

REDD+ for the Guiana Shield

Technical and regional platform for the development of REDD+ in the Guiana Shield

Terms of Reference for the regional database on drivers of deforestation/degradation



Project Owner: Office National des Forêts (ONF) at French Guiana

Partners: ONFI and Région Guyane (France) / GFC and OCC (Guyana) / IEF-AP and SEMA-AP (Brazil) / SBB and NIMOS (Suriname)

Donors: Program INTERREG Caraïbes of the European Union / Fonds Français pour l'Environnement Mondial (FFEM) / Conseil Régional de la Guyane (Région Guyane) / ONF

CONTEXT

The « **project REDD+ for the Guiana Shield** » aims to develop a technical and regional platform for the development of REDD+ in the Guiana Shield. It is a regional project financed with an amount of 2,7 million euros by the Fonds Européen de Développement Régional (FEDER), the Fonds français pour l'Environnement Mondial (FFEM) and the Conseil Régional de la Guyane.

Through a series of activities (working groups, training sessions, creation of regional tools), the project has the following objectives:

- Strengthen the capacity, knowledge and expertise on REDD+ in the forest services of different partner countries. The targeted topics are the evaluation and monitoring of forest cover and carbon stocks, evaluation and monitoring of drivers of deforestation and modeling of future deforestation;
- Encourage and facilitate the dialogue in the region on the technical issues cited above, in order to create a common understanding of the challenges of reducing deforestation in the ecosystem of the Guiana Shield;
- Develop tools to support the implementation of REDD+ and land use in the region.

Among the regional tools, it is planned to develop a spatial database of drivers of deforestation and degradation in the Guiana Shield. These Terms of Reference delineate the modalities of development of that database.

OBJECTIVES

The regional and spatial database on drivers of deforestation has several objectives :

- Understand at the regional level, the **spatial distribution of the drivers of deforestation and degradation to support the regional dialogue** and **improve the overall understanding** of the impact of different activities source of deforestation and degradation;
- Better **understanding of the availability of data** for the Guiana Shield on drivers of deforestation/degradation, in particular to **identify the needs for production of additional data**;
- **Feeding a spatially explicit model** of future deforestation to enable the correlation between factors of deforestation/degradation and predicting variables of deforestation/degradation (e.g. proximity to a road, population density, etc.).

MODALITIES FOR THE DEVELOPMENT AND MANAGEMENT OF THE DATABASE

What data will be researched

The thesis project of Camille Dézecache will serve as guiding principle for the establishment of the database. The desired data correspond to all the variables that might explain deforestation and that could be correlated with historical maps of deforestation.

To the extent possible, this data should be available for each time point for which a map of deforestation exists (three or four time points to be defined between 2000 and 2012).

Depending on availability, some data may explain and illustrate directly an activity source of deforestation/degradation (e.g. mining concessions, agricultural areas). Others will give an indirect indication which may explain the location of the activity (e.g., soil quality map, the map of estimated mineral resources,

the digital terrain model, etc.). Certain statistical data can also be collected, with a spatialization that will take place in a second time and at a pre-agreed level of disaggregation (e.g. demographics).

As an example, depending on availability, the following data will be collected :

- Road network (primary and secondary roads, forest tracks);
- Hydrographic network;
- Urban areas;
- Mining concessions;
- Permanent forest domain, forest concessions;
- Natural parks / protected areas;
- Administrative map;
- Map of soil fertility and quality;
- Precipitation map;
- Agricultural areas;
- Topography;
- Map of gold favorability;
- Demographics;
- Others as appropriate.

Conception of the database

The database will be developed in QGIS. Its structure should be established under discussion between the team of the project REDD+ (project manager and PhD) and ONF-Guyane, to facilitate a more intuitive reading for the users. A categorization factor might be appropriate. As well as a double reading: national data and homogenized data.

Based on preliminary discussions with the project team, ONF Guyane will **propose a structure for the database that must be validated by the team of REDD+ project.**

Data collection

The data will be collected under the supervision of PhD student Camille Dezécache, with the support of the project team and in collaboration with the forestry services involved.

The data collected will be forwarded in a systematic way to ONF Guyane, along with an identification sheet which should specify :

- The source of the data;
- Its content and the characteristics of the data (including information relating to the used geographic coordinate system or projection);
- The producer of the data;
- Date of provision;

- The dates of the source data used to develop it (satellite image and/or gps surveys), to the extent possible;
- The methodology used and updating plans that exist;
- The ownership of the data and sharing restrictions, if applicable.

During the data collection, special attention will be given to the policy of sharing information. All authorizations relating to the collection, use, publication should be clarified. This clarification work will be done by the project team (PhD student, focal points and project manager).

Data homogenization and database management

After receiving data, ONF Guyane will be in charge of:

- Check the overall quality of the data (complete and usable data) without going into the detail of the content;
- Process the data (e.g. modification of the projection) and enter it into the database;
- Spatialize the data (if non-spatial statistical data) at a level of disaggregation that will have been previously agreed;
- The comparison with other available data on the same factor, for the country and neighboring countries of the project;
- Select the best data available, particularly in view of homogenization with data from neighboring countries;
- Study the feasibility of homogenization with data from neighboring countries and if possible, homogenize the data so as to obtain a usable layer for all of the targeted region;
- Identify the missing data to obtain a consistent and uniform coverage across all the Guiana Shield.

Throughout the duration of the project, ONF will be in charge of managing the database and ensure its operation, adding and processing of data, if appropriate.

Launching the database

Once the database is created, it will be posted in accordance with the decisions that will have been taken by the Steering Committee on data sharing. The work to create an online portal will be the responsibility of ONF International. The question of data hosting will be clarified once the amount of data is evaluated.

COLLABORATIVE OUTREACH

Cooperation between the project partners is a fundamental component of these terms of reference, if the objectives set out are to be achieved. The database will increase the understanding of and access to data in a collaborative and transparent way that benefits all those involved and will allow to support the development of further regional tools, most prominently a deforestation model. Through this model project partners will have a better understanding of the drivers of deforestation in the Guiana Shield and a tool for projecting

future forest cover changes over time and space and considering different socio-economic scenarios. Therefore, the regional database will contribute to the following main outcomes: reinforcing the technical capacity of the partner forest services on modeling, support decision making processes, increase understanding of transnational deforestation and degradation threats, and encourage academic cooperation in the region.

IMPLEMENTATION CALENDAR

	En charge	mai-14	juin-14	juil-14	août-14	sept-14	oct-14	nov-14	déc-14	janv-15	févr-15	mars-15	avr-15	mai-15	juin-15	juil-15	août-15	sept-15	oct-15	nov-15	déc-15	
Conception de la Base de données	ONFG/ CIRAD/ONFI																					
Collecte de données	CIRAD/ONFI																					
Homogénéisation et administration de la Base de données	ONFG																					
Mise en ligne	ONFI																					