



## CREWS PROJECT PROGRESS REPORT

(January - June 2023)




<b>1. Project title</b>	Afghanistan - AF-ECLIM: Enhancing hydromet, early warning and climate Services for Resilience	<b>2. Project reference</b> <b>CREWS/CProj/10/Afghanistan</b>
<b>3. Implementing Partners involved in the project</b>	World Bank (lead) (WB) World Meteorological Organization (WMO)	<b>4. Regional/National Partners involved in the project</b> Under revision (no direct engagement policy): Afghanistan Meteorological Department (AMD), National Water Affairs Regulation Authority (NWARA) - General Directorate of Water Resources (GDWR), Ministry of Agriculture, Irrigation and Livestock (MAIL), Ministry of Rural Rehabilitation and Development (MRRD), State Ministry of Disaster Management (SMDM), National Statistics and Information Authority (NSIA)
<b>5. Project Duration/Timeframe (from year – to year)</b>	September 2019 – December 2023 – extended till December 2025	<b>6. Total Funding Approved by Steering Committee (in US dollars), including fees</b> 3,660,000
<b>7. Reporting focal point(s) from Implementing Partners</b>	<b>World Bank</b> Yunziyi Lang, Climate Change Specialist - <a href="mailto:ylang@worldbank.org">ylang@worldbank.org</a> Efreem Ferrari, Consultant - <a href="mailto:eferrari@ifc.org">eferrari@ifc.org</a>  <b>World Meteorological Organization</b> Rokhaya Ba - <a href="mailto:rba@wmo.int">rba@wmo.int</a> Luis Roberto Silva Vara - <a href="mailto:LSilvaVara@wmo.int">LSilvaVara@wmo.int</a>	



<p><b>8. Project overview</b></p>	<p><b>Please include objectives, key project deliverables, leveraging, contextual information/statistics, significant events during the reporting period <u>in bullet points</u>. (max 250 words)</b></p> <p><b><u>Objectives:</u></b> Revised project objective: <i>to improve the delivery of hydromet, climate and early warning services to relevant stakeholders and strengthen the knowledge of climate risk management and resilience building practices for Afghanistan.</i></p> <p><b><u>Key Deliverables:</u></b></p> <ul style="list-style-type: none"> <li>• Production, translation and communication of weather forecasts, hydrological forecasts, and impact-based information;</li> <li>• Delivery of services to stakeholders and end-users for priority sectors including improvement in the dissemination of warnings for public safety and economic sectors;</li> <li>• Improvement of the information, including through regional collaboration.</li> <li>• Enhanced decision-making to mitigate the adverse impacts of natural hazards on life, livelihoods and property.</li> </ul> <p><b><u>Significant events during the reporting period:</u></b> Engagement limitation and travel restriction persisted till May 2023, limiting the capacities of implementing partners to actively engage with technical agencies and stakeholders. The situation has improved in the last few months of the reporting period, particularly with the organization of the First Steering Committee meeting for the program (refer to the bullet below).</p>
<p><b>9. Progress summary</b></p>	<p><b>What has been achieved <u>during this reporting period?</u> – Please list <u>in bullet points</u> the most significant and tangible outcomes? (max 250 words)</b></p> <ul style="list-style-type: none"> <li>• On May 13<sup>th</sup>, 2023, the World Meteorological Organization (WMO) with the support of the World Bank (WB) convened a Steering Committee Meeting (SCM) for the CREWS Afghanistan Program. The meeting was attended by representatives of the hydrometeorological technical agencies from Afghanistan, Afghanistan Meteorological Department (AMD) and General Directorate of Water Resources (Ministry of Energy and Water - MEW), and by key users of hydromet data - Afghanistan National Disaster Management Authority (ANDMA) and Ministry of Agriculture, Irrigation and Livestock (MAIL). The meeting represented the first direct engagement with stakeholders since August 2021. The meeting objective were:</li> </ul>

	<ol style="list-style-type: none"> <li>1. to share the implementation status and key achievements of the CREWS Project</li> <li>2. to update the Afghan counterparts on the upcoming priorities for the CREWS Project</li> <li>3. to examine the status of hydromet, climate and early warning services provision and delivery in Afghanistan, including challenges and areas for enhancement</li> <li>4. To identify the main needs of Afghan agencies to enhance hydromet and early warning services</li> </ol> <ul style="list-style-type: none"> <li>• Under the Central Asia Flash Flood Guidance System (CARFFGS), three additional components have been completed by HRC, are operational and cover the Amu Darya and Syr Darya basins: the seasonal to sub-seasonal ensemble prediction, riverine routing and landslide components. These FFGS components will respectively allow to produce ensemble forecast of snowmelt, river discharge, reservoir/lake water levels and releases out to several months; allow to forecast flow discharge at specific location; and alert forecasters on the likelihood of landslide occurrence.</li> <li>• Step 4 and 5 trainings under the Pakistan and Afghanistan Flash Flood Guidance System (PARFFGS) training program were conducted in Islamabad, Pakistan (9-11 May 2023): it was attended by 10 participants (all males) from Afghanistan (7 from AMD and 3 from MEW). The goals were to provide better understanding of the system’s components and functionality, to enhance the capacity of the forecasters in using the system’s products to issue timely and accurate flash flood warnings, support the sustainability of the system and education of other colleagues.</li> </ul>
--	---

## 10. Project Performance

Interpretation of color coding		
<b>High</b>		Good progress; on track in most or all aspects of delivery
<b>Medium</b>		Moderate progress or on track in some aspects of delivery
<b>Low</b>		Less than moderate or poor progress. Not on track in critical areas of its delivery. Requires remedial attention



	Rate of expenditure	Rate of delivery	Alignment of Objectives
<b>Coding</b>			
<b>Narrative</b>	<p>Disbursement as of June 2023</p> <p><b>From WB side:</b>            Disbursed: USD 658,022 (27% of WB grant allocation)             Committed: USD 23,000 (1% of WB grant allocation)</p> <p><b>From WMO side:</b>            Disbursed: USD 377,044(39% of WMO grant allocation)             Committed: USD 73,7416(7.6% of WMO grant allocation),</p>	<p>The WB and WMO teams prepared an extension request for the CREWS Program, including a revision of activities as detailed in the “ Extension request” document.</p> <p>WB: Consultations, through WMO facilitation, carried out to understand the current landscape of hydromet services provision and delivery, informing Bank’s medium-term strategy to engage on climate resilience. No new activities were completed during the last reporting period.</p> <p>WMO: The implementation of the seasonal to sub-seasonal ensemble prediction, riverine routing and landslide components (under CARFFGS) have been completed by HRC and are now operational for the Amu Darya and Syr Darya basins. The CREWS and FFGS Steering Committee Meetings and FFGS trainings were conducted in Islamabad in May 2023.</p>	Fully aligned



## 11. Risk Status

<p><b>Risk Status</b></p>	<p>What is the current risk status as compared to what was identified in the project proposal?</p> <ul style="list-style-type: none"> <li>• The risk levels remain high because of the FCV context. The constraints due to the COVID situation are being eased; although efforts are ongoing to move ahead through virtual work situation.</li> <li>• On Dec 24, 2022, the Taliban Interim Administration (ITA) has ordered all foreign and domestic non-governmental groups in Afghanistan to suspend employing women.</li> <li>• On July 25, 2023, the ITA has announced a ban on all beauty salons in Afghanistan. The ruling is the latest curb on the rights and freedoms of Afghan women and girls following edicts barring them from education, public spaces and most forms of employment.</li> <li>• Operational limitations in directly engaging with Afghan Governmental Agencies affected the rate of delivery till the current reporting period. However, the situation as improved in the last few months with mission to the country resuming in July 2023. The revised workplan prepared, which takes into account the current operation context, should ensure a prompt resumption of activities.</li> </ul>
<p><b>Measures to address</b></p>	<p>What mitigation measures have been developed to address the risk status?</p> <ul style="list-style-type: none"> <li>• Enhance regional linkages and service delivery through international organizations and regional agencies active in the Country (e.g. Food and Agriculture Organization (FAO), Regional Integrated Multi-hazard Early warning System (RIMES), United Nations – Office for the Coordination of Humanitarian Affairs (UN-OCHA), World Food Programme (WFP), General Aviation Airport Coalition (GAAC), Pakistan Meteorological Department (PMD), Tajhydromet, Uzhydromet, South Asia Hydromet Forum);</li> <li>• Request an extension and restructuring of program to the CREWS secretariat to adhere activities to the current operational context while disinvesting from those activities which can't be implemented.</li> <li>• Align the revised project with the WB strategy for enhancing resilience of Afghanistan to external shocks, including natural hazards.</li> </ul>

## 12. Contributions to CREWS Output(s)

(use number for activities and products and % for project component completion)

## 12.1 National Output(s)

### CREWS Output(s) 1: National Meteorological and Hydrological Services service delivery improved, including the development of long-term service delivery strategies and development plans

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for reporting period	Progress by June 2023
Hydromet Concept of operations (CONOPS)	TOR developed	Activity completed	-	-
Services delivery strategy	TOR developed	The activity is completed for GDWR & on-hold for AMD.	Take stock of the status of hydromet services delivery under the new regime.	Technical discussion held with AMD and GDWR on hydromet services delivery. WMO & WB have requested detailed inputs on status of weather and hydrological stations.
Reinforcing the legal and institutional framework	TOR developed	Activity completed	-	-
Introducing QMS across operations of AMD and WRD-MEW to interact with their user communities	-	On-hold This activity has not yet been performed because TSMS was not able to twin with AMD.	None	Activity on hold but could be resumed in the next reporting period.



		Instead of twinning, it could be done through contracting.		
Developing stakeholder/user surveys to tailor the services for users	Surveys completed	On-hold	None	ToR has been developed. Alternative implementation modality through data-crowdsourcing currently in progress.
<p><b>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></b></p> <ul style="list-style-type: none"> <li>• The organization of the CREWS Afghanistan Steering Committee Meeting was the occasion to obtain an update from the Afghan Hydromet agencies on the status of service delivery and the main challenges &amp; needs currently faced – more details in the specific meeting report.</li> <li>• Activities which could be implemented remotely and without direct engagement with the Client have been completed and wrapped up. Pending activities, (e.g., stakeholder/user surveys) are currently being restructured and alternative implementation modalities are being discussed between WMO and WBG.</li> </ul>				

**CREWS Output(s) 2: Risk Information to guide early warning systems and climate and weather service developed and accessible**

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
---	------------------------	---------------------------	---------------------------------	-----------------------



Design of Drought Early Warning System	Design completed	-	-	-
Development of Drought Early Warning System	Established and functional	Tool developed, transfer of the tool from IWMI to a Public site to be completed during calendar year 2023.	Identify a solution to make the tool accessible to relevant stakeholders (incl. NHMSs, UN Agencies, MDBs, Donors).	ToR has been developed to convert the tool into an open-source interactive data and information platform, with the capacity to integrate other datasets.
Design of Agrometeorological services	Design document ready	TOR developed, activity currently on-hold	Engage with relevant Global Practices (GP) to foster collaboration.	Partnership established with Agriculture GP. An initial concept for the digital agromet advisory services prototype has been developed in collaboration with Agriculture GP, and the upcoming Afghanistan Food Systems Analytics ASA.
Flood Early warning designed and Flash Flood forecasting and alerting systems enhanced	Flood EW Design developed; Link with CAR FFGS	Despite the contract being successfully	Implement the trainings	CARFFGS components on Seasonal to Sub-



	established and capacity enhanced	awarded, the activity could not be implemented. Alternative implementation modalities are currently being discussed between WMO and WBG.	associated with FFGS.	seasonal ensemble prediction, riverine routing and landslide have been implemented and operational and cover the Amu Darya and Syr Darya basins. Step 4 and 5 trainings conducted under PARFFGS for AMD and MEW staff
Afghanistan is re-connected with Regional Climate Services	Completed	Completed	-	-
Concept note for the Amu Darya Flow Forecasting and Early Warning System	Completed		-	-
Strengthening the use of NWP for improving forecast accuracy	Expand regional NWP to cover Afghanistan	Completed	-	-
<b>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></b>				



- The organization of the CREWS Afghanistan Steering Committee Meeting was the occasion to obtain an update from the Afghan Hydromet agencies on the status of Early warning system and the main challenges & needs currently faced – more details in the specific meeting report.
- During a mission to Kabul in July 2023, the WB team established a collaboration with the WB Agriculture team managing the Afghanistan Food System Analytics ASA (P179460) to jointly develop Digital Agromet Advisory Services to support smallholder farmers enhance their agricultural productivity and resilience to weather and climate hazards.

**CREWS Output(s) 3: Information and Communication Technology, including common alerting protocol, strengthened**

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
Supporting MoUs between MRRD and other agencies relevant for the drought early warning system	MoUs signed	Activity on hold	None	Cancelled
Developing a modern impact-based weather forecasting process	Impact-based forecasting process guidance document	Assessment to inform IBF development completed - activity to be linked to SAHF and CARE Regional Projects. Virtual trainings of Client staff will probably resume later in 2023.	None	Training recording shared with the agencies. Recording of virtual training events to be continued in the future.



Establishing a HydroMet data management system for AMD, GDWR, and MAIL	Data management system for AMD and WRD established and operating			Activity to be resumed in the next FY.
<p><b>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). Please list in bullet points.</b></p> <ul style="list-style-type: none"> <li>• The organization of the CREWS Afghanistan Steering Committee Meeting was the occasion to obtain an update from the Afghan Hydromet agencies on the status of Early warning system and the main challenges &amp; needs currently faced – more details in the specific meeting report. The MOU between MRRD and other agencies for drought early warning activity has been cancelled since it is unfeasible given the current operational circumstances.</li> <li>• The South Asia Hydromet Forum hosted, in January 2023, a 5-days virtual training to introduce hydromet agencies to Impact Based Forecasting. The event was recorded and made available to Afghanistan hydromet agencies.</li> </ul>				

**CREWS Output(s) 4: Preparedness and response plans with operational procedures that outline early warning dissemination processes developed and accessible**

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
Capacity assessment for hydromet and DRM agencies	Current capacity assessed and training plan developed	The assessment, covering the period till 2021, is completed.	-	-
<p><b>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). Please list in bullet points.</b> Completed</p>				

### CREWS Output(s) 5: Knowledge products and awareness programmes on early warnings developed

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
Afghanistan Hydromet Atlas	Completed		-	-
Afghanistan is a member of the South Asia Hydromet Forum and its engagement in SAHF to be strengthened	Full participating member of SAHF (member of RIMES led SAHF executive council)	Completed.	-	-
Linkage with Central Asia and Indian Meteorological Department established	Strong linkage with CA and MOU with IMD established	Completed for Central Asia: Engagement of Tajikistan and Uzbekistan's NMHS for the delivery of capacity building activities  Piloting implementation of the ICON-in the cloud (Numerical Weather Prediction Model)	Follow up on this initiative.	Following the SCM, Pakistan Meteorological Department (PMD) raised its willingness to support for the delivery of activities and capacity building.



		by DWD (German Weather Service) covering Afghanistan and Central Asia Countries is completed. The report is available at <a href="https://documents1.worldbank.org/curated/en/099357409192232700/pdf/IDU0a9852b0f0154e049a908e8405a45999ef5a7.pdf">https://documents1.worldbank.org/curated/en/099357409192232700/pdf/IDU0a9852b0f0154e049a908e8405a45999ef5a7.pdf</a>		
<p><b>Additional information: briefly indicate the contributions, with concrete examples, to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). Please list bullet points.</b></p> <p>New linkages established with Pakistan Meteorological Department (PMD) for the delivery of activities under this project. The activity is ongoing and linkages with Central Asia countries have been re-established / strengthened (by WMO). Linkages with South Asia hydromet agencies, particularly through the South Asia Hydromet Forum, are currently on hold and will resume if and when basic engagement with the Client will be allowed by the World Bank Country Management Unit.</p>				

**CREWS Output(s) 6: Gender-sensitive training, capacity building programmes provided**

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
---	------------------------	---------------------------	---------------------------------	-----------------------



Community awareness on drought early warning (technical support)	Technical assistance for training developed		On hold	On hold
Capacity building for cost-effective observation network through establishing local capacities and capabilities (3D Printed Agromet Stations for research and academia)	Training completed	Training completed the 26 December 2022, will allow to start making and installing the stations.		Activity to be expanded for AMD and other agencies (MEW, MAIL, Kabul University)
<p><b>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></b></p> <p>Under the Pakistan and Afghanistan Flash Flood Guidance System (PARFFGS) training program, the step 4 and 5 trainings were conducted for AMD and MEW staff in Islamabad, with the support of FFGS trainers from Pakistan Meteorological Department (PMD) and Turkish State Meteorological Services (TSMS).</p>				

### 12.2 Regional Output(s) (for Regional Projects)

#### CREWS Regional Output(s): Institutional and human capacities at Regional WMO and Intergovernmental organizations to provide regional climate and weather services to LDCs and SIDS increased

State Project Output(s) in this section	Overall Project Target	Progress by December 2022	Target for the reporting period	Progress by June 2023
N/A	N/A	N/A	N/A	N/A



**Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). Please list in bullet points.**

N/A

### **13. Certification on Use of Resources**

This needs to be provided at the end of the year as part of the submission of the 2<sup>nd</sup> semester report. Each Implementing Partner to provide a certification of the use of resources signed by their authorized representative.

### **14. Visibility products**

- a. Insert or copy any links to press releases, videos or communication items and/or social media links produced during the reporting period only*

### **15. Supporting documents**

- a. List and annex to the report any documents providing details on project activities conducted during the reporting period such as reports of training sessions, assessment reports, online solutions and tools, manuals, summaries of high-level discussions etc.*

### **16. Project History**

- a. Highlight key achievements since project started in bullet points, include all visibility and supporting documents other than those from the last 12 months*
  - CREWS Afghanistan Steering Committee Meeting report (annexed)
  - Step 4 and 5 trainings under the PARFFGS training program (report annexed)



- Completion of CARFFGS components on Seasonal to Sub-seasonal ensemble prediction, riverine routing and landslide, which covers the Amu Darya and Syr Darya basins (HRC reports annexed)
- 3DPAWS training was done in December 2022 to be followed with the making and installation of stations.
- WRF implementation and integration completed and WRF-FFGS are operational
- Concept of Operations (CONOPS) developed
- Modern Impact-Based Weather Forecasting guidance document prepared
- Hydromet Service Delivery Strategy framework document prepared
- Rapid Assessment of DRM Capacities completed
- Afghanistan Drought Early Warning Decision Support Tool (AF-DEWS) prototype developed
- Central Asia and Afghanistan Flood Early Warning System (CAFEWS) concept note developed
- ICON in the Cloud started
- Capacities of Hydromet Services: Dynamic Water Resources Assessment Tool (DWAT) utilized
- Cooperation and Twinning with TSMS
- ICT Assessment report developed
- Policy Note: Advancing the Road Map for Afghan-Tajik cooperation in Hydromet data exchange
- Afghanistan Hydromet Atlas
- CAFEWS Launched (11 December 2021)