Template for CREWS Project Presentation Note to the Steering Committee

1	**Project Title**	**DRC Strengthening Hydro-Meteorological and Early Warning Services**	
2	**Project Reference**	CREWS/CProj/01/DRC	
3	**Geographic coverage**	Country Project	
4	**Timeframe**	5 years, July 2017 – June 2022	
5	**Total cost of CREW contribution**	**US$3,090,000**	
6	**Implementing Partner**	**World Bank/GFDRR**	
		a. Allocation Requested for Execution by Government	0
		b. Allocation Requested for Execution by Implementing Partner	US$ 2,511,272
		c. Fees of Implementing Partner:	US$278,728
		d. Co-financing provided by Partner (GEF and GFDRR Grants, for Execution by Government)	US$ 8,029,452
		d. Total requested	US$2,790,000
7	**Additional Implementing Partners**	**WMO**	
		a. Allocation Requested for Execution by Partner	US$261,000
		b. Fees of Additional Implementing Partner:	US$39,000
		c. Total requested	US$300,000
8	**Other Partners**	N/A	
9	**Project Recipient/Beneficiary**	**Government of the Democratic Republic of Congo**	
		N/A	
10	**Total Project Amount**	**US$11,119,452**	
11	**Main objective**	CREWS resources will support the objectives of a bigger GEF and GFDRR operation therefore the objectives are aligned: to improve the quality of the Government of the DRC's hydro-meteorological and early warning services – improved weather forecasts disseminated through different media, including television, radio and internet, – agro-meteorological information services, – extreme weather warnings (mostly in urban areas and along fluvial navigation channels), and – aviation services More specifically, CREWS additional financing would expand the scope of the initial project, pre-appraised with the Government in March 2016, to develop capacities among stakeholders involved in early warning (civil protection, selected Municipal Councils, population in areas prone to flash-floods, navigation services for severe weather forecasting in large lakes).	
12	**Initial state of play - project rationale**		
	a. Vulnerability, exposure	The Democratic Republic of Congo (DRC) is one of the largest Africa countries	

	to risks, disasters impacts (on people and economy)	with abundance of natural, forest and water resources (for instance, the Congo River is the second largest river in the world in terms of water flow). DRC is one of the poorest countries on the planet with 70% of population leaving in extreme poverty. A large part of the economy is climate sensitive. The main sectors of the DRC's economy are agriculture (39 percent of GDP and over 70% of employment), trade and construction. Hydropower having 60 percent of Africa's total hydropower potential has a huge untapped development potential. Urban areas are increasingly becoming vulnerable to flooding. For instance, at least 31 people died and 20,000 families became homeless in November-December 2015 after weeks of heavy rain in the capital of Kinshasa. Climate change is a prioritized development challenge for the Government of DRC. In particular, the Government seeks to build resilience against the impact of climate change on agriculture, water resources and vector-borne diseases.
	b. Status of the EWS, DRM agencies and NHMSs, actors / players present	Overall, the national observation network is in a generally degraded condition and MettelSat faces significant challenges in delivering basic services to users (e.g. aviation, civil protection, agriculture, and the general public). In the early 1960s, MettelSat had a network of 125 synoptic stations, 700 rainfall stations, 6 upper air stations and other infrastructure. At present, MettelSat has 22 manual synoptic stations and 27 automatic weather stations (AWS). All other essential elements of the observation system, such as upper air, meteorological radars, wind profilers, lightning detection are non-existent or were shut down many years ago. The communications system, based on high frequency radio signals, emails and regular post office delivery, is very outdated, unreliable and not intended to work in real time. In terms of media, MettelSat has a studio to prepare radio and TV broadcasts. Maintenance and calibration facilities are obsolete, with only thermometer and humidity chambers still functioning. In addition, 10 hydrological stations are functioning - 5 on the Congo River and 5 on the Kasai River. The mandate for hydromet services resides in the Ministry of Transportation and Communication Channels (MTVC) at the National Agency for Meteorology and Remote Sensing (MettelSat), a publicly funded technical and scientific service with legal status and financial autonomy under the Ministry of Transportation and Communication Channels and supported by the State Subsidiary Budget. The Government of the DRC is in the process of proposing a new legislation on meteorology. When approved, the law will provide a legal framework that will allow the coordination and harmonization of hydromet activities in accordance with the practices and standard procedures. The proposed legislation defines missions, mandates and responsibilities of the various entities involved in provision of meteorological and hydrological services, with MettelSat as the leading agency. Major contributions to observation and forecasting comes from the Waterways Authority (RVF), the Airways Authority (RVA) and the Maritime Authority (CVM). Specifically, meteorological assistance to aviation handled by RVA works somewhat independently and better as RVA is a semi-commercial agency that has to comply with the International Civil Aviation Organization (ICAO) regulations and benefits from air traffic levies from airlines for airport and in-flight services. There are today no agreement, identification of requirements nor procedures allowing efficient collaboration between the hydromet service and the civil protection to allow operational early warning system. The Committee for the Prevention and Management of Disaster Risk chaired by the Minister of the Interior is in charge to launch warnings. The interdepartmental committee chaired by the Deputy Prime Minister can decide to issue public warnings. This system is decentralized with provincial security committees chaired by provincial governors, and municipal

		committees chaired by the mayors. Civil Defense has competence to move populations out of dangerous areas. At present the forecasting bulletins are issued by MettelSat at 14:00 for the next 24 hours, 7 days a week, and are disseminated by email. 12h forecasts and extreme weather bulletins for the next 72 hours are both being tested. Civil Protection would need to have forecasts at 5am for use during the working sessions of the daily coordination, as well as to receive regular updates when severe situations are unfolding (specifically in relation with severe weather forecasting and flash flood guidance).
	c. Projects and programs dealing with EWS and hydromet under implementation or preparation	There are a number of ongoing projects and programs addressing various aspects of climate and disaster risks that will be capitalized by the proposed Project. Major ongoing projects are described below: 1. Under the assistance of the PMURR (Multisectoral Emergency, Rehabilitation and Reconstruction Program), MettelSat has obtained 22 automatic meteorological stations which were installed in 2008 in the main airports of the country, in order to improve the capacities of meteorological services to aviation. The project is now completed. 2. The World Meteorological Organization (WMO) provides support for training in aviation meteorology, climatology and other fields like EWS. Together with SADC in the framework of the Hydrological Cycle Observation System (SADC-HYCOS) project, 3 DCP and 6 hydro-meteorological stations have also been provided, which still need to be installed. Congo- HYCOS project was developed by WMO, in collaboration with Congo-Oubangui-Sangha Basin Intergovernmental Commission (CICOS) and its member countries, to the revival of hydrometric monitoring across the Congo Basin. After the implementation of the preparatory phase, during which a detailed project document was developed and validated by all the countries, CICOS and WMO are collaborating in sourcing fund for the development phase of the project. 3. The European Union supported MTAP project (Meteorological Transition in Africa Project) in 2005-2006, in order to help the African countries south of Sahara to obtain Meteosat Second Generation (MSG) data receiving stations and to provide them with the necessary technologies in order to best benefit from the data disseminated by the European Organization for the Exploitation of Meteorological Satellites (Eumetsat). Later, the PUMA and AMESD projects, which followed the MTAP project and terminated in 2013, the European Union provided MettelSat with a new workstation for receiving and using the information disseminated through the EUMETCast satellite dissemination system operated by Eumetsat, as well as trainings. The new Monitoring for Environment and Security in Africa (MESA) program builds on the results obtained by MTAP, PUMA and AMESD, in order to consolidate and widen the operational environmental services developed in AMESD, and to propose new services, such as African climate services. Funding is obtained from the 10th European Development Fund of the European Union, with a budget of 37 million Euros. The timeframe of the implementation is from 2013 to 2017. 4. The government of the UK has donated a studio for preparing TV broadcasts and should renew it in the future. 5. The government of China has donated 20 weather stations, 8 automatic weather stations and a radio-sounding station and is currently supporting their installation. 6. The International Commission of Congo-Oubangui-Sangha (CICOS) is

		an intergovernmental organization created in 1999. Its members are Cameroun, Central African Republic, the Republic of Congo and the DRC, Angola being an observer. CICOS has a mandate of a river catchment organization, in charge of promoting the navigation and the integrated management of water resources. Important programs for ancient hydrological data recovery (until the early twentieth century) have already been conducted. The river flows have not been recalibrated (gauged) since 1980. The French Development Agency (AFD) has recently signed with CICOS a 500,000 euros project to improve the hydrological monitoring of the Congo River and an integrated management of water resources. CICOS is one (among 6 others) of the implementing centres of MESA, and which is mandated by the Economic Community of Central African States (CEMAC) for the Thematic Action ("THEMA") "Water Management in Central Africa ". The MESA grant contract is of a value of €1,846,051. More specifically CICOS is in that scope developing the following services: (i) Water level alert system for navigation, including in situ and satellite measurements (Oubangui sub-basin), low waters alert system (Oubangui sub-basin); (ii) Monitoring the water cycle in the main sub basins of the region (Rainfall, Evapotranspiration over Oubangui sub-basin) in order to issue Water cycle / Humid Forests monitoring bulletins, Oubangui sub-basin. Key users are Ministries, Universities and Research centres, Agro pastoral services, etc. 7. The UNDP PANA-ASA and PARRSA (North of Equateur province) projects have installed and refurbished around 30 agro-meteorological stations of INERA (Institut national des études et recherches agronomiques) with the participation of MettelSat to pursue research on seeds. MettelSat has developed decadal bulletins for this purpose. There will be an additional PARRSA financing of US$50 million from July 2017, and Mettelsat could receive additional equipment in this framework. A new project on women and children (PANA-AFE) will start shortly and MettelSat will be associated. A number of international organizations (WMO, ACMAD, SADC, etc.) and of advanced hydromet services (Météo-France, United Kingdom Met Office), provide training at various levels of competency.
	d. Positioning of CREWS support: complementarity and synergies with the existing programs	CREWS would provide additional financing on top of a US$8 million investment coming from the GEF and the GFDRR aiming at restoring basic observing, forecasting and service delivery capacity in MettelSat. More specifically, CREWS support would expand the scope of the initial project to also develop capacities among stakeholders involved in early warning (civil protection and targeted populations at risk) in line with the concept of the national framework for climate services and on the basis of detailed requirements and feedback from user groups. It is critical that donors act in a coordinated manner, in order to maximize opportunities and synergize activities. For this purpose, consultations have been held with several donor partners throughout the development of the Project. It is worth noting that many of the activities listed in the box above contribute to develop adaptive capacities, however none of the existing initiatives specifically target the improvement of hydro-meteorological information and warning systems with end to end connectivity, starting from building capacity at the national level to providing end user services. The initiative by UNDP will target preparedness at the municipal level and will rely upon this proposed Project for provision of forecast and warnings. It will be important for donors to coordinate throughout the project cycle so that stations are installed in areas where there is the most need and value added

		to provide required information for warning systems essential to reduce the vulnerability of communities. The combination of this proposed project with ongoing initiatives will allow the use of scientific information to reduce climate risks to both the population and productive sectors.
13	**Project design**	
	a. Project Outputs ***(Bold italic items represent activities with contribution of CREWS financing)***	**Component A. Institutional and regulatory strengthening, capacity building and implementation support** (US$1.355M GEF/GFDRR funding and US$0.9 50M CREWS funding) will invest in strengthening institutional setup and building capacity of human resources. This includes: i) reinforce the legal and regulatory framework of MettelSat in order to develop partnerships and Standard Operating Procedures (SOPs) for delivery of service; ii) strengthen the Quality Management Systems to raise standards and quality control/verification procedures across the institutions; iii) implement a long-term and on-demand capacity development and training program for staff. ***CREWS financing would support activities aimed at strengthening the partnerships between MettelSat, civil protection, RVF and RVA relevant to early warning systems (severe weather, flash flooding).*** **Component B. Modernization of equipment, facilities and infrastructure for basic observation and forecasting** (US$4.568M, GEF/GFDRR funding) will finance: i) hydrological and meteorological monitoring networks (small-scale rehabilitation of priority stations and installation of new sensors); ii) transmission, data management and data dissemination hardware; iii) refurbishment of facilities needed to support the services; and iv) improvement of technical systems and software for performing meteorological, hydrological and climate modelling and forecasting. **Component C. Improvement of hydromet information service delivery** (US$1.545M GEF/GFDRR funding, and US$2.14M CREWS funding) will provide technical assistance for delivery of more accurate, timely and user-friendly products and services to users and decision-makers. The component will specifically (i) define requirements and develop feedback mechanisms with different user groups (in line with the National Framework for Climate Services); and (ii) develop and deliver customized products and services made available to user groups through dedicated interfaces. Priority target end-users are those involved in (a) agro-meteorological information services, (b) food security; (c) civil protection emergency and contingency plans; and (d) aviation. This component will target beneficiaries with a gender-disaggregated approach. ***CREWS financing would contribute to strengthen the capacity of specific users for optimal use of products and services relevant to early warning systems (severe weather, flash flooding).*** **Component D. Project Management** (US$0.561M GEF/GFDRR funding) will finance the following activities: (i) incremental operating costs; (ii) technical design of sub-projects; (iii) procurement, financial management, safeguards, monitoring and evaluation, quality control and contract management; and (iv) audit, studies and assessments required under various project components.
	b. Implementing time frame	See **Attachment 1**
	c. Contribution to CREWS Programming Framework	The Activity will contribute to the following outcomes of the CREWS Programming Framework: 1.3 NMHSs' service delivery improved including development of impact based capacity and tailored information for risk management. 1.4 Long-term development plans for NMHSs, including the need for system interoperability at the national and regional levels. 1.7 Targeted education and public awareness programmes available for warning systems and related public action.

	d. Logical framework with indicators	See **Attachment 2**
14	**Organization and operating procedure**	
	a. Institutional framework	The CREWS financing would be implemented by the World Bank (US$2,790,000) and WMO (US$300,000). Responsibilities for early warning will be clearly allocated respectively to the Directorate for Civil Protection and MettelSat along with their mandates in the project implementation manual. A National Steering Committee will be established to coordinate project activities in relation with all three grants (GEF, GFDRR and CREWS) and ensure that they are harmonized with related activities of other government stakeholders. The role of the project National Steering Committee will be to provide overall policy direction on project implementation resolving any policy hurdles, inter-ministerial barriers or policy conflicts. The NSC will be responsible to approve overall implementation plan and annual project budget, and will meet as often as needed but at least every quarter to review and follow up on project progress. The NSC will ensure that adequate staffing arrangements in MettelSat are in place. The Chair of the Steering Committee will be the Secretary General of Transportation and Communication Channels. The committee will include the following members: (i) The Project Coordinator; (ii) Representative of RVF (waterways authority); (iii) Representative of RVA (airways authority); (iv) Representative of CVM (maritime transportation authority); (v) Representative of INERA (Institut national pour l'Etude et la Recherche Agronomique); (vi) Representative of ISTA (Institute of Applied Technologies); (vii) Representative of SNEL (Société Nationale d'Electricité); (viii) Representative of the Civil Protection Department in the Ministry of Interior. ; (ix) Representative of the Ministry of Agriculture; (x) Representative of the General Secretariat of Environment. MettelSat will interact with relevant stakeholders, including NGOs and municipalities, to guide them in the implementation process where necessary. MettelSat will be responsible for organizing all state level training programs involving the concerned state level line ministry, national and international research and development institutions, including NGOs operating in the country. A Project Implementation Manual will be developed and disseminated (prior to effectiveness), to take into account current institutional configurations and detail roles and responsibilities. The project will be implemented in accordance with the National Policy on Gender aiming not only at implementing the constitutional principles of equity and respect of human rights, but also at activating the national and international government commitments for the promotion of equity and gender.
	b. Monitoring and evaluation system	MettelSat will be responsible for the overall coordination of M&E activities, their consolidation, and the preparation of periodic fiduciary and M&E reporting, including impact and output indicators as well as annual audit of project's financial statements. The project M&E system will be based on the agreed Results Framework and implementation arrangements. MettelSat will take steps to build M&E capacity utilizing resources allocated under the project. This will include technology, equipment, training on data collection, content management, information updates and basic system troubleshooting and maintenance. Efforts will be made to fully empower national institutions in the M&E of the project outcomes, ensuring that it is strongly linked to the national M&E system. MettelSat will be responsible for producing timely and pertinent information that will become key management tool for decision makers. The Results Framework will be used to monitor achievement of the project development objective and the outcome indicators. Project monitoring will

		take place on an annual and/or semi-annual basis. Broad thematic areas that will be supervised and monitored include: (i) Indicators at the project level. This includes monitoring the number of Quality Management Systems established, the installation of equipment to centralize data, operational forecasts, climatology and production, and the population benefitting from improved services and/or new services; (ii) Strengthening of institutional and governance capacities. This includes monitoring the number of professionals having participated to trainings and the number of MoUs having been developed or revised with other institutions using and/or providing hydro meteorological services; (iii) Modernization of observation, forecast, alert and response infrastructures. This includes monitoring the number of stations feeding the central online data platform on time and the number of stations rehabilitated or improved by the project; (iv) Improvement of service delivery to users. This includes monitoring the number of views on the online data platform, the number of hazards for which warning or monitoring forecasts bulletins have been produced, and the number of user groups having shared their needs and a resulting action plan to address them.
15	**Project viability and sustainability**	
	a. Main identified risks	The overall risk for the proposed operation is rated as substantial with regards to risks anticipated during implementation, as well as with regards to sustainability of hydromet services in the long run. This will be mitigated, through strong management support, long-term capacity building activities, focus on quality standards and project planning, strengthening financial planning and management and balancing investments with consideration to long-term, optimal use. The team also considered the risk of inaction. If the World Bank is unable to provide support to DRC's hydromet services, new investments in economic sectors (such as transport, navigation, hydropower etc.) will face undermining uncertainties. Equally, with a continued weakened monitoring and analysis of water and weather, the Government of DRC may not be able to build resilience and adaptation capacity in the face of negative impacts of climate change. The specific risks are indicated as follows: (i) Political and Governance: Substantial. This risk may interfere with hiring of international consultants and procurement of imports and supervision. However, the project will be implemented by MettelSat which is an independent legal entity, and should be able to operate in a difficult political environment; for this reason the risk is rated as substantial and not high. (ii) Macroeconomic: Substantial. A satisfactory macro-economic environment can be expected over the duration of the project, however fluctuations are still likely to happen and could have impacts on imports of goods and services. (iii) Sector strategies and policies: Moderate. The relationship and collaboration between ministries will require to be improved to ensure optimal use of hydromet products and services across sectors and realize all benefits; however this is expected to be supported under component 1. (iv) Technical design of the project: Low. The design is relatively simple with one entity responsible for all project activities, which will be implemented by The World Bank. (v) Institutional Capacity for Implementation and Sustainability: Substantial. The implementing agency would be MettelSat, which faces budgetary, governance and infrastructure challenges in a poverty-stricken and post-conflict context. Specific risks anticipated are related to the capacity of staff to develop new capacities and

		skills to maintain, operate and sustain the equipment used for observation, forecasting and service delivery; and, secure the necessary financial resources for the long-term sustainability and continued development of the services. (vi) Fiduciary: Low. CREWS funding will be implemented by The World Bank. (vii) Environmental and social: Low. CREWS funding will be limited to technical assistance. (viii) Stakeholders: Moderate. Stakeholder risks are assessed as moderate: the dissemination of customized services to users and stakeholders would be supported from other ongoing projects, however a complex mechanism for users to exchange with providers will need to be developed.
	b. Critical assumptions	The project was prepared under the assumption that some basic services will be provided at a national level (seasonal and daily forecasting, ten-day agro-meteorological reports, etc.). More specialized services (such as flood forecasting systems, personalized agro-meteorological information services, warning reports to anticipate impacts, etc.) will be provided to selected zones to be identified based on the following criteria: (i) presence of specific hydro-meteorological natural hazards; (ii) exposure of populations and critical infrastructures (urban zones, roadblocks, irrigation, transport, hospitals, schools, etc.); and (iii) presence of investment projects, which would allow for an optimal utilization of hydro-meteorological services (notably towards crop producers, livestock herders, fishermen, hydropower generators, aviation and other transport related sectors, extractive industries, local government, micro-insurance and urban planners).
	c. Judgment on the project sustainability	The investment is institutionally sustainable, economically viable, and technically feasible and has strong social, environmental and economic co-benefits. The Director-General of MettelSat has already taken steps to strengthen the overall sustainability of the project, building upon strong commitment of the Government. Counterpart financing is included in the provisional budget of MettelSat, US$200,000 per year. These funds will cover bonuses paid to civil servants working on this project to ensure a high level of motivation and commitment to the project. This will improve the capacity of staff to operate and maintain the system.

Attachment 1

DRC Strengthening Hydro-Meteorological and Early Warning Services Project – Timeline for implementation

	2017		2018				2019				2020				2021				2022	
TASK	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Component A Institutional and regulatory strengthening, capacity building and implementation support																				
(i) Reinforce the legal and regulatory framework of MettelSat in order to develop partnerships and Standard Operating Procedures (SOPs) for delivery of service	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
(ii) Strengthen the Quality Management Systems to raise standards and quality control/verification procedures across the institutions		x	x	x	x	x	x	x	x	x	x	x	x	x						
(iii) Implement a long-term and on-demand capacity development and training program for staff		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Component B Modernization of equipment, facilities and infrastructure for basic observation and forecasting																				
(i) Hydrological and meteorological monitoring networks			x	x	x			x	x	x	x	x	x	x	x	x	x			
(ii) Transmission, data management and data dissemination hardware			x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
(iii) Refurbishment of facilities needed to support the services					x					x	x	x	x	x	x	x	x	x		
(iv) Technical systems and software for performing meteorological, hydrological and climate modelling and forecasting																				
Component C Enhancement of service delivery and warnings to communities																				
(i) Establishing a national framework for climate services		x	x	x	x		x	x	x	x	x	x	x	x	x	x	x			
(ii) Develop and deliver customized products and services made available to user groups through dedicated interfaces		x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	
Component D Project Management	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

DRC Strengthening Hydro-Meteorological and Early Warning Services Project
Concise Logical framework with results and impacts indicators (in line with GCF M&E framework)

Indicator	Means of Verification (MoV)	Baseline	Target	
			Mid-term (if applicable)	Final
Number of operational Quality Management Systems (QMS) (number of systems)	Verification of the systems' existence and of their operational implementation	0	1	3
Index reflecting the number of operational observing stations and equipment for data centralization, operational forecast, climatology and production	MettelSat annual report reflecting equipment for data centralization, operational forecast, climatology and production, as well as for access to data from secondary networks	1	2	4
Direct project beneficiaries (number), of which female (percentage)	Surveys undertaken each year by MettelSat.	0 (0%)	355,000 (35%)	2,978,690 (43%)
Number of professionals having participated in trainings	Signature and instructors' validation on the participation sheets	0	120	360
Number of memorandums of understanding (MoUs) having been developed or revised	Report by MettelSat Board	0	4	8
Number of stations feeding the central online data platform on time	Automatic count integrated to the online central data platform	0	10	60
Number of stations rehabilitated or improved by the project	MettelSat annual report reflecting on the state of the observation network	0	20	40
Number of accesses to online data platform	Automatic count by the internet provider for online visitors to the website and various interfaces (smartphone, SMS, etc.).	0	500	5,000
Number of hazards for which warning or monitoring forecast bulletins are operationally produced with sufficient lead-time for preparedness and early response	Verification of the existence of operational procedures and their implementation.	1	2	4
Number of user groups having expressed their needs and developed a resulting action plan to address them	Annual report of MettelSat reflecting the needs of user groups	0	2	4