



CREWS PROJECT PROGRESS REPORT

(July – December 2021)

1. Project title	Mali - Hydrological and Meteorological Services Modernization	2. Project reference CREWS/CProj/07/Mali
3. Implementing Partners involved in the project	World Bank (Lead) World Meteorological Organization	4. Regional/National Partners involved in the project Mali Météo, General Directorate for Civil Protection (DGPC), National Hydrological Department (DNH), National Food Security Early Warning System (SAP)
5. Project Duration/Timeframe (from year – to year)	July 2017 – June 2023	6. Total Funding Approved by Steering Committee (in US dollars), including fees 3,333,000
7. Reporting focal point(s) from Implementing Partners	Koffi Hounkpe: khounkpe@worldbank.org Michel Nikiema: pmnikiema@wmo.int	
8. Project overview	<p>Please include objectives, key project deliverables, leveraging, contextual information/statistics, significant events during the reporting period <u>in bullet points</u>. (max 250 words)</p> <p><u>Budget</u>: US\$ 3.33 million - implemented by the WB/GFDRR and WMO.</p> <p><u>Leveraging</u>: This funding complements WB Strengthening climate resilience in Mali investment project of US\$31M (GCF \$23M and IDA \$8M).</p> <p><u>Objective</u>: to improve the country’s hydro-meteorological, early warning and response systems and services in targeted areas</p>	

	<p><u>Main activities</u></p> <p>(i) modernization of the meteorological and hydrological monitoring networks through rehabilitation of priority stations, installation of new sensors, rain gauges, and automatic hydro-meteorological stations; (ii) strengthening transmission, data management and dissemination hardware at MALI METEO and National Directorate of Hydraulics (DNH) for the integration of data into the global production chain, archiving and sharing across relevant entities; (iii) strengthening technical systems for performing meteorological, hydrological and climate modelling and forecasting at MALI METEO and DNH, especially in numerical weather prediction, severe weather forecasting, flood modelling, database management, and impact-based forecasting (iv) installation of an Emergency Operations Centre (for rescue operation) at General Directorate of Civil Protection (DGPC) and an Emergency Coordination Centre (for disaster recovery, humanitarian aid) with adequate communication equipment; (v) strengthening of communication channels related to weather, water and climate information to the general public through media (web, radio, TV, newspapers), cellphones, sectoral online services, etc. with a gender-disaggregated approach and particular attention to vulnerable groups, who may have difficulty understanding or accessing information; (vi) strengthening of communities' access, in particular local decision makers and smallholder farmers, to early warning information services on agriculture, livestock and food security in chronically food insecure communities.</p>
<p>9. Progress summary</p>	<p>What has been achieved <u>during this reporting period</u>? – Please list <u>in bullet points</u> the most significant and tangible outcomes? (Highlight at least 1 key achievement that can be elaborated in the 2021 Annual Report). (max 250 words)</p> <ul style="list-style-type: none"> • Community mapping was conducted in Bamako to support flood management, flood modelling, flood forecasting; • Assessment of training needs on flood management and early warning conducted by West African Science Service Centre on Climate Change and Adapted land Use(WASCAL); Presentation of results and introduction to the development of a Concept of Operations (CONOPS); • Training of the National Disaster Risk Reduction Platform (DGPC, DNH ,SAP ,Mali Meteo , AEDD, CSA) on risk knowledge

- Flash Flood Guidance System (FFGS) – Hydrology Research Center (HRC) prepared Geographic Information System (GIS) layers to be used in the system, developed initial estimation of threshold runoff parameters and trained meteorological and hydrological forecasters on the calibration and use of FFGS (Step 2 training);
- Real-time Monitoring and forecast of IntraSeasonal Variability over Africa (MISVA) – support to Mali-Météo by Météo-France and [ANACIM](#) has been renewed in Dec 2020 and Jan 2021. A capacity building through training of Mali Meteo Staff was organised early May 2021 (see [moodle platform](#)) and since then weekly briefings take place every Tuesday morning to assist Mali-Météo in analysing intra-seasonal outlooks to enhance its forecasting capacities at synoptic scales (see [MISVA platform](#)).
- Agroclimate indices – An Agreement was signed on 18 May 2021 with WeatherForce (see [Agreement](#)) to ensure better computation and delivery of agroclimate indices to 5 national meteorological services, including Mali-Météo
- Strengthening data exchange and numerical weather prediction – as a follow-up to the [training on data exchange](#) held in June 2020, and to the [WMO data conference](#) of Nov 2020, an agreement was signed with DGM Morocco to support countries with regards to managing climate datasets and exchanging observations (see [Agreement](#))
- 2 consultants recruited for gender to train networking of women's associations 95 women (50 women in Bamako and 45 in the region Segou 45) on september 2019 on climate related risks and earlywarning mechanisms;
- Flood Risk Assessment and Identification of Potential Flood Mitigation Investments for the District of Bamako in support of urban resilience project under preparation.
- Flash Flood Guidance System (FFGS) – Hydrology Reserch Center (HRC) prepared Geographic Information System (GIS) layers to be used in the system, developed initial estimation of threshold runoff parameters and trained meteorological and hydrological forecasters on the calibration and use of FFGS (Step 2 training). Preparation for step 3 Training whic is undergoing.;
- Real-time Monitoring and forecast of IntraSeasonal Variability over Africa (MISVA) – support to Mali-Météo by Météo-France and [ANACIM](#) has been renewed in Dec 2020 and Jan 2021. A capacity building through training of Mali Meteo Staff was organised early May 2021 (see [moodle](#)









platform) and since then up to end of October, weekly briefings take place every Tuesday morning to assist Mali-Météo in analysing intra-seasonal outlooks to enhance its forecasting capacities at synoptic scales (see MISVA platform).

- Agroclimate indices – An Agreement was signed with WeatherForce (see [Agreement](#)) to ensure better computation and delivery of agroclimate indices to 5 national meteorological services, including Mali-Météo. A Workshop is planned to generate and automatised modifiable agro-meteorological bulletins, including access to visualizations of drought and rainy season monitoring indicators.



10. Project Performance

Interpretation of color coding		
High		Moderate progress or on track in some aspects of delivery
Medium		Moderate progress or on track in some aspects of delivery
Low		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
Coding			
Narrative	<p>Disbursement December 2021</p> <p>From WB side: Disbursement is \$1,627,615 (58,56% of total amount); Commitment is 229,569</p> <p>From WMO side: \$ 213,296.86 in actuals + \$ 38,834.77 in obligations (100% of total amount)</p>	<ul style="list-style-type: none"> - Coup d'Etat, insecurity and COVID resulted in delayed implementation, and had an impact on trainings, workshops, field missions, travel within Mali. - Mali Socio Politico crisis has been impacted the project implementation. 	Fully aligned on the CREWS objectives as well as the country development priority.

11. Risk Management Status

<p>Risk Status</p>	<p>What is the current risk status as compared to what was identified in the project proposal?</p> <p>With the increasing insecurity in Mali mainly in the center, southern and northern parts of the country in addition to the political instability (two Coup d'Etat) since August 2020 and the COVID-19 pandemic, project implementation has been delayed and activities on the ground (e.g. missions, workshops, field visits) have been further reduced, impacting project implementation. There is a risk that project implementation will continue to be affected in 2022.</p> <p>The risk affecting the project implementation is currently High but it might be medium over the coming 6 months .</p>
<p>Measures to address</p>	<p>What mitigation measures have been developed to address the risk status? In bullet points</p> <ol style="list-style-type: none"> 1) Continuing support for sensitization campaigns on how to prevent COVID 19 pandemics were conducted; 2) Equipments (masks , sanitizers) were provided to vulnerable populations for a prevention purpose against the pandemics 3) Remote monitoring tools (e.g. using cell phone surveys) have been introduced to support basic project implementation, notably in field locations. 4) CREWS will continue supporting capacity building in training and awareness campaign in southern secured areas. 5) The Covid 19 restrictions are being gradually lifted, and CREWS activities might resume soon 6) A national Event agency (firm) is under recruitment to support the implementation of CREWS activities



12. Contributions to CREWS Output(s)

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

11.1 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 July 2021	Target for reporting period	Progress by December 2021
(1) (X) products and services delivered by MALI METEO and DNH . (2) Strengthened capacity of (X) Staff on early warning of drought, locust, heavy precipitation, river flooding, flash flooding, wind storm and sand storm, within National Meteorological Service (MALI-METEO), National Hydrological Service (DNH), Food Security Early Warning System (CSA/SAP) and Civil Protection Directorate (DGPC)	35	21	0	21

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.

Despite the intermittent relaxation of the constraints linked to the pandemic since the end of September 2020, the number of contamination continued to increase, which delayed the execution of activities and fully penalized communities which are vulnerable to disaster risks . Some protection measures taken by the government to mitigate the contamination were implemented. As a result , this has hindered the delivery of products and services by Mali Meteo and DNH as well as the delay in the review of ToRs related to the activities. Since March 2021, the COVID 19 pandemics cases are decreasing. The resumption of activities is planned for the month of March 2022 . The training is part of efforts to strengthen the capacity of implementation agencies (Mali Meteo ; DNH, CSA/SAP, DGPC) staff to efficiently and timely forecast on early warning of drought, locust, heavy precipitation, river flooding, flash flooding, wind storm and sand storm. The flood risk assessment and identification of potential flood mitigation investments for Bamako is underway to build urban resilience to flood impacts. As a city of 2.7 million people, Bamako is regularly inundated during its rainy season in



May-October. So, the flood risk assessment follows the completion of a community flood mapping of the capital by Mali Météo and others to help ensure better flood forecasting, modelling and management.

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 July 2021	Target for the reporting period	Progress by December 2021
Communication networks to disseminate information and alerts in a timely manner and messages to decision makers and users. Provide adequate training and capacity for stakeholders involved in the early warning system chain, from data collection to the end users. CREWS will play main role in the system functioning.	50	0	0	0

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.
 The team was able to conduct a training for the National Disaster Risk Reduction Platform (PRRC) on risk knowledge in a virtual format. The possibility for virtual training activities will be further rolled out in light of the ongoing restrictions. The field activities will continue. This activity contributes to the progress on implementing a flash floods early warning system through the the enhancement of its technical functionality and training hydro-meteorological forecasters to use it



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 July 2021	Target for the reporting period	Progress by December 2021
CREWS is supporting the establishment of a communication system to deliver timely and adequate agro-meteorological services in complementary with the investment project which will provide equipment especially, mainly cell phones.	Annual report on service deliver to end users mainly DGPC for DRM management	0	0	0
Number of local food security and nutrition monitoring (SAP) groups equipped with adequate communication tools	Annual report on service deliver for farmers	0	0	0

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.
 The World Bank team is working closely with the project implementation unit to advance the activities for example through training in a virtual format. The training is part of efforts to build the capacity of Early Warning Systems (SAP) staff as well as the resilience of beneficiary community (stakeholders)

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 July 2021	Target for the reporting period	Progress by December 2021
---	------------------------	-----------------------	---------------------------------	---------------------------



CREWS will provide training to DGPC staff to operationalize the National Center for Emergency Operations and disseminate early warning information	300 DGPC staff trained	0	0	0
<p>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.</p> <p>The team was able to conduct a training for the National Disaster Risk Reduction Platform (PRRC) on risk knowledge in a virtual format. The possibility for virtual training activities will be further rolled out in light of the ongoing country context. Yet, the training is part of efforts to build the capacity of Directorate General of Civil Protection (DGPC) staff in delivering efficiently the early warning information to the targeted population (statkeholders)</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 July 2021	Target for the reporting period	Progress by December 2021
Reduction of mean emergency response lead time for flood (Percentage). CREWS supported DGPC to undertake a desk review of information for the call center and the emergency coordination for flood Reduction of mean emergency response lead time for flood (Percentage).	50%	0	0	0



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.
 The team was able to collaborate closely with Directorate General for Civil Protection (DGPC) for recruiting a consultant / firm to conduct a desk review of information for the call center and the emergency coordination for flood .

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

State Project Output(s) in this section	Overall Project Target	Progress by July 2021	Target for the reporting period	Progress by December 2021
Number of female head of Community Early Warning Systems (Number) for flood and food security empowered or trained on early warning systems	45	0	0	0

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.
 CREWS is supporting community pre-alert system that are led by female delegates, this will be complemented by the Hydromet investment project. The community level women leaders trained on early warning systems are under networking.

11.2 Regional Output(s)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 July 2021	Target for the reporting period	Progress by December 2021
N/A this is not a regional project	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). <u>Please list in bullet points.</u>				

13. Certification on Use of Resources

This is for authorized representatives from the Implementing Partners to certify that the resources allocated are used for their intended purpose. Please fill one table per Implementing Partner.

Has there been any cases of non-compliance with the financial rules, regulations and procedures of your institution? If yes, please fill below			<input type="checkbox"/> Yes	<input type="checkbox"/> No
Issue	Response Measures Taken	Date of Response	Active/Closed	
		Click or tap to enter a date.	Choose an item.	
		Click or tap to enter a date.	Choose an item.	
		Click or tap to enter a date.	Choose an item.	
Institution	Choose an item.			
Firstname, LASTNAME of authorized representative				
Position Title				
Date and Signature:				



Has there been any cases of non-compliance with the financial rules, regulations and procedures of your institution? If yes, please fill below			<input type="checkbox"/> Yes <input type="checkbox"/> No
Issue	Response Measures Taken	Date of Response	Active/Closed
		Click or tap to enter a date.	Choose an item.
		Click or tap to enter a date.	Choose an item.
		Click or tap to enter a date.	Choose an item.
Institution	Choose an item.		
Firstname, LASTNAME of authorized representative			
Position Title			
Date and Signature:			

Has there been any cases of non-compliance with the financial rules, regulations and procedures of your institution? If yes, please fill below			<input type="checkbox"/> Yes <input type="checkbox"/> No
Issue	Response Measures Taken	Date of Response	Active/Closed
		Click or tap to enter a date.	Choose an item.
		Click or tap to enter a date.	Choose an item.
		Click or tap to enter a date.	Choose an item.
Institution	Choose an item.		
Firstname, LASTNAME of authorized representative			
Position Title			
Date and Signature:			

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*

➤ **Press Release (maliweb.net -24 November 2021)**

<https://www.maliweb.net/societe/gestion-des-risques-et-catastrophes-vers-la-mise-en-place-dun-reseau-des-femmes-leaders-sur-le-systeme-dalerte-precoce-2953877.html>

➤ **Press release (Indicateur du renouveau: Page 2): 23 November 2021**



Mise en palce d'un
reseau de femmes lea

a) Pictures of training workshop session (network of women leaders on early warning and disaster risk reduction)



Picture 1.jpg



Picture 2.JPG



Picture 3.jpg



Picture 4.jpg



Picture 5.jpg



Picture 6.jpg

b) Crews Raincell Project Team training Workshop session (IRD)



CREWS RAINCELL IRD TEAM PROJECT Training.jpeg

Link:

https://www.ird.fr/la-deuxieme-session-de-formation-du-projet-raincell-crews-au-mali?fbclid=IwAR3ss_7mP-IgNCZbXeDDuA7GVnZw1GwLYdh5Fj7PgbYz1d7BFfc_tp2j32A

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*

Bamako community mapping to support flood management, flood modelling, flood forecasting has been completed. Preparation of the new urban resilient project ongoing.

The Gender Action Plan was further elaborated, and activities proposed in the Plan have been reviewed, with implementation starting soon