

CREWS PROJECT PROGRESS REPORT (January – June 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 | July 2017 – June 2023 | | | |
| 6. | Reporting focal point(s) | Koffi Hounkpe: khounkpe@worldbank.org Michel Nikiema: pmnikiema@wmo.int | | | |
| 7. | Project overview | Please include synergies, leveraging, key project deliverables and total funding in bullet points. (max 250 words) Budget: US\$ 3.33 million - implemented by the WB/GFDRR and WMO. Leveraging: This funding complements WB Strengthening climate resilience in Mali investment project of US\$31M (GCF \$23M and IDA \$8M). Objective: to improve the country's hydro-meteorological, early warning and response systems and services in targeted areas Main activities: (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.

- GCF 22.75 million co-financing the Hydromet project with IDA
- IDA 8.25 million co-financing Hydromet project with GCF

8. Progress summary

What has been achieved between January and June 2021 – Please list the most significant and tangible developments?

- 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 (PRRC) on risk knowledge
- 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);
- Real-time Monitoring and forecast of IntraSeasonal Variability over Africa (MISVA) support to
 Mali-Météo by Météo-France and <u>ANACIM</u> has been renewed in Dec 2020 and Jan 2021. A capacity
 building through training of Mali Meteo Staff was organised early May 2021 (see <u>moodle</u>
 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 <u>Agreement</u>) 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 <u>training on data exchange</u> held in June 2020, and to the <u>WMO data conference</u> of Nov 2020, an agreement was signed with DGM Morocco to support countries with regards to managing climate datasets and exchanging observations (see <u>Agreement</u>)
- 2 consultants recruited for gender to train networking of women's associations 95 women (50 woemn 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.

9. Project Performance

| Interpretation of color coding | | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|
| | High Good progress; on track in most or all 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 |
|--|--|---|
| | | |
| | | |
| Disbursement June, 2021 | Coup d'Etat, insecurity and COVID resulted in delayed implementation, | Fully aligned on the CREWS objectives as well as the country |
| From WB side: | and had an impact on trainings, | development priority. |
| is \$1,324,653 (47.7% of total amount) | workshops, field missions, travel within Mali. | |
| From WMO side: | - Mali Socio Politico crisis has | |
| \$118,541 in actuals + \$76,832 in obligations (78% of total amount) | impacted the project implementation. | |
| | Disbursement June, 2021 From WB side: is \$1,324,653 (47.7% of total amount) From WMO side: \$118,541 in actuals + \$76,832 in | Disbursement June, 2021 - Coup d'Etat, insecurity and COVID resulted in delayed implementation, and had an impact on trainings, workshops, field missions, travel within Mali. From WMO side: \$118,541 in actuals + \$76,832 in - 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 impacted the project |

10.Risk Management Status

| Risk Status | Status What is the current risk status as compared to what was identified in the project proposal? | | | | | |
|-------------|--|--|--|--|--|--|
| | 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 2021. The risk affecting the project implementation is currently High but it might be medium over the coming 6 months. | | | | | |



Measures to address

What mitigation measures have been developed to address the risk status?

In close collaboration with the project implementation unit at DGPC, the following actions were conducted to reduce the impact and limit the risk:

- 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

11. Contributions to CREWS Output(s)s

11.1 National Output(s)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 Progress and Narrative

Currently, MALI METEO is delivering 16 products and services and DNH 5 to various beneficiaries. With the project, the capacity of MALI METEO and DNH will increase with new skills in observation, data collection, analysis, modelling and forecasting. This will allow them to design new tailored products and services.

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|---|---------------------------|-----------------------------|------------------------------|--------------------------|
| | | | | |



| - (1) (X) products and services delivered by MALI | 35 | (1) Increase the | 0 | 21 |
|---|----|--------------------|---|----|
| METEO and DNH . | | number by | | |
| - (2) Strengthened capacity of (X) Staff on early warning | | 50% | | |
| of drought, locust, heavy precipitation, river flooding, | | (15) | | |
| flash flooding, wind storm and sand storm, within | | | | |
| National Meteorological Service (MALI-METEO), | | All the | | |
| National Hydrological Service (DNH), Food Security | | Implementation | | |
| Early Warning System (CSA/SAP) and Civil Protection | | partners' capacity | | |
| Directorate (DGPC) | | is strengthened | | |
| | | and all | | |
| | | recommendations | | |
| | | for improvement | | |
| | | are executed. | | |
| | | (2) | | |
| | | | | |

Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

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 penilized 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. Nevertheless, a number of activities were still conducted in a virtual format, including for example a training needs assessment conducted by WASCAL as well as an introduction to the concept of operations (CONOPS). Since March 2021, the COVID 19 pandemics cases are decreasing. The resumption of activities is panned for the month of July 2021 at the earliest.



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

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 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 involed in the early awrning system chain, from data collection to the end users. CREWS will play main role in the system functionning. | 50 | Disseminated information and alerts in a timely manner and messages to decision makers and users by available communication networks (Radio, Television etc) (X) stakeholders | 0 | 0 |
| | | stakenoiders strengthened capacity through adequate training for them to be involed in the early awrning | | |



| system chain, | |
|----------------------------|--|
| system chain, from data | |
| collection to | |
| the end users. | |
| | |

Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

The COVID 19 and the insecurity are yet impacting the effective implementation of activities added to the recent socio politico crisis. Under the restrictions 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 begin as soon as the restrictions are completely ended up.

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

Progress and Narrative

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|--|---------------------------|-----------------------------|------------------------------|--------------------------|
| CREWS is supporting the establishment of a | | Timely report on | No activity done | 0 |
| communication system to deliver timely and | Annual report on | the service | throughout the | |
| adequate agro-meteorological services in | service deliver to | delivery to end | period | |
| complemetary with the investment project which | end users mainly | users mainly | (0) | |



| will provide equipement especially, mainly cell phones. | DGPC for DRM management | from DGPC management | | |
|---|----------------------------|--|--|---|
| Number of local food security and nutrition monitoring (SAP) groups equiped with adequate communication tools | · · | Timely report on service deliver for farmers | No activity done throughout the period (0) | 0 |

Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

The COVID 19, the insecurity and the Socio political crisis are yet impacting the effective implementation of activities. Under the restrictions the team was able to conduct a training for the National Disaster Risk Reduction Platform (PRRC) on risk knowledge in a virtual format. The World Bank team is working closely with the project implementation unit to advance the activities for example through training in a virtual format.

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



| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|--|---------------------------|-----------------------------|------------------------------|--------------------------|
| CREWS will provide training to DGPC staff to operationalize the National Center for Emergency Operations and disseminate early warning information | | 50% staff trained | 0 | 0 |

Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

The COVID 19 pandemic ,the insecurity and socio political crisis are yet impacting the effective implementation of activities. Under the restrictions 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 2021 in light of the ongoing restrictions.

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

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|--|---------------------------|-----------------------------|------------------------------|--------------------------|
| Reduction of mean emergency response lead time for flood (Percentage). CREWS suported 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% | 50% | 0 | 0 |



Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

The COVID 19 pandemic, the insecurity and Socio political crisis are yet impacting the effective implementation of activities. Under the restrictions 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 Progress and Narrative

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|---|---------------------------|-----------------------------|------------------------------|--------------------------|
| Number of female head of Community Early Warning Systems (Number) for flood and food security empowered or trained on early warning systems | 45 | 20 | 0 | 0 |

Narrative: briefly indicate the major issues or challenges faced and mititgation steps taken to addressing them. (150 to 200 words)

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

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 | Target for reporting period | Progress by December 2020 | Progress by June 2021 |
|---|---------------------------|-----------------------------|------------------------------|--------------------------|
| N/A this is not a regional project | N/A | N/A | N/A | N/A |

Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words) N/A

12. Contributions to Value Propositions

| Gender Responsive | (How did the project capture relevant gender concerns? For example, including gender-inclusive indicators and targets, reporting on sex-disaggregated data, conduct of gender analysis, involvement of gender and/or women's organisations, documenting effects on women, men and gender-relations, implementing gender specific actions/activities for women and men.) |
|-------------------|---|
| | CREWS supported training to 90 women leaders on Early Warning System (EWS) and Disaster Risk Management (DRM). CREWS is supporting the women groups to integrate EWS and DRM into their programs and conducting awareness activities in their respective intervention areas. The delay due to the COVID-19 pandemic and the political insecurity in the country since August 2020 have however hampered the roll out of the activities. |
| Multiplier | (How did the project contribute to the promotion of a favorable environment for early warning systems? What additional financing has been leveraged or expected to be mobilized as an effect of the project?) CREWS supports the implementation of the Mali Hydromet project, which is financed by GCF (US\$ 22.75 million) and World Bank US\$ 8.25 million). The CREWS project facilitates a number of technical studies and |



| | training courses in support of early warning services. With regard to the technical studies, WASCAL supported the formulation of a training plan for strengthening technical capacity on early warning and introduced the concept of operations (CONOPS). Other technical studies include support on assessing equipment network and data collection for good weather forecasting. CREWS is also supporting the baseline study for all project indicators to monitor during the whole project cycle. |
|-------------------|--|
| People-centered | (Which local organisations have been engaged and what is their level of participation? How did the project ensure the involvement and uptake of end-users?) Most of the activities supported by CREWS in Mali are people centered, training, study tour, etc. |
| Promote Coherence | (What are the approaches undertaken to ensure complementarity and value-added of the project with existing projects and other international partner initiatives? For example, conduct of joint planning, resource sharing, participation in consultations, workshops, meetings organized by partners.) CREWS Mali is aligned with Mali's Country Partnership Strategy and as such supports the preparation of further investments on urban resilience in Bamako that will lead to drainage and flood management infrastructure development as well as sustaining the early warning operations. In addition, WASCAL has introduced the concept of operations (CONOPS), which will be further developed in the context of CREWS Mali and the Mali Hydromet project. |
| Solution-oriented | (What good and innovative practices have been produced or are evident in the project?) Studies and trainings oriented to meet country needs relating to CREWS objectives. The trainings 1) 95 women leaders (50 in Bamako and 45 in the Region of Segou) were trained and are awared on hydro-climate risk alerts . 2) Training of authorities and decentralized services on preventing the risks of flash flood on koris in the Agadez region. |



| | Studies 1) Study trip to a country of the sub-region (Sharing experiences and lerned lessons) 2) Survey of needs and tools for analyzing and disseminating information and alerts (identify the prority implemention areas) |
|--------|--|
| Unique | (How did the project support building sustained institutional capacity driven by countries?) CREWS Mali provides a unique mix of activities addressing technical studies, capacity building and implementation support for the Mali Hydromet project. In addition, it supports the preparation of an urban resilience investment project in Bamako that would support flood management infrastructure and sustain the investment on early warning in the agglomeration of Bamako. It's complementary to the other initiatives but focused on capacity development in line with CREWS objectives. |

13. Visibility products

a. Insert or copy any links to press releases, videos or communication items and/or social media links

Hydromet Project launching

- $1) \quad \underline{\text{https://www.maliweb.net/environnement/hydromet-mali-plus-19-milliards-fcfa-pour-renforcer-de-la-resilience-climatique-2863541.html} \\$
- 2) http://bamada.net/hydromet-mali-pour-le-renforcement-de-la-resilience-climatique
- 3) https://drive.google.com/file/d/1shhDEHkTbgwq rFhMX-IoHlb2JmzSJHT/view?usp=sharing

14. Supporting documents

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



- https://worldbankgroup-
my.sharepoint.com/:b:/r/personal/khounkpe worldbank org/Documents/Mes%20Missions%20Ext/WASCAL/Deliverable D2

a Mali R2 vFinal 18.12.2020.pdf?csf=1&web=1&e=i9aZcb

- Project document - Report June to Nov 2018

Outputs during the reporting period

- Ouagadougou training report, May 2019 (not yet available) - Toulouse training report, Toulouse, May 2019 - AGRHYMET training report, Niamey, May 2019 - FFGS inception workshop – Concept Note, Agenda, Dakar, June 2019