



IFRAP
Integrated
Flood Resilience &
Adaptation Project



Ministry of Planning
Development &
Special Initiatives



INTEGRATED FLOOD RESILIENCE & ADAPTATION PROJECT

Draft Quarterly Progress Report (Q-2)

(October–December 2025)

COMPONENT-II

MONITORING & EVALUATION (M&E) CONSULTANT

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Glossary of Acronyms and Abbreviations

AWS	Automatic Weather Station
API	Application Programming Interface
AWP	Annual Work Plan
EAD	Economic Affairs Division
ESCP	Environmental and Social Commitment Plan
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
FGDs	Focus Group Discussions
FPMU	Federal Project Management Unit
S	Geographic Information System
GoB	Government of Balochistan
GoP	Government of Pakistan
GRM	Grievance Redress Mechanism
HPC	High Performance Computing
IFRAP	Integrated Flood Resilience and Adaptation Project
IP	Implementing Partners
IR	Intermediate Results
IRIs	Intermediate Results Indicators
IVR	Interactive Voice Response
JV	Joint Venture
M&E	Monitoring and Evaluation
MHSP	Modernization of Hydromet and Climate Services
MIS	Management Information System
MoPD&SI	Ministry of Planning, Development and Special Initiatives
NDMA	National Disaster Management Authority
WSR	Weather Surveillance Radars
P&DD	Planning and Development Department
PAD	Project Appraisal Document
PDMA	Provincial Disaster Management Authority
PDO	Project Development Objective
PIU	Project Implementing Unit
PMD	Pakistan Meteorological Department
PMIS	Project Monitoring Information System
RBMEF	Results-Based M&E Framework
RMC	Regional Meteorological Centre
IMG	Institute of Metrology and Geophysics
WB	The World Bank

1. EXECUTIVE SUMMARY

1.1 Purpose and Scope of the Report

This Second Quarterly Progress Report presents the monitoring findings for Component-II (Strengthening Hydromet and Climate Services) of the Integrated Flood Resilience and Adaptation Project (IFRAP) for the period October to December 2025. The report has been prepared by the Monitoring and Evaluation (M&E) Consultants to assess progress against planned activities, verify reported deliverables, and document key observations related to Modernization of Observation Infrastructure, Provision of Technical Assistance and Capacity Buildings sub-components.

Unlike the first quarterly report, which presented a consolidated overview of all project components, this report focuses exclusively on Component-II. The component-specific reporting approach has been adopted to enable more detailed analysis, clearer accountability, and improved tracking of implementation readiness as the project transitions toward physical execution.

1.2 Summary of Progress During the Reporting Period

Throughout the reporting period, activities for Component-II remained focused on preparatory and design stages, with no initiation of physical field work. The primary areas of progress included conducting technical assessments, developing designs, and completing the review and approval processes required to facilitate subsequent procurement and delivery of equipment, civil works, and installation activities.

Within the Modernization of Observation Infrastructure sub-component, key deliverables were achieved during the quarter. The Preliminary Site Assessment and finalization of 110 nationwide sites for Automated Weather Stations (AWS) and 4 sites for Surface Weather Radars (SWRs) were completed, following comprehensive technical reviews and administrative coordination with relevant provincial government departments. Procurement contracts for AWS were signed on December 18, 2025, with the scheduled delivery of equipment set for June to December 2026. The specifications and draft bidding documents for Radars were under review by the World Bank and included in the Steering Committee's agenda for necessary approval. Meanwhile, specifications and related procurement activities for High Performance Computing (HPC) systems remained ongoing, with the selection of firms in progress. Alternate procurement methods for the System Integrator are also being considered.

Under the Technical Assistance and Capacity Building sub-component, the design and schedule for training programs on satellite data sets and software for Flood Forecasting were finalized. In addition, as part of the Environmental and Social Management Plan (ESMP) for Radars, social screening was completed and an initial draft report was prepared. These outputs are essential prerequisites for procurement readiness, though most remained under technical review or revision at the close of the quarter.

In summary, the reporting period demonstrated steady progress toward implementation readiness. Advancements were driven by sequential technical reviews and procurement design activities, rather than physical execution or field deployment.

1.3 Key Constraints, Risks, and Forward Look

Progress during the quarter was shaped by the complexity of designing high-tech equipment, the development of detailed specifications, and the requirement to navigate multiple layers of review to comply with World Bank processes. These factors resulted in extensions to several planned timelines, particularly for deliverables that required repeated revision cycles to address technical issues and incorporate feedback from field observations. Importantly, the delays encountered were linked to

procedural requirements rather than reflecting any inherent capacity limitations within the project team.

Several key risks were identified during the reporting period. Chief among these was the absence of a dedicated tracking system for Component-II, which limited the project's ability to maintain clear visibility over critical design and procurement milestones. Additionally, the monitoring of site readiness conditions remained fragmented, raising concerns that, if unaddressed, these issues could hinder the smooth transition from finalization of preparatory activities to the procurement and installation phases for Automated Weather Stations (AWS) and Radars.

The absence of an MIS at PIU-II hinders real-time updates on the PMIS/Dashboard, making it difficult to track project progress and indicators as required by RBMEM. Without timely, accessible data, effective monitoring and realistic timeline setting are compromised.

To address identified gaps and delays, FPMU is advised to promptly coordinate with PIU-2 to resolve the reporting gaps and speed up documentation issues, finalize planning and design documents, and streamline approval processes. This joint effort will align project milestones with PAD timelines, reduce the risk of cost escalation and improve the reliability of Results-Based Monitoring and Evaluation Mechanism (RBMEM) outcomes.

Looking ahead, the focus for the next quarter will be on finalizing outstanding procurement activities and securing the necessary approvals, such as Memorandums of Understanding (MoUs) with relevant departments to support administrative takeover. Efforts will also be directed toward establishing robust milestone tracking mechanisms for Component-II and enhancing the monitoring of readiness indicators. These steps are critical to facilitating the importation of equipment and the commencement of civil and physical works at identified sites in subsequent reporting periods.

2. OVERVIEW OF REPORTING PERIOD

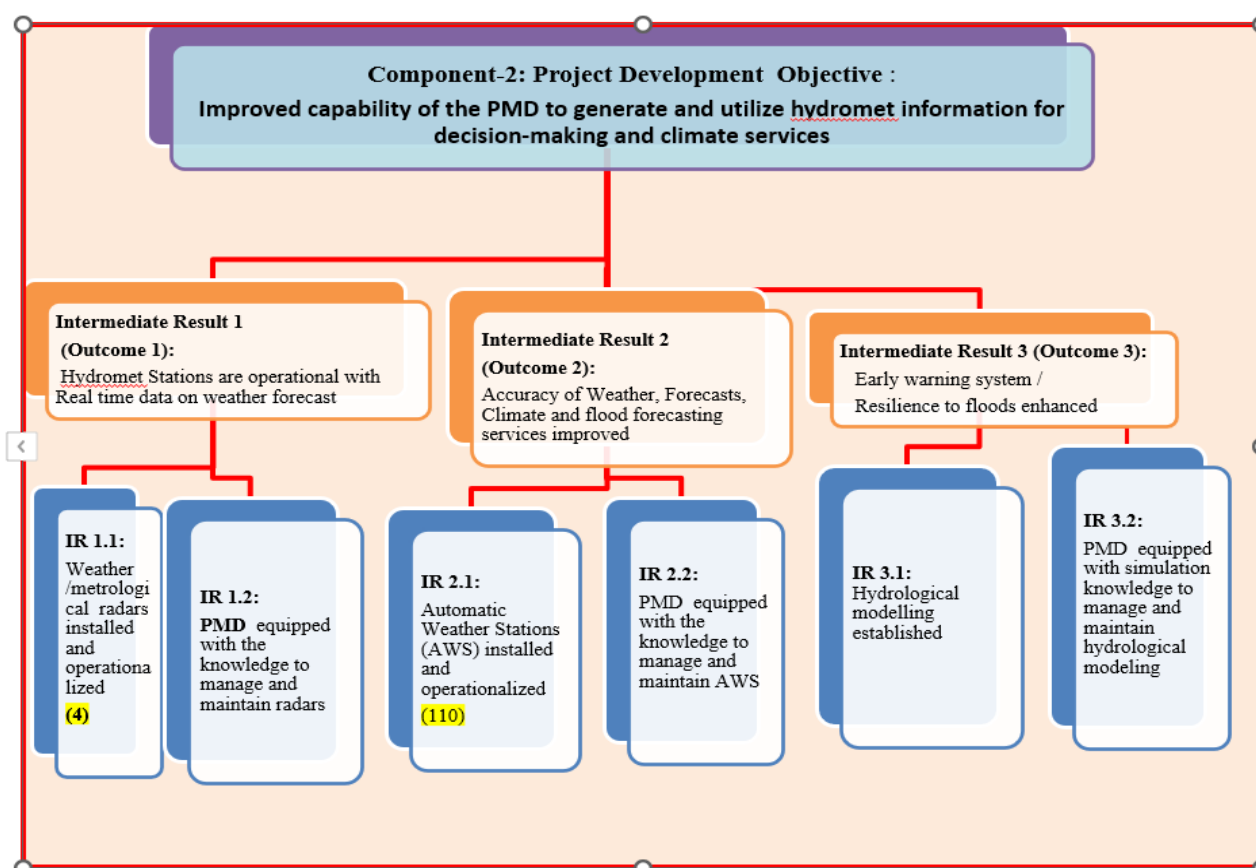
This Quarterly Progress Report covers the period October to December 2025 and corresponds to the second quarter of Monitoring and Evaluation activities for Component-II (Strengthening Hydromet and Climate Services) for the Integrated Flood Resilience and Adaptation Project (IFRAP).

The reporting period primarily reflects the continuation of preparatory and design-stage activities under Component-II, with emphasis on technical assessments, sites identification and confirmation, design development, procurement process and related import documentation, and coordination with implementing entities. No physical field activities were initiated during the quarter. Accordingly, progress assessment focused on verification of deliverables, review status, and readiness indicators required to enable procurement and subsequent implementation.

2.1 Project Overview and Development Objectives

Component-II of IFRAP supports PMD capacity to generate and use hydrometeorological information for decision-making, particularly by expanding coverage in the western region, benefiting Balochistan as well as other parts of the country. The financing (US \$40 million) from the Parent Project is maintained; however, due to significant cost escalations, the scope of AWS has been reduced from 300 to 110 units. While this reduction will limit the network's overall density and the granularity of data collection as originally envisioned, it is expected to support more sustainable integration and operation, particularly considering PMD's current technical and financial capacities for operations and maintenance.

Since the field activities have not yet started, therefore quantitative progress under component-II cannot be mapped against the PDO and Intermediate Results indicators defined in the AF & Restructuring Paper, 2025. Relevant IRs, outcome and PDO linkages are outlined in the following fig 2.1.



During the reporting period, monitoring activities under Component-II remained focused on tracking progress against approved work plans, validating the status of sites preparedness and procurement deliverables, and assessing implementation readiness and installation of equipment. Progress was therefore evaluated based on completion status, review outcomes, and alignment of technical outputs with procurement requirements, rather than physical execution.

2.2 Data Sources, Coverage and Limitations

The findings presented in this report are based on verified information compiled from multiple sources, including the Annual Work Plan (AWP) provided by the FPMU, fortnightly progress reports (3) submissions by PIU-II ; records of coordination meetings held, and field visits conducted during the reporting period.

During Q-2, a dedicated Management Information System (MIS) for Component-II was not operational. As a result, data consolidation and verification were carried out through manual and semi-automated processes, including document reviews, cross-verification with PIU records, and tracking of submission and review timelines. While the absence of an MIS affected data aggregation efficiency, it did not limit the ability of the M&E team to verify reported progress for quarterly monitoring purposes.

Limitations affecting analytical depth during the reporting period included:

- Annual Work Plans lacking timeline 's actual dates of completion of activities, limiting month-wise or package-wise specific progress analysis.
- Data integration with PMIS was not operational during reporting period as Component-II has not yet established MIS platform as a result, data consolidation remained manual and semi-automated, verified through document reviews and PIU-II records.
- District level Hydromet survey was limited with few indicators / parameters which included: site location through coordinates, equipment operational conditions, data collection and data flow etc.
- Non availability of minutes of Steering committee meeting to M&E Consultants.
- Due to absence of dedicated M&E Staff at C-II, there exists gap in coordination with Procurement Section to monitor complex procurement process/activities of AWS, SWR and HPC.

Despite these limitations, the M&E function was able to validate Component-II progress through readiness assessments, district offices level survey, coordination meetings with PIU-II, PMD, RMC and field visits conducted in Mardan, Lahore, Quetta and Karachi.

3. M&E ACTIVITIES, PROGRESS & COORDINATION

3.1 M&E Activities During the Reporting Period

During the reporting period, Monitoring and Evaluation activities for Component-II focused on verifying progress against approved work plans, tracking the status of activities focused under the activities pertaining to Q-2 envisaged in following two packages:

PACKAGE-1: Modernization of the Observation Infrastructure, Data Management and Forecasting System which include:

- Evaluation of technical bids, financial bids, awards of bids
- Supervision Consultants for Radars
- Procurement and Installation of AWS
- Procurement of HPC and System Integrator

PACKAGE -II: Provision of Technical Assistance, Institutional Strengthening, and Capacity Building which include:

- Hiring of Supervision Consultants for Civil Works
- Procurement of Civil Works Contractors
- Capacity Building/Trainings

Key M&E activities included review of technical submissions, validation of submission and revision timelines, assessment of delays and contributing factors, and documentation of risks affecting readiness for procurement and physical execution. Given that no field activities were initiated during the quarter, M&E efforts were concentrated on understanding operations of existing observatories and Radars in KPK, Punjab and Baluchistan. Preliminary information was also collected through android based online district based surveys at limited scale.

3.2 PIU Coordination and Key Outcomes

Regular coordination was maintained between the M&E Consultants and the Project Implementing Unit (PIU) responsible for Component-II throughout the reporting period. These interactions supported structured information exchange, clarification of deliverable status, and verification of progress reported for Modernization of the Observation Infrastructure, Data Management and Forecasting System and Provision of Technical Assistance, Institutional Strengthening, and Capacity Building sub-components.

Coordination and field visits during Q-2 focused on:

- Reviewing the status of ongoing activities and collection of information required.
- Discussing sequencing of technical reviews and approval processes.
- Identifying factors contributing to delays and revision cycles; and
- Agreeing on follow-up actions to support readiness for procurement and subsequent implementation stages.

During the reporting period of Quarter 2, M&E Consultants maintained close coordination and collaboration with Focal Person of PIU-II and held 6 coordination meetings (**Annex-I**) and 5 field visits (**Annex-II**) at the sites in Mardan, Lahore, Islamabad, Quetta and Karachi. The main purpose of these

meetings/visits was to be aware of the progress review/updates of procurement of AWS and Radars and be oriented about the operations and functioning of Hydromet stations/observatories already established and operational.

Key outcomes of coordination during the quarter included confirmation of completion status for selected deliverables, identification of documentation and review-related bottlenecks, and improved clarity on dependencies between sites finalization and procurement readiness.

3.3 Coordination Meetings and Field Visits

Key meetings held during the reporting period are summarized below

1. Coordination Meeting of Component-II:

Date: 23rd October 2025

Venue: PIU - Component-II Office

Agenda:

- Development and deployment of GRM at PIU-II
- PIU-MIS integration with Project Management Information System
- Regular monitoring (Spot Check/Process monitoring)



2. Coordination Meeting, Component-II:

Date: 6th October 2025

Venue: Regional Metrological Center, Quetta

Agenda:

- Debriefing on development and deployment of GRM at PIU-II
- Coordination for conducting District Based Field survey



3. Coordination Meeting, Component-II:

Date: 17th November 2025

Venue: PIU - Component-II Office

Agenda:

- o Debriefing on QPR -01 Component-II (June-September 2025)

**4. Coordination Meeting, Component-II:**

Date: 21st November 2025

Venue: FPMU Conference Room

Agenda:

- o Review Revised Framework

5. Coordination Meeting, Component-II :

Date: 10th December, 2025

Venue: PIU-II Office Islamabad

Agenda:

- o Clarifications of Component-II on conducting baseline for C-II

**6. Coordination Meeting, Component-II:**

Date: 29th December 2025

Venue: PIU-II Office Islamabad

Agenda:

Data Required for Quarterly Progress - C-II (October-December 2025)



1 Field Visit Component-II:

Date: 24th October, 2025

Venue: Fazalabad, Mardan

Purpose:

- To observe and understand existing/operational Flood Forecasting and Warning System
- To conduct a preliminary survey through Android application developed by M&E Consultants



2 Field Visit Component-II:

Date: 27th October, 2025

Venue: Pakistan Metrological Observing Station, Karachi Institute of Metrology and Geophysics (IMG)

Purpose:

- To observe working of Radar and to observe training at IMG



3 Field Visit Component-II:

Date: 31st Decembert, 2025

Venue: Radar station, Islamabad

Purpose:

- To understand and observe working of X-Band Radar Station



3.4 Coordination Effectiveness and Institutional Learning

From an M&E perspective, coordination arrangements during the second quarter demonstrated increasing structure and regularity, particularly in relation to design-stage monitoring and issue resolution. Coordination effectiveness was assessed across several dimensions, as summarized below.

Coordination Dimension	Maturity (M&E Assessment)	Evidence / Observation
Communication Frequency	High	Regular meetings and ongoing email exchanges between PIU-Component-II and the M&E team
Data Responsiveness	Moderate	Manual data sharing and document-based tracking due to absence of a Component-II MIS
Inter-PIU Collaboration	Emerging	Increased interaction with line departments during design review processes
Use of M&E Findings	Increasing	M&E observations referenced in discussions on delays and corrective actions

Overall, coordination during Q-2 established a functional foundation for results-based monitoring of Component-II. However, the absence of digital tracking tools limited the ability to quantify follow-up efficiency and closure of action points. Going forward, M&E will transition from coordination facilitation toward coordination measurement by tracking response times, revision cycles, and decision closure rates as part of Component-II readiness monitoring.

4. RESULTS FRAMEWORK - COMPONENT-II (STATUS UPDATE)

The Results Framework for IFRAP provides the overarching structure for tracking progress toward the Project Development Objective (PDO) and component-level intermediate results. For Component-II (Strengthening Hydromet and Climate Services), the approved indicators primarily relate Modernization of Observation Infrastructure and Provision of Technical assistance and Capacity Building.

During the reporting period, Component-II activities remained at the preparatory and design stages. As such, no physical outputs or outcome-level results were realized against the Results Framework indicators. Progress during the quarter focused on preparatory actions required to operationalize the Results Framework, including preliminary assessments, design finalization processes, and planning for baseline data collection.

Accordingly, the status of Component-II indicators remains as “ preparatory phase”, consistent with the component’s implementation stage. Measurement of progress against PDO and intermediate indicators will commence once physical work begins and field-level implementation advances.

The Results Framework indicators applicable to Component-II, as defined in the revised PAD, will be tracked in subsequent quarters following completion of baseline surveys and initiation of construction activities.

4.1 Project Development Objectives (PDO) Indicators

Indicator No.	Indicator Description	Unit of Measure	End Target	Q-2 Status (Oct–Dec 2025)	Remarks
PDO-1	People with enhanced resilience to climate risks	Number	1,800,000	0 Achievement (Preparatory phase)	Component-II activities at design and planning stage;
PDO-4	Increase in weather forecast lead time of PMD	Days	5	0 Achievement (Preparatory phase)	Flood protection and resilience interventions under preparation stage

4.2 Intermediate Results Indicators

Indicator No.	Indicator Description	Unit of Measure	End Target	Q-2 Status (Oct–Dec 2025)	Remarks
IRI-10	Weather radars installed and operationalized	Number	4	0 Achievement (Preparatory phase)	Technical Specifications of Radars submitted to World Bank
IRI-11	Automatic Weather Stations (AWS) installed and operationalized	Number	110	0 Achievement (Preparatory phase)	Procurement of AWS Contracts signed in December 2025
IRI-12	Hydrological modelling based early warning system established for hill torrents in Balochistan	Yes/No	No	0 Achievement (Preparatory phase)	Preparatory phase

5. COMPONENT- II PROGRESS & ANALYSIS

This section presents the monitoring assessment of progress under Component-II during the reporting period October to December 2025. The analysis covers both the sub-components of modernization of Observation Infrastructure and Provision of Technical assistance. During Q-2, activities largely remained at preparatory and design stages, with no physical work initiated. Progress is therefore assessed in terms of completion, review status, and readiness of key deliverables required to enable procurement and subsequent installation.

Component-II			
Baseline and Targets : Intermediate Result Indicators			
#	Intermediate Result Indicator	Baseline	Completion Period Target
1	The number of AWS installed and operationalized by PMD	0 .0 (February 2023)	110 (December 2028)
2	The number of Weather RADARS installed and operationalized	0.0 (February 2023)	4.0 (December 2028)
3	Hydrological modelling based early warning system established for hill torrents in Baluchistan	No (February 2023)	Yes (December 2028)
Source : AF and Restructuring 2025			

5.1 Revision of M&E Framework:

In the light of a meeting held on November 21, 2025, with M&E Specialist IFRAP, the M&E Framework was revised and resubmitted on December 8, 2025 after addressing and incorporating necessary comments related to include sub-indicators. The revised Framework aligns with the Project Appraisal Document (PAD) and revised Project Paper (2025) on Additional Financing and restructuring IFRAP. Accordingly, the updated framework reflects refined indicator definitions, revised targets, and standardized monitoring tools across all components of the project including Component-II.

The Result Framework made aligned with project revision. Accordingly, the number of AWS has been rationalized from 300 to 110 and 'flood risk' indicator was retitled '*people with enhanced resilience to climate risks, disaggregated by youth and women*'

5.2 Project Monitoring Information System:

The Project Monitoring Information System (PMIS) was prepared and made live during Last Quarter. PMIS is accessible to FPMU and authorized users.

Visualization of Dashboard of PMIS was tested initially using dummy datasets. However, integration (live) of Component-II remains pending because Component-II currently lack its MIS. Development of MIS at component-II level still remains awaited. As per information provided by C-II in a coordination meeting, there exists no provision in the project document for the development of MIS. Essentially PMIS integration requires tracking of activities consistent with timeline/milestones and workplan of respective components. Despite repeated follow-up in coordination meetings, the prerequisite information for development / integration of PMIS such as activities plan of start /end dates remained unavailable to M&E Consultants even during the second quarter.

M&E Consultants held 9 meetings with PIU-II since June 2025 till the end of Q-2. Besides other items of the agenda of the meetings, information required for establishment and operation of PMIS was discussed in the meetings and follow up actions were highlighted in the minutes.

5.3 Hydromet-District Level Information:

In collaboration with and support of PIU-II and PMD's Regional Centers, M&E Consultants teams collected preliminary information at district offices level (Quetta, Lasbella, Gwardar, Sibi, Quetta and Mardan) through an android based on line data collection tool. It was a brief survey to collect and assess district level information

The survey conducted in October 2025 reveals that at district level:

- Information or record related to Hydromet activities (monitoring stations, data, or reports) is available.
- Department or organization responsible for managing or maintaining Hydromet stations are under PMD except for Quetta district (Baluchistan) where the Met station is under Irrigation Deptt. RMC during a meeting held on 06 October, 2025 with M&E Consultant informed that PMD has no access to information of the met stations under administrative control of Irrigation Deptt Baluchistan.
- The current condition of the already installed hydromet equipment was found operational and functional.
- The hydromet data from the district is being shared on regular basis with other departments or agencies for planning and decision-making.
- About 50 % of staff need to be trained/ update their knowledge and relevant skills
- Maintenance and calibration (to meet current /emerging needs) support was highly required.

5.4 PMIS Dashboard

In the absence of MIS at PIU-II, and to help facilitate integration into PMIS, M&E Consultants developed an Excel data sheet listing all major activities under C-II which requires quarter-wise to be updated quarter-wise inserting target start date, planned commencement date, actual completion date and status of activities.

M&E Consultants developed a **Dashboard** which is functional with all major activities of IFRAP components display with component-wise targets, current activities and progress updates (quarter wise). M&E Consultants facilitated Excel to Web sheet progress of activities of Component-II displayed on Dashboard which is accessible to the authorized users

To monitor and track progress, M&E Consultants developed an excel data sheet for component-II envisaging start, end dates of major activities with description and periodical milestones of progress achieved.

However, PIU-II provided partial information and by and large actual date of completion is missing. The missing information on planned end date and actual end date is a major limitation for M&E Consultant's review/analysis.

5.5 Citizen Engagement and GRM

During this quarter, Grievance Redressal Mechanism (GRM) achieved its milestone with persistent and consistent follow-up and facilitation of communication means.

GRM at PIU-II is monitored regularly by GRM Associate appointed and deployed by M&E Consultants based in its Islamabad Office. Since field activities have not yet started, there has been no complaint(s) during this quarter.

All the approved complaint intake channels including email (complaint@ifrap.org.pk), mobile SIM card for PIU-II (0325-5373330) and WhatsApp, and complaint box is fully functional. However, Toll Free number is still to be provided by PIU-II.

The complaint-logging integration with PMIS is subject to commencement of field activities and availability of MIS at PIU-II.

5.6 Regular Monitoring and Spot Checks

The M&E consultant's role begins with technical validation and continues through periodic monitoring of system performance using the Hydromet Station Functionality Form which has been developed by M&E Consultants. This form captures quantitative operational metrics at defined intervals, allowing longitudinal analysis within the PMIS. This approach adopted by M&E Consultants is consistent with World Bank's good practice guidance for infrastructure and system-strengthening projects, wherein baseline conditions for technical systems are established through engineering and operational audits rather than population-based surveys. It ensures methodological rigor, cost-effectiveness, and full alignment with IFRAP's results-based monitoring framework.

5.7 Annual Work plan:

By the end of Quarter-2 on 31st December 2025, FPMU provided (through email) component-wise Annual Work Plan (2025-26) which includes planned commencement date/actual date with financial implications of each activity. This is benchmark information which enables M&E Consultants to track activities and identify delays with qualitative and quantitative analytical Lense suggesting timely rectification and mitigation measures.

The Annual Work Plan (2005-26) is a concise document stipulating activity with financial allocations under Component-II comprising two packages.

M&E Consultants extracted/compiled activities from AWP which were planned to be commenced /completed during this quarter. A format was shared with PIU-II in a meeting for collection of necessary missing data required to help facilitate realistic analysis of progress and performance against each planned activity for Q-2. Response from PIU-II remains awaited.

5.8 Activities of Quarter 2:

The major activities of Quarter 2 of Component-II: for Strengthening Hydromet and Climate Services were extracted from AWP (2025-26). PIU was requested formally in the first week of January 2026 and repeatedly reminded to provide actual date of completion and current status of activities with reasons if not accomplished as per planned completion date. Until 15th January 2026, the information required from PIU-II remained awaited (unfilled columns) in the following matrix which constrained M&E Consultants in identifying and undertaking delays analysis.

The following table has been updated after the updates on activities as provided by PIU-II in debriefing held on 6 May 2026

S. No.	Activity	Planned Commencement Date	Planned Completion Date	Actual Completion Date	Current Status / Reason of Delays if any
	PACKAGE I: MODERNIZATION OF OBSERVATION INFRASTRUCTURE, DATA MANAGEMENT AND FORECASTING SYSTEM				
1	FLOOD FORECASTING (RADARS)				
a.	Evaluation of Technical Bids	03-Aug-25	12-Sept-25		Technical Specification of Radars submitted to World bank with awaited NOL. Therefore, bidding process could not be initiated until the end of Q-3 period (ref Fortnightly progress report of November 1-15)
b.	NOL from WB	13-Sept-25	04-Oct-25		
c.	Notification of Technical Bids	05-Oct-25	06-Oct-25		
d.	Opening of Financial Bids	07-Oct-25	21-Oct-25		
e.	Evaluation of Financial Bids & Combined Scoring	22-Oct-25	01-Nov-25		
f.	NOL from WB	02-Nov-25	16-Nov-25		
g.	Standstill Period	17-Nov-25	02-Dec-25		
h.	Notification Award of Bid	03-Dec-25	10-Dec-25		
i.	Submission of Performance Guarantee and advance payment guarantee	11-Dec-25	08-Jan-26		
2	SUPERVISION CONSULTANTS FOR RADAR				
a.	Opening of Financial Proposals	20-Aug-25	4-Sept-25		Remained on hold awaiting World Bank approval
b.	Evaluation of Financial Proposals	5-Sept-25	15-Sept-25		
c.	Approval of Overall Ranking	16-Sept-25	23-Sept-25		
d.	NOL from WB	24-Sept-25	4-Oct-25		
e.	Notification of Overall Ranking	5-Oct-25	6-Oct-25		
f.	Standstill Period	7-Oct-25	22-Oct-25		
g.	Negotiations & Award of Contract	23-Oct-25	30-Oct-25		
h.	Signing of Contract Agreement	31-Oct-25	7-Nov-25		
i.	Mobilization Advance and ongoing payments	8-Nov-25	29-Nov-25		
3	PROCUREMENT AND INSTALLATION OF AWS				
a.	Supply of AWS under Phase-I Plan (Lot-I & Lot-II)	01-Jul-25	31-Dec-25		Contract negotiated and signed on 18 th December, 2025
4	PROCUREMENT OF HPC				
a.	Review of Bidding Documents and Recommendations by SI Consultants*	29-Sept-25	13-Nov-25		Preparation of specification of HPC initiated
b.	Finalization of Bidding Documents	14-Nov-25	27-Nov-25		
c.	NOL from WB on draft bidding Documents	28-Nov-25	04-Dec-25		
d.	Issuance of IFB	05-Dec-25	05-Dec-25		
e.	Submission / Opening of Bids	06-Dec-25	19-Jan-26		
5	SYSTEM INTEGRATOR				
a.	Standstill Period	18-Aug-25	2-Sept-25		Previous Procurement cycle concluded towards cancellation Alternate procurement sources being explored including
b.	Negotiations & Award of Contract	3-Sept-25	10-Sept-25		
c.	Signing of Contract Agreement	11-Sept-25	18-Sept-25		
d.	Mobilization Advance and ongoing payments	19-Sept-25	17-Oct-25		
e.	Implementation Period	18-Oct-25	30-Nov-28		

S. No.	Activity	Planned Commencement Date	Planned Completion Date	Actual Completion Date	Current Status / Reason of Delays if any
					WMO in the said context while keeping the World Bank and relevant offices updated and in loop.

S. No.	Activity	Planned Commencement Date	Planned Completion Date	Actual Completion Date	Current Status / Reason of Delays if any
	PACKAGE-II: PROVISION OF TECHNICAL ASSISTANCE, INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING				
1	HIRING OF SUPERVISION CONSULTANTS FOR CIVIL WORKS (CQS)				
a.	Implementation Period	27-Mar-25	17-Mar-26		Firm onboard and operational
2	PROCUREMENT OF CIVIL WORKS CONTRACTOR				
a.	Approval of Bids Evaluation Report	14-Aug-25	25-Sept-25		Initial bids process accomplished. Re-bidding process started awaited World Bank response
b.	NOL from WB	25-Sept-25	2-Oct-25		
c.	Notification of Evaluation	2-Oct-25	16-Oct-25		
d.	Stand Still Period	16-Oct-25	30-Oct-25		
e.	Notification of Award	30-Oct-25	6-Nov-25		
f.	Performance Guarantee	6-Nov-25	4-Dec-25		
g.	Signing of Contract Agreement	4-Dec-25	11-Dec-25		
h.	Mobilization Advance Payment and ongoing payments	11-Dec-25	1-Jan-26		
3	CAPACITY BUILDING, TRAININGS				
4	Supply Of Electrical and Mechanical Workshop Equipment Lot 1: Mechanical Equipment, Lot 2: Electrical Equipment	1-Jan-25	30-Sept-25		Pending as it is related to supervision consultants for Radars
5	CDPC/RCDPCs Lot-1: Centralized Data Repository	1-Feb-25	31-Dec-26		

5.9 Analysis of Delays and Contributing Factors:

SI #	Reference	Follow up Action: Information required by M&E Consultant	Status
1	Ref : Minutes of Meeting 2 held on 27th June, 2025	<i>Targets of all activities under Component- II will be shared by PIU-PMD" by 5th July,2025</i>	Awaited until AWP received by the end of December 2025
2	Ref: Minutes of 6th Meeting held on 22 nd August 2025: Follow up action of Item II of the agenda on "Process Monitoring"	<i>"PIU-PMD will provide a copy of bidding document to M&E Consultants to extract relevant information like timeline/milestones of the installation and operations of AWS/Radars "</i>	Confidentiality requires not to be shared
3	Ref: Minutes of 6th Meeting held on 22 nd August, 2025: Follow up action of Item IV on "Improved Accuracy of Weather Forecast"	<i>" PIU-PMD will provide JICA study to M&E Consultants to help facilitate monitoring of the measures leading to increase forecast from 3 to 5 days"</i>	Does not fall under the domain of PIU-II
4	Ref: Minutes of 7th Meeting held on 17 th September 2025: Follow up action of Item II on "Process Monitoring"	<i>Through the Deputy Project Director, M&E Consultants will follow up with Procurement section for obtaining a copy of bidding document enabling them to extract relevant information like time line/milestones of the project activities.</i>	Bidding documents are to be treated as confidential

6

Analysis of Delays:

Procurement Contract(s) signed with tentative delivery during the second half of the year 2026 for Automatic Weather Stations (AWS) and Agromet Sensors.

Technical Specifications for WSRs were submitted on 15th December 2025 with necessary revisions as required by Economic Affairs Division (EAD) and the World Bank (WB). Approval awaited from WB for further process.

The delay was primarily attributable to multiple review cycles and successive revisions required to address technical and contextual observations. Responsibility for the delay was shared, with contributing factors including the time required by the consultants to incorporate comments and the sequence and timing of feedback received from the PIU and the World Bank.

5.10 Key Gaps Identified:

- **Absence of a Component-II MIS:**

There is no dedicated MIS for tracking Component-II activities. As a result, design progress, procurement status, contract milestones, and site readiness are not centrally visible to FPMU or the M&E team.

- **Weak Tracking of Design and Procurement Milestones:**

There is no consolidated milestone register covering feasibility, design approval, procurement stages, contract award, or mobilization. This limits early detection of delays and makes schedule risk reactive rather than preventive.

- **Lack of Linkage Between Gaps and Implementation Risk:**

While gaps are mentioned, they are not linked to likely impacts on timelines, costs, or sequencing, which reduces their usefulness for management decision-making.

5.11 Implications if Unaddressed

If these gaps persist as Component-II moves into physical execution, the following risks are likely:

- Delays in procurement and mobilization may surface late, after contracts are already committed.
- Physical progress may stall due to unresolved site readiness issues.
- PMIS will remain a reporting repository rather than a management tool.
- FPMU will have limited early-warning visibility on schedule and coordination risks.

5.12 Process Monitoring Observations:

Stage	Milestone	Status	M&E Interpretation
AWS site selection	Completed	Documentation complete	Geographic distribution verified; data coverage nationwide.
AWS procurement	Technical & financial evaluation	Procurement Contract signed on 18 th Dec, 2025	Dependent on efficient implementation in forth coming quarters.
Radar supervision & civil- works procurement	Specifications and Bidding documents submitted to the World Bank	In process	Tendering concurrent; schedule congestion risk.
GRM validation	Infrastructure completed	with Banner displayed and Complaint Box placed at PIU-II. No complaints received during the quarter	Work at field level not yet started Awareness to be raised among stakeholders about GRM

6. CONSOLIDATED RISK AND IMPACT MATRIX – COMPONENT-II

The consolidated risk and impact matrix for Component-II highlights critical gaps in monitoring systems, milestone tracking, and site readiness oversight that constrain effective implementation management. Absence of a dedicated Component-II MIS and structured milestone registers has limited visibility on progress and increased the risk of unanticipated schedule slippages. Weak linkage between identified issues, their impacts, and corrective actions in periodic reporting further reduces the decision-support value of QPRs. To mitigate these risks, targeted corrective actions focusing on interim tracking tools, milestone management, site readiness verification, and strengthened issue-action reporting frameworks are planned for phased implementation from Q3 onward, ensuring improved accountability, proactive risk management, and enhanced management oversight.

6.1 Component-2 Corrective Action Matrix:

Issue	Impact on Implementation	Responsible Entity	Corrective Action	Timeline
Component-II lack its own MIS	Limited visibility on progress and delays	PIU Component-II with FPMU	Develop interim Component_II tracking module or structured milestone tracker compatible with PMIS	Q3
No design and procurement milestone register	Risk of undetected schedule slippage	PIU Component-II	Establish and maintain a milestone register covering design, procurement, and mobilization	Q3
Weak site readiness tracking	Construction delays after award	PIU Component-II with RMCs and line departments	Introduce site readiness checklist as per WMO standards and verification prior to AWS procurement and mobilization	Q3
Gaps not linked to actions in reporting	Limited decision value of QPRs	M&E Consultants	Integrate issue, impact, and action format in Component-II reporting	Q3 onward

7. CORRECTIVE ACTION PLAN FOR THE NEXT QUARTER (JAN – MAR 2026)

Based on monitoring findings during the second quarter, corrective actions for the next reporting period (January-March) will focus on strengthening implementation readiness under Component-II and addressing risks identified in relation to sits finalization, civil works, milestone tracking, and related activities.

Key corrective actions to be monitored during the next quarter include:

- **Expedite and Complete of ongoing/ pending matters:**

Additional Funding case and consequent revision of PC-1, Tax exemption case, appointment of new Dy Project Director, Specifications to be developed by relevant expert to start procurement of HPC/System Integrator and institutional development plan

- **Establishment of a Component-II milestone tracking mechanism:**

Support PIU-Component-II in operationalizing a consolidated milestone register covering design, approvals, procurement readiness, and mobilization indicators.

- **Updating and alignment of implementation timelines:**

Review and update planned timelines for Component-II deliverables based on actual progress achieved to date and align revised timelines with procurement sequencing and anticipated commencement of physical works for improved tracking during the next quarter.

Progress against these actions, including adherence to updated timelines, will be reviewed through routine coordination with the PIU, document verification, and milestone tracking as part of the Q-3 monitoring cycle.

ANNEXURES

Key meetings held during the reporting period are summarized below

Coordination Meetings with PIU-II

Minutes of Meetings



Date October 23, 2025

Venue: PIU-Office, Saidpur Islamabad

Participants:

1. Mr. Basharat Khan, SSS/ M&E Specialist
2. Dr. Sajjad Haider, PC (Tech)
3. Dr Shahzada Adnan, Senior Met Associate
4. Dr. Bilal Ahmed. Cons. Hydrology
5. Mr. Abdul Basit, Project Coordinator Management& Policy
6. Muhammad Faizan Afzal APM
7. Major Muhammad Kaleem , Electronic Engineer
8. Engr Hafiz Abdul Rauf, CEO Ease Pak, Project Coordinator M&E Consultants
9. Mr. Rizwan Ahmed, Team Lead, M&E Consultant, Quetta (on Zoom)
10. Mr. Rizwan Saleem, MIS Specialist, M&E Consultant (IFRAP), Lahore (On Zoom)
11. Dr Shabbir Hussain, Sr M&E Specialist, M&E Consultants IFRAP, Islamabad

Agenda:

- Development and deployment of GRM at PIU-PMD
- PIU-MIS integration with Project Management Information System
- Regular monitoring (Spot Check/Process monitoring)

Proceedings:

On the request of M&E Consultants, IFRAP, a meeting was held with PIU-PMD on 23rd October 2025 at PIU office Saidpur, Islamabad. The Team Lead and MIS Specialist participated actively in the meeting through Zoom link from Quetta and Lahore respectively.

Starting with a brief introduction, Engr Hafiz Abdul Rauf, CEO, Ease Pak explained the purpose and the agenda points of the meeting

Summary of discussions and follow up actions of the meeting are summarized below:

Development and Deployment of GRM at PIU-II

Accessible through WhatsApp call, SMS, mobile call, Email, other communication means, and a complaint box placed with Banner, GRM is operational at the PIU-PMD with full time support of GRM Associate (Mr Amjad Shakeel) deployed by M&E Consultants for component -2 based in Islamabad.

The Focal person responsible for GRM at PIU informed that since there is no physical activity initiated at field level therefore, no grievance has been received as yet. Therefore, the progress under GRM

to be reported as NILL in the following specified format. The same status of GRM progress has been included in QPR (July-September 2025) submitted early this week by PIU to FPMU.

Complaint	Applicant Details	Received by / Level	Received Date	Action Taken	Time Taken	Status
-	-	-	-	-	--	-

Follow up Action : *Agreeing to and complimenting each other, PIU-PMD and M&E Consultants (IFRAP) , it was clarified that the progress report on GRM in the specified format stands as NILL for the quarter ending 30th September 2025.*

II Integrating MIS of Component-2 with PMIS

M&E Consultants informed that as one of its deliverables under the contract with IFRAP is development and deployment of Project Monitoring Information System (PMIS). Accordingly, M&E Consultants have developed and deployed integrating it with MIS of respective PIUs who have already developed their own MIS.

PIU-II informed that MIS at component-2 has not been developed so far and as such there exists no provision in the project document relevant to Component-2 for the development of MIS at PIU level. MIS Specialist M&E Consultants informed that MIS integration requires tracking of activities consistent with timeline/milestones and workplan of respective components.

Extending cooperation and technical support, MIS Specialist agreed to help assist PIU in developing and operation of MIS at PIU level based on easily available information to be provided by PIU required for developing MIS compatible to PMIS. Accordingly, he will be visiting PIU next week for a few days to accomplish this vital task.

Follow up Action: *PIU-PMD will provide a copy of Tender/bidding document to M&E Consultants to extract relevant information like timeline/milestones of procurement, installation and operations of AWS/Radars.*

III Regular Monitoring

Besides conducting Baseline Survey, M&E Consultants have already undertaken regular monitoring of ongoing field activities of IFRAP components in Baluchistan. Earlier, M&E Consultants developed Progress Tracker to monitor construction and financial progress of houses constructed in model village (Jaffar Abad) and others. Field teams are conducting field visit/spot checks which will continue on regular monthly basis. Accordingly, progress reports /special reports as per request of FPMU are prepared /submitted by M&E Consultants to FPMU.

To observe working and operations of observatories /Radars, the participants suggested and agreed for M&E Consultants teams to visit Observatories/Radars in Lahore, Mardan on the next day and Karachi during early next week.

The Team Lead M&E Consultants (on Zoom from Quetta) informed that except for security restricted districts, the M&E field teams have completed Baseline Survey and collected data from all the 2022 floods affected districts in Baluchistan. He informed further that M&E Field teams also visited four district offices at Sibi, Gowader, Lasbella and Quetta in collaboration with and support of PMD Regional Office Quetta to collect preliminary information at district office level like knowledge about hydromet, custodian of info desk/deptt, type/use and condition of equipment available, frequency of data/information flow etc.

Keeping in view the prevailing indicators for M&E Consultants with “0” baseline value as has already been specified in WB (revised) document, the baseline would not essentially be required. It was already discussed in detail during last meeting held on 17th September 2025 at H/Q PMD.

Follow up Action: *PIU-II will facilitate M&E Consultants for their site field visits to Observatories /Radars at Lahore and Mardan on the next day (24 October, 2025) and Karachi (on Monday/Tuesday)*

The Meeting concluded with vote of thanks to the participants.

2

Date: October 06, 2025

Venue: RMC Quetta

Purpose of the Field Visit:

- Debriefing on the working of Regional Centre
- Coordination for conducting Field survey

Participants:

- Mr Mukhtar Magsi, Regional Director PMD Quetta and Quetta PMD Officials
- Irfan Ahmed, M&E Consultants

I Background:

Component-2 of the World Bank's project "Integrated Flood Resilience and Adaptation Project (IFRSP)" provides technical and financial support for Strengthening Hydromet and Climate Services. Under this component, PMD will purchase and install 4 modern surveillance radars to be installed in DIK, Lahore, Gwadar and Quetta besides 110 automatic weather stations (AWS) to be installed in the four provinces including 45 in Balochistan and the rest in other provinces. It will modernize observation infrastructure, data management, and forecasting systems, besides institutional strengthening, and capacity building.

In order to observe working and operations of PMD in Baluchistan and to facilitate a brief survey in Baluchistan, a meeting was held on 06 October, 2025 in the Regional Office PMD Quetta.

After brief introduction, Mr. Mukhtar Magsi, Regional Director Quetta, provided debriefing on the working and operations of Met centers/observatories operational in Balochistan.

Pakistan Meteorological Department (PMD) stations, both manual and Automatic Weather Stations (AWS), work by using sensors to measure key weather variables like temperature, humidity, wind, and rainfall, logging this data, and transmitting it via telecommunication systems (like satellite or GPRS) for analysis and forecasting, supporting aviation, disaster management (floods, tsunamis), agriculture, and public safety across Pakistan.

The Regional Meteorological Center, Quetta was established in 1951. The initial objective of RMC, Quetta was to record seismic activities in the Balochistan region, as the north-western part of Balochistan region lies at high seismic activity zone. Gradually, the role of the office was extended, and it received the status of Regional Meteorological Center. RMC Quetta, controls various observatories all around the province and provides services related to Weather, Weather Forecast, Climate, Seismic activities, Ozone Layer etc.

The Pakistan Meteorological Department (PMD) office in Quetta is the Regional Meteorological Centre (RMC), located in Shaikh Manda, Airport Road, Quetta, Balochistan, providing weather, climate, and seismic services for the region, with a key contact being Arif Khan and the station number listed as 081-2301676, overseeing observatories like P.B.O. Sheikhmanda.

Major services performed by RMC Quetta include : Seismic activity monitoring, evaluation & reporting; Co-ordination with the Observatories under RMC, Quetta, gathering data and forwarding it to the concerned authorities.; Obtaining data related to Ozone layer, on daily basis; Providing daily Weather

Report to the media and other concerned agencies; Climate data processing; Moon Sighting; Provision of Meteorological data for court cases, insurance claim, inquiry reports etc

M&E visiting team shared an android based designed survey to collect Hydromet District Level Information from the district offices in Gwadar, Sibbi, Quetta and Lasbella.

Mr Mukhtar Magsi assured full coordination and extend necessary assistance to conduct this survey. He also shared some information collected through their own surveys.

Mr Magsi highlighted a major issue of access to information of Weather Station administered by Irrigation Deptt.

The meeting ended with traditional hospitality and vote of thanks



3

Date: November 17, 2025

Venue: PIU-PMD, Saidpur Islamabad

Participants:

- Dr. Sajjad Haider, Deputy Project Director
- Mr. Basharat Khan, SSS/ M&E Specialist
- Muhammad Faizan Afzal APM
- Major Muhammad Kaleem, Electronic Engineer
- Mr. Rizwan Ahmed, Team Lead, M&E Consultant, Quetta (WhatsApp group call)
- Mr. Rizwan Saleem, MIS Specialist, M&E Consultant (IFRAP),
- Dr Shabbir Hussain, Sr M&E Specialist, M&E Consultants, Islamabad
- Muhammad Amjad Shakeel, GRM Associate, M&E Consultants

Agenda:

Debriefing on QPR -01 Component-II (June-September 2025)

Proceedings:

On the request of M&E Consultants, a meeting was held with PIU-PMD on 17th November, 2025 at 11:00 am in the Conference Room of PIU-PMD, Saidpur, Islamabad. The Team Lead and MIS Specialist participated in the meeting through Group What Call from Quetta and Lahore respectively.

Starting with a brief introduction, Sr M&E Officer M&E Consultants explained the purpose of the meeting with one point agenda of debriefing on QPR-01 (June- September 2025) for component -II prepared by M&E Consultants

QPR of Component-2 was displayed on multimedia and the participants discussed and reviewed every section of the report. Summary of discussions is summarized below:

The term **Hydromet** remained under discussions for clarity. It is used extensively in Component-II of IFRAP particularly in the PAD, revision and other relevant documents. The participants elaborated for mutual understanding. Essentially a hydromet station is an automatic system that measures both hydrological and meteorological parameters to monitor water and weather conditions. After discussions at length, Mr Basharat Khan, Maj Muhammad Kaleem and Mr Rizwan Saleem agreed on unanimously that **hydromet means Hydrology + Meteorology** - a science that deals with atmospheric, weather, water, and climate phenomena Hydromet services provide real-time weather, water, early warning, and climate information and data critically needed for growth and sustainable, climate-resilient development (Ref: World Bank Brief on Hyderomet, Africa, Sep, 2017¹).

In the light of discussions and agreeing mutually, Mr Faizan Afzal prepared notes and necessary changes and shared with Sr M&E Officer for updating the QPR.

Major edits /changes and updates were related to the following:

¹ <https://www.worldbank.org/en/region/afr/brief/hydromet-in-africa#:~:text=What%20is%20hydromet%20?,climate%2Dresilient%20development%20in%20Africa.>

- Due to non-commencement of physical work at fields level, no complaint has been received yet. Visibility campaign and dissemination of complaints mechanism (GRM) will be operational on project sites once the work commencement is started at sites
- Capacity building including training of 117 PMD officials on digitized survey conducted in June 2025 and the outcome of three surveys to assess: (i) PMD's Infrastructure; (ii) Forecasting System and (iii) Service Delivery with geographic coverage of all the five Regional Centres: Lahore, Karachi, Peshawar, Quetta, Gilgit -Baltistan be highlighted in M&E's QPR-01
- Findings of Pre-Baseline Conducted by PIU-II: (i) Flood Early Warning; (ii) Observatory Survey and (iii) Agrometeorology Survey be mentioned in QPR
- Activities accomplished at IMG Karachi during this quarter be included

The Meeting concluded with vote of thanks to the participants.

4

Date: November 21, 2025

Venue: FPMU Conference Room Islamabad

Participants:

- 1 Mr. Rafay Durrani, M&E Specialist, IFRAP
- 2 Dr Shabbir Hussain, Sr M&E Officer, M&E Consultants
- 3 Muhammad Amjad Shakeel, GRM Associate, M&E Consultants

Agenda: To Review Revised Framework

Proceedings:

A meeting of M&E Consultants was held with M&E Specialist, IFRAP to review revised M&E Framework. After necessary discussions and clarifications, M&E Specialist IFRAP provided comments/guidelines as summarised below:

Section 5.5: Revised Result Framework

- ***Sub-indicators** of the **indicators** are required to be specified and added which can be obtained/aligned from relevant Tools*

Section 6.1: Log frame Matrix

- ***Remove** all four lines which are marked as “**deleted**” under log frame matrix*
- ***Sub-indicators** to be specified and added / included in the table of log frame matrix*
- ***PDMA** as mentioned under MoVs is a question mark. It needs to be critically reviewed whether the required data/reports can be obtained from PDMA otherwise be deleted*
- *The **numbers/figures** given under the column “Indicators (with Baseline and Target)” for Number of households benefitting from improved hydromet and early warning services seems **incorrect** and require to be aligned with revised AF document. **TBD** now needs to be specified as per results of Baseline survey.*
- *Capacity enhancement of PDMA mentioned along with PMD is not under our scope*

Section 6.2: 6.2 Indicator Alignment with Project Components

- *Referencing of relevant **tools** to be added against the respective indicators*
- *Financial monitoring as mentioned in the scope under section 3.2 (p3) may take some time to streamline and collect financial information from the respective components. Therefore, we may keep it pending for the time being.*

Comments on number of Kilometers, bridges received from PIU Component-I is not valid in the light of document/paper on Restructuring and additional financing proved by the World Bank

5

Date: December 10, 2025

Venue: PIU-Component II, Office

Participants:

- 1 Dr. Sajjad Haider Dy Project Director
- 2 Dr Shahzada Adnan, Senior Met Associate
- 3 Muhammad Faizan Afzal APM
- 4 Dr Shabbir Hussain, Sr M&E Specialist, M&E
- 5 Muhammad AmjBaseline of Component-II

Proceedings:

The main agenda item of the meeting was to discuss and seek clarifications and the point of view of Component-II on conducting baseline.

As outlined in the M&E Framework, the approach adapted by M&E Consultants is consistent with World Bank's good practice guidance for infrastructure and system-strengthening projects, wherein baseline conditions for technical systems are established through engineering and operational audits rather than population-based surveys.

Unlike Components 1 and 3, which involve community-level assets and direct beneficiaries, Component 2 (Strengthening Hydromet and Climate Services) focuses on institutional and technological infrastructure. Its interventions, comprising the installation and operationalization of Automatic Weather Stations (AWS), RADAR systems, and hydrological models, do not generate household or community-level baseline data. Therefore, a conventional baseline survey is not required or methodologically justified for this component.

Follow up Action: A formal letter will be issued from Dy PD to IFRAP about the conducting Baseline for Component-II

6

Date: December 29,2025

Venue: PIU-Component II, Office Saidpur Islamabad

Participants:

Mr. Basharat Khan, SSS/ M&E Specialist
Muhammad Faizan Afzal APM
Dr Shabbir Hussain, Sr M&E Officer, M&E Consultants, Islamabad
Muhammad Amjad Shakeel, GRM Associate, M&E Consultants

Agenda:

- Data Required for Quarterly Progress - Component-II (October-December,2025)

Proceedings:

On the request of M&E Consultants, a meeting was held with the Focal Contact of PIU- Component – II on 29th December 2025 at 11:00 am. The main agenda item of the meeting was debriefing on the progress of the quarter ending December 2025. The Progress Update on major activities as summarized below:

- **Appointment of new Deputy Project Director:** Applications received from 26 applicants are being considered/reviewed by the Selection Committee. Appointment of DDP is likely to be completed in January
- **Automatic Weather Stations (AWS) and Agromet Sensors: Procurement** Contract(s) signed with tentative delivery during the second half of the year 2026
- **Fixed Weather Surveillance Radars (WSR):** Technical Specifications were submitted on 15th December 2025 with necessary revisions as required by Economic Affairs Division (EAD) and the World Bank (WB). Approval awaited from WB for further process

M&E Consultants team provided and requested Excell based data sheet required for PMIS and also visited Complaints reporting point C-II where there were found no complaints in the Complaint box placed near Conference room of PIU-C_II

Follow up Action: *Mr Faizan will provide available fortnightly reports and excel based updates on the data sheet provided by M&E Consultants and progress update on AWS and WSR*

FIELD VISITS TO RADARS STATIONS

QUARTER-2 (October-December 2025)

1

Field Visit of Flood Forecasting and Warning System, Mardan

Date: October 24, 2025

Venue: Fazal Abad (Mardan)

Purpose of the Field Visit:

- To conduct on the spot visit to understand and observe existing/operational Flood Forecasting and Warning System
- To conduct a preliminary survey through Android application developed by M&E Consultants (IFRAP)

M&E Visiting Team:

1. Engr Hafiz Abdul Rauf, CEO Ease-Pak Project Coordinator M&E Consultants
2. Dr Shabbir Hussain, M&E Consultants IFRAP

FFWS Staff/ Participants of FGDs:

- 1 Sub-Engineer Mr. Shafqat Wazir
- 2 Sub-Engineer Mr. Umar Shah
- 3 Engr Mr. Bilal Ahmed , Senior Observer
- 4 Mr. Aftab Alam, Met Assistant
- 5 Mr. Shair Bahadar , Local Activist

I. BACKGROUND

Component-2 of the World Bank's project "Integrated Flood Resilience and Adaptation Project (IFRSP)" provides technical and financial support for Strengthening Hydromet and Climate Services. Under this component, PMD will purchase and install 4 modern surveillance radars at DIK, Lahore, Gwadar and Quetta besides 110 automatic weather stations (AWS) to be installed in the four provinces including 45 in Balochistan and 25 in KP. It will modernize observation infrastructure, data management, and forecasting systems, besides institutional strengthening, and capacity building.

M&E Consultants (IFRAP) have been assigned to monitor project activities. To observe working and operations of observatories /Radars and to collect preliminary information through short survey on OKD , M&E Consultants teams planned to visit Observatories/Radars in Lahore, Mardan and Karachi during the last week of October, 2025 in collaboration with and support of PIU-PMD. Earlier, M&E Field teams also visited four district offices at Sibi, Gowader, Lasbella and Quetta in consultation with PMD Regional Office Quetta to collect preliminary information at district office level like knowledge about hydromet, custodian of info desk/deptt, type/use and condition of equipment available, frequency of data/information flow etc.

With this background an M&E Consultants team comprising CEO, Ease Pak and Sr M&E Specialist conducted a field visit to Mardan on 24th October 2025.

2. BRIEFING TO VISITING TEAM

Mardan, located in the Khyber Pakhtunkhwa (KP) province, is vulnerable to riverine floods from the Kabul River and its tributaries, as well as flash floods from hill torrents. An interactive briefing session was organized in the FFWS office. The Field staff informed that the FFW Observatory Mardan was established in 2018. It is managed by the Pakistan Meteorological Department (PMD) in coordination with national and provincial disaster management authorities.

A flood forecasting and warning system combines data forecast tools to predict floods and alert the public to allow for timely precautionary measures. It involves a multi-step process, from data collection and risk assessment to warning dissemination and community response capabilities.

2.1 Automated Weather System (AWS)

An automatic weather station (AWS) automatically collects and records weather data (at 10 minutes interval) using sensors, a data logger, and a power source like a solar panel. These systems are used for weather forecasting, agriculture, and scientific research by providing real-time, automated measurements of parameters like temperature, wind speed, rainfall, and atmospheric pressure. The data can be stored locally or transmitted wirelessly in real-time. AWS is operational at FFW Mardan. The working of AWS was demonstrated to the Visiting team

2.2 Weather Surveillance Radar

The team was briefed about the working of Weather Surveillance Radar (WSR) which is X-Band installed at the top of the purpose-built building. It covers all the areas in the radius of 150 Km including major sites/locations like Nowshera, Kohat, Mingora, Abbottabad, Malakand, Mardan, Attock, Wah, Risalpur. PAF is a major beneficiary of WSR Mardan.

The system installed at FFW Mardan integrates data from weather radar and automatic weather stations (AWS) to provide a more accurate and comprehensive flood forecasting capability.

2.3 Observatory and Other Equipment

FFWS Mardan records and transmits data from Observatory to RMC Peshawar on hourly basis. Data is further processed at RMC Peshawar to generate and transmit weather and floods forecasting, issuing alerts to the potential users of information like agriculture and research organizations. Briefing on functions and operations was given on the other equipment installed in a wide lawn which included: Sun Steven Screen, Pan Evaporator Soil Thermometer, Rain Guage, Sunshine recorder, Wind Vane (wind direction) and Solar plant

III Instant Survey

M&E Consultants Team collected basic data using applications on Android smart phone. Responses of all the questions were entered instantly and transmitted to M&E Consultants IT department based in Quetta. The basic information collected through this survey includes: site location through coordinates, equipment operational conditions, data collection and flow etc.



2

Field Visit: Pakistan Metrological Observing Station, Karachi

Date: October 27, 2025

Venue: Pakistan Metrological Observing Station Airport Karachi
Institute of Metrology and Geophysics Karachi

Purpose of the Field Visit:

- To conduct on the spot visit to understand and observe existing/ operation of Radar Station
- To observe training at Training Institute

M&E Visiting Team:

Furqan Ahmed

Background

Pakistan Meteorological Observation Stations, run by the PMD, work by using sensors (like thermometers, barometers, anemometers, rain gauges) to collect real-time weather data (temp, humidity, wind, rain, etc.), logging it with a data logger, and transmitting it via telemetry (GPRS, satellite) to central offices for analysis, forecasting, and issuing warnings for aviation, agriculture, disaster management (floods, tsunamis, earthquakes), supporting a network of manual and automated stations across Pakistan, including remote areas.

Key Components & Process

Sensor Network: Stations are equipped with various sensors measuring parameters like temperature, humidity, wind speed/direction, rainfall, pressure, and solar radiation.

Data Logging: A [data logger](#) automatically records these sensor readings at set intervals.

Data Transmission: Data is sent to central processing centers using communication systems like GPRS or satellite, often facilitated by systems like LoRa for remote sites.

Manual vs. Automatic Stations: Some locations have

traditional manned observatories (e.g., airports), while Automatic Weather Stations (AWS) operate remotely, powered by solar/wind, for continuous data from high-altitude or difficult-to-reach areas.

Functions & Services

- **Data Collection:** Gathers meteorological, geophysical, and phenological data nationwide.
- **Forecasting:** Analyzes data to provide weather forecasts for public safety, aviation (air, land, sea), and agriculture.
- **Early Warning Systems:** Crucial for disaster mitigation, issuing alerts for floods (e.g., Lai Nullah), tsunamis, and earthquakes through an upgraded seismic network.

3

Visit to Radar Station, Islamabad

Date: December 31, 2025

Venue: PMD Hq Islamabad

Purpose of the Field Visit:

To conduct on the spot visit to understand and observe existing/ operational Weather Forecasting System

M&E Visiting Team:

Dr Shabbir Hussain, M&E Consultants

Radar Staff/ Participants of FGDs:

1. Dr Shahzada Adnan, Senior Met Associate
2. Mr. Waqas Ali , Electronic Engineer.
3. Mr. Arshad Javed, Electronic Engineer
4. Mr. Imran Aslam, Electronic Engineer
5. Mr. Zahir Hussain, Electronic Engineer
6. Mr. Abdul Rehman, Electronic Engineer

Background:

Component-2 of the World Bank's project "Integrated Flood Resilience and Adaptation Project (IFRSP)" provides technical and financial support for Strengthening Hydromet and Climate Services. Under this component, PMD will purchase and install 4 modern surveillance radars to be installed in DIK, Lahore, Gwadar and Quetta besides 110 automatic weather stations (AWS) to be installed in the four provinces including 45 in Balochistan and the rest in other provinces. It will modernize observation infrastructure, data management, and forecasting systems, besides institutional strengthening, and capacity building.

In order to observe working and operations of Radar in Islamabad, a brief debriefing session was held on 31st December, 2025 at the site/ weather radar tower located at the Pakistan Meteorological Department (PMD) Headquarters in Sector H-8/2, Islamabad which is a prominent 73-meter-high landmark near Zero Point.

The current tower is a modern Doppler weather radar installed with assistance from the Japan International Cooperation Agency (JICA). It became operational around 2018, replacing an older system from 1991. It has an observation range of 400 kilometers, providing real-time data on cloud formations, rainfall intensity, thunderstorms, and hailstorms for Islamabad and surrounding regions.

Weather Surveillance Radar

The team was briefed about the working of Weather Surveillance Radar (WSR) which is S-Band installed at the top of the purpose-built building. It covers all the areas in the radius of 450 Km

Islamabad's weather radar coverage shows real-time precipitation (rain, snow) and storm movements using various online weather services like AccuWeather, Weather & Radar, Zoom Earth, and The

Weather Channel. These interactive maps offer detailed views of current weather, forecasts, wind, and satellite imagery, often updated every few minutes to help users track storms and plan activities.

The weather radar (Islamabad) shows where it is currently raining or snowing.

The radar map is updated every 5 minutes with a new radar observation. The different colours indicate the intensity of rainfall or snowfall. Light blue indicates drizzle, blue a medium intensity, and red and yellow indicate very strong precipitation, usually associated with thunderstorms. Current lightning strikes are marked with small orange dots on the map. Note that lightning is not shown on the forecast, as it cannot be predicted. Moreover, some countries do not operate a weather radar network, and in those countries satellite data is used to estimate rainfall, which is less accurate than a Realtime weather radar.