



Information note on the DRC National Forest Monitoring System

Version 1 – December 2011

Disclaimer: this note is not meant to represent/ replace a user manual (which is currently in development), but rather it aims to present a brief overview of the objectives of the system.

UN-REDD
PROGRAMME



MINISTÉRIO DA CIÊNCIA E TECNOLOGIA
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1 Background

Within the context of REDD+, the set-up of a National Forest Monitoring System (NFMS) represents the need for a country to follow all the actions related to the implementation of its national REDD+ policies and measures and is a platform to obtain access to their results. These actions should be related, directly or indirectly, to the national REDD+ strategies and may also include actions unrelated to carbon assessment, for example forest law enforcement.

The DRC government recognizes the relevant provisions of Decisions 4/CP.15 and 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC) and aims to implement these in the DRC with regards to forest monitoring on national scale. More specifically, Paragraph 71 of Decision 1/CP.16 requests developing country Parties aiming to undertake REDD+ activities to develop a robust and transparent national forest monitoring system for the monitoring and reporting of the five REDD+ activities. The aim of the DRC NFMS is to establish such a system to address domestic and international monitoring needs and international MRV reporting requirements. Until presently, the DRC lacked a robust, operational wall-to-wall forest monitoring system capable of meeting the data and accuracy standards required for the REDD+ mechanism implementation. Therefore, the DRC took the lead to explore the design and implementation options for an operational national forest monitoring system, capable of meeting the required standards for REDD+ monitoring and reporting.

Importantly, the NFMS also integrates the DRC national REDD+ registry. The objective of this registry is to ensure that all activities that are implemented in the country in the framework of REDD+ are developed in coherence with (i) the international agreements and treaties that are ratified by the state; (ii) relevant policies and measures that are already in place – and this in line with the relevant UNFCCC REDD+ Decisions.

Without this process, the DRC would have been unable to develop its nationally tailored and country-driven, robust and transparent NFMS. The country would be unable to nationally monitor the implementation of its REDD+ policies and measures and results-based demonstration activities and actions. Failing to do so would imply that the country would not be in a position to demonstrate internationally that it is implementing REDD+ activities and thus unable to receive funding for REDD+ under the UNFCCC.

This initiative aims to provide support to the REDD+ process for the DRC under the UNFCCC, through capacity building, knowledge transfer and by means of the development of a DRC REDD+ wall-to-wall NFMS based on satellite data. It draws on available satellite data and existing mapping technologies and fully recognises the valuable work that has already been undertaken by various partners in this area of work. It includes tools developed and applied by a team in the Food and Agricultural Organisation (FAO) headquarters in Rome (Italy) and the Brazilian National Institute for Space Research (INPE, Sao Jose dos Campos, Brazil) and builds on concrete and existing collaborations and actions to strengthen DRC's technical capacities in the relevant technical directions of the Ministry of Environment, Conservation of Nature and Tourism (MECNT) to monitor their forest land. The concept of the DRC NFMS was first presented at the SBTA in Bonn in June 2011. The objective of this first

phase of development for the DRC National Forest Monitoring System is to develop and present a 'beta version' at the 17th Conference of Parties (COP) in Durban, South Africa in 2011. Further work will continue throughout 2012.

2 What the DRC would like to achieve with its NFMS

The DRC NFMS aims to be the national tool to monitor the country's REDD+ policies and measures (PaMs). The objective is to primarily relate the NFMS to biometric and dendrometric parameters and indicators such as forest area, type of forest ecosystems, expansion or establishment of protected areas, application of certification schemes, law enforcement, stakeholder and/or indigenous peoples' participation, etc. Although monitoring of the DRC's REDD+ PaMs can potentially be related to the performance on GHG emissions and removals, this is not the main focus of the NFMS. It is therefore not the primary objective of the NFMS to 'monitor' the performance of forest area and forest area change and carbon stock and carbon stock change. Nonetheless, the objective is to communicate such information through the NFMS so that it can easily be cross-linked with several variables that will feature on the NFMS.

Although still in development, the DRC NFMS will aim to achieve to: (i) be used by the DRC government to report on results obtained through REDD+ demonstration activities, results-based actions and national policies and measures in the forestry sector; (ii) have a multi-purpose methodological approach, so that the DRC government may use it to address monitoring needs for other relevant national or international processes; (iii) build on existing monitoring systems or system elements in the DRC; (iv) be developed to become an operational and permanent monitoring system as an integral part of the mandates of DRC's MECNT and its technical divisions to ensure its sustainability and independent long-term functioning.

The monitoring needs may change over time and in particular in the case of REDD+, it will follow the three- phased approach contained in Paragraph 73 of Decision 1/CP.16. In summary, "Monitoring" refers to the development of a system which:

- **In Phase 1 of REDD+ (*readiness*)** is the development and the setting up of the monitoring system. It includes all the investments in terms of systems selection and definition, capacity building, testing of such systems and the definition of national REDD+ policies and measures, including an action plan for the "National Forest Monitoring System":
- **In Phase 2 of REDD+ (*monitoring*)** the implementation of the national REDD+ policies and measures will result in demonstration activities that must be results-based, i.e. resulting in measureable positive outcomes. In order to follow these activities, a Monitoring System for demonstration activities is required in Phase 2. This system will monitor the results obtained by all the demonstration activities and also provide information on land use and land use changes over areas where demonstration activities are being implemented;
- **In Phase 3 of REDD+** the monitoring system will be expanded to the *cover the national territory* to validate the fact that national policies and measures implementation on the national territory are results-based (i.e. determines how much of each REDD+ activity is taking place over the national territory and how these are changing). This is achieved through a Monitoring System for REDD+ policies and measures implementation which will allow the country to track the success of its PaMs, and subsequently, if necessary, adjust them accordingly. This monitoring system will

also be the key element to support and operationalise any national subsidy or payment distribution scheme.

3 Linkage with the national REDD+ registry

Many REDD+ projects aiming to value emissions reductions through voluntary or emerging compliance markets are currently in development in DRC. These projects are being implemented by consortia usually involving a variety of stakeholders ranging from civil society organization, church groups, international NGOs, private sector and specialized services of the public administration.

In order to ensure that i) eligibility criteria and ii) social and environmental standards and safeguards are met, the government is currently developing an approval procedure for these REDD+ projects. This regulatory project approval REDD + should help to promote transparency, synergy and learning in the implementation of REDD +. A Ministerial decree accompanied by a number of complementary documents including a detailed manual of procedures has been created for this purpose.

In order to support the registration process and to track the performance of these projects, a National REDD+ Registry is under development in the DRC. It will be publicly available online from December 2011; a pilot version developed by the National Coordination REDD with the help of UNDP and the Central African Forests Observatory (OFAC) has been presented in Cancún.

The registry will also enable the monitoring of a range of “initiatives” being implemented by government, civil society, donors or private sector which are relevant for REDD+ but not aiming to generate carbon assets (such as investments in agriculture, forestry, energy sectors, etc.) .

The registry will become a dynamic tool by which the administration will follow up the daily receipts of investments in REDD+ projects and initiatives and their environmental and social impacts. This registry will also ensure transparency and sharing of data generated by the projects and their monitoring and verification by all stakeholders. In doing so, it should help ensure that local communities in the project area fully take part in these projects and initiatives and that they can reap their benefits in various ways.

By incorporating the National REDD+ registry in the NFMS, the process of assessing the performance of PaMs, projects and initiatives becomes more transparent and can be assessed by any user by using the data provided by the system.

4 How the system was set-up

Most of the work was carried out at the premises of the FAO under the umbrella of the UN-REDD Programme, which is a partnership of three UN agencies; United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and FAO. Guided by the DRC Government, FAO and INPE have been responsible for the DRC System development and operationalisation of the system at a national level, ensuring that necessary adaptations were made to reflect national circumstances. The DRC NFMS system is linked with the INPE platform TerraAmazon (renamed TerraCongo for the DRC), which combines GIS, image processing, database management and data access functionalities. Major capacity building activities with the DRC national staff have taken place during 2011, both at INPE and FAO.

4.1 Building on existing, proven and operational experiences

The INPE TerraAmazon platform provides a suitable combination of open-source database, user interface, tools and algorithms which can be adapted according to country needs. The INPE system is free-of-charge and supported by analysis and programming teams in Brazil in order to ensure the long-term delivery and updates of services. Additionally, the INPE system allows linkage of information from other technical partners and contributors for analysis and verification.

National government counterparts at the MECNT (DIAF) have received training and guidance on the information system being developed by FAO and INPE for the DRC Government so that capacity is systematically strengthened in the country.

One of the reasons for using the TerraAmazon platform is that the Brazilian results can be easily verified through a free transparent online system. Due to its transparent system, the data produced by INPE is regarded as trustworthy by the international scientific community world-wide. A similar approach has been adopted for the DRC National Forest Monitoring System (TerraCongo).

It will allow any DRC national (or any end-user) to check online an area of deforestation near their settlement and report online whether or not the image and interpretation are correct (this feature will be incorporated in an operational manner at a later stage). This will not only allow for an entirely transparent monitoring and verification system on a national and international level, but it will greatly enhance the participation of local communities in the implementation of national REDD+ policies and measures in the DRC.

The development of the system has relied (and will continue to do so) on existing, structures, programmes and initiatives in the country, region and internationally – some of which already feature on the current system.

5 What's next?

Work and training will continue with the MECNT in the DRC and the system will continue to be improved through 2012. A step-wise but full transfer of the DRC National Forest Monitoring System (developed for the DRC Government within FAO-INPE) to the MECNT in the DRC itself is envisaged in 2012. The step-wise approach will ensure that the DRC is able to absorb and manage the future full system autonomously.

It is hoped that the system will become an operational forest management and information tool in the wider sense in the DRC and that the system will be able to inform and monitor forest related PaMs.