



CREWS PROJECT STATUS REPORT

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| 1. Project title | Caribbean - Strengthening Hydro-Meteorological and Early Warning Services | 2. Project reference CREWS/CProj/04/Regional Caribbean |
| 3. Lead IP | World Bank | 4. Other Implementing Partners World Meteorological Organization (WMO) UNDRR |
| 5. Reporting period | January – June 2020 | |
| 6. Reporting focal point | <p>Melanie Simone Kappes – mkappes@worldbank.org Anna Maria Bogdanova – ambogdanova@worldbank.org</p> <p>Other IP focal points: Jay Wilson - jpwilson@wmo.int Donna Pierre – dpierre@wmo.int Jair Torres- jtorres@eird.org</p> | |
| 7. Project overview | <p>Please include synergies, leveraging, key project deliverables and total funding in bullet points. (max 250 words)</p> <p><u>Budget</u>: US\$ 5.5 million - implemented by the WB/GFDRR, in collaboration with WMO and UNDRR (This is the first project involving all three IPs).</p> <p><u>Leveraging</u>: This project is complemented with US\$ 1.5 million from the CREWS contribution from Canada to WMO.</p> | |



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| | <p>Objectives: To strengthen and streamline regional and national systems and capacity related to weather forecasting, hydrological services, multi-hazard impact-based warnings and service delivery for enhanced decision-making.</p> <p>Key Deliverables: (i) Regional strategy to strengthen and streamline early warning and hydromet services; (ii) Institutional strengthening and streamlining of early warning and hydromet services; (iii) Piloting high priority national activities on end-to-end EWS including impact-based forecasting.</p> |
| <p>8. Progress summary</p> | <p>What has been achieved between January - June? – Please list the most significant and tangible developments?</p> <p>Overall, the implementation progress is rated as satisfactory. Rate of implementation is slightly lower than expected, however the project remains strongly aligned to the objectives. The most significant developments are as follows:</p> <p>General progress:</p> <ul style="list-style-type: none"> • After presentation of the results of the regional diagnostic and Regional Strategy Outline at CDM Conference (Dec 2019) together with the official launching of the “Regional Early Warning Systems Consortium”, CREWS Caribbean substantially gained visibility and momentum in the region. The expectations for the development of a regional EWS strategy have augmented and the first semester of 2020 was set as the time to deliver on that. • However, the global uncertainty caused by the development of the Covid19 pandemic jeopardize the normal development of the project. (A number of planned activities that support Component 2 were also affected by Covid19. As a result, remote sessions were organized and implemented for some activities.) <p>Component I - Development of a regional EWS Strategy:</p> |



The development of a regional strategy for the Caribbean has continued during this reporting period. The process of developing the strategy has been as follows:

- A “situation analysis” of the regional setup of Early Warning Systems was finalized in this period:
 - A final draft sent for comments to regional stakeholders in January 2020.
 - An online general feedback session on the “situation analysis” with REWS consortium stakeholders was held on the diagnostic on March.
 - This was followed by one to one interview with CIMH, CMO and CCCCC to complete information on institutional mandates and gaps.
 - An executive summary for the situation analysis has been produced.
- The World Bank has initiated the strategic review of the radar mosaic in the Caribbean Region.
- The World Bank and UNDRR have been working closely on the integration of gender and vulnerable groups as a cross-cutting theme in the situation analysis and regional strategy.
- The private sector role and in EWS has been highlighted into the situation analysis and strategy.
- Prepared a value proposition of how MHEWS at the micro- and macroeconomic levels can achieve measurable value to economic, infrastructural and human loss mitigation in the Caribbean.

Component II – Initial activities under Institutional strengthening and streamlining of early warning and hydromet services

- The Implementation Agreement between WMO and CMO has been finalized, signed and resources transferred to deliver 8 National Strategic Plans, a model Meteorological Bill and the development of two national Meteorological Bills.
- An Implementation Agreement is being finalized with CDEMA to facilitate the strengthening of operational arrangements between the Disaster Management Offices and the NMHSs as a first step. This is being linked to Impact-based forecasting, an identified priority area in the Regional Diagnostic, which has triggered the development of online knowledge sharing initiatives. Due to travel restrictions caused by COVID-19, online sessions for 4 days in May were organized to advance the understanding and cooperation for Impact based forecasting and Risk Scenario Planning. Over 60 participants representing hydrometeorology, Disaster Management, gender bureaus, and the private sector/CARICHAM from 16 countries participated. There was also



the involvement of Cuba, the RSMC/NHC based in Miami, KNMI from the Netherlands, and RFSF Martinique. WB GFDRR and UNDRR also supported the activity.




- An SWFDP Technical training was planned for April 2020 for RFSF Martinique however, due to restrictions caused by COVID-19, this training is postponed




Component III – Support for piloting high priority national activities including impact-based forecasting

An initial proposal list of projects proposed under this component has been prepared, as well as the criteria for selecting projects and regional/national partners for their implementation. The decision on which piloting high priority activities will be implemented is planned to be made in the next Project Steering Committee.



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 |
|------------------|---|--|---|
| Coding |  |  |  |
| Narrative | Rate of expenditure is on track with US\$915,247 (35%) (WB), US\$ 523,650 (23%) (WMO), and US\$ 78,652.05 (24%) (UNDRR) of approved US\$5,500,000 being expended. | Regional situation analysis has been finalized and regional strategy has been drafted, with strategic initiatives outlined. While the rate of delivery is on track in most aspects, the development of the regional situation analysis and strategy experienced some delays. | The project remains strongly aligned to the objectives. |



10. Risk Management Status

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| Risk Status | <p>What is the current risk status as compared to what was identified in the project proposal?</p> <p>Currently, the risk is rated as high as the COVID-19 crisis continues to unfold in the Caribbean:</p> <ul style="list-style-type: none"> - Regional stakeholders, as Caribbean Disaster Emergency Management Agency (CDEMA) and Caribbean Public Health Agency (CARPHA), have intensified their efforts to lead the multi-sectoral coordination in support of regional and national response to the crisis. This fact greatly limits their ability to participate in CREWS project activities. - Several important regional events where consultation on the situation analysis and strategy were intended have been canceled, as the Hurricane Committee - 42nd session and the VII Regional Platform for Disaster Risk Reduction in the Americas and the Caribbean. |
| Measures to address | <p>At present, the project's IPs have decided to continue the technical work for the development of the regional strategy with the project's team of experts and to limit the exchanges with the regional partners until more favorable moments.</p> |

11. Contributions to CREWS Output(s)

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 | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
|---|------------------------|-----------------------------|--------------------------|-----------------------|
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|--|----------------------------|-----------|-----------|-----------|
| <i>National Strategic Plans Developed</i> | 100% | 0% | 0% | 0% |
| <i>National and Regional Meteorological Bills Drafted</i> | 3 Met Bills drafted | 0% | 0% | 0% |
| | | | | |
| <p>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</p> <p>The Implementation Agreement between WMO and CMO has been finalized, signed and resources transferred. CMO received resources in April but limited progress due to COVID-19. To date discussions are being held with targeted countries and CIMH to devise a strategy for implementation. On completion, concrete targets would be established to improve reporting on this deliverable. The ToR to develop the meteorological bill template has been agreed to and finalized by all stakeholders and CMO is in discussions with the attorney general’s office in Trinidad, who has agreed to support this activity.</p> | | | | |

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 | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
|--|--|-----------------------------|--------------------------|-------------------------------|
| Hydrological observation, data management and flood forecasting strengthened | Implementation of a River Flood Forecasting System in Haiti and Dominican Republic | 0 | N/A | 0 |
| WMO Cascading initiatives implemented | 2 SWFDP RSMT Meetings | 1 RSMT Meeting | 1 RSMT Meeting 0 | 0 1 (affected by COVID-19) |



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|--|---|-------------------------------------|----------|---|
| | 10 SWFDP Regional Trainings conducted | 1 SWFDP Regional Training Conducted | | |
| Biannual Caribbean Climate Outlook Fora | 6 CariCOFs held | 1 | 1 | 1 (changed from face to face to online) |
| Multi-hazard early warning systems, risk assessments and impact-based forecasting introduced | 3 regional training events on hurricane forecasting 2 Regional Training events on Impact-based forecasting | 1 1 | 1 N/A | 1 1 |
| <p>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</p> <ul style="list-style-type: none"> • An SWFDP Technical training was planned for April 2020 for RFSF Martinique however, due to restrictions caused by COVID-19, this training is postponed • Online sessions from the 5th-8th of May were organized to advance the understanding and cooperation for Impact based forecasting and Risk Scenario Planning. Originally, a workshop was planned to take place during the 42nd Hurricane Committee Meeting but, due to COVID-19 travel restrictions, online sessions were implemented instead. • CMO was provided support for 2 Operational Forecasting Workshops (EUREC4A). The first was conducted in December 2019 and the second was planned for July 2020 but will be postponed due to COVID-19 • CariCOF scheduled for May was modified in delivery due to COVID-19. CIMH is advancing this activity via online training. | | | | |

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



| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
|--|------------------------|-----------------------------|--------------------------|-----------------------|
| National strategic plans and framework for weather and climate service with an action plan developed | 8 | 0 | 0 | 0 |
| Model Meteorological Bill developed | 1 | 0 | 0 | 0 |
| Adaptation of the Meteorological bill in two countries completed | 2 | 0 | 0 | 0 |
| <p>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</p> <p>The Implementation Arrangement process inclusive of transfer of resources was completed by the end of March. CMO has continued with remote preparatory work to preparing the identified countries for roll out of the development process for the plans. This also includes sourcing a team of consultants to develop these documents.</p> <p>The target countries for the development of NS include Anguilla, Antigua and Barbuda, Dominica, Grenada, Guyana, Jamaica, St. Kitts and Nevis, St Vincent and the Grenadines.</p> <p>The timeline for the development of a meteorological bill template and the adaptation of the bill in two countries is being reviewed.</p> | | | | |

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 | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
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| <p>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</p> | | | | |

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

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
|---|------------------------|-----------------------------|--------------------------|-----------------------|
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Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)

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

| State Project Output(s) in this section | Overall Project Target | Target for reporting period | Progress by January 2020 | Progress by June 2020 |
|--|------------------------|-----------------------------|--------------------------|-----------------------|
| National workshops for 'gender and vulnerable groups in early warning system' training with regional strategy consultation implemented | 3 national workshops | 0 national workshops | 4 national workshops | 4 national workshops |
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Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)

As the integration of gender and vulnerable groups is a cross-cutting theme, the process is linked to the development of the regional diagnostic and strategy; there were very few existing gender and vulnerable group statistics and advances in relation to EWS in the Caribbean region, for which the workshops included a large consultation component, in order to collect information for the regional diagnostic, as well as recommendations for the strategy. It was possible to rise the interest of the national entities as it was recognized as a key factor in implementing the workshops, collect the inputs and guarantee ownership also for the actions defined in the strategy. The workshops were conducted in St. Lucia (July), St. Vincent and the Grenadines (September), Dominica (November) and Antigua & Barbuda (November).

11.2 Regional Output(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 January 2020 | Progress by June 2020 |
|--|------------------------|---|---|--|
| Regional development strategy agreed with regional and national stakeholders | Regional EWS strategy | Diagnostic finalized and strategy draft prepared. | Situation analysis draft elaborated. Strategy outline prepared and presented at the CDM conference. | Finalization of situation analysis. Strategy draft prepared and sent for comments. |
| Integration of gender aspects and other vulnerable groups (children, elderly and the disabled) in the regional strategy for early warning systems. | | | Gender and vulnerable groups considerations incorporated in | Gender and vulnerable groups considerations incorporated in regional strategy. |



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| | | | regional situation analysis. | |
| Evaluation of the status and available gaps in the existing Doppler radar network. | Report on Doppler radar network produced. | Report on Doppler radar network produced. | The consultant for the study has been identified and contracted. | Inception report prepared. Assessment report has been postponed due to cancelation of in field mission (Covid19). |
| Assessment of socio-economic benefits of better hydromet services and EWS | Value proposition of MHEWS in the Caribbean prepared. | Finalized the value proposition report. | Information on socio-economic impacts of disasters and MHEWS in the Caribbean gathered. | Value proposition of MHEWS in the Caribbean prepared. |
| Set of priority investments and potential partnerships, including with private sector, identified | Set of priorities | First list of priorities identified. | N/A | First list of priority investments identified in the strategy document. |
| <p>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</p> <p>Complex institutional setup in the region with numerous regional stakeholders and consortia. To mitigate the risks, the Bank and other IPs reached out to key stakeholders and consortia and incorporated them in the process of diagnostic and strategy drafting by co-organizing and participating in several regional meetings and events. The PSC also played a critical role, advising and endorsing the process for the regional strategy elaboration, and providing advice on a continuous basis.</p> <p>Regional and national stakeholders have intensified their efforts in response to the Covid 19 crisis. This fact greatly limits their ability to participate in CREWS project activities. To mitigate this the Bank team working on the strategy has decided to intensify the technical work that can be developed on their own and limiting the iterations with regional and national limit iterations until products closer to the final versions are available.</p> | | | | |



11.3 Contributions to Value Propositions

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| Gender Sensitive | The project has gender and vulnerable groups as cross-cutting themes. This enables the EWS to consider the different groups, reach more people, specifically the ones most at risk, and further contribute to the concept of people-centered EWS. |
| Multiplier | By identifying regional best practices in the diagnostic, the regional strategy aims at building on them and replicating them across the region. |
| People-centered | People-centered approach has been identified as one of the core values of the regional strategy that is under development. |
| Promote Coherence | The IP team is closely coordinating with stakeholders that are active in the region around the topic of end-to-end EWS, including regional organizations, consortia and other development partners. A mapping of ongoing projects and initiatives is planned to take place in a few months. |
| Solution-oriented | The regional strategy is identifying “strategic initiatives” that could be game changers, as they are addressing and offering solutions to some or the main weakness and bottlenecks identified in the diagnostic. |
| Unique | While many national plans to strengthen EWS and regional plans to strengthen EWS aspects exist in the region, there is not yet any regional strategy that would set the frame for national level strengthening. |

12. Visibility products

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

- In order to communicate progress, share information and for consultation purposes the following website was established:

www.GFDRR.org/en/crews-caribbean

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13. 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.*
- BTOR of January Mission to Barbados
- Readouts of the REWS Consortium Meeting on March 4th to comment on the CREWS regional situation analysis of MHEWS.