

## OVERVIEW OF REDD+ READINESS AND IMPLEMENTATION IN BRAZIL

Between 2004 and 2009, the Brazilian government put into place a set of measures to reduce deforestation in the Brazilian Amazon. The good results achieved are product of a combination of policies and institutional arrangements that improved monitoring, enforcement and implementation of the forest law and strengthened the commitment to forest conservation. Brazil has not yet formulated a specific REDD+ strategy. Nevertheless the country has made remarkable progress in implementing measures that do reduce the pressure over forested areas, such as the creation of new conservation units and the Public Forests Law, and in monitoring and reporting systems.

In 2008, the Amazon Fund was created as the first instrument in Brazil to set the connection between forest policy and the mitigation of climate change. Besides the Amazon Fund there are individual initiatives labeled as REDD being implemented in Brazil, especially in the Amazon region. Also in 2008, the Brazilian government launched the National Plan on Climate Change (PNMC). In 2009, the government announced a voluntary emissions' reduction target committing the country to reduce its emissions between 36.1% and 38.9% taking for baseline a business as usual scenario. This target is equivalent to a reduction ranging from 975 million to 1,052 billion tCO<sub>2</sub>e and was institutionalized by the Climate Change Law in December 2009, besides having been presented as a voluntary Nationally Appropriated Mitigation Actions at the UNFCCC, under the Copenhagen Accord. Within these numbers there is a commitment to reduce deforestation rates in the Amazon by 80% and in the Cerrado by 40%. The challenge now is to build a REDD+ regime in Brazil built upon a reliable monitoring and verification system for all the biomes found in the country and a transparent and accountable governance system that engage all relevant stakeholders.

### 1- Forest policy and institutional arrangements

In 2004, in response to fast increase in deforestation rates, the Plan for Prevention and Control of Deforestation in the Amazon (PPCDAm) was launched. This plan integrates forest cover monitoring, enforcement of the forest law, promotion of sustainable use of forests, land use planning and assignment of property rights. It involves coordinated actions undertaken by 13 Ministries. Recently, states (provinces) and municipalities in the Amazon also engaged in the implementation of PPCDAm.

The milestones of PPCDAm are the monitoring system based in remote sensing, the creation of conservation units in areas under deforestation pressure and the Law of Public Forests.

## **II- Monitoring:**

Since 1998, official yearly estimates on deforestation in the Amazon have been prepared by INPE – National Institute for Spatial Research. Yearly deforestation rates are calculated by the Project for Deforestation Monitoring in the Legal Amazon (PRODES) based on analysis of high resolution images generated by LANDSAT (TM-Landsat) and CBERS satellites. These images allow for the identification of changes caused by clearing in areas of primary forests.

PRODES carries out analysis on color images at a 1:250,000 scale, which enable identification of deforestation areas larger than 6.25 hectares (0.0625 Km<sup>2</sup>). It provides the yearly deforestation rate for the period between August and July and the cumulative gross rate for the whole region. The preliminary results are published in December and the final deforestation rate is published in the first semester of the following year.

The monitoring system for the Amazon is complemented by the DETER system, also developed by INPE. DETER provides monthly data on based on fortnightly monitoring of Amazon's region surface, generated by sensors installed on TERRA, AQUA and CBERS-e satellites. DETER detects forest degradation processes and clear felling deforestation in areas over 25 hectares (0.25 km<sup>2</sup>). DETER complements PRODES by offering a higher frequency of observation, despite its lower spatial resolution.

The dual monitoring system composed by PRODES and DETER has been essential for the progress in forest management in Brazil. First, by providing consistent and reliable data, this system allows policy-makers to take decisions based in accurate and recent information. Second, the series of data – over ten years now – made possible a better understanding of the dynamics of deforestation. Still, DETER's fortnightly monitoring offers real time deforestation alerts. These alerts have been responsible for better planned inspection and control activities.

## **III- Enforcement**

Illegal deforestation in the Amazon is often associated with other criminal activities, such as appropriation of public land, invasion of protected areas, corruption, drug traffic, and violence against local population.

One of the greatest achievements brought about by the Action Plan for Prevention and Control of Deforestation in the Amazon was the integration of forest cover monitoring activities with inspection and enforcement operations on a permanent basis. This new policy required substantial investments in IBAMA - the agency responsible for forest licensing and monitoring– and in the Federal Police, for creating a group of intelligence capable of early identification and action over illegal activities. Among these investments, the creation of the Environmental Monitoring Centre – CEMAM in IBAMA in 2004 should be highlighted. CEMAM receives shape files generated by the PRODES-DETER monitoring

system and issues alerts to regional departments in the Amazon Region in up to 48 hours, after having refined the data on deforestation areas .

Specific training for both IBAMA and Federal Police officers, increased number of inspectors and acquisition of supporting equipment are other measures taken to guarantee a more effective control over forest activities.

#### **IV- Protected Areas and Territorial Planning**

The studies on the main causes for deforestation in the Brazilian Amazon point out the low value of forested land, the increasing demand for land by crop producers and cattle ranchers, and a non-regulated expansion of urban settlements. The assignment of property rights in the region is extremely fragile due to a long history of low occupation. Speculative transactions involving land in the Amazon are stimulated by the difficulty in proving ownership and do frequently result in violent conflicts between traditional communities and potential owners. Besides the permanent social tension in the region, it is possible to associate deforestation to the speculation once deforested land holds higher value for market purposes. The illegal appropriation of public land and the conversion of land to other uses is one of the strategies used to characterize land tenure or property by private parties with a view to future legalization.

The main action adopted against fraud involving public land was the creation of the National Registry of Rural Real Estate by Law 10.267/2001. This Law allows the unification of rural real estate registries, previously scattered throughout different public agencies. The new registry requires every party interested in making transactions with rural properties to submit a georeferenced plan and description of the land. In 2004, complementing the implementation of the National Registry, an administrative rule was issued determining that properties larger than 100 hectares should be re-registered if considered in a critical status. Re-registration was also adopted in case of requests for inclusion or alteration in the status in the original registry. Failure to submit the required documentation results in inclusion in the list of non-negotiable properties and in preventing the owner from receiving credit from public banks.

The creation of protected areas has also been fundamental to reduce the speculation involving forested land in the Amazon. Between 2004 and 2009, approximately 53 million hectares of federal and state protected land became official conservation units. Most of these conservation units were are in areas under pressure of other economic activities, especially along the BR-163 road which connects the states of Mato Grosso and Para. Not only the government increased the number of protected areas, it has also improved its management. Counting on partnerships with several institutions, including NGOs, the Brazilian government launched in 2002 the programme Protected Areas of the Amazon, to improve monitoring and administration of 60 million hectares of protected areas. Still, the

government also strengthened the governance of indigenous land by demarcating around 10 million hectares during the same period.

#### V- Public Forests Law

In early 2006 the Brazilian government passed the Law 11.284 known as the Public Forests Management Act. This Law brought many innovations to the forest management framework. Basically, the introduction of the concept of public forest, i.e. forests that are owned by the Federal Government, the Public Forests Management Act scaled up the status of forests, once it stated that parts of the Brazilian territory registered as public forest should remain public and forested. Not only forest cover is recognized as an important public asset but also the property rights of public forests became clearly defined – essential for reducing speculation pressure. Indeed, the Law 11.284 provides the means for effective forest management by making obligatory the provision of forest information and creating the Brazilian Forest Service - BFS.

The Brazilian Forest Service is the agency responsible for promoting the sustainable economic use of forests (including the National Fund for Forestry Development - FNDF), for delivering forest information, for undertaking the national forest inventory and for the management of the national registry of public forests. The BFS runs the concessions of public forests to the private sector following very strict guidelines on reduced impact logging and on respect to local community rights.

In 2007, the creation of the Instituto Chico Mendes de Biodiversidade – ICMBio completed the architecture of forest management in Brazil. Now, the different stages of the policy-making process as well as the different values retained by forests are now reflected on forest management institutional structure as follows:

- Policy Formulation:
  - ✓ Ministry of Environment
  
- Policy Implementation:
  - ✓ Instituto Chico Mendes (ICMBio): protected areas (conservation and preservation).
  - ✓ Brazilian Forest Service (BFS): sustainable use of forests, including concessions and communitarian management; forest information, including forest inventory; and registry of public forests.
  - ✓ IBAMA: licensing.

It must be highlighted that the Public Forests Management Act is the first bill to regulate access and economic exploitation of public forests. The new legal framework faces the challenge of contributing to the end of illegal exploitation in the Amazon by strengthening public control over public forests and by directly supporting sustainable forestry activities.

It is a major contribution for valuing forest cover and to strengthen community capability to resist forest conversion.

## VI- Specific REDD+ instruments: The Amazon Fund

Inspired by the proposal of compensated reductions presented in 2003, the Amazon Fund was launched in Bali in 2007 as an instrument for receiving foreign contributions for reducing deforestation in Brazil. The innovative aspect of the proposal was its connection to deforestation already avoided and the proposed flexibility for using the funds. In fact, the Amazon Fund's resources can be disbursed in a comprehensive range of activities identified as relevant for deforestation reduction. The general guidelines set by the Presidential Decree which regulates the Fund are the following:

- Management of public forests and protected areas;
- Environmental control, monitoring and inspection;
- Sustainable forest stewardship;
- Sustainable economic activities;
- Ecological and economic zoning, land use planning and land titling;
- Conservation and sustainable use of biodiversity; and
- Reclaiming of deforested areas.

The National Bank for Economic and Social Development is in charge of the Amazon Fund's operational management. In order to ensure that all relevant stakeholders would be appropriately engaged in the Fund's management and to guarantee its technical integrity, the Fund does also count on two committees in its governance structure.

The Amazon Fund Steering Committee is composed of federal government agencies, Amazon provinces' government representatives, civil and scientific societies. This Committee is responsible for setting main targets and criteria for the use of resources in each calendar year. Provinces participation in the Steering Committee is conditioned to presentation of their own deforestation control plans.

The Amazon Fund Technical Committee is composed of highly reputable experts with renowned technical and scientific knowledge. This Committee is responsible for certifying the emission reduction numbers presented by the Brazilian Forest Service and for providing scientific advice to the Steering Committee.

## VII- Final comments

REDD+ poses an opportunity and a challenge for forested countries. By providing additional resources for reducing deforestation and forest degradation as well as conserving natural forests, the instrument can help developing countries to restructure forest policy and the way

forests are perceived by the society. However, to deliver measurable, verifiable and reportable results demand more than an efficient monitoring system but a framework capable of setting a forest policy addresses all deforestation drivers. An accurate diagnosis of the main variables of deforestation dynamics as well as an assessment of the products and services provisioned by tropical forests are essential for a successful and sustainable REDD+ strategy.

On one hand, REDD+ is about tackling deforestation and degradation for reducing carbon emissions but also about receiving payments from the international community for doing so. Thus a REDD policy must count on a carbon accounting methodology that can be accepted by the international community and that are consistent with the environmental integrity. The capacity of raising funds for REDD will depend on the credibility of the policies undertaken internally and on the methodology and reference levels adopted. On the other hand, an effective and sustainable REDD policy depends on a governance structure that engage all relevant stakeholders. Considering that the focus are forests and therefore communities with different organizational structures and mobilization capacities and most of the times located in remote sites, to ensure a true participative governance structure demands constant efforts of those who are in charge of the policy implementation process. The REDD financial incentives must address the deforestation and forest degradation drivers as well as guarantee a fair distribution of benefits among the relevant stakeholders.

Brazil REDD strategy is beyond the monitoring of carbon stocks and of forest cover. It is a coordinated strategy to value forests for all the benefits they deliver to humanity that resulted in a reduction of 70% in deforestation rates compared to the decade peak in 2004. Despite the good results, however, Brazil still has to make progress towards a national REDD regime. Especially, the country shall strengthen the connection between forest policy and climate policy goals. Carbon accounting, forest emission levels and opportunity costs should be available for all biomes. Indeed, establishing methodologies for making national and subnational initiatives compatible can be considered a major challenge. In the Brazilian perspective, REDD+ is an ultimate opportunity to reconcile forest cover with human settlements and socioeconomic development. Thus, REDD+ funds shall be governed in line with the milestones of Brazilian federative pact and democracy in order to be able to fulfill the social and political legitimacy required for sustained results in halting deforestation.