

Use of Remote Sensing Technology and Information Systems to Support Forestry Legislation Monitoring in the Republic of Congo

Final Report

PD 176/02 Rev.1 (F)

I. Introduction

The project was approved by the Council at its Thirty-third Session in November 2002 in Yokohama, Japan, and full financing was pledged at the same Session by the Governments of Switzerland, Japan, and USA. The Agreement regulating the implementation of the project was signed on 14 November 2003 and the first disbursement of funds was made on 3 February 2004.

II. Project Objective

The objective of the project was to contribute to the forest management of forest resources in the Republic of Congo through strict forestry law enforcement with a view to increase access to international timber markets. It specifically intended to collect and update superior and accurate geographic data on forest companies and logging areas, and also to use forest-related information on a regular basis to enhance forestry law enforcement and establish reasonable and fair logging terms for forest logging companies.

III. Project Strategy and Activities

The Project strategy is aimed at facilitating the application of forestry legislation through the development of a system which will provide forestry data essential for law enforcement, and promote data use to reduce the number of illegal activities. The Project strategy had been divided into the following four major axis:

- Capacity building through training sessions implemented for selected national technicians from the National Inventory and Forest and Fauna Management Centre (CNIAF) and an environmental NGO (Clud des Amis de l'Environnement). Relevant high ranking staff members of the Minsitry of Forest Economy (MEF) of Congo had been trained and sensibilized on the use of the remote sensing, GIS, database and GPS techniques, as tools

contributing to facilitate their decision-making for the monitoring and efficient enforcement of forestry law in Congo;

- Data collection of national scale information on the boundaries of forest areas was periodically undertaken by the Project through the use of GIS, GPS and remote sensing techniques, in order to determine swiftly whether concession operators were applying the forestry law;
- Data analysis of information collected by the project, through satellite images and from field surveys, was useful to check the compliance with the measures provided under the forestry law and other agreed terms related to sustainable forest management; and
- Dissemination of Project results among the public, to demonstrate the efforts undertaken by the MEF to fight against illegal logging activities, through national workshops and international meetings.

IV. Project Achievements and Outputs

The project had seven outputs, which contributed to achieve two specific objectives. All seven outputs have been achieved and are summarized as follows:

- The National personnel was trained in the operation and maintenance of monitoring tools (remote sensing, GIS and GPS techniques);
- A Geographic Information System (GIS) on forest concessions and protected areas was established and operational in the National Inventory and Forest and Fauna Management Centre (CNIAF) within the Ministry of Forest Economy (MEF) of Congo;
- Satellite images were analyzed for the localization of forest access roads in forest logging areas in conjunction with field surveys;
- The main indicator used for documenting whether forest logging practices in forest concessions were in compliance with the forestry law was based on forest access roads through assessing their length and/or location on satellite images and followed by verification and cross-checking during field surveys;
- Key Personnel of the Ministry of Forest Economy (MEF) of Congo was trained to process the information collected and produced by the project for an efficient use of resources in forestry law-enforcement;
- Government efforts to improve forest management and forestry law enforcement were publicized. Thus, a ministerial decree was signed on 25 April 2006 urging government agencies and forest concessionaires to use the project results for the monitoring of forest concession activities; and
- The application of forestry law and all other undertakings by forest companies had started being monitored and/or evaluated by using technical tools

developed by the project (digital mapping of forest concessions and protected areas).

V. Target Beneficiaries Involvement

The major beneficiaries of the Project implementation were:

- The Government of the Republic of Congo through improved expertise in forest monitoring and the provision of the necessary capacity for forestry law enforcement; and
- Logging companies operating in Congo, through the establishment of a fairer operation environment, which could contribute to facilitate access to timber markets with strong environmental requirements in relation to SFM, and also to attract investors.

VI. Lessons Learnt

4.1 Development Lessons

Aspects of the project design that contributed to its success include an adequate identification of the core problem which was the absence of relevant information useful for the monitoring of forestry activities; a good identification of Congo's needs on a forestry information system; a close cooperation between project stakeholders in relation to their good will for the reinforcement of their capacity in this matter; and a strong political will and support from the Government of Congo.

Aspects of the project design that challenged project implementation include the non-anticipation of the difficulty to get satellites images, on a regular basis, due to the problem of Landsat satellite which stopped being operational at the beginning of the project implementation. This situation obliged the project to use Aster satellite images in order to complete its implementation, without a significant impact on the project duration.

Additional arrangements that could improve cooperation between the relevant parties interested in the project implementation include the means for more participatory management allowing the project to get a close collaboration with communities living near forest concessions to be monitored by the project.

4.2 Operational lessons

The project inner organization and periodic monitoring of progress through regular review meetings and steering committee meetings contributed to project success by allowing for the timely resolution of administrative and technical issues arising during project implementation. In addition, some of the most important external factors that influenced the project implementation were the following: close collaboration between the executing agency (WRI) and collaborating agency (CNIAF) facilitated by the strong support from the Ministry of Forestry Economy of Congo; translation into

French of technical documents for a good understanding by project staff members during the workshop trainings and for their daily project work; and the main external factor that influenced the project implementation had been the non-availability of Landsat satellite images which delayed the implementation of some project activities, but without having a significant overall impact on the project outcomes.

VII. Dissemination of Results

The results of the project were disseminated through the following mechanisms:

- Information and training national workshops held in Brazzaville, Pointe-Noire, Dolisie and Ouesso;
- Side events organized during the participation in international meetings (COMIFAC Head of States Conference, ITTO Council Session in Brazzaville, etc); and
- Exchanges of information through Internet with relevant partners (timber industrialist association of Congo, environmental NGOs operating in Congo and in Central Africa sub-region, Marien Ngouabi University of Brazzaville, USAID-CARPE regional programme, etc).

VIII. Recommendations Related to Future Work

- The Congolese government must ensure that efforts are made to maintain operational the project-established Geographic Information System (GIS) on forest concessions and protected areas at the National Inventory and Forest and Fauna Management Centre (CNI AF) within the Ministry of Forest Economy (MEF) of Congo.
- The government must also continue its efforts to further improve forest management and forestry law enforcement and forest concessionaires and periodically monitor forest concession activities.

(December 2007)