



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 27-Jan-2017 | Report No: PIDISDSA17541



BASIC INFORMATION

A. Basic Project Data

Country Congo, Democratic Republic of	Project ID P159217	Project Name Strengthening Hydro-Meteorological and Climate Services	Parent Project ID (if any)
Region AFRICA	Estimated Appraisal Date 25-Jul-2016	Estimated Board Date 07-Mar-2017	Practice Area (Lead) Social, Urban, Rural and Resilience Global Practice
Lending Instrument Investment Project Financing	Borrower(s) Government of Democratic Republic of Congo	Implementing Agency National Agency of Meteorology and Teledetection by Satellite (Mettelsat)	GEF Focal Area Climate change

Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to improve the quality of the Government of the DRC's hydro-meteorological and climate services in selected sectors.

Components

- Component A. Institutional and regulatory strengthening, capacity building and implementation support
- Component B. Modernization of equipment, facilities and infrastructure for basic observation and forecasting
- Component C. Improvement of hydromet information service delivery
- Component D. Project Management

Financing (in USD Million)

Financing Source	Amount
Global Environment Facility (GEF)	5.33
Global Facility for Disaster Reduction and Recovery	2.70
Total Project Cost	8.03

Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue



B. Introduction and Context

Country Context

The Democratic Republic of Congo (DRC), with a population over 75 million people, is endowed with vast natural resources including perhaps the most extensive network of navigable waterways in Africa. An abundance of natural, forest and water resources are found across its 2.3 million square kilometers. DRC's climate is equatorial (warm and moist) in the center of the country, and tropical in the south and north. Rainfall, which is generally affected by the displacements of the Inter Tropical Convergence Zone (ITCZ), is regular and abundant, with a long-term average of around 1,490 mm per year.

Despite its rich natural resources, the DRC has often been associated with political instability and poverty. Since reaching independence in 1960, two wars – the First Congo War of 1996-1997 and the Second Congo War of 1998-2003 – have severely affected the country's economic performance and human security. These two wars have left over 3 million people dead and 1.4 million internally displaced. Most significantly, they have led to continued rebellion in eastern DRC. As for poverty, with a per capita Gross National Income of US\$380 (World Bank, 2014), DRC's population – estimated at about 74.88 million (World Bank, 2014) – is among the most vulnerable in the world. Nearly 64% (World Bank, 2012) of its population lives below the extreme poverty line (less than US\$1.25/day). Food insecurity remains pervasive and a majority of people lack access to basic health. With a life expectancy of 58 years (World Bank, 2012) and severe child mortality (100 deaths/1,000 births), the DRC falls far behind other sub-Saharan African countries.

The economy is growing fast (with an average of 7-9% increase in GDP per year) and a large part of the economy is climate sensitive. The main climate sensitive sectors in the DRC's economy are agriculture (39 percent of GDP in 2011), trade, construction and hydropower (60 percent of Africa's total hydropower potential is in DRC, however only 2.5% is tapped so far). Agriculture employs 62 percent of the nation's men and 84 percent of its women. Several key intermediaries drive the local market, including small-scale wholesalers (mostly women) to whom farmers sell directly or farmer cooperatives. Being an oil importer, the DRC is not suffering from the falling of oil prices. However, its economy may experience lower growth due to the sustained fall in the prices of metal, of which the DRC is a major exporter. Growth of agriculture remains an essential priority to the country's economic development.

The country presents a clear deficit in relation with its infrastructure. The DRC probably has the most challenging transport infrastructure in Africa, with a conjunction of geographic challenges, lack of investment and conflicts. Ground transportation has always been difficult as the country's vast geography, low population density, extensive forests, and crisscrossing rivers complicate the development of infrastructure networks. The country has thousands of kilometers of navigable waterways and water transport has traditionally been the dominant means of moving around approximately two-thirds of the country, albeit with insufficient port infrastructure. Air transport is developing rapidly but requires intensive effort with regards to security. The national telecom system remains one of the least developed in the region.

Urban areas are increasingly becoming vulnerable to flooding. For instance, at least 31 people died and 20,000 families were made homeless in November-December 2015 after weeks of heavy rain in the capital of Kinshasa. A sprawling city of more than 10 million people, Kinshasa has notoriously poor infrastructure, with improvised wooden shacks lining the waterfront and dirt roads that often collapse, and is heavily exposed to flooding. The DRC is undergoing a rapid and unplanned urbanization process, with the twelve largest cities estimated to be growing at 4.7 percent annually. This results in unplanned development of cities, which in turn undermines economic growth, posing challenges to urban poverty reduction and provision of adequate urban services.



Sectoral and Institutional Context

Sectoral Context:

Climate change is a prioritized development challenge for the Government of the DRC. Under the Poverty Reduction Strategy Paper (PRSP-2) adopted in 2012, Pillar Five entitled “Provide Balanced and Sustainable Development” calls for “Environmental Protection and Combatting Climate Change”. In particular, the Government seeks to build resilience against the impact of climate change on agriculture, water resources and vector-borne diseases. However, there is still limited knowledge about the potential effects of climate change and increased variability in the DRC. Rising temperatures are predicted to cause a surge in crop diseases such as cassava mosaic virus, and droughts will cause major disruption to the agricultural calendar, resulting in failure of both food and cash crops, and intensifying food insecurity and poverty. Climate simulations for the region indicate that rainfall will become more intense and more destructive over the coming years, bringing floods, landslides and soil erosion, especially in the region of the central Congo basin. Although the possible effects of El Niño on precipitation remain still poorly documented in the DRC, torrential rains and subsequent flooding are already causing substantial impacts and losses. From October 2015 to March 2016 flood events along the Congo River Basin resulted in major impacts, including loss of lives, destruction of thousands of homes, vital food stocks and crops, and public infrastructure, with an estimated 550,000 people affected, including from large outbreaks of cholera. By contrast, climate simulations show that the rainy seasons will become shorter in the south, which is largely made up of the dry savannah belt and accounts for 80% of the rural population. Impacts from drought and water scarcity could be further exacerbated by El Niño variability, which has clear and documented drying effects over East Africa.

An effective capacity to monitor and forecast hydro-meteorological (hydromet) conditions and transfer improved knowledge into decision making and planning is critical to increasing the DRC’s adaptation ability and resilience. For instance, systematic meteorological and hydrological data collection is needed to establish early warning systems for wind storms, floods, drought and other hazards, preventing losses of human lives, delivering reliable information to farmers, and increasing accessibility and reliability of agriculture insurance products.

Understanding hydromet and climate risks would help assess social and economic impacts and develop adequate policy responses to support the country’s sustained development. A number of economic sectors in the DRC could specifically benefit from more accurate, relevant and timely hydromet information, warning and services. In particular, these sectors include: (i) airfreight and aviation, (ii) early warning, disaster reduction and civil protection, and (iii) agriculture investment and food productivity. Greater understanding, monitoring and forecasting of severe weather and weather events could result in reduced loss of life and property, economic gains and prevention of losses, and most importantly, improved adaptation capacity within sectors having to adapt to the negative impacts of climate variability and change. According to USAID (2012) only 28% of rural households have improved water sources, including 2% that have water piped into their residences: as a result 43 million people, mostly women, are thus compelled to carry water, often for significant distances, for all household needs.

Strengthening of hydro-meteorological services is considered a flagship program as part of the World Bank Climate Business Plan presented at the 21st United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP21). The Africa Hydromet Program, launched in June 2015 as a partnership framework involving The World Bank, the Africa Development Bank and WMO and other partners, will support the enhancement of climate- and disaster-resilience capacity in targeted Sub-Saharan countries, by strengthening hydromet, end-user (including early warning), and knowledge and advisory services and link national systems with regional and global counterparts. The program aims to mobilize financial resources over time strengthen national hydromet services by providing the investment, technical assistance, and capacity building needed for integrated modernization.



Institutional Context:

The mandate for hydromet services resides in the Ministry for Transport and Communication Channels (Ministère des Transports et Voies de Communications (MoTC)) and the National Agency for Meteorology and Remote Sensing (L'Agence Nationale de Météorologie et de Télédétection par Satellite (MettelSat)). In the DRC, National Hydrological and Meteorological Services (NMHS) are provided by MettelSat, which monitors and forecasts weather, water and climate and is responsible for remote sensing, operational hydrology, thematic cartography, and environmental monitoring. Recently, the Government has expanded MettelSat's mandate on hydrological observation and forecasting (with the expectation that its Department of Hydrology will grow). Additional observation and forecasting is done by the Waterways Authority (Régie des Voies Fluviales (RVF)), the Airways Authority (Régie des Voies Aériennes (RVA)) and the Congolese Maritime Authority (Congolaise des Voies Maritimes (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 ICAO regulations and benefits from air traffic levies from airlines for airport and in-flight services.

Overall, the national observation network is in very weak condition and MettelSat does experience significant difficulties in ensuring basic services to users (aviation, civil protection, agriculture, food security, 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 does, however, have a studio to prepare radio and TV broadcasts. Maintenance and calibration facilities are obsolete, with only thermometer and humidity chambers still functioning. Today, only 10 hydrological stations are functioning - 5 on the Congo River and 5 on the Kasai River.

C. Proposed Development Objective

Development Objective

The proposed Project Development Objective (PDO) is to improve the quality of the Government of the DRC's hydro-meteorological and climate services in selected sectors.

Key Results

Key results expected are:

-Strengthening of institutional and governance capacities of MettelSat. This includes 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.

-Modernization of observation, forecast, alert and response infrastructures of MettelSat. This includes the number of MettelSat stations feeding the central online data platform on time and the number of stations rehabilitated or improved by the project.

-Improvement of MettelSat's service delivery to users. This includes the number of uses 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.

-Project Management. This includes the number of MettelSat's on time submission of procurement, financial management, and technical reports including monitoring and evaluation (M&E).



D. Project Description

Component A. Institutional and regulatory strengthening, capacity building and implementation support (US\$1,355,000) 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. Capacity building in gender awareness, along with promoting more women in hydro-meteorological services, will be supported under this component.

Component B. Modernization of equipment, facilities and infrastructure for basic observation and forecasting (US\$4,568,000) 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) technical systems and software for performing meteorological, hydrological and climate modelling and forecasting. Few women are employed by the hydromet sector and/or water-sector agencies or utilities more broadly. In addition to ensuring that the modernization of equipment, facilities and infrastructure for basic observation and forecasting will include the participation of women, the equipment purchase should also take into account literacy level of the rural population, and limited resources for consumables such as batteries.

Component C. Improvement of hydromet information service delivery (US\$1,545,000) 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.

Component D. Project Management (US\$561,452) 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

E. Implementation

Institutional and Implementation Arrangements

The implementing agency will be MettelSat, defined in a decree of 2012 as the official national hydromet agency, 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.

Project National Steering Committee (NSC): Since many other agencies and ministries have a stake in hydromet information generation, dissemination and use, a National Steering Committee will be established to coordinate project activities 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 for approving the 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. Within three months following effectiveness, the NSC will ensure that an Internal Audit Department is set up and adequately staffed with an internal auditor whose terms of



reference will cover all activities under the project. The Chair of the Steering Committee will be the Secretary General of Transport and Communication. Annex 2 provides a list of the Steering Committee’s members.

Implementing Arrangements: To facilitate project implementation a Project Implementation Cell (PIC) will be established within MettelSat, bringing together the required expertise from across the organization, and strengthening its capacity with consultants, where needed. The PIC will perform day-to-day project implementation activities and will also function as a Secretariat for the Steering Committee. Annex 2 provides a list of the PIC team’s main members/functions. The main responsibilities of the PIC will be to (a) prepare annual implementation plans for the project activities, as well as the annual budget, for Steering Committee approval; (b) carry out all work related to fiduciary functions including procurement, financial management, disbursement, audit, reporting and monitoring and evaluation. The PIC will be responsible for the overall project’s fiduciary management and procurement in compliance with World Bank’s regulations. The PIC will be responsible for processing all the International Competitive Bidding (ICB) and selected National Competitive Bidding (NCB) contracts and payments. In addition, the PIC will interact with relevant stakeholders, including non-governmental organizations (NGOs) and municipalities, to guide them in the implementation process where necessary.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

At this stage, the intervention sites are only tentatively determined, and the specific equipment to be installed will be identified at a later stage. However, the field equipment is expected to be installed in locations already designated for the purpose of conducting hydro-meteorological observations; and indoor equipment will be installed in MettelSat premises. As soon as the sites are determined and the types of equipment to be set up are known, the Project safeguard specialist will conduct assessments and consultations as needed.

G. Environmental and Social Safeguards Specialists on the Team

Lucienne M. M'Baipor, Claude Lina Lobo

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The installation of new stations, the modernization and upgrading of facilities and infrastructure may result in air, water, and soil contamination. The construction and rehabilitation of a number of buildings will certainly have environmental impacts, specifically during the construction and operational phase. These activities will require the application of environmental safeguard measures.



Natural Habitats OP/BP 4.04	No
Forests OP/BP 4.36	No
Pest Management OP 4.09	No
Physical Cultural Resources OP/BP 4.11	No
Indigenous Peoples OP/BP 4.10	No
Involuntary Resettlement OP/BP 4.12	No
Safety of Dams OP/BP 4.37	No
Projects on International Waterways OP/BP 7.50	No
Projects in Disputed Areas OP/BP 7.60	No

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The exact type of equipment used for rehabilitation of sites and stations, and installation of new stations, will be specifically determined during the first year of implementation.

The Environmental and Social Management Framework (ESMF) has identified potential environmental impacts associated with the proposed project:

- Impacts due to potential release of mercury: the dismantlement of thermometers containing mercury from the stations may lead to the release of this substance in the environment in case of thermometers break. This can result in environment contamination as the mercury is very toxic and it can easily flow in air, water and soils.
- Impacts on vegetation: installation of hydro meteorological and climatic infrastructures may lead to damage on trees and/or green ornaments, but this impact is likely to be minor as most of work will be rehabilitation rather than installation, and will take place on existing facilities. Where needed, this impact can be mitigated quickly by replanting trees or green ornaments. Use of construction material like sand or gravel could also contribute to deforestation.
- Impacts on landscape: use of construction material could damage the landscape for instance by creating holes where the material was extracted from.
- Impacts on soil : the quarries where construction material comes from can be destructed by erosion of the soils and contribute to the development of ravines.
- Impacts on the air quality: digging and stowing operations, relative to installation of meteorological stations and other instruments, could lead to a dust takeoff that could negatively impact the quality of air. And also the release of gas from motors used on sites could increase this negative impact.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

No potential indirect negative social or environmental long term impacts are anticipated as a result of this project. But positively, the project will focus on institutional reforms, improving sector governance, capacity building of human resources and improvement of hydromet information service delivery.



3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Not applicable.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The client has prepared an ESMF to address any potential environmental and issues throughout the project cycle. To mitigate the potential impacts on socio economic activities as described by the ESMF, the Client will establish an agreement with the affected households for alternative usage of the land to mitigate negative impacts. To manage the risks related to social conflicts, the project will elaborate a Grievance Redress Mechanism (GRM) to capture and manage complaints. In regards to the Project Implementing Unit (PIU), METTELSAT, its capacity to plan and implement safeguard measures is considered as low level. The PIU will need capacity building/training on the Bank's safeguard policies and procedures which will be provided by the World Bank Safeguards team or a consultant hired accordingly, as well as close supervision from the Bank team to ensure compliance with the safeguard policies.

Furthermore, the project will establish a social and environmental management unit/team within the PIU prior to the effective beginning of the project, with a specific mandate to supervise and monitor implementation of the ESMF, and ensuing documents such as Notice of Environmental and Social Impact or Environmental and Social Management Plan if needed. The social and environmental management unit will be strengthened by the recruitment of one social and environmental specialist/technical assistant (these may be part time consultants or collaborations/partnerships with local Higher Educational Institutions specialized in Social and Environmental disciplines), who will organize training of other members of the unit to enhance their capacities to fulfill the unit's mandate.

In addition, monitoring of environmental and social aspects will be part of Control Office (CO); this one (CO) should be the environmental agency ACE or will be recruited if the need is evaluated because of some lack from the ACE. An ESMF was elaborated, and it includes the key elements for environmental and social management, screening procedures, implementation and monitoring measures, institutional responsibilities, and the budget. The costs are estimated to not exceed an aggregated amount of \$ 100,000 spread over five (5) years of project implementation.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Given that the sites for the installation or rehabilitation of stations are not known yet, consultations with potentially affected populations have not taken place yet. The consultant in charge of the production of the ESMF has visited some stations' sites and talked with actors and partners having a stake in the project, in particular: The Ministry of Transportation and Communications, the Ministry of Environment, Nature Protection and Sustainable Development, the Ministry of Public Work and Infrastructures, MettelSat, REGIDESO, SNEL, RVA, RVF, CVM, some NGOs involved in the management of natural resources, and some populations living in proximity of some of the sites at stake. As soon as a more precise list of the sites of the stations will be available, the consultant will initiate consultations with the populations potentially affected by the project.

During the disclosure and dissemination of the Notice of Environmental and Social Impact or Environmental and Social Management Plan (NIES/PGES), the Client will ensure consultation mechanisms for all stakeholder contributions in regards to the project's impact, design, as well as implementation. These documents will be disclosed in country, in all the project areas and local languages, as well as on the Bank's Infoshop.



B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 16-May-2016	Date of submission to InfoShop 01-Jun-2016	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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"In country" Disclosure

Congo, Democratic Republic of
01-Jun-2016

Comments

Disclosed by the Congo National Environmental Agency ACE

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?

No

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

No



All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

World Bank

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Borrower/Client/Recipient

Government of Democratic Republic of Congo

Implementing Agencies

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APPROVAL

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Approved By

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