 | 91 | 0 | 36 |
| | Hafizabad | 12 | 40 | 52 | 6 | 35 |
| | Gujrat | 0 | 40 | 40 | 6 | 18 |
| | Narowal | 10 | 32 | 42 | 0 | 20 |
| | Sialkot | 12 | 65 | 77 | 0 | 30 |
| | Mandi Bahu Din | 6 | 50 | 56 | 0 | 23 |
| | Lahore | 5 | 42 | 47 | 2 | 10 |
| | Kasur | 6 | 90 | 96 | 2 | 43 |
| | Sheikhupura | 2 | 75 | 77 | 2 | 40 |
| | Nankana Sahib | 0 | 55 | 55 | 9 | 33 |
| Sub Total | | 61 | 572 | 633 | 27 | 288 |
| Irrigated (Mixed Zone) | Sahiwal | 8 | 90 | 98 | 3 | 38 |
| | Okara | 14 | 90 | 104 | 3 | 50 |
| | Pakpatan | 7 | 85 | 92 | 3 | 50 |
| | Faisalabad | 0 | 100 | 100 | 3 | 50 |
| | Jhang | 5 | 80 | 85 | 6 | 35 |
| | Chiniot | 3 | 46 | 49 | 0 | 25 |
| | Toba Tek Singh | 0 | 86 | 86 | 6 | 38 |
| | Khushab | 15 | 116 | 131 | 10 | 20 |
| | Sargodha | 15 | 100 | 115 | 1 | 35 |
| | Sub Total | 67 | 793 | 860 | 35 | 341 |
| Irrigated (Cotton Zone) | Multan | 14 | 40 | 54 | 5 | 34 |
| | DG Khan | 15 | 60 | 75 | 10 | 15 |
| | Bahawalpur | 24 | 70 | 94 | 10 | 40 |
| | Bahawalnagar | 25 | 80 | 105 | 5 | 40 |
| | Rahim Yar Khan | 24 | 100 | 124 | 7 | 39 |
| | Lodhran | 10 | 77 | 87 | 5 | 18 |
| | Khanewal | 12 | 80 | 92 | 5 | 30 |
| | Rajanpur | 15 | 50 | 65 | 5 | 20 |
| | Muzaffargarh | 12 | 60 | 72 | 10 | 31 |
| | Layyah | 12 | 68 | 80 | 5 | 28 |
| | Vehari | 6 | 55 | 61 | 5 | 39 |
| Sub Total | | 169 | 740 | 909 | 72 | 334 |
| Grand Total | | 320 | 2245 | 2565 | 220 | 1000 |

ANNEXURE F: PUNJAB - WATERCOURSE DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | | | Overall |
|------------------------------|-----------------|-------------|----------------|---------------|-------------------|--------------------|-------------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | Work Order Pending | |
| Bahawalpur | Bahawalnagar | 220 | 0 | 0 | 0 | 0 | 220 |
| Bahawalpur | Bahawalpur | 154 | 0 | 0 | 0 | 0 | 154 |
| Bahawalpur | Rahim Yar Khan | 331 | 0 | 0 | 0 | 0 | 331 |
| Bahawalpur Total | | 705 | 0 | 0 | 0 | 0 | 705 |
| Dera Ghazi Khan | Dera Ghazi Khan | 118 | 0 | 0 | 0 | 0 | 118 |
| Dera Ghazi Khan | Layyah | 126 | 0 | 0 | 0 | 0 | 126 |
| Dera Ghazi Khan | Muzaffargarh | 133 | 0 | 0 | 0 | 0 | 133 |
| Dera Ghazi Khan | Rajanpur | 119 | 0 | 0 | 0 | 0 | 119 |
| Dera Ghazi Khan Total | | 496 | 0 | 0 | 0 | 0 | 496 |
| Faisalabad | Chiniot | 34 | 0 | 0 | 0 | 0 | 34 |
| Faisalabad | Faisalabad | 130 | 0 | 0 | 0 | 0 | 130 |
| Faisalabad | Jhang | 99 | 0 | 0 | 0 | 0 | 99 |
| Faisalabad | Toba Tek Singh | 124 | 0 | 0 | 0 | 0 | 124 |
| Faisalabad Total | | 387 | 0 | 0 | 0 | 0 | 387 |
| Gujranwala | Gujranwala | 101 | 0 | 0 | 0 | 0 | 101 |
| Gujranwala | Narowal | 16 | 0 | 0 | 0 | 0 | 16 |
| Gujranwala | Sialkot | 84 | 0 | 0 | 0 | 0 | 84 |
| Gujranwala Total | | 201 | 0 | 0 | 0 | 0 | 201 |
| Gujrat | Gujrat | 35 | 0 | 0 | 0 | 0 | 35 |
| Gujrat | Hafizabad | 85 | 0 | 0 | 0 | 0 | 85 |
| Gujrat | Mandi Bahauddin | 79 | 0 | 0 | 0 | 0 | 79 |
| Gujrat Total | | 199 | 0 | 0 | 0 | 0 | 199 |
| Lahore | Kasur | 83 | 0 | 0 | 0 | 0 | 83 |
| Lahore | Lahore | 23 | 0 | 0 | 0 | 0 | 23 |
| Lahore | Nankana Sahib | 50 | 0 | 0 | 0 | 0 | 50 |
| Lahore | Sheikhupura | 99 | 0 | 0 | 0 | 0 | 99 |
| Lahore Total | | 255 | 0 | 0 | 0 | 0 | 255 |
| Multan | Khanewal | 123 | 0 | 0 | 0 | 0 | 123 |
| Multan | Lodhran | 154 | 0 | 0 | 0 | 0 | 154 |
| Multan | Multan | 153 | 0 | 0 | 0 | 0 | 153 |
| Multan | Vehari | 132 | 0 | 0 | 0 | 0 | 132 |
| Multan Total | | 562 | 0 | 0 | 0 | 0 | 562 |
| Sahiwal | Okara | 136 | 0 | 0 | 0 | 0 | 136 |
| Sahiwal | Pakpattan | 121 | 0 | 0 | 0 | 0 | 121 |
| Sahiwal | Sahiwal | 145 | 0 | 0 | 0 | 0 | 145 |
| Sahiwal Total | | 402 | 0 | 0 | 0 | 0 | 402 |
| Sargodha | Bhakkar | 183 | 0 | 0 | 0 | 0 | 183 |
| Sargodha | Khushab | 80 | 0 | 0 | 0 | 0 | 80 |
| Sargodha | Mianwali | 146 | 0 | 0 | 0 | 0 | 146 |
| Sargodha | Sargodha | 146 | 0 | 0 | 0 | 0 | 146 |
| Sargodha Total | | 555 | 0 | 0 | 0 | 0 | 555 |
| Grand Total | | 3762 | 0 | 0 | 0 | 0 | 3762 |

ANNEXURE G: PUNJAB - WSP DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | Overall |
|------------------------------|-----------------|------------|-------------------|--------------------|------------|
| | | | Work Order Issued | Work Order Pending | |
| Bahawalpur | Bahawalnagar | 51 | 0 | 0 | 51 |
| Bahawalpur | Bahawalpur | 42 | 0 | 0 | 42 |
| Bahawalpur | Rahim Yar Khan | 67 | 0 | 0 | 67 |
| Bahawalpur Total | | 160 | 0 | 0 | 160 |
| Dera Ghazi Khan | Dera Ghazi Khan | 33 | 0 | 0 | 33 |
| Dera Ghazi Khan | Layyah | 18 | 0 | 0 | 18 |
| Dera Ghazi Khan | Muzaffargarh | 21 | 0 | 0 | 21 |
| Dera Ghazi Khan | Rajanpur | 10 | 0 | 0 | 10 |
| Dera Ghazi Khan Total | | 82 | 0 | 0 | 82 |
| Faisalabad | Chiniot | 8 | 0 | 0 | 8 |
| Faisalabad | Faisalabad | 35 | 0 | 0 | 35 |
| Faisalabad | Jhang | 31 | 0 | 0 | 31 |
| Faisalabad | Toba Tek Singh | 55 | 0 | 0 | 55 |
| Faisalabad Total | | 129 | 0 | 0 | 129 |
| Gujranwala | Gujranwala | 2 | 0 | 0 | 2 |
| Gujranwala | Sialkot | 4 | 0 | 0 | 4 |
| Gujranwala Total | | 6 | 0 | 0 | 6 |
| Gujrat | Gujrat | 26 | 0 | 0 | 26 |
| Gujrat | Hafizabad | 13 | 0 | 0 | 13 |
| Gujrat | Mandi Bahauddin | 2 | 0 | 0 | 2 |
| Gujrat Total | | 41 | 0 | 0 | 41 |
| Lahore | Kasur | 7 | 0 | 0 | 7 |
| Lahore | Lahore | 2 | 0 | 0 | 2 |
| Lahore | Nankana Sahib | 3 | 0 | 0 | 3 |
| Lahore | Sheikhupura | 2 | 0 | 0 | 2 |
| Lahore Total | | 14 | 0 | 0 | 14 |
| Multan | Khanewal | 22 | 0 | 0 | 22 |
| Multan | Lodhran | 14 | 0 | 0 | 14 |
| Multan | Multan | 17 | 0 | 0 | 17 |
| Multan | Vehari | 14 | 0 | 0 | 14 |
| Multan Total | | 67 | 0 | 0 | 67 |
| Rawalpindi | Attock | 79 | 0 | 0 | 79 |
| Rawalpindi | Chakwal | 155 | 0 | 0 | 155 |
| Rawalpindi | Jhelum | 63 | 0 | 0 | 63 |
| Rawalpindi | Rawalpindi | 71 | 0 | 0 | 71 |
| Rawalpindi Total | | 368 | 0 | 0 | 368 |
| Sahiwal | Okara | 19 | 0 | 0 | 19 |
| Sahiwal | Pakpattan | 15 | 0 | 0 | 15 |
| Sahiwal | Sahiwal | 5 | 0 | 0 | 5 |
| Sahiwal Total | | 39 | 0 | 0 | 39 |
| Sargodha | Bhakkar | 19 | 0 | 0 | 19 |
| Sargodha | Khushab | 28 | 0 | 0 | 28 |
| Sargodha | Mianwali | 3 | 0 | 0 | 3 |
| Sargodha | Sargodha | 35 | 0 | 0 | 35 |
| Sargodha Total | | 85 | 0 | 0 | 85 |
| Overall | | 991 | 0 | 0 | 991 |

ANNEXURE H: PUNJAB - PLL DATA SUBMISSION – SUMMARY

| Division | District | Delivered | Under Progress | Overall |
|------------------------------|-----------------|-------------|----------------|-------------|
| Bahawalpur | Bahawalnagar | 283 | 0 | 283 |
| Bahawalpur | Bahawalpur | 246 | 0 | 246 |
| Bahawalpur | Rahim Yar Khan | 259 | 0 | 259 |
| Bahawalpur Total | | 788 | 0 | 788 |
| Dera Ghazi Khan | Dera Ghazi Khan | 127 | 0 | 127 |
| Dera Ghazi Khan | Layyah | 165 | 0 | 165 |
| Dera Ghazi Khan | Muzaffargarh | 225 | 0 | 225 |
| Dera Ghazi Khan | Rajanpur | 120 | 0 | 120 |
| Dera Ghazi Khan Total | | 637 | 0 | 637 |
| Faisalabad | Chiniot | 160 | 0 | 160 |
| Faisalabad | Faisalabad | 257 | 0 | 257 |
| Faisalabad | Jhang | 236 | 0 | 236 |
| Faisalabad | Toba Tek Singh | 191 | 0 | 191 |
| Faisalabad Total | | 844 | 0 | 844 |
| Gujranwala | Gujranwala | 232 | 0 | 232 |
| Gujranwala | Sialkot | 190 | 0 | 190 |
| Gujranwala | Narowal | 138 | 0 | 138 |
| Gujranwala Total | | 560 | 0 | 560 |
| Gujrat | Gujrat | 114 | 0 | 114 |
| Gujrat | Mandi Bahauddin | 160 | 0 | 160 |
| Gujrat Total | | 274 | 0 | 274 |
| Lahore | Kasur | 232 | 0 | 232 |
| Lahore | Lahore | 94 | 0 | 94 |
| Lahore | Nankana Sahib | 137 | 0 | 137 |
| Lahore | Sheikhupura | 225 | 0 | 225 |
| Lahore Total | | 688 | 0 | 688 |
| Multan | Khanewal | 184 | 0 | 184 |
| Multan | Lodhran | 145 | 0 | 145 |
| Multan | Multan | 126 | 0 | 126 |
| Multan | Vehari | 193 | 0 | 193 |
| Multan Total | | 648 | 0 | 648 |
| Sahiwal | Okara | 203 | 0 | 203 |
| Sahiwal | Pakpattan | 178 | 0 | 178 |
| Sahiwal | Sahiwal | 207 | 0 | 207 |
| Sahiwal Total | | 588 | 0 | 588 |
| Sargodha | Bhakkar | 171 | 0 | 171 |
| Sargodha | Khushab | 111 | 0 | 111 |
| Sargodha | Mianwali | 140 | 0 | 140 |
| Sargodha | Sargodha | 207 | 0 | 207 |
| Sargodha Total | | 629 | 0 | 629 |
| Rawalpindi | Attock | 188 | 0 | 188 |
| Rawalpindi Total | | 188 | 0 | 188 |
| Grand Total | | 5844 | 0 | 5844 |

ANNEXURE I: KP - WATERCOURSE DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | | Pending | | Overall |
|----------------------------|----------------|-------------|----------------|---------------|-------------------|------------|--------------------|-------------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | TS Pending | Work Order Pending | |
| Bajaur Agency | Bajaur | 64 | 0 | 0 | 13 | 6 | 0 | 83 |
| Bajaur Agency Total | | 64 | 0 | 0 | 13 | 6 | 0 | 83 |
| Bannu | Bannu | 110 | 0 | 0 | 0 | 0 | 0 | 110 |
| Bannu | Lakki Marwat | 122 | 0 | 0 | 0 | 0 | 0 | 122 |
| Bannu Total | | 232 | 0 | 0 | 0 | 0 | 0 | 232 |
| D.I. Khan | D.I. Khan | 507 | 3 | 0 | 0 | 0 | 0 | 510 |
| D.I. Khan | Tank | 67 | 0 | 0 | 0 | 0 | 0 | 67 |
| D.I. Khan Total | | 574 | 3 | 0 | 0 | 0 | 0 | 577 |
| Hazara | Abbottabad | 30 | 0 | 1 | 0 | 0 | 0 | 31 |
| Hazara | Battagram | 49 | 0 | 0 | 0 | 0 | 0 | 49 |
| Hazara | Haripur | 74 | 0 | 0 | 0 | 0 | 0 | 74 |
| Hazara | Lower Kohistan | 7 | 0 | 0 | 13 | 1 | 0 | 21 |
| Hazara | Mansehra | 129 | 0 | 14 | 0 | 0 | 0 | 143 |
| Hazara | Torghar | 40 | 0 | 0 | 1 | 0 | 0 | 41 |
| Hazara | Upper Kohistan | 9 | 0 | 0 | 0 | 8 | 0 | 17 |
| Hazara | Kolai Pallas | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Hazara Total | | 340 | 0 | 15 | 14 | 9 | 0 | 378 |
| Khyber Agency | Khyber | 20 | 0 | 0 | 5 | 2 | 0 | 27 |
| Khy Agency Total | | 20 | 0 | 0 | 5 | 2 | 0 | 27 |
| Kohat | Hangu | 62 | 0 | 0 | 4 | 1 | 0 | 67 |
| Kohat | Karak | 82 | 0 | 0 | 0 | 0 | 0 | 82 |
| Kohat | Kohat | 92 | 0 | 0 | 0 | 0 | 0 | 92 |
| Kohat Total | | 236 | 0 | 0 | 4 | 1 | 0 | 241 |
| Kurram Agency | Kurram | 10 | 0 | 0 | 0 | 1 | 0 | 11 |
| Kurram Agency Total | | 10 | 0 | 0 | 0 | 1 | 0 | 11 |
| Malakand | Buner | 109 | 0 | 0 | 0 | 1 | 0 | 110 |
| Malakand | Chitral | 94 | 0 | 0 | 0 | 0 | 0 | 94 |
| Malakand | Lower Dir | 109 | 0 | 2 | 25 | 4 | 1 | 141 |
| Malakand | Malakand | 106 | 0 | 0 | 1 | 1 | 0 | 108 |
| Malakand | Shangla | 54 | 2 | 1 | 1 | 1 | 1 | 60 |
| Malakand | Swat | 283 | 0 | 1 | 0 | 0 | 0 | 284 |
| Malakand | Upper Dir | 121 | 2 | 0 | 0 | 1 | 0 | 124 |
| Malakand Total | | 876 | 4 | 4 | 27 | 8 | 2 | 921 |
| Mardan | Mardan | 150 | 0 | 0 | 2 | 0 | 0 | 152 |
| Mardan | Swabi | 130 | 0 | 2 | 1 | 21 | 0 | 154 |
| Mardan Total | | 280 | 0 | 2 | 3 | 21 | 0 | 306 |
| M. Agency | Upper Mohmand | 66 | 0 | 0 | 0 | 0 | 0 | 66 |
| M. Agency | Lower Mohmand | 25 | 0 | 0 | 0 | 0 | 0 | 25 |
| M. Agency Total | | 91 | 0 | 0 | 0 | 0 | 0 | 91 |
| Orakzai Agency | Orakzai | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Orakzai Total | | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Peshawar | Charsadda | 148 | 0 | 0 | 0 | 1 | 0 | 149 |
| Peshawar | Nowshera | 127 | 0 | 0 | 1 | 2 | 0 | 130 |
| Peshawar | Peshawar | 74 | 0 | 0 | 1 | 3 | 0 | 78 |
| Peshawar Total | | 349 | 0 | 0 | 2 | 6 | 0 | 357 |
| S.W Agency | S.W Agency | 37 | 0 | 0 | 0 | 0 | 0 | 37 |
| S.W Agency Total | | 37 | 0 | 0 | 0 | 0 | 0 | 37 |
| N.W Agency | N.W Agency | 5 | 0 | 0 | 0 | 6 | 0 | 11 |
| N.W Agency Total | | 5 | 0 | 0 | 0 | 6 | 0 | 11 |
| Overall | | 3115 | 7 | 21 | 68 | 60 | 2 | 3273 |

ANNEXURE J: KP - WST DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | | Pending | Overall |
|-------------------------------|------------------|-------------|----------------|---------------|-------------------|-----------|-------------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | | |
| Bajaur Agency | Bajaur | 17 | 0 | 0 | 1 | 3 | 21 |
| Bajaur Agency Total | | 17 | 0 | 0 | 1 | 3 | 21 |
| Bannu | Bannu | 12 | 0 | 0 | 0 | 1 | 13 |
| Bannu | Lakki Marwat | 35 | 0 | 0 | 0 | 0 | 35 |
| Bannu Total | | 47 | 0 | 0 | 0 | 1 | 48 |
| Dera Ismail Khan | Dera Ismail Khan | 83 | 1 | 1 | 5 | 0 | 90 |
| Dera Ismail Khan | Tank | 32 | 0 | 0 | 0 | 0 | 32 |
| Dera Ismail Khan Total | | 115 | 1 | 1 | 5 | 0 | 122 |
| Hazara | Abbottabad | 18 | 1 | 0 | 0 | 0 | 19 |
| Hazara | Battagram | 26 | 0 | 0 | 4 | 0 | 30 |
| Hazara | Haripur | 40 | 0 | 0 | 0 | 0 | 40 |
| Hazara | Kolai Pallas | 2 | 0 | 0 | 2 | 0 | 4 |
| Hazara | Lower Kohistan | 0 | 0 | 0 | 0 | 1 | 1 |
| Hazara | Mansehra | 42 | 0 | 5 | 1 | 0 | 48 |
| Hazara | Torghar | 17 | 0 | 0 | 1 | 0 | 18 |
| Hazara | Upper Kohistan | 7 | 0 | 0 | 0 | 6 | 13 |
| Hazara Total | | 152 | 1 | 5 | 8 | 7 | 173 |
| Khyber Agency | Khyber | 10 | 0 | 0 | 6 | 6 | 22 |
| Khyber Agency Total | | 10 | 0 | 0 | 6 | 6 | 22 |
| Kohat | Hangu | 12 | 0 | 0 | 0 | 0 | 12 |
| Kohat | Karak | 73 | 0 | 0 | 0 | 0 | 73 |
| Kohat | Kohat | 5 | 0 | 0 | 0 | 0 | 5 |
| Kohat Total | | 90 | 0 | 0 | 0 | 0 | 90 |
| Kurram Agency | Kurram | 2 | 0 | 0 | 0 | 0 | 2 |
| Kurram Agency Total | | 2 | 0 | 0 | 0 | 0 | 2 |
| Malakand | Buner | 43 | 0 | 0 | 0 | 0 | 43 |
| Malakand | Chitral | 21 | 0 | 0 | 0 | 0 | 21 |
| Malakand | Lower Dir | 21 | 2 | 4 | 11 | 1 | 39 |
| Malakand | Malakand | 24 | 0 | 0 | 0 | 0 | 24 |
| Malakand | Shangla | 43 | 0 | 0 | 0 | 1 | 44 |
| Malakand | Swat | 163 | 0 | 0 | 0 | 1 | 164 |
| Malakand | Upper Dir | 47 | 1 | 1 | 0 | 1 | 50 |
| Malakand Total | | 362 | 3 | 5 | 11 | 4 | 385 |
| Mardan | Mardan | 34 | 0 | 0 | 0 | 0 | 34 |
| Mardan | Swabi | 22 | 0 | 1 | 0 | 9 | 32 |
| Mardan Total | | 56 | 0 | 1 | 0 | 9 | 66 |
| Mohmand Agency | Lower Mohmand | 31 | 0 | 0 | 0 | 0 | 31 |
| Mohmand Agency | Upper Mohmand | 79 | 0 | 0 | 0 | 0 | 79 |
| Mohmand Agency Total | | 110 | 0 | 0 | 0 | 0 | 110 |
| Orakzai Agency | Orakzai | 2 | 0 | 0 | 0 | 0 | 2 |
| Orakzai Agency Total | | 2 | 0 | 0 | 0 | 0 | 2 |
| Peshawar | Charsadda | 13 | 0 | 0 | 1 | 0 | 14 |
| Peshawar | Nowshera | 71 | 0 | 0 | 0 | 0 | 71 |
| Peshawar | Peshawar | 53 | 0 | 0 | 3 | 0 | 56 |
| Peshawar Total | | 137 | 0 | 0 | 4 | 0 | 141 |
| S.W Agency | S.W Agency | 32 | 0 | 0 | 0 | 0 | 32 |
| S.W Agency Total | | 32 | 0 | 0 | 0 | 0 | 32 |
| N.W Agency | N.W Agency | 8 | 0 | 0 | 5 | 4 | 17 |
| N.W Agency Total | | 8 | 0 | 0 | 5 | 4 | 17 |
| Overall | | 1140 | 5 | 12 | 40 | 34 | 1231 |

ANNEXURE K: KP - PLL DATA SUBMISSION – SUMMARY

| Division | District | Delivered | Under Progress | Overall |
|----------|----------------|-----------|----------------|-----------|
| D.I Khan | D.I Khan | 50 | 0 | 50 |
| | Overall | 50 | 0 | 50 |

ANNEXURE L: BALOCHISTAN - WATERCOURSE DATA SUBMISSION –
SUMMARY

| Division | District | Completed | Under Progress | | | Pending | Overall |
|------------------------|-----------------|-------------|----------------|---------------|------------|------------|-------------|
| | | | 1st Milestone | 2nd Milestone | TS Issued | | |
| Kalat | Awaran | 150 | 0 | 0 | 0 | 1 | 151 |
| Kalat | Kalat | 281 | 0 | 0 | 0 | 1 | 282 |
| Kalat | Khuzdar | 165 | 0 | 0 | 0 | 0 | 165 |
| Kalat | Lasbela | 154 | 0 | 0 | 35 | 0 | 189 |
| Kalat | Mastung | 191 | 0 | 0 | 6 | 1 | 198 |
| Kalat | Surab | 0 | 0 | 0 | 19 | 23 | 42 |
| Kalat Total | | 941 | 0 | 0 | 60 | 26 | 1027 |
| Loralai | Barkhan | 64 | 0 | 0 | 0 | 0 | 64 |
| Loralai | Duki | 0 | 0 | 0 | 43 | 0 | 43 |
| Loralai | Loralai | 335 | 0 | 0 | 0 | 5 | 340 |
| Loralai | Musakhail | 187 | 0 | 0 | 0 | 32 | 219 |
| Loralai Total | | 586 | 0 | 0 | 43 | 37 | 666 |
| Makran | Gwadar | 23 | 0 | 0 | 0 | 0 | 23 |
| Makran | Kech | 59 | 0 | 0 | 9 | 64 | 132 |
| Makran | Panjgur | 121 | 0 | 0 | 33 | 0 | 154 |
| Makran Total | | 203 | 0 | 0 | 42 | 64 | 309 |
| Nasirabad | Jaffarabad | 141 | 0 | 0 | 0 | 0 | 141 |
| Nasirabad | Jhal Magsi | 27 | 0 | 0 | 0 | 0 | 27 |
| Nasirabad | Kachi | 4 | 0 | 0 | 97 | 1 | 102 |
| Nasirabad | Nasirabad | 55 | 0 | 0 | 86 | 28 | 169 |
| Nasirabad | Sohbatpur | 79 | 0 | 0 | 0 | 0 | 79 |
| Nasirabad Total | | 306 | 0 | 0 | 183 | 29 | 518 |
| Quetta | Killa Abdullah | 110 | 0 | 0 | 0 | 0 | 110 |
| Quetta | Pishin | 186 | 0 | 0 | 0 | 1 | 187 |
| Quetta | Quetta | 83 | 0 | 0 | 1 | 0 | 84 |
| Quetta Total | | 379 | 0 | 0 | 1 | 1 | 381 |
| Rakhshan | Chaghi | 77 | 0 | 0 | 0 | 0 | 77 |
| Rakhshan | Kharan | 26 | 0 | 0 | 2 | 40 | 68 |
| Rakhshan | Nushki | 4 | 0 | 0 | 61 | 36 | 101 |
| Rakhshan | Washuk | 18 | 0 | 0 | 0 | 2 | 20 |
| Rakhshan Total | | 125 | 0 | 0 | 63 | 78 | 266 |
| Sibi | Dera Bugti | 99 | 0 | 0 | 0 | 0 | 99 |
| Sibi | Harnai | 42 | 0 | 0 | 0 | 0 | 42 |
| Sibi | Kohlu | 58 | 0 | 0 | 0 | 0 | 58 |
| Sibi | Sibi | 60 | 0 | 0 | 0 | 0 | 60 |
| Sibi | Ziarat | 71 | 0 | 0 | 1 | 0 | 72 |
| Sibi Total | | 330 | 0 | 0 | 1 | 0 | 331 |
| Zhob | Killa Saifullah | 235 | 0 | 0 | 0 | 0 | 235 |
| Zhob | Sherani | 51 | 0 | 0 | 0 | 18 | 69 |
| Zhob | Zhob | 80 | 0 | 0 | 1 | 0 | 81 |
| Zhob Total | | 366 | 0 | 0 | 1 | 18 | 385 |
| Overall | | 3236 | 0 | 0 | 394 | 253 | 3883 |

ANNEXURE M: BALOCHISTAN - WST DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | Pending | | Overall |
|------------------------|-----------------|-------------|----------------|---------------|------------|------------|-------------|
| | | | 1st Milestone | 2nd Milestone | TS Issued | TS Pending | |
| Kalat | Awaran | 84 | 0 | 0 | 1 | 2 | 87 |
| Kalat | Kalat | 177 | 0 | 0 | 2 | 0 | 179 |
| Kalat | Khuzdar | 139 | 0 | 0 | 0 | 0 | 139 |
| Kalat | Lasbela | 105 | 0 | 0 | 39 | 6 | 150 |
| Kalat | Mastung | 99 | 0 | 0 | 8 | 0 | 107 |
| Kalat | Surab | 0 | 0 | 0 | 29 | 0 | 29 |
| Kalat Total | | 604 | 0 | 0 | 79 | 8 | 691 |
| Loralai | Barkhan | 54 | 0 | 0 | 0 | 0 | 54 |
| Loralai | Duki | 0 | 0 | 0 | 29 | 0 | 29 |
| Loralai | Loralai | 113 | 0 | 0 | 0 | 0 | 113 |
| Loralai | Musakhel | 26 | 0 | 0 | 0 | 11 | 37 |
| Loralai Total | | 193 | 0 | 0 | 29 | 11 | 233 |
| Makran | Gwadar | 7 | 0 | 0 | 0 | 0 | 7 |
| Makran | Kech | 35 | 0 | 0 | 18 | 46 | 99 |
| Makran | Panjgur | 46 | 0 | 1 | 121 | 1 | 169 |
| Makran Total | | 88 | 0 | 1 | 139 | 47 | 275 |
| Nasirabad | Jaffarabad | 17 | 0 | 0 | 0 | 0 | 17 |
| Nasirabad | Jhal Maggi | 30 | 0 | 0 | 0 | 0 | 30 |
| Nasirabad | Kachi | 36 | 0 | 0 | 46 | 0 | 82 |
| Nasirabad | Nasirabad | 0 | 0 | 0 | 17 | 0 | 17 |
| Nasirabad | Sohbatpur | 14 | 0 | 0 | 0 | 0 | 14 |
| Nasirabad Total | | 97 | 0 | 0 | 63 | 0 | 160 |
| Quetta | Killa Abdullah | 55 | 0 | 0 | 0 | 1 | 56 |
| Quetta | Pishin | 107 | 0 | 0 | 10 | 2 | 119 |
| Quetta | Quetta | 75 | 0 | 1 | 0 | 0 | 76 |
| Quetta Total | | 237 | 0 | 1 | 10 | 3 | 251 |
| Rakhshan | Chaghi | 33 | 0 | 0 | 0 | 14 | 47 |
| Rakhshan | Kharan | 15 | 0 | 0 | 13 | 8 | 36 |
| Rakhshan | Nushki | 0 | 0 | 0 | 53 | 9 | 62 |
| Rakhshan | Washuk | 4 | 0 | 0 | 8 | 2 | 14 |
| Rakhshan Total | | 52 | 0 | 0 | 74 | 33 | 159 |
| Sibi | Dera Bugti | 38 | 0 | 0 | 1 | 0 | 39 |
| Sibi | Harnai | 21 | 0 | 0 | 0 | 0 | 21 |
| Sibi | Kohlu | 35 | 0 | 0 | 0 | 0 | 35 |
| Sibi | Sibi | 23 | 0 | 0 | 0 | 0 | 23 |
| Sibi | Ziarat | 21 | 0 | 0 | 0 | 0 | 21 |
| Sibi Total | | 138 | 0 | 0 | 1 | 0 | 139 |
| Zhob | Killa Saifullah | 117 | 0 | 0 | 0 | 0 | 117 |
| Zhob | Sherani | 25 | 0 | 0 | 0 | 0 | 25 |
| Zhob | Zhob | 85 | 0 | 0 | 0 | 0 | 85 |
| Zhob Total | | 227 | 0 | 0 | 0 | 0 | 227 |
| Overall | | 1636 | 0 | 2 | 395 | 102 | 2135 |

ANNEXURE N: BALOCHISTAN - PLL DATA SUBMISSION – SUMMARY

| Division | District | Delivered | Under Progress | Overall |
|-----------|----------------|-----------|----------------|---------|
| Kalat | Lasbela | 4 | 0 | 4 |
| Makran | Panjgur | 5 | 0 | 5 |
| Makran | Turbat | 6 | 0 | 6 |
| Nasirabad | Jaffarabad | 12 | 0 | 12 |
| Nasirabad | Jhal Magsi | 1 | 0 | 1 |
| Nasirabad | Sohbatpur | 3 | 0 | 3 |
| Quetta | Killa Abdullah | 1 | 0 | 1 |
| Sibi | Sibi | 2 | 0 | 2 |
| Overall | | 34 | 0 | 34 |

ANNEXURE O: GB - WATERCOURSES DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | Overall |
|---------------------|----------|------------|----------------|------------|------------|
| | | | TS Issued | TS Pending | |
| Gilgit | Astore | 44 | 0 | 0 | 44 |
| Gilgit | Diamer | 125 | 0 | 0 | 125 |
| Gilgit | Ghizer | 102 | 0 | 0 | 102 |
| Gilgit | Gilgit | 109 | 0 | 0 | 109 |
| Gilgit | Hunza | 35 | 0 | 0 | 35 |
| Gilgit | Nagar | 30 | 0 | 0 | 30 |
| Gilgit Total | | 445 | 0 | 0 | 445 |
| Skardu | Ghanche | 113 | 0 | 0 | 113 |
| Skardu | Kharmang | 42 | 0 | 0 | 42 |
| Skardu | Shigar | 68 | 0 | 0 | 68 |
| Skardu | Skardu | 141 | 0 | 0 | 141 |
| Skardu Total | | 364 | 0 | 0 | 364 |
| Overall | | 809 | 0 | 0 | 809 |

ANNEXURE P: GB - WST DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | Overall |
|---------------------|----------|------------|----------------|------------|------------|
| | | | TS Issued | TS Pending | |
| Gilgit | Astore | 19 | 0 | 0 | 19 |
| Gilgit | Diamer | 50 | 0 | 0 | 50 |
| Gilgit | Ghizer | 45 | 0 | 0 | 45 |
| Gilgit | Gilgit | 60 | 0 | 0 | 60 |
| Gilgit | Hunza | 12 | 0 | 0 | 12 |
| Gilgit | Nagar | 14 | 0 | 0 | 14 |
| Gilgit Total | | 200 | 0 | 0 | 200 |
| Skardu | Kharmang | 24 | 0 | 0 | 24 |
| Skardu | Shigar | 49 | 0 | 0 | 49 |
| Skardu | Skardu | 55 | 0 | 0 | 55 |
| Skardu Total | | 128 | 0 | 0 | 128 |
| Overall | | 328 | 0 | 0 | 328 |

ANNEXURE Q: AJK- WATERCOURSES DATA SUBMISSIONS – SUMMARY

| Division | District | Completed | Under Progress | | | Pending | | Overall |
|---------------------|------------------|------------|----------------|---------------|-------------------|------------|--------------------|------------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | TS Pending | Work Order Pending | |
| MZD | MZD | 103 | 0 | 0 | 13 | 7 | 0 | 123 |
| | Jhelum | 28 | 2 | 0 | 12 | 0 | 0 | 42 |
| | Neelum | 61 | 6 | 1 | 7 | 0 | 0 | 75 |
| | MZD Total | 192 | 8 | 1 | 32 | 7 | 0 | 240 |
| Poonch | Poonch | 43 | 0 | 0 | 11 | 0 | 0 | 54 |
| | Bagh | 29 | 1 | 0 | 8 | 1 | 0 | 39 |
| | Haveli | 10 | 1 | 0 | 4 | 0 | 0 | 15 |
| | Sudhnoti | 23 | 0 | 0 | 14 | 0 | 2 | 39 |
| Poonch Total | | 105 | 2 | 0 | 37 | 1 | 2 | 147 |
| Mirpur | Mirpur | 77 | 0 | 0 | 9 | 0 | 14 | 100 |
| | Bhimber | 121 | 0 | 0 | 36 | 0 | 0 | 157 |
| | Kotli | 39 | 2 | 0 | 9 | 0 | 3 | 53 |
| Mirpur Total | | 237 | 2 | 0 | 54 | 0 | 17 | 310 |
| Overall | | 534 | 12 | 1 | 123 | 8 | 19 | 697 |

ANNEXURE R: AJK - WST/WHS DATA SUBMISSIONS – SUMMARY

| Division | District | Completed | Under Progress | | | Pending | | Overall |
|--------------|-----------|-----------|----------------|---------------|-------------------|------------|--------------------|---------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | TS Pending | Work Order Pending | |
| MZD | MZD | 144 | 1 | 0 | 16 | 0 | 0 | 161 |
| | Jhelum | 21 | 0 | 0 | 3 | 0 | 0 | 24 |
| | Neelum | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| | MZD Total | 165 | 1 | 0 | 20 | 1 | 0 | 187 |
| Poonch | Poonch | 58 | 0 | 1 | 14 | 0 | 0 | 73 |
| | Bagh | 47 | 0 | 0 | 32 | 0 | 0 | 79 |
| | Haveli | 29 | 0 | 0 | 5 | 2 | 0 | 36 |
| | Sudhnoti | 24 | 1 | 0 | 24 | 0 | 0 | 49 |
| Poonch Total | | 158 | 1 | 1 | 75 | 2 | 0 | 237 |
| Mirpur | Mirpur | 12 | 0 | 0 | 4 | 0 | 0 | 16 |
| | Bhimber | 12 | 0 | 0 | 8 | 0 | 0 | 20 |
| | Kotli | 31 | 5 | 0 | 8 | 0 | 14 | 58 |
| Mirpur Total | | 55 | 5 | 0 | 20 | 0 | 14 | 94 |
| Overall | | 378 | 7 | 1 | 115 | 3 | 14 | 518 |

ANNEXURE S: ICT - WATERCOURSE DATA SUBMISSION – SUMMARY

| Division | District | Completed | Under Progress | | | | Overall |
|----------|----------|-----------|----------------|---------------|-------------------|--------------------|---------|
| | | | 1st Milestone | 2nd Milestone | Work Order Issued | Work Order Pending | |
| ICT | ICT | 41 | 0 | 0 | 0 | 0 | 41 |
| Overall | | 41 | 0 | 0 | 0 | 0 | 41 |