

CREWS Project Status Report

1	Project Title	DRC Strengthening Hydro-Meteorological and Early Warning Services
2	Project Reference	CREWS/CProj/01/DRC
3	Reporting Period	December 2017 - June 2018
4	Reporting Focal Point	Lorenzo Carrera, Disaster Risk Management Specialist, The World Bank, lcarrera@worldbank.org , +1 202 813 5847
5	Project Status Overview	<p>CREWS resources are contributing to the improvement of the DRC hydro-meteorological and early warning services by providing:</p> <ul style="list-style-type: none"> - improved weather forecasts disseminated through different media, including television, radio and internet; - agrometeorological information services; - extreme weather warnings (mostly in urban areas and along fluvial navigation channels), and; - support to aviation services. <p>The activities as presented in the Investment Plan are reflected below:</p> <ul style="list-style-type: none"> - Component A. Institutional and regulatory strengthening, capacity building and implementation support (cost US\$0.95M): (i) strengthening the partnerships between MettelSat, civil protection, RVF and RVA relevant to early warning systems (severe weather, flash flooding); (ii) institutional strengthening; (iii) capacity building; - Component B. Improvement of hydromet information service delivery (cost US\$2.14M): In line with the global framework for climate services, this component will support (i) identification of requirements by decision-makers and the population at-risk; and (ii) support the design and production of more accurate, timely and relevant warnings and information. The component will strengthen the capacity of specific users for optimal use of products and services relevant to early warning systems (severe weather, flash flooding). <p>More specifically, CREWS is leveraging the World Bank Strengthening Hydro-Meteorological and Climate Services (P159217) investment project to deliver new early warning systems and improved hydromet services. CREWS supports and builds on the implementation of the investment project in MettelSat and other partners. CREWS funds were received by the World Bank and the creation of a specific trust fund was completed in December 2017. The investment project became effective in February 2018.</p> <p>On January 3-4, 2018, flood events in Kinshasa caused 51 fatalities, affecting around 16,000 people and causing damages and losses of around US\$76 million. A rapid Post-Disaster Assessment carried out by the Government of DRC and Kinshasa Municipality, with the support of GFDRR and the World Bank, highlighted the lack of early warning systems as a major cause of impacts, particularly on the loss of human lives and people affected. In agreement with MettelSat and other governmental counterparts, CREWS will start focusing its activities by supporting the design and installation of a flood early warning systems in a pilot vulnerable area of Kinshasa, leveraging from the World Bank</p>

	<p>Strengthening Hydro-Meteorological and Climate Services Project and in synergy with other initiatives, including the Agence Francaise de Development Project on Urban Development in Kinshasa (around US\$20M) and the Kinshasa Urban Development and Resilience Project (around US\$150M funded by IDA).</p> <p>The section below describes major activities that have been carried out during the reporting period.</p>
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6 Project Activities Contributing to CREWS Outputs

CREWS Output 1: Assessments of NMHSs capacities, user needs, alignment with other programmes socio-economic benefits

Project Activities and Estimated Progress to Date	
<ul style="list-style-type: none"> Assessment of capacity for early warning of drought, heavy precipitation, river flooding, flash flooding, wind storm and recommendations for improvement 	5%

CREWS Output 2: Access and use of hazard and risk information

Project Activities and Estimated Progress to Date	
<ul style="list-style-type: none"> Activity 2.1. Development of a national risk geoportal and development of hazard, exposure and vulnerability information for flood risk assessment and impact forecasting 	5%
<ul style="list-style-type: none"> Activity 2.2. Studies for the design and implementation of a flood EWS in a pilot urban watershed of Kinshasa (N'Djili watershed): <ul style="list-style-type: none"> a. <i>Identification and mapping of exposed assets and population to flood risk</i> This activity is on-going in collaboration with GFDRR. A firm has been selected to carry out community exposure mapping, in collaboration with relevant governmental entities (Municipality of Kinshasa, Ministry of Urbanism, MettelSat, Civil Protection, Agency for Architecture Studies, etc.). A training was organized in Kampala on June 11-14, 2018 and the activity is expected to be launched in Kinshasa in July 2018. Exposure mapping will inform flood risk assessments, which are necessary to develop impact-based forecasting models. Exposure mapping will also be supported by drone photogrammetry, which will provide the bases for the development of a site specific Digital Terrain Model. b. <i>Flood risk modelling</i> The selection of an international firm is on-going to provide flood risk modelling for the city of Kinshasa. c. <i>Preliminary and specific design of the EWS in the pilot area:</i> The project has supported (through the provision of technical expertise) the development of the preliminary design for a real-time monitoring system in the pilot watershed. The selected technical firm will finalize the specific design of the system, which will be 	30%
	20%
	30%

implemented by leveraging resources from the World Bank Hydromet investment project.	
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CREWS Output 3: Improvement of NMHSs service delivery

Project Activities and Estimated Progress to Date

<ul style="list-style-type: none"> with the Development of Quality Management Systems for air navigation meteorological services, supporting MettelSat and RVA. The activity is on-going with the support of ASECNA (Aerial Navigation Safety in Africa and Madagascar) and international experts. A first workshop has been carried out in December 2017 and a following one is foreseen in June 2018. A guideline and methodology to estimate the re-distribution of air navigation revenues for meteorological services has been developed. 	20%
<ul style="list-style-type: none"> Provision of technical and operational trainings for MettelSat with the support of international experts and through learning visits. MettelSat representatives participated in an operational training in Dakar, Senegal on May 29-31, 2018. Other technical trainings are foreseen from September 2018. 	15%
<ul style="list-style-type: none"> The elaboration of a ToR for the selection of a Technical Assistance Firm for the implementation of hydromet activities has been completed with the support of international experts and in collaboration with Mettelset. The selection process is on-going and it is expected to be completed in July 2018. 	80%
<ul style="list-style-type: none"> Improved weather forecast capacity including extreme weather events: <ol style="list-style-type: none"> Specifications of the central weather forecast system and central production system; Integration of local mesoscale and descent scale models (twinning); Update of (location-specific) numerical weather forecasting capacities to better track extreme events 	0%
<ul style="list-style-type: none"> Development of the management, operation and maintenance procedures of the operational observation network 	0%
<ul style="list-style-type: none"> Development of operational procedures to convert extreme weather forecasts (rains, floods, winds, heat waves) in potential impacts 	0%

CREWS Output 4: Development of long-term service delivery strategies and development plans for NMHS

Project Activities and Estimated Progress to Date

<ul style="list-style-type: none"> Development of the MettelSat Strategy and Action Plan <p>The strategy for MettelSat is under preparation. A first workshop was held in December 2017 and a second stakeholder workshop is planned for June 18-22, 2018. Well recognized international experts are supporting MettelSat in the preparation of the workshop and the elaboration of the analysis and the strategy.</p>	20%
<ul style="list-style-type: none"> Identification of network operating costs per various scenarios 	0%

CREWS Output 5: Procurement and installation of high priority observation and information and communications technology (ICT) equipment

Project Activities and Estimated Progress to Date

- No procurement of equipment planned but required equipment will be identified as part of needs assessment (Output 1)

CREWS Output 6: Preparedness for response plans with operational procedures for dissemination, readiness to act with regular simulation exercises

Project Activities and Estimated Progress to Date

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| • Strengthening the legal and regulatory framework for EWS at territorial level and definition and implementation of a Quality Management System for municipal and territorial warning systems | 0% |
| • Specifications of decision-making tools for warning based upon forecasts and location-specific risk information and contribution to its operating costs | 0% |
| • Specifications of the severe weather forecast production tool for river and lake navigation | 0% |
| • Specifications of the crisis center of the civil protection and contribution to its operating costs | 5% |
| • Risk mapping and emergency response plans for municipalities including training of operational and decision-making civil servants | 10% |

CREWS Output 7: Targeted education and public awareness programmes available for warning systems and related public action

Project Activities and Estimated Progress to Date

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| • The Faculty of Science, University of Kinshasa co-organized an event with MettelSat, Civil Protection and the World Bank in April 2018 at the University of Kinshasa on Disaster Risk Management in DRC and Kinshasa. The event was well attended by academics, researchers and students. MettelSat and the Civil Protection had the opportunity to present the activities of the project and discuss its importance in urban contexts. | 100% |
| • Training for regional and local food security and disaster management committees | 0% |
| • Study tour for the 4 institutions contributing to early warning (MettelSat, DPC, RVF, CVM) | 0% |

CREWS Output 8: Activities promoting gender equality in all aspects of early warning systems

Project Activities and Estimated Progress to Date

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| • Indicators developed to monitor the number of people with improved hydromet services access, disaggregated by | 10% |
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gender.	
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7	Funding Spent	Disbursed: US\$79,566 Committed: US\$134,844 plus US\$1,200,000 (selection of technical assistance firm on going) Total disbursed and committed: US\$1,414,410
8	Changes in Organization and Operating Procedures, Project Viability and Sustainability	No changes
9	Lessons Learned	Significant technical support is required to MettelSat for the implementation of project activities. This support will be provided by an international technical firm, for which selection is ongoing and through individual consultants (on-going).