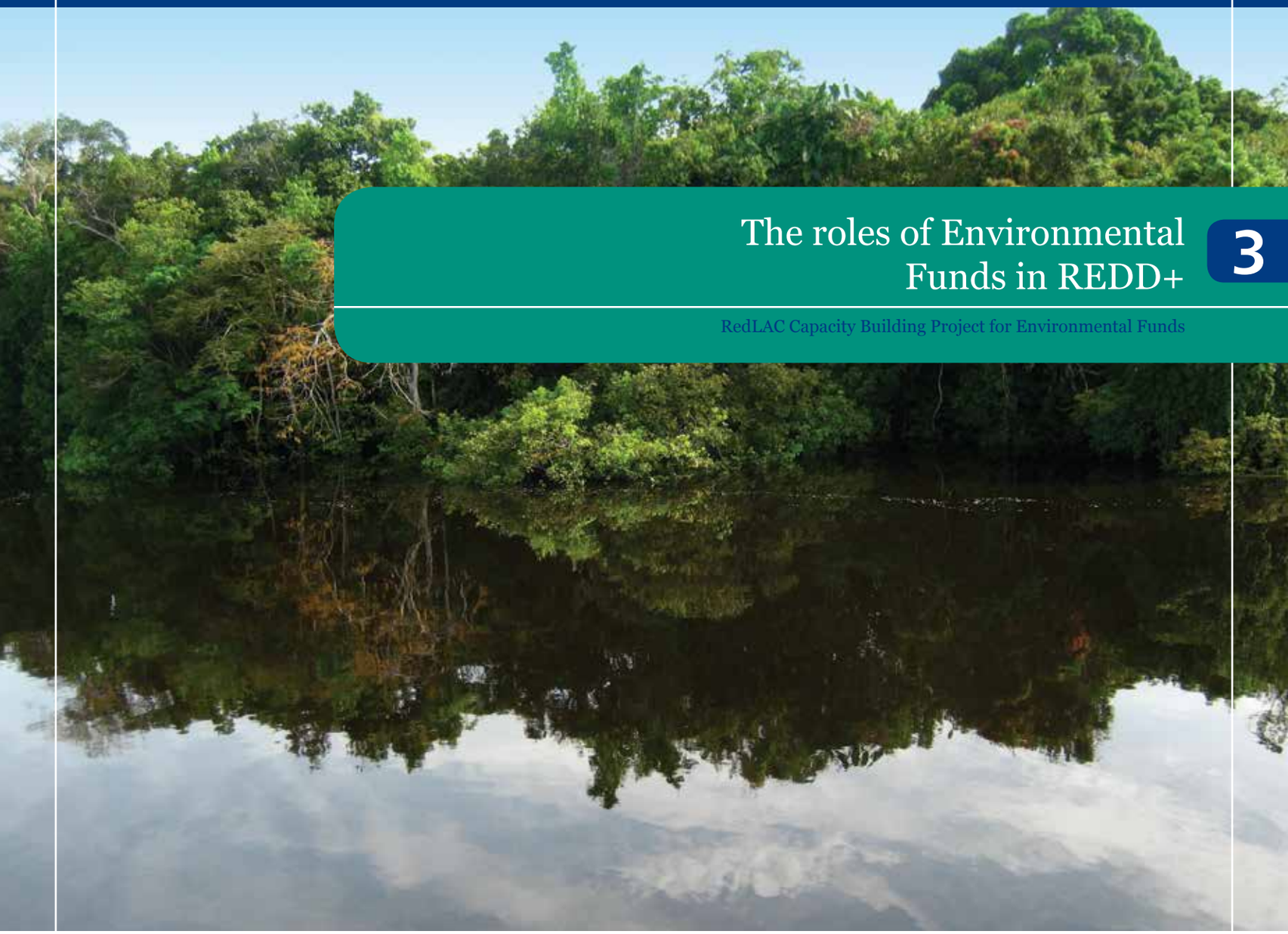


The roles of Environmental Funds in REDD+

3

RedLAC Capacity Building Project for Environmental Funds

Latin American and Caribbean
Network of Environmental Funds

The roles of Environmental Funds in REDD+

3

RedLAC Capacity Building Project for Environmental Funds

Latin American and Caribbean
Network of Environmental Funds

Scaling up Conservation Finance

The Latin America and Caribbean Network of Environmental Funds – RedLAC – was created in 1999 and congregates currently 25 funds from 15 countries. Its mission is to set up an effective system of learning, strengthening, training, and cooperation through a Network of Environmental Funds (EFs) aimed at contributing to the conservation and sustainable use of natural resources in the region.

RedLAC, with the support of the Gordon & Betty Moore Foundation and the French Fund for the Global Environment (FFEM, for its name in French), implements a capacity building project with the objective of strengthening the capacity of EFs to develop innovative financial mechanisms for biodiversity conservation, reducing their dependence on donations, and also to support the establishment of new EFs, by systematizing and sharing proven best practices in funds day to day operation.

This project, coordinated by the Brazilian Biodiversity Fund – Funbio - on behalf of the RedLAC membership, has the goal of promoting the implementation of new revenue streams in the Funds' portfolios, creating financially sustainable sources of funding for these institutions to invest in conservation. Having knowledge management as its core, the project will systematize the existing information on different topics of interest for EFs and build new content based on the collective experience of the Funds' community.

This book was prepared to support the third workshop of the capacity building initiative, focusing on the roles of EFs in REDD+ markets. More experienced funds have developed REDD related initiatives, although most of them are not engaged in projects yet. This is the case of Funbio and Fondo para la Acción Ambiental y la Niñez, who shared their experiences and most recent efforts in this book. Funbio organized this workshop, in the city of Itaipava, in Brazil, on July 5 to 7, 2011.

Organization:

FUNDO BRASILEIRO PARA A BIODIVERSIDADE
FUNBIO 15 anos

Funded by:

GORDON AND BETTY MOORE FOUNDATION

FFEM
Fonds Français pour l'Environnement Mondial

© Horácio Fernandes

Index

Authors:
Paulo Moutinho
Osvaldo Stella
Simone Mazer
Ana Carolina Crisostomo
Juliana Splendore
Erika Pinto
Bernhard J. Smid
Mariana Christovam
Ricardo Rettmann
André Nahur

Authors of the cases:
Juana Camacho – Fondo para la Acción Ambiental y La Niñez
Ângelo dos Santos and Fernanda Barbosa – Funbio

Coordination in Funbio:
Camila Monteiro

M934r

The roles of Environmental Funds in REDD+: RedLAC capacity building project for environmental funds/ Paulo Moutinho, Osvaldo Stella and Simone Mazer. – Rio de Janeiro: RedLAC, 2011.

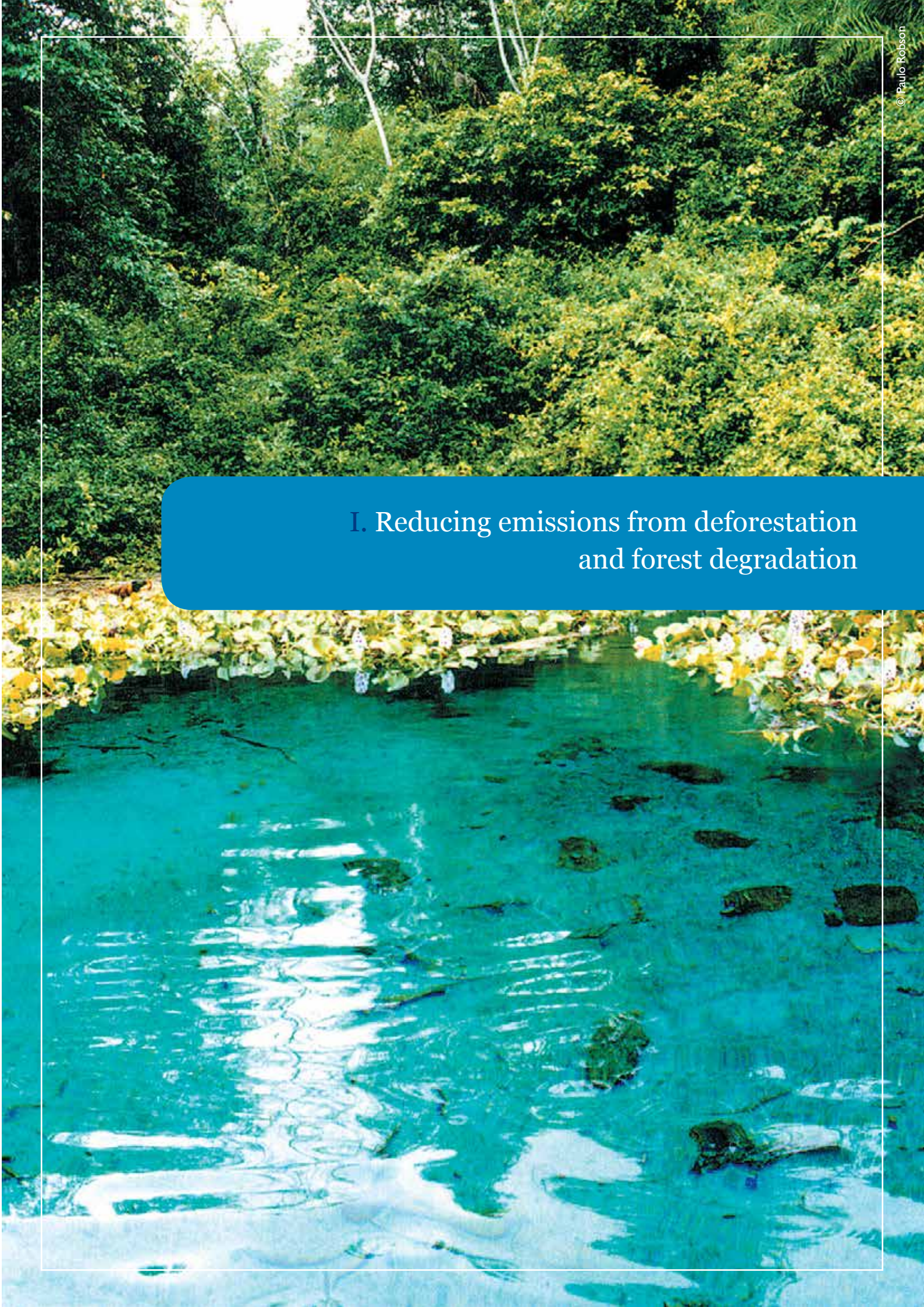
Authors of the cases:
Juana Camacho – Fondo para la Acción Ambiental y La Niñez
Ângelo dos Santos and Fernanda Barbosa – Funbio

62p.; il, 29 cm.

1. Environmental Funds. 2. Capacity Building.
3.REDD+. I. Moutinho, Paulo. II. Stella, Osvaldo.
III. Mazer, Simone.

CDD 363.738

Instituto de Pesquisa Ambiental da Amazônia
IPAM



© Paulo Robson

I. Reducing emissions from deforestation and forest degradation

1.1 - Basic concepts: REDD and REDD+

The concepts of climate change and global warming refer to an increase in the atmosphere's capacity to retain heat over and above the normal level. This has occurred due to a gradual rise in the concentration of greenhouse gasses in the atmosphere seen over the past 150 years, which has been caused by human activities that produce excessive emissions of pollutants into the atmosphere (Figure 1). This exacerbation of the greenhouse effect may have serious consequences for life on Earth in the near future, as we will see below (Pinto et al, 2010).

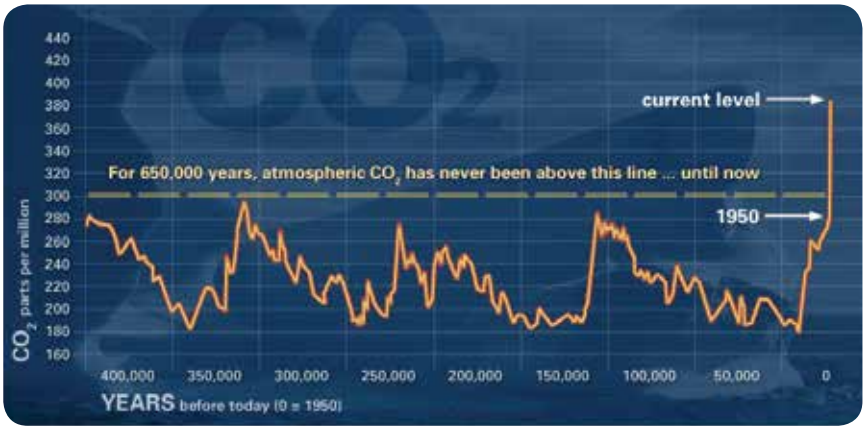


Figure 1. Comparison between atmospheric samples contained in ice core samples and more recent measurements supplies evidence that the concentration of CO_2 in the atmosphere has increased since the Industrial Revolution (Source: NOAA)

Historically, industrialized countries were responsible for the majority of global greenhouse gas (GHG) emissions especially due to the emissions coming from fossil fuel burning. However, in 2006 China overtook the United States, with the emission of 1.66 billion tonnes of carbon, making it the world leader in emissions (20% of global total) from the burning of fossil fuels (Boden et al, 2006). Currently, among the five major global emitters, three are developing countries (Figure 2), with Brazil and Indonesia being the leaders due to emissions from land use changes (60% of global total; 2000-2005).

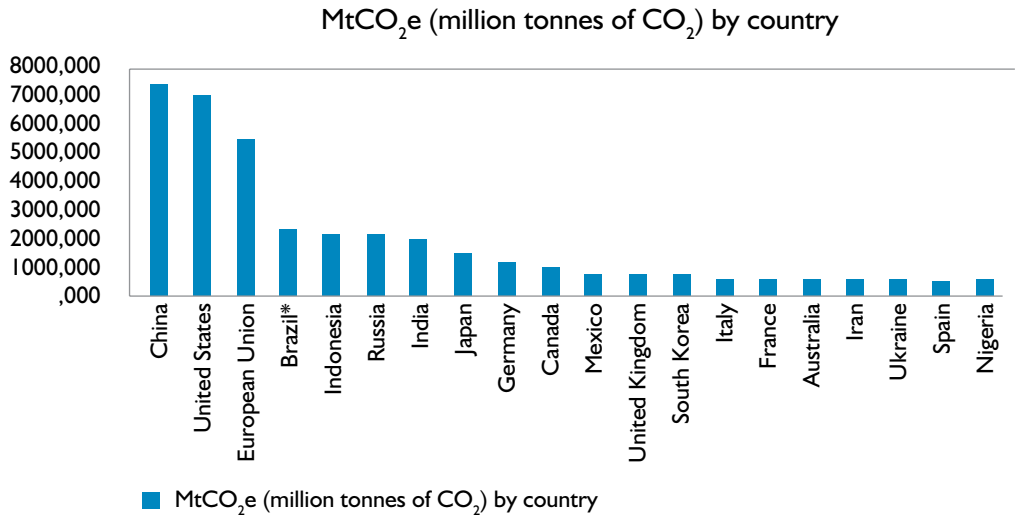


Figure 2. Emissions in $MtCO_2e$ (millions of tonnes of CO_2) per country
Source: World Resources Institute/CAIT. Available at http:/cait.wri.org (these data can only be accessed on the website after registering).
** The value relating to Brazilian emissions used by the WRI/CAIT (2,855.90 $MtCO_2e$) was replaced by the value presented in 2010 in the Second National Communication of Brazil to the United Nations Framework Conference on Climate Change (Chapter 2: Brazilian Inventory of Anthropogenic Emissions by Sources and Removals by Sinks of Greenhouse Gases not Controlled by the Montreal Protocol).*

Changes in land use represent 12% of global emissions, or 1.2 billion tonnes of carbon a year, as against 88% resulting from the burning of fossil fuels (Lé Quéré, 2009). The world's tropical rainforests absorb around 1.8 million metric tonnes of carbon a year (Houghton, 2003), storing around one quarter of the world's greenhouse gasses in their biomass.

When land use changes occur, i.e. when a forest is cut down and burned to make way for pasture, agriculture or another form of land use, a large quantity of carbon is released in the form of CO_2 into the atmosphere, contributing to global warming (Pinto et al, 2010). It is estimated that 1.6 billion tonnes of carbon was released into the atmosphere a year because of changes in land use during the 1990s (IPCC, 2007).

Deforestation, logging and forest fires associated with increasingly frequent and more intense El Niño events may considerably increase the levels of carbon emissions due to changes in land use (Moutinho, 2006; Nepstad et al, 2006). The Figure 3 below shows the vicious cycle of impoverishment of the Amazon landscape as the forest becomes increasingly flammable.

Relationship between different land uses and climate changes in the Brazilian Amazon

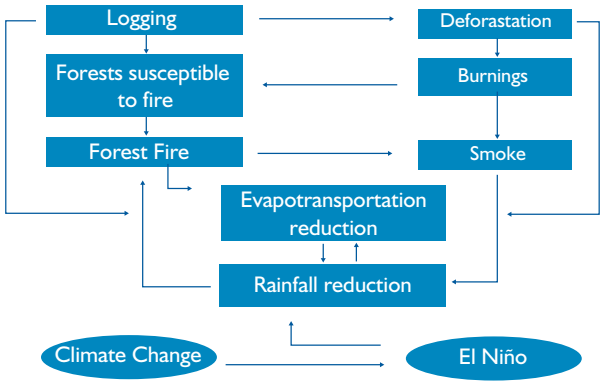


Figure 3. Cycle of impoverishment of the Amazon landscape Source: Moutinho, P. 2006.

Source: Moutinho, P. 2006. Biodiversidade e Mudança Climática sob um Enfoque Amazônico. In: Rocha, C. et. al. Biologia da Conservação: Essências. São Carlos. RIMA.

In recent years, recognition by world leaders of the need to make drastic cuts in emissions caused by land use changes as a feasible way of mitigating climate change and preventing the impoverishment of tropical ecosystems has led to the establishment of a new concept, REDD+, in the global agenda. Tropical countries, which lead the world emissions from changes in land use, have also started to call not only for the inclusion of the topic in the agenda of the UNFCCC (United Nations Framework Convention on Climate Change), but also the development of a mechanism for compensating reductions in emissions from deforestation.

1.2 - REDD+ and Climate Change: historical context of international discussions (UN Framework Convention on Climate Change and its developments until Cancun).

REDD concept can be considered the result of an intense process of discussion on the proposal, known as "compensated reduction of deforestation," first presented by researchers from IPAM and other partner institutions in the COP9 in Milan, Italy, in 2003 (Santilli et al, 2000).

According to this proposal, developing countries with tropical rainforests that achieve reductions in their national emissions from deforestation would receive international financial compensation for these efforts. This proposal became the basis for discussions about REDD in the following years. The agenda item on “Reducing emissions from deforestation in developing countries and approaches to stimulate action” was officially first introduced into the COP discussion at its eleventh session in Montreal (December 2005), when a proposal to address the related issues, similar to IPAM’s proposal, was presented by the “Coalition of Rainforest Nations”[1] led by Papua New Guinea and Costa RicaThe argument is that tropical countries are responsible for establishing the climate through their forests, and so the costs of keeping them standing should be shared by all.

One year later, at COP-12 in Nairobi, Kenya (2006), the Brazilian government presented its own proposal for dealing with deforestation, which has much in common with the others, although supporting the creation of a mechanism financed only from voluntary donations, without the use of a market mechanism for carbon credits.

COP-13, held in Bali, Indonesia, in 2007, culminated in Decision 1/ CP 13, known as the Bali Roadmap, for discussing how to include REDD in a mechanism to be structured and implemented from 2012 when finishes the

[1] http://www.rainforestcoalition.org/

first commitment period of Kyoto Protocol. It is essential to note that this mechanism has been developed to cover developing countries with tropical rainforests, enabling them to participate effectively in global efforts to reduce GHG emissions.

It is also important to note that the discussion about preventing deforestation was initially focused only on the development of a mechanism to address emissions from deforestation (COP 11, 2005). At COP13, in 2007, the discussion was also including forest degradation, as well as the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries[2]. The new components included in the REDD concept generated the known as REDD+ (see Table 1) (Bali Action Plan, 2007).

At COP-14 (Poznan, Poland, 2008) the countries continued to work on a new agreement to be discussed at Copenhagen, as established in the Bali Roadmap.

When it came to COP-15 (Copenhagen, Denmark, 2009), the Subsidiary Body for Scientific and Technological Advice (SBSTA) acknowledged the importance of promoting, within the ambit of REDD, sustainable forest management and the co-benefits of REDD, which include biodiversity. It also acknowledged the need for the full engagement of indigenous peoples and traditional communities.

Amongst the decisions taken at COP-16 (2010) in Cancun, Mexico, the point that was developed most was section C of the block on mitigation in the draft decision made by the Working Group on Long-Term Cooperative Action (AWG-LCA[3]), which was in charge of defining "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) in developing countries". Likewise, the text clearly sets out the role of developed countries in the mechanism, which are to take on responsibility for providing financial support and for dealing with activities that cause deforestation in developing countries.

The REDD+ agreement adopted at Cancun also provides means for handling potential risks. The idea is to have national systems to gather information about how the socioenvironmental safeguards present in the Cancun Agreements[4] are to be taken account of and respected in the implementation of REDD+ activities. This information system should be developed by developing countries according to their national circumstances. They should keep track of REDD+ activities, projects, programmes and policies at national level, while also involving states, municipalities and communities. The text of the agreement also establishes a specific section (E) on the "Economic and social consequences of response measures to climate change", meaning climate change mitigation measures (including REDD+ activities)[5].

REDD stands for Reducing Emissions from Deforestation and Forest Degradation. Based on the concept adopted by the UN Convention on Climate Change, it is a mechanism that provides for the compensation of countries that reduce their greenhouse gas emissions from deforestation or forest degradation.

After the creation of this concept, the Convention added to its definition the activities of conservation, sustainable forest management, and increased carbon stocks in developing countries. These components gave rise to REDD+ or REDD plus.

Definition of REDD[6] and REDD+[7]

[2] Paragraph 11 of Decision 2/ CP.13.
[3] http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf
[4] For more on COP-16, see: http://www.ipam.org.br/blogs/Resultados-dos-acordos-de-Cancun-para-o-REDD-que-queremos/72 and http://www.cc2010.mx.
[5] Saiba mais; http://www.ipam.org.br/blogs/Resultados-dos-acordos-de-Cancun-para-o-REDD-que-queremos/72
[6] http://unfccc.int/methods_and_science/lulucf/items/4123.php
[7] http://unfccc.int/resource/docs/2009/awglca6/eng/misc04p02.pdf

> **These proposals have different scopes, baselines, mechanisms for distributing benefits, and sources of resources**

1.3 - International and national legal issues. The need for legal frameworks to enable REDD+ projects and programmes. International, national, subnational regimes. Bilateral agreements for REDD+.

Despite the increasing attention given to developing a global REDD+ system and national REDD+ programmes, several issues relating to the mechanism's implementation are still under discussion. There are a number of open questions about: (i) the mechanism's capacity to accurately measure emission reductions; (ii) how to curtail the leakage of deforestation to other areas not covered by REDD+ projects; (iii) uncertainties about the permanence of the carbon stored; (iv) the baseline to be used; and (v) the distribution of the benefits generated from these projects. These critical points are fundamental to assuring the quality of the application of a REDD+ mechanism. Thus, a number of responses have been considered to solve them. The Table 1 sumarizes the key points to be assessed in order to give a general picture of the mechanism.

Table 1: Main criticisms and counter-criticisms about the technical feasibility of compensation mechanisms for reduced emissions from deforestation and forest degradation

(REDD+) Criticism	Reason	Counter-criticism
It is impossible to monitor deforestation globally	Most tropical countries have no monitoring systems or if they do these are inadequate.	There is a consensus amongst scientists who work with remote sensing that the progress achieved in the area and possible technological agreements between countries could overcome the many difficulties involved in accurately calculating rainforest deforestation (Defries et al. 2002).
Based on the current definition of what a forest is, it is hard to assess the real dimensions of areas covered with tropical rainforest and which should be monitored for the purposes of calculating prevented emissions (Defries et al. 2005; Moutinho & Santilli, 2005).	By the Kyoto Protocol, a forest can be defined by the respective host country as being "an area of at least 0.05 to 1 hectare of trees with tree crown cover of more than 10-30 per cent and with trees with the potential to reach a minimum height of 2-5 metres".	Several countries have made efforts to alter the definition of forests adopted by the Kyoto Protocol, which has proved very controversial as it makes it hard to assess the dimensions of areas that are eligible and which should therefore be monitored in order to calculate the quantity of emissions prevented.
There are many uncertainties in the measurements of carbon emissions from deforestation.	There is a huge variation in the forest biomass in the tropics, including the difficulty to gauge how much carbon is stored in roots.	Measuring carbon stocks in forests is not an easy task, but there are already databases with "spatialized" measurements of biomass (Saatchi et al. 2007). There are also new satellites, like ALOS, which can measure tropical rainforest biomass (Kellndorfer et al. 2007). Finally, under the guidance of the IPCC, countries can always adopt a standard to account for the inherent uncertainties in the measurements.
Additionality is not automatically assured when deforestation is reduced.	There is some uncertainty as to deforestation can be reduced from direct mitigation actions. In many cases, deforestation is reduced as a consequence of falling commodity prices, for instance.	There is no indication that tropical rainforest deforestation will diminish significantly in the short term (decades) (Soares et al. 2006), which means that any reduction can be deemed additional.

(REDD+) Criticism	Reason	Counter-criticism
There are uncertainties about what baseline should be adopted.	The baseline has yet to be defined. It could be historical or future, meaning that either predicted future deforestation (based on projections) is reduced, or deforestation is reduced to levels below those recorded in the past.	If REDD+ is a mechanism that compensates countries for their efforts to reduce deforestation, as discussions of the UNFCCC would tend to indicate, then a historical baseline should be adopted (Santilli et al. 2005), as in this case the calculation will be based on recorded rather than projected data. This is what is used by the Amazon Fund, for instance. This thinking serves well for countries with high deforestation rates, but not for those with no deforestation, such as Guyana and Gabon, whose deforestation rates are below 0.2% a year (FAOSTAT, 2008). Different ways of getting round this discrepancy have already been put forward, including the "Stock-Flow with Targets" proposal recently submitted to the UNFCCC (Cattaneo, not published).
There is a shortage of technologies / methods to control leakage.	Deforestation prevented in one place could shift to somewhere else where no REDD+ activities are in place.	Given that the tendency is for REDD+ to compensate countries, reductions will have to be accounted for nationally or regionally, so as to reduce the risk of leakage. The leakage of deforestation from one country to another could occur, but the adherence of many countries from the same geographical region to a mechanism for compensated reduction reduces this likelihood. Furthermore, unlike in CDM projects, deforestation does not leak to the energy or transport sectors (Santilli et al. 2005; Schlamadinger et al. 2005). Finally, some studies (Soares Filho et al. 2010) supply tools for assessing leakage, making use of deforestation simulation models.
Guarantees of permanence do not apply to REDD+ and associated emissions.	The benefits of preventing deforestation in a given region today could be lost in the future if the forest should be destroyed by a natural disturbance or the predatory action of man.	Permanence can be covered by a provision whereby participating countries which raise their levels of deforestation (emissions) above their baseline are held accountable for the surplus released, which is transformed into a mandatory reduction target for the future. Further, assuming the existence of carbon credits for REDD+, permanence could be assured by making some kind of "insurance": only a small portion of the reduction obtained would be traded, while the rest would be kept as a guarantee of permanence for the credits generated.
REDD+ cannot generate carbon credits.	There is a risk that the market will be flooded with cheap carbon, making the emission reductions of rich countries flexible within their own territories. There is a chance that reducing emissions in developing countries could end up enabling developed countries to continue to emit carbon.	The idea that the market would be flooded with carbon is unfounded, as it is enough to determine that developed nations obtain most (around 80-95%) of their reductions within their own borders. Also, REDD+ credits would only make sense if these countries took on more ambitious mandatory targets than the targets they have thus far agreed to. Finally, a banking system where REDD+ credits could be bought and sold in the future and not immediately after a reduction had been proven would also reduce the risk of 'flooding'.

SOURCE: Moutinho et al, 2011

There are already several REDD+ projects under development and being implemented. In 2008 there were 19 government proposals and 13 proposals by non-governmental groups for REDD+ mechanisms registered in the UNFCCC. These proposals have different scopes, baselines, mechanisms for distributing benefits, and sources of resources (Table 2) (GCP 2008[8]).

[8] http://www.amazonconservation.org/pdf/redd_the_little_redd_book_dec_08.pdf

Table 2 – Parameters for comparison of different REDD+ projects (Source: GCP, 2008).	
Parameter	Variations
Scope	Emissions from deforestation (RED) Emissions from deforestation and forest degradation (REDD) Emissions from deforestation, forest degradation and social and environmental criteria (REDD+)
Scale of Reference	Subnational National Global
Baseline	Projected Historical Current
Distribution of benefits	Not explicit Explicit
Source of financing	Market Funds Hybrid

Table 3 sums up the REDD+ initiatives that are already under development, which could help Latin American countries to develop their own REDD+ schemes. In Part IV we will present case studies about a few REDD initiatives already under development in tropical countries.

Table 3: REDD+ Initiatives			
WHO?	WHEN? WHERE?	WHAT?	DETAILS
World Bank	COP-13 (2007)	Carbon Forest Partnership Facility[9]	Helps tropical countries to implement their national REDD+ programmes
United Nations (UN)	2008	UN-REDD Programme[10]	UN (FAO, UNEP & UNDP): develops and promotes national REDD+ programmes in developing countries
BNDES (Brazilian Development Bank)	Brazil, August 2008	Amazon Fund[11]	Raises funds via voluntary donations for the financing of REDD+ activities
World Bank	2009	Forest Investment Programme[12]	Supports REDD+ activities in developing countries and strengthens efforts to address the causes of deforestation and forest degradation.
58[13] countries	Oslo, May 2010	The REDD+ Partnership[14] [15]	Governments agreed to adopt the rules set down at the UNFCCC for REDD+ in the provision of resources for tropical rainforests, although this effort is not legally binding.
Supported by FAO, UNDP, UNEP	October 2009	Panama National Programme	Assist the Government of Panama in developing an effective REDD+ regime. The outcomes of the programme are: 1) institutional capacity established for the efficient coordination and execution of a REDD+ Programme in Panama; and 2) technical capacity to monitor, measure, report and verify the reduction of emissions from deforestation and forest degradation.

[9] http://www.forestcarbonpartnership.org
[10] http://www.un-redd.org/
[11] www.fundoamazonia.gov.br
[12] http://www.climateinvestmentfunds.org
[13] Angola, Argentina, Australia, Belgium, Brazil, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, China, Colombia, Costa Rica, Democratic Republic of Congo, Denmark, Dominican Republic, Ecuador, Equatorial Guinea, Finland, France, Gabon, Ghana, Guiana, India, Indonesia, Italy, Japan, Kenya, Laos, Malaysia, Mali, Mexico, Nepal, The Netherlands, Nigeria, Norway, Panama, Papua New Guinea, Peru, Philippines, Republic of Congo, Rwanda, St. Thomas & Prince, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Togo, Uganda, UK, USA and Vietnam.
[14] http://reddplusdatabase.org/
[15] http://reddpluspartnership.org/en/

Table 3: REDD+ Initiatives			
WHO?	WHEN? WHERE?	WHAT?	DETAILS
Supported by FAO, UNDP, UNEP	December, 2010	The Indonesia National Programme	The objective of Indonesia's National Programme is to achieve REDD+ readiness. The three main outcomes are: 1) strengthened multi-stakeholder participation and consensus at national level; 2) successful demonstration of establishing a Reference Emissions Level, Measurement, Reporting and Verification (MRV) system and fair payment systems based on the national REDD+ architecture; and 3) capacity established to implement REDD+ at decentralized levels. The Programme duration is for 20 months starting January 2010.

1.3.1 - A nested approach to REDD+

Most of the REDD initiatives developed today are conceived as individual projects. They are not necessarily connected to state or national targets for GHG emission reductions, nor is there any legal obligation to execute socioenvironmental criteria and principles in their development.

The REDD+ approach discussed in the following pages is what is known as a nested approach. It guides and regulates national REDD+ regimes, which in turn organize the REDD+ mechanisms on a subnational scale (normally at state level). From the subnational scale, the mechanism should regulate individual REDD+ projects.

In this subnational structure the country's government should establish an institutional framework for accounting and monitoring GHG emissions and distributing benefits, which could generate credits to be exchanged or sold in bilateral or international agreements. Emissions are measured on a national level by accounting the emissions reductions achieved by the combined programmes and projects developed on the state level (see models in Part II), making up the subnational level. The conditions on the system are that GHG emission reductions are only accounted if they exceeded the targets set for the states and for the country as a whole (Baker & McKenzie 2010).

This nested approach to REDD+ has the advantage of reducing leakage of deforestation between states, involving national and state governments in the political and economic process, and having the capacity to organize and attract large-scale international investments. It also enables a more equitable and transparent distribution of the benefits derived from the REDD+ initiatives.

The nested approach requires the creation of institutional governance mechanisms for the management of the financial incentives, providing clear rules for the distribution of benefits, technologically and methodologically precise mechanisms for monitoring GHG emission reductions, and for complying with the social and environmental safeguards included in the REDD+ concept. A REDD+ approach like this requires countries to set baselines for their emission reductions and to define what subnational units the system will be based on, thereby enabling baselines to be set for subnational and national emissions.

Part II of this material presents two institutional models and structures proposed by IPAM for discussions about a national REDD+ approach. They were conceived for Brazil, but could equally well be applied to other countries, with appropriate adaptations.

In practical terms, two initiatives on the subnational level involving different countries are already underway. The GCF is a subnational collaboration between 15[16] states and provinces in the USA, Brazil, Indonesia, Nigeria and Mexico, which aims to build frameworks and capacities with the purpose of integrating REDD+ activities. It grew out of Memorandums of Understanding (MOU) signed during the first Governor's Global Climate Summit in November 2008, in Los Angeles. Its initial goal was to share experiences and best practices in REDD+ and other forest-related activities and to provide guidance for decision-makers on how to integrate these activities amongst the participating states. The main outcomes of the GCF have been the engagement of stakeholders in activities designed to reduce deforestation, the development of subnational REDD+ systems, and progress in finding funding opportunities for REDD+.

[16] The states/provinces are: Acre, Amapá, Amazonas, Mato Grosso and Pará (Brazil); Central Kalimantan, East Kalimantan, West Kalimantan, Papua and Aceh (Indonesia); Chiapas and Campeche (Mexico); Cross River State (Nigeria); California, Illinois (U.S.).

In 2011, the GCF intends to develop the activities undertaken by four task groups, namely: 1) developing subnational REDD+ systems; 2) establishing a GCF fund for REDD+ initiatives and activities; 3) building a database of REDD+ activities undertaken as part of the GCF; 4) designing reporting strategies to encourage stakeholders participation and support national governments in the development of REDD+ initiatives in line with subnational efforts.

The other subnational agreement is between California (USA), Chiapas (Mexico) and Acre (Brazil). These states signed an MOU for the creation of a subnational task group for Reducing Emissions from Deforestation and forest Degradation (REDD+) through a cap-and-trade system. This group will draft recommendations for cap-and-trade programmes between California and countries that have credits from REDD+ schemes by October 2011.

1.4 - Opportunities and difficulties in implementing the REDD+ market.

REDD+ mechanisms are an important strategy to mitigate the impacts of climate change after 2012, when the first commitment period of Kyoto Protocol finishes. The success of this mechanism depends on creating an appropriate financing scheme that is feasible in terms of amounts and that is sustainable in the long term.

At COP 13, held in Bali, Indonesia, the UNFCCC opted for a financing system for investment in actions for climate change mitigation and adaptation (UNFCCC, 2007). Within the ambit of the AWG-LCA working group, the discussions about financing centred on three elements of a financial mechanism: generating finance, transfer of resources, and governance of institutional arrangements.

Several mechanisms have been put forward for the financing of REDD+ schemes, including market mechanisms, funds, and combinations of both, with different levels of participation by private and public investors from developed and developing countries. The role of the market mechanism in the implementation of a REDD+ regime is very controversial, as it could lead to conflicts and difficulties relating to disputes over the ownership of the carbon credits and require political and institutional reforms, which could delay the development and implementation of the process.

The criticisms of the market strategy include the argument that financing via government and private funds is more stable than via the market. Meanwhile, those who support using market mechanisms say that they would enable the rapid implementation of the REDD+ regime and have the potential to finance initiatives on a large scale, which funds cannot do, and would reduce the management costs of the mechanism.

The Cancun Agreement (2010) proposed the division of REDD+ activities in three phases: (1) capacity building and planning, implementation of national policies and measures, also known as readiness; (2) further capacity building and implementation of technical requirements, as well as demonstrable activities that can have measurable results; and (3) full implementation, with measurable, reportable and verifiable results (UNFCCC, 2010). Each of these phases will require different kinds and amounts of financing. It is estimated that for readiness activities (phase 1) between US$ 340 million and 2.3 billion will be needed over five years for 25 countries with tropical rainforests. The cost of phase 2 is estimated at US$ 4 billion over five years involving 40 nations (Parker et al, 2009).

These estimates contain a high level of uncertainty, since they are based on historical financing figures which reflect the availability of funds rather than effective needs (Angelsen et al., 2009). The cost estimates for phase 3 – the wide-scale implementation of REDD+ – is generally based on the opportunity costs a country will have to cover upon the cessation of deforestation of its lands. These models attempt to estimate past revenues that a developing country would receive in the absence of REDD+ mechanisms. However, these opportunity cost models have been criticized for their incapacity to account for other factors, such as the use of alternative methods in the reduction of deforestation (e.g. moratoriums on road building), embargos on products from illegally deforested areas, and increased capacity to enforce forest-related laws (Busch et al., 2009).

The transaction costs vary according to the type of financing to be implemented. These costs are relative to: (i) monitoring, reporting and verification (MRV); (ii) costs of mitigating the risks inherent to each type of financing; (iii) costs of project design, social monitoring, and legal and contract costs.

MRV costs are incurred by projects until they are complete, and include costs for verifying emission reductions and reporting them to the UNFCCC or another financier. Monitoring costs involve investments in technologies and strategies, and tend to be high. These should also involve participative strategies on the local level, involving the communities in the project's area of influence. Finally, the project design costs include all the costs the project incurs, from its conception to the final phase in the project cycle (verifying and reporting the last emission reductions), including: preparation of a project design document (PDD), validation, auditing, national and international registers, sales (road show, contracts, liquidation) and legal costs. Once the project has been implemented, a monitoring of social impacts must be established.

Another approach for the implementation of REDD+ initiatives is presented in the Forum for the Future's *Forest Investment Review* (2009). In this approach, the implementation of a REDD+ mechanism is split into five stages, each of which has different financing needs (Figure 3).

Relationship between stages of REDD+ and financing

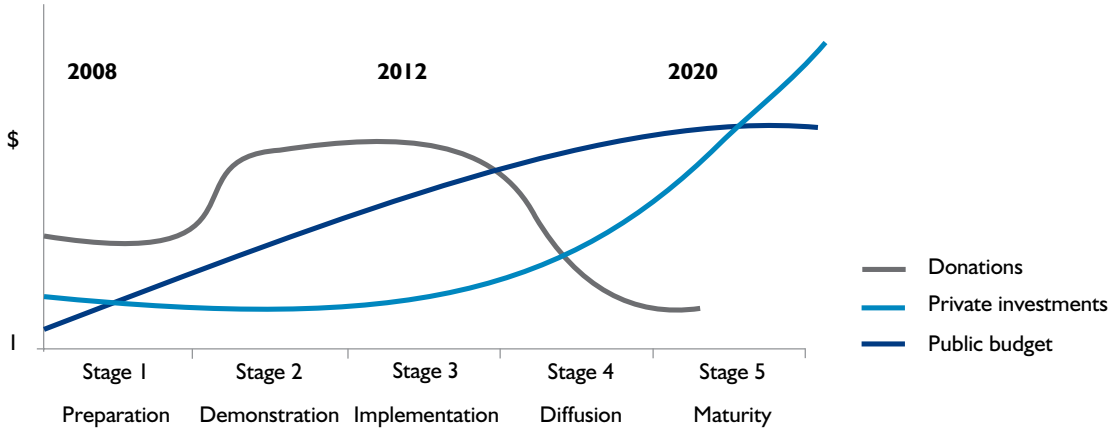


Figure 3. Relationship between stages of REDD+ and financing

Stages 1 and 2 correspond to phases 1 and 2 from the UN-REDD proposal, and include setting baselines, establishing dialogue, creating methods for monitoring, reporting and verification, developing participation processes, creating institutions, and implementing pilot projects and projects for creating measures and policies on a federal and national level.

At stages 3, 4 and 5, which correspond to phase 3 of the UN-REDD, the REDD+ regime becomes increasingly consolidated and poses less of a risk to private investors. Government funding is also more structured, and at these phases there are large-scale implementation activities, where the methods developed at stages 1 and 2 are diffused and refined until the regime can be considered mature.

1.5 - Sources of financing for carbon projects

The market instruments that currently exist for trading carbon credits are: (i) carbon market regulated by UNFCCC and (ii) voluntary markets.

Carbon market regulated by UNFCCC

Under Kyoto Protocol, were established three flexibility mechanisms intended to encourage Annex I countries to meet part of their goals as described below. These mechanisms are the foundation of the carbon market regulated by international rules defined by UNFCCC in its Kyoto Protocol.

The tree flexibility mechanisms are described below:

a) Emissions Trading

Emissions trading is limited to Annex I countries and is based on a carbon cap-and-trade programme. In this case, the system administrator issues a limited number of emissions allowances, known as Assigned Amount Units (AAUs), which together sum the reduction target established by the parties. In this way, the countries or companies earn the right to emit tCO_2 equivalent in the amount of the AAUs they possess. To achieve their reduction targets, institutions may reduce their emissions or purchase more AAUs from institutions that have reduced their emissions beyond their targets.

b) Joint Implementation (JI)

This is a mechanism whereby Annex I countries can act jointly to reach their targets. If one country is unable to reduce its emissions enough, it can make an agreement with another Annex I country for them to work together towards this goal.

The joint implementation mechanism enables countries to attain their reduction targets flexibly and cost-effectively, while the host country benefits from foreign investments and technology transfer.

Projects of this kind should supply emission reductions per source, or increase removal by sinks, that are additional to any that would otherwise occur.

c) Clean Development Mechanism (CDM)

This mechanism is designed for emission reduction projects in developing countries that do not have emission reduction targets as part of the Kyoto Protocol. Projects of this kind can be translated into Certified Emission Reductions (CER), each of which represents the reduction of one tonne of CO_2 equivalent, which can be traded with nations that have emission reduction targets set by the Kyoto Protocol (Annex I countries).

CDM projects can be implemented in the energy, transport and forest sectors. In the forestry sector, only reforestation and afforestation activities and/or projects are eligible. The mechanism encourages emission reductions, as it gives industrialized countries flexibility in how they achieve their targets, while encouraging technology transfer and the involvement of society in developing countries.

Projects must be qualified by a strict, public registration system developed to ensure that they are real, verifiable, reportable, and are additional to any reductions that would otherwise occur. To be considered eligible, projects must first be approved by the Designated National Authority of each country, which in Brazil is the Interministerial Committee on Climate Change, which has representatives from eleven ministries.

Worldwide, a total of 7684 projects were in some stage of the cycle of CDM projects, 3192 has been registered by the CDM Executive Board. Brazil occupies the third place in number of project activities and potential for emissions reductions, which represents 410 568 728tCO_2e, or 5% of global emissions reductions (MCT, 2011). It is important to bear in mind that carbon trading systems set quantitative caps on the acquisition of carbon credits from JI and CDM schemes, meaning that the majority of the efforts to attain emissions reduction targets should be done domestically through measures undertaken by the signatories of the Protocol (CGEE, 2010).

Beyond the Kyoto market, other regulated markets were also created with their own schemes of mandatory targets and regulations, including: Regional Greenhouse Gas Initiative (RGGI), Western Climate Initiative (WCI) and New South Wales Greenhouse Gas Abatement Scheme (NSW GGAS). It is important to note, however, that the main carbon markets are under the Kyoto Protocol and among those stands the European Union Emissions Trading Scheme (EU ETS), which alone represents 72% of the global carbon market, totalling 4,811MtCO_2e and US$ 126.346 million (CGEE 2010) (Table 4).

The Regional Greenhouse Gas Initiative is a cap-and-trade system operating between ten north eastern states, in the USA that have committed to reducing their energy emissions by 10% by 2018. The Western Climate Initiative covers seven US states and four Canadian provinces, with the aim of reducing emissions by 15% through a cap-and-trade system. The New South Wales Greenhouse Abatement Scheme is a mandatory regime initiated in Australia, before this country had ratified the Kyoto Protocol. It is designed to bring emissions reductions by the energy sector through mitigation projects.

Table 4. Regulated and voluntary carbon markets. Volume and value in the different carbon trading schemes.

	2007		2008	
	Volume ($MtCO_2e$)	Value (MUS$)	Volume ($MtCO_2e$)	Value (MUS$)
Transmission-based projects				
Primary CDM	552	7433	389	6519
Secondary CDM	240	5451	1072	26277
JI	41	499	20	294
Voluntary market	43	263	54	397
Sub-total	876	13646	1535	33487
Permission market				
EUA ETS	2060	49065	3093	91910
NSW GGAS	25	224	31	183
CCX	23	72	69	309
RGGI	na	na	65	246
AAUs*	na	na	18	211
Sub-total	2108	49361	3276	92859
TOTAL	2984	63007	4811	126346

* In cap-and-trade scheme, certificates called Assigned Amount Units (AAUs) are generated from the issuance of a limited amount of emission allowances.
Source: CGEE (2010)

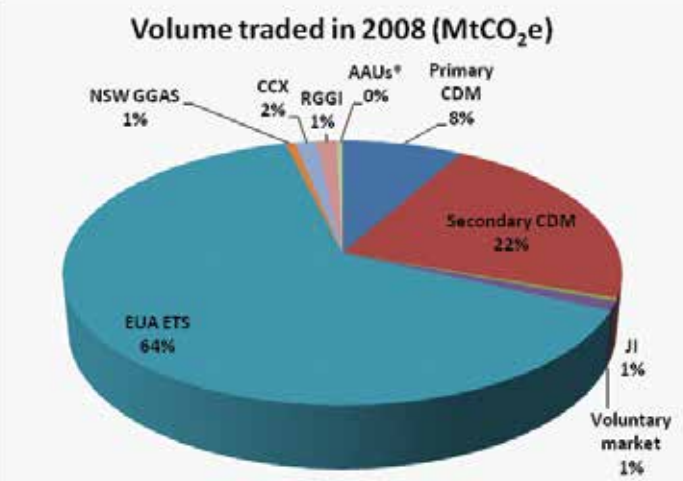


Figure 3. Volume trade in 2008 in the carbon markets.

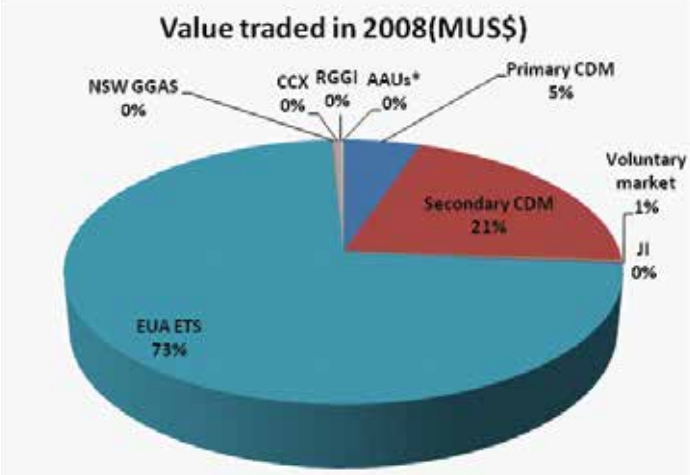


Figure 4. Value trade in 2008 in the carbon markets.

In addition to the mandatory markets mentioned above, there are also regulated markets for which membership is voluntary, as the Chicago Climate Exchange (CCX). CCX was the first stock exchange to trade GHG emission reduction certificates. Its member companies signed legally binding agreements to reduce their emissions to 6% below the baseline (1998-2001).

Voluntary markets

In the voluntary carbon market, also known as Over-the-Counter (OTC) carbon market[17], buyers do not have compulsory reduction targets, and companies can use the mechanism as part of their corporate social responsibility or marketing strategy. Furthermore, there are no tradable emissions allowances (AAUs), since this is not a cap-and-trade system. Carbon credits are generated from mechanisms based on additional and voluntary projects for compensation. Voluntary compensation projects are audited by independent consultants based on carbon standards. However, the voluntary market is very susceptible to the dynamics of the global economy, since commitments to reducing emissions are voluntary and run the risk of being abandoned at times of crisis. In 2008, the voluntary carbon market represented 3% of the total carbon market (CGEE, 2010).

In Brazil, discussions have been held about implementing a cap-and-trade system for south eastern and northern states. The states in the southeast are major GHG emitters, mainly by the industry, transport and energy sectors. Meanwhile, the northern states still have large forest carbon stocks and are suitable areas for establishing a REDD+ regime. This could also be a way for tropical countries to develop their domestic carbon markets, by encouraging national GHG emission reductions at a lower cost than would be incurred by renewing their energy grid and industrial output.

[17] For further information, see: http://www.pointcarbon.com/

1.5.2 - Funds

Alongside market mechanisms, other sources of financing for REDD+ derive from donations, loans, financing and public monies. The current volume of resources available for REDD+ already sums U$S 4 billion, out of a total of U$S 38 billion earmarked for global climate change mitigation. Another U$S 3.8 billion is being channelled into adaptation measures. There are currently 24 registered international funds for REDD+[18], most of which have some or all of their resources from official development assistance (ODA). These resources come from a combination of multilateral and bilateral funds that are available for REDD+, which will be discussed in part III.

1.6 - The role of Latin America in REDD+

Over two thirds of the world's potential GHG emissions are in the forests of developing countries, where REDD+ mechanisms, including afforestation, reforestation and forest management, could mitigate 70% of this total. A third of the mitigation potential is located in Latin America & the Caribbean, due to the high rates of deforestation in this region (IPCC 2007). The REDD+ policy in the region is varied in its level of development. On the one hand it leads to learning opportunities on a national and subnational level. On the other hand it reveals challenges to be overcomed.

In Brazil, many elements had advanced in recent years, on a federal level, making possible the country to start a process for building a REDD+ national strategy. Most of those elements will be described in the next section, in which Brazil will serve as an example for developing a REDD+ national strategy. Besides, on the state level many Brazilian states in the Amazon region had developed their own targets and programs to reduce deforestation. In this sense, the state that has made most progress is Acre, which has created the State System of Incentives for Environmental Services (Sistema Estadual de Incentivos a Serviços Ambientais, or SISA, in Portuguese), the Incentives for Environmental Services Program (Programa de Incentivos por Serviços Ambientais, or ISA Carbono, in Portuguese) and other environmental service and ecosystem product programmes. The establishment of SISA was instrumental in the historic Memorandum of Understanding for environmental cooperation signed with Canada (USA) and Chiapas (Mexico), discussed earlier, and a model for the Amazonas state government to implement its own environmental service legislation (currently in public consultation on the website of the Amazonas Department of the Environment and Sustainable Development[19]). The case of Acre will be presented in details on part IV of this publication. Interestingly, Amazonas was the first subnational government in Latin America to implement a REDD+ project, for the Juma Sustainable Development Reserve[20].

Among South American nations, Peru has stood out in the development of policies to control deforestation and REDD+. The partnership between the department of Madre de Dios and the Brazilian state of Acre is considered strategic for both governments, as it enables greater interchange in the consolidation of an integrated system for monitoring, reporting and verifying the REDD+ activities to be developed. Furthermore, there is the chance of setting up carbon credit trade relations by means of a subnational cap-and-trade mechanism[21]. The government of Peru is also supporting environmental policies and the development of REDD+ in the country (R-PP: Plantilla de Propuesta para la Preparación de Readiness), which was publicly presented in March 2011.The Ministry of the Environment, created in 2008, is also working towards the implementation of a national policy for REDD+ with the support of the World Bank, through the Forest Carbon Partnership Facility (www.forestcarbonpartnership.org). Inter-ministerial working groups have been set up with the participation of representatives from civil society (Grupo Técnico Reducción de Emisiones por Deforestación y Degradación – GTREDD and Grupo REDD Perú - Mesa REDD).

During COP-14, the government of Peru presented its proposal to conserve 54 million hectares of forests, and to attain zero deforestation by 2021. To do so, it must develop other subnational policies like those ones being developed by the department of Madre de Dios. Currently, throughout Peru, there are an estimated 45 REDD+ projects in existence, of which only 25 follow the MRV criteria. Unlike Brazil and Peru, which are drawing up specific legislation for REDD+ on the national and subnational levels, Bolivia rejects the assumptions behind trade in environmental services, understanding that the trade carbon credits reduces forests to mere carbon sinks, making it hard to get a broader perspective on how important forests are for the protection of ecosystems and the people who live in and off them.

---

[18] http://www.climatefundsupdate.org/listing 23 http://un-redd-amlatinaycaribe.ning.com/

[19] http://www.sds.am.gov.br/

[20] http://www.fas-amazonas.org/pt/secao/projeto-juma/projeto-rds-do-juma

[21] Cap and trade is a market mechanism that sets limits on GHG emissions for a given sector (e.g. industry). Taking these caps into account, "emissions allowances" are issued, enabling each industry (taking the example above) to define how it will keep its emissions within the limit set. If an efficient industry manages to release a volume of greenhouses gases that is well below the target set for it, it has a surplus (quotas) that it can "sell" to another industry that is unable to reach its emissions target, thereby helping it meet its target.

In this context, Bolivia has passed the Law of Mother Earth, the first legislation in the world that confers the same rights to nature as to human beings. The law sets down 11 rights of nature, including: the right to life; the right to continue life processes and cycles free of human interference; the right to clean water and air; the right to balance; and the right to not have cellular structures modified or genetically altered.

© Daniela Lerda

II. Developing a national REDD+ strategy

Keeping forests standing in the long run depends on the consolidation of public policies at national, state and local levels. Individual projects cannot achieve the level of institutionalization needed, nor can they respond effectively to issues that are fundamental to the development of a robust REDD+ model in terms of leakage of deforestation to other areas and the calculation of emissions prevented. Therefore, the REDD+ strategy discussed here is based on the development of subnational REDD+ regimes.

In Brazil, for instance, there is already a sophisticated system for monitoring deforestation in the Amazon created by its National Space Research Institute (INPE[22]), a set of state policies for reducing deforestation with quantitative targets, a national legislation for climate change (National Policy on Climate Change, NPCC) that establishes targets for GHG emissions, international and domestic legislations that recognizes and protect the rights of the indigenous peoples[23], a forest code[24] and other important laws that regulates Conservation Unities, the management of Public forests[25], and protection of forests and native ecosystems in "permanent preservations areas" (e.g., steep slopes, riparian zones) and as a percentage of every property holding.

Through public discussions, Brazilian civil society has also developed a number of principles and criteria for the development of REDD+ projects and programmes in order to assure the effectiveness of measures to reduce deforestation, conserve biodiversity, guarantee social benefits for the people affected, and the rights of indigenous peoples, rural smallholders and local communities[26].

---

[22] INPE. "Projeto Desmatamento (Prodes): Monitoramento da Floresta Amazônica Por Satélite." INPE, http://www.obt.inpe.br/prodes/.

[23] The federal Brazilian Constitution of 1988, art. 231 and 232; The civil code (Law 10406/2002; The Indigenous People Statute (Law 6001/1973); Convention 169 of OIT proclaimed under Decree 5501/2004; The Federal Law 5371/1967 that authorizes the institution of The Indians National Foundation, FUNAI in Portuguese and the decree 4654/2003 that approves the statute of FUNAI

[24] Forest Code (Federal Law nr. 4771/1965).

[25] Law of Management of Public Lands, n°11284/2006; National System for Conservation Unities (Federal Law nr. 9985/2000)

[26] http://www.observatoriodoredd.org.br/site/pdf/P&C_port.pdf

These technical, legal and social control factors have helped pave the way for the development of a national REDD+ strategy for Brazil. Similar conditions to these must be developed by different tropical countries so that they can also meet the minimum prerequisites for developing their own national REDD+ systems.

It is important to understand that a REDD+ strategy is just one of many instruments that make up a national strategy designed to meet deforestation reduction targets, and as such it must be coordinated together with the NPCC). In order to help bring a national REDD+ regime into line with this policy, some basic principles have been defined to help structure and implement a regime that can result in the effective implementation of the NPCC and take the country towards a new economic model based on low carbon emissions.

Basic principles for a national REDD+ strategy

1. REDD+ should operate on a national scale

The existence of one or several local projects for reducing emissions from deforestation would have little or no effect if the overall national deforestation rate rises. That is why a project can only contribute effectively to reducing national emissions if it can be assessed and if it is effectively aligned with a national emission reduction regime. For the performance to be assessed on a national scale, a baseline must be adopted for calculating the reductions in emissions from deforestation. Further, the setting of robust baselines and the accounting of emissions reductions on a national scale are essential prerequisites for market mechanisms to be used (carbon credits) in a future national REDD+ regime.

2. REDD+ should be safeguarded by effective and permanent forest legislation

If there is no real investment in environmental governance (by state and federal governments) or effective federal forest legislation, it is impossible to give national or foreign investors the level of assurance they require to invest in REDD+ activities. Dealing with this issue is crucial for overcoming any obstacles associated with financing, be it from public funds or through the international carbon market.

3. A national REDD+ regime should incorporate state plans for reducing deforestation

The participation of states in the development of any national REDD+ strategy or regime is essential. If forest management is state-oriented, states will be central in the environmental governance of a national REDD+ regime. The efforts by states to create state-wide plans for reducing deforestation (with targets) and even REDD+ projects demonstrate the legitimate interest on their part in contributing to the construction of a national regime.

4. The benefits of REDD+ should cover both emission reductions (flows) and forest conservation (stocks)

A REDD+ mechanism implies in the reduction of emissions (flows) of greenhouse gases (GHG) into the atmosphere from deforestation, and the compensation or pass-through of financial incentives to those countries which obtain such reductions. However, this principle could generate a perverse incentive by compensating only those countries which already emitted GHG (deforested) in the past, while failing to take account of those which have always made an effort to conserve their forests (maintenance of forestry carbon stocks). For this reason, any REDD+ mechanism should including both emission reductions and the conservation of carbon stocks in forests.

5. It should be established beforehand who the beneficiaries of a REDD+ regime should

In a REDD+ regime, the beneficiaries are those who legitimately have a responsibility for conserving or using forests sustainably, contributing concretely and provenly to the reduction of emissions from deforestation and forest degradation. This definition broadens the perspective on rights to benefits from a REDD+ regime, as it means that not just landowners with deeds to their lands, but also indigenous peoples, traditional communities, communities that live off non-timber forest products ("extractivist" communities), settlers, family farmers (with or without the deeds to their land) and federal, state and municipal public authorities (in the case of protected areas) may equally well be benefited.

If a REDD+ regime should operate under market mechanisms, based on carbon credits, it is important to understand that ownership of these credits is not only linked to legal ownership of the forested land in question, but to the responsibility and rights of access to the forest resources. The ownership of a credit may therefore vary, depending on the nature of the area where the REDD+ projects and programmes are in place. In undesignated public lands the exclusive ownership of any credits derived from projects or programmes pertaining to this land will go to the public authority. Meanwhile, forest communities (indigenous peoples, traditional and "extractivist" communities and

smallholders) may be eligible for such credits in the case of activities designed to reduce deforestation or conserve the forest, including the management of lands whose protection derives from the act of creating protected areas or the recognition of rights for these people. However, the thesis that ownership be shared with the public authorities responsible for protecting the lands occupied by traditional communities is still open for discussion.

6. The benefits of REDD+ should be shared fairly, equitably and based on clear criteria

Although the financing for REDD+ around the world is likely to rise, little has been said about how the resulting benefits are to be distributed and what sectors of society should be covered. For REDD+ strategies to have any chance of success, the criteria for the equitable sharing of the financial benefits obtained should be discussed openly and with the full participation of society, considering the contribution made by the people who live off and in the forests to forest conservation and the reduction of deforestation, and the role of private properties and other land categories (such as Brazil's protected areas).

7. Any REDD+ regime should respect the rights of forest communities

One of the key principles relating to REDD+ is that upon compensating players who own forested lands, the mechanism may encourage speculation and false claims to ownership of lands, to the detriment of traditional communities and indigenous peoples who have not yet had their right to the land they live in recognized by the State. In part, this is primarily a concern in countries with tropical rainforest where these rights are not assured. However, such rights should be reaffirmed in clarifications and consultations undertaken together with leaders of social movements in order to assure their active participation in the development of principles and criteria that address their interests.

8. A REDD+ strategy should not fail to take account of the potential for investments via the carbon market

Caution is called for when it comes to the possibility of creating carbon credits from REDD++, since such credits could be used by developed countries or companies to help meet their own (mandatory) emission reduction targets. In effect, the reduced emissions in developing countries would simply go towards enabling developed countries to continue emitting carbon. As such, it is important to set a limit (of perhaps 80-95%) on the quantity of emissions reductions that developed countries have to achieve inside their own territories. It is also plausible to tie the use of REDD+ credits to the purchasing nations' taking on more ambitious mandatory targets than those they agreed to after COP-15. The advantage of market mechanisms over donations or public funding is that they are more attractive because they can produce more benefits for forests and the people who live in them, as well as being more likely to maintain greater and more constant flows of financial resources in the long term.

9. A national REDD+ regime should establish a system that documents, registers and reports the reductions in carbon emissions

A national REDD+ regime should establish a mechanism that enables the measuring, verification and reporting (MVR) of carbon emission reductions. A national MVR-based system should be sufficiently robust and comply with IPCC requirements, as proposed by the FAO.

Two other criteria must be addressed for a system to be measurable, reportable and verifiable: leakage and duplicate measurements. Leakage has to do with GHG emissions (in this case, from deforestation) taking place outside the boundaries of the project but as a direct result of the project activities. In other words, reducing deforestation in one area may increase deforestation in another. This kind of problem is greater in small-scale projects, and has been identified on numerous occasions. Therefore, the larger the project is, the smaller the likelihood of leakage. One solution for dealing with this issue is to measure the reduction in deforestation across a whole biome instead of doing this calculation individually per project or programme.

10. The resources derived from a REDD+ project should be invested in integrated activities and policies for reducing deforestation, conserving forests and improving the regime itself

Public financing for REDD+ (donations) has the potential to prompt a transition from incipient and individual activities to a national or subnational[27] (state-wide) regime for reducing deforestation, with the future potential to join up with the emerging markets for compensating emission reductions. However, this opportunity could easily be missed if public monies earmarked for implementing REDD+ are badly used.

[27] Subnational is a term used to refer to the different scales of REDD+ programmes that exist below the national level. In this publication, it refers to states and municipalities.

> **A REDD+ mechanism must provide systematic motivation for governments, civil society and the private sector**

The investment of such resources should follow the approach for the gradual development of REDD+ proposed on the international level (Meridian Report OAR, 2008). Based on this approach, investments must be made in phases:

1. National capacity-building in REDD+ programmes;
2. Introduction of policies that regulate specific activities capable of supporting a national REDD+ regime;
3. Establishment of a national REDD+ regime that is flexible enough to adapt to the different potential regulatory scenarios, be they top-down (through mandatory international agreements, for instance) or bottom-up (various interlinked carbon markets permeated by bilateral agreements or even agreements between states from the same country).

A REDD+ mechanism must provide systematic motivation for governments, civil society and the private sector to build up investments, environmental policies, institutional structures, and rural services (education, Rule of Law, healthcare, technical assistance) so as to enable the non-traumatic substitution of the economic activities that depend on deforestation.

For a REDD+ strategy to be successful, it must take account of the distribution of any associated financial benefits. As such, IPAM has developed two institutional models and structures proposed for the distribution of such benefits based on the "stock-flow with targets" concept as a contribution to discussions on a national REDD+ system.

Creating subnational REDD+ systems

The creation of a robust, transparent, auditable accounting system, and incentive mechanisms to motivate national and subnational stakeholders, are key elements for the success of any REDD+ enterprise.

One alternative is to take a nested approach. In this method, the federal government establishes a national accounting system and a national monitoring programme for the system, linked to a national system for the distribution of benefits and social participation that complies with the basic principles described above. In this scenario, the different spheres of government can implement public policies designed to deliver measurable, reportable and verifiable reductions in emissions from deforestation, which are therefore eligible for incentives from an emerging mandatory global, regional, bilateral or even national market. This nested approach enables the implementation of REDD activities in the field to be led by local or regional governments, communities, NGOs or private agents. These activities are responsible for reducing emissions on a subnational level and have access to the incentives contained in the proposed model. Based on this approach, we set out below two possible methods for building a subnational REDD+ structure. Although the Brazilian scenario is used as a reference, models of this kind can be built and adapted to different countries' realities.

National REDD+ Regime: Model I

The first model assumes the strong participation of Amazonian states, and is set up by a State Registration Agency. Each agency is under the regulation and monitoring of the federal government through a federal REDD+ system established in line with the National Policy Climate Change (NPCC). As such, the states receive financial compensation for reducing emissions in the Amazon, since respecting three fundamental criteria: (1) the contribution to reducing emissions (flows) in a given period; (2) the forest carbon stock that exists in the territory; and (3) the performance in complying with previously agreed state targets for the reduction of deforestation.

Before any compensation can be allotted, the states must have a system for calculating their emissions reductions. The federal REDD+ system, via Prodes/INPE (monitoring system), calculates the reductions obtained in deforestation in the Amazon (and later in other biomes) over a given period. Based on these measurements, the volume of prevented emissions is obtained by subtracting the deforestation recorded by Prodes/INPE in a given year from the mean historical deforestation rate established in the national policy (NPCC) as the baseline for a given period (five years). The first period therefore goes from 2006 to 2010 and uses as its baseline the average deforestation rate between 1996 and 2005 (19,533km^2). For subsequent five-year periods, the baseline is reviewed downwards, as determined in the NPCC (Figure 5). Thus, supposing that by 2020 Brazil has met its reduction target for deforestation in the Amazon, the potential reduction in emissions is around 2.9 billion tonnes of CO_2 (Table 10).

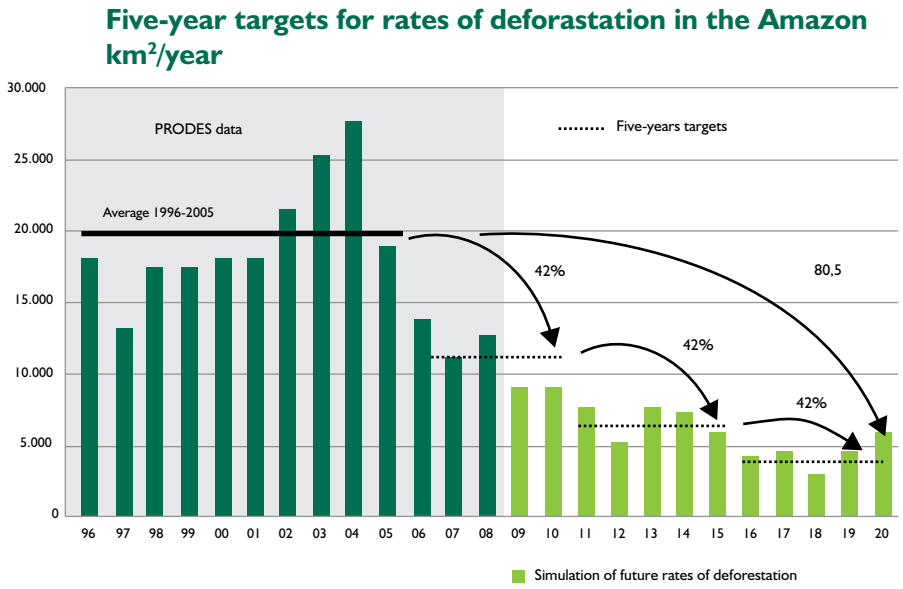


Figure 5. Brazilian REDD+ System based on the Evolution of the Deforestation Rates in Amazon and future projections by 2020.

Brazilian government goal to reduce deforestation by 42% over each five-year period until 2020, as a voluntary commitment undertaken at Copenhagen. The baseline for 1996 to 2005 should be reviewed every five years. Source: MMA (2009).

A second stage in the consolidation of the model is the conversion of reduced emissions from deforestation into REDD+ certificates (C-REDD+s). Once the volume of prevented emissions has been calculated (in this case, 2.9 billion tonnes of CO_2 by 2020), a given proportion (say 50%[28]) could be made available to states in the Amazon, based on a number of criteria (see next stage), so that they could issue "certificates of reduced emissions" (C-REDD+s). The remaining 50% of the prevented emissions could go towards federal government programmes, such as the Amazon Fund, or could be used for raising public funds and donations, with a view to investments in forest sectors or in traditional and indigenous communities.

The Brazilian government could also take on this part as a voluntary contribution by the country to climate change mitigation. In this case, this half of the emissions would not be put on the market for carbon offsets.

Following the same rationale as in the previous stage, if the 50% of emissions prevented between 2006 and 2008 were allocated to certificates (1.45 million C-REDD+s) and if these were exchanged for carbon credits at a ratio of 1:1, the potential volume of financial resources for the sale of these credits could be as much as US$7 to US$21 billion by 2020. This amount would certainly be far higher than the potential financing receivable from the Amazon Fund as per current estimates (around US$1 billion pledged).

The third stage is the distribution of the C-REDD+s. Once the number of REDD+ certificates to go to each state has been determined, they are invested in state REDD+ programmes or projects. Their allocation is based on the three criteria set forth in the introduction to this section: (1) the contribution to the reduction of emissions (flows); (2) the existing forest carbon stocks; and (3) the fulfilment of state deforestation reduction targets.

Table 5. Base line established by the NPCC, deforestation rates per km² and CO_2 emissions reduction per million ton in the Amazon biome (2006-2020)"

	2006*	2007*	2008*	2009*	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	TOTAL
Base line	19.533	19.533	19.533	19.533	19.533	11.329	11.329	11.329	11.329	11.329	6.571	6.571	6.571	6.571	6.571	187.165
Deforestation rate	14.286	11.651	12.911	7.464	10.334	6.571	6.571	6.571	6.571	6.571	3.811	3.811	3.811	3.811	3.811	108.556
Deforestation reduction	5.247	7.882	6.622	12.069	9.199	4.758	4.758	4.758	4.758	4.758	2.760	2.760	2.760	2.760	2.760	78.609
Emissions reduction (CO_2)	192	288	242	442	337	174	174	174	174	174	101	101	101	101	101	2.877

[28] This percentage is merely illustrative. The federal and state governments could settle on a proportion based on agreed-upon criteria or public consultation.

If this final criterion is met, a performance-related bonus in the form of extra C-REDD+s is earned. In this case, a minimum emission reduction target is set for each state based on the proportional contribution they make to meeting the target for the Amazon established in the PNMC (80% reduction below a historical baseline by 2020).

Returning to the amount of prevented emissions (1.45 billion tonnes of CO_2) to be converted into C-REDD+s, if Brazil meets its targets for reducing the deforestation of the Amazonian rainforest and if the three criteria are also fulfilled, the distribution of these certificates amongst the states is more balanced than it would be if only the contribution of reductions from deforestation were considered.

Table 11 and Figure 6 illustrate the hypothetical distribution of 1.45 billion C-REDD+s amongst the states, using the hypothetical weights of 30% for reduced emissions (flows), 50% for the forest carbon stocks that the state maintains, and 20% bonus for states that fully meet their reduction targets. Clearly, these weights used for the allocation of C-REDD+s could be adjusted through political negotiations. Indeed, making this negotiable would certainly make the system more acceptable to Amazonian states.

The fourth stage is the registration and certification of the REDD+ programmes and projects. Once the C-REDD+s have been distributed to the states (stage 3) they can allocate the certificates to their state REDD+ programmes and projects, provided they have been registered by the appropriate agency from the respective state. Those projects or programmes that are found to be compatible with the principles and strategies defined in the State Plan for Reducing Deforestation are given priority in registration and the allocation of C-REDD+s. Meanwhile, the federal government, through the federal REDD+ system, creates an agency that is open to participation by civil society and the states, to set the parameters and guiding principles for aligning the subnational (state) REDD+ strategies with the NPCC. This agency also sets up a C-REDD+s reserve as "insurance" for offsetting potential leakage or emission increases in the future.

Projects and programmes are registered in two stages:

a) Pre-registration – For this, programmes or projects must be submitted to the state REDD+ system or the state entity in question, notifying the volume of emission reductions to be achieved over a given period. The system then assesses the methods used and the stated potential for reducing emissions, and whether it is in line with the strategies defined in the State Plan for Reducing Deforestation. In this way, projects and programmes compete with each other over the same time periods. Once a project or programme has been approved by the state entity, it is pre-registered and authorized to apply for investments.

b) Definitive registration – Definitive registration takes place when the reduction in emissions is reported and verified upon the expiration of the time period stated in the pre-registration. It is at this point that C-REDD+s are issued, in proportion to the reduction effectively verified and reported by the state system (see figure below that describes the stages in the process). These certificates can then be converted into carbon credits.

Table 6. Distribution of C-REDDs (million tons CO_2) for Amazonian states according to their contribution towards reducing emissions (flow) and combining this with two other criteria: forest stock and fulfillment of emission reduction goal. The values are calculated for 2006-2020. Source: Moutinho et al, 2011.

State	Compensation for reduced flow		Compensation for reduced flow, forest stock and fulfillment of goal	
	$MtCO_2$	%	$MtCO_2$	%
Acre	72	5%	86	6%
Amapá	29	2%	39	3%
Amazonas	144	10%	380	26%
Maranhão	43	3%	47	3%
Mato Grosso	734	51%	292	20%
Pará	158	11%	343	24%
Rondônia	201	14%	131	9%
Roraima	14	1%	64	4%
Tocantins	43	3%	57	4%
TOTAL	1438	100%	1439	100%

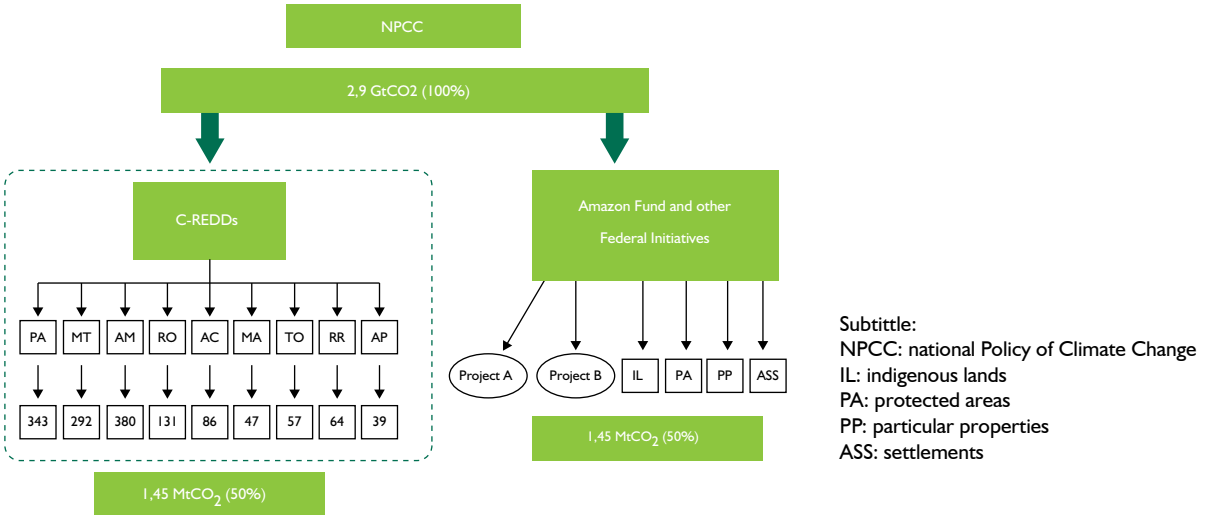


Figure 6. Model showing the distribution of REDD certificates (C-REDDs) assuming the targets for the reduction of emissions from deforestation (2.9 billion tonnes of CO_2) in the Brazilian Amazon were reached between 2006 and 2020, as set in the National Policy on Climate Change (NPCC). States: PA – Pará; MT – Mato Grosso; AM – Amazonas; RO – Rondônia; AC – Acre; MA – Maranhão; TO – Tocantins; RR – Roraima. The allocation of C-REDDs (1.45 billion tonnes of CO_2) amongst the states is based on the contribution each state makes to reducing deforestation in the Amazon, the forest stock present in its territory, and its performance in fulfilling its state targets for reducing deforestation. The remaining emissions prevented (50%) are assigned to federal government projects and the maintenance and protection of protected areas (IL – indigenous lands; PA – protected areas; PP – private property; ASS – forest settlements). See text for more detail.

The four stages above summarize the proposal for a federative pact capable of coordinating subnational REDD+ projects, programmes and plans with a national regime agreed between the federal government, states and civil society (Figure 7). This pact therefore sets out: (1) the institutional structure; (2) the economic instruments designed to support the national strategy; (3) the criteria for having the subnational activities recognized and validated within the ambit of the NPCC; and (4) an equitable scheme for sharing the benefits that takes into account the national calculation of reductions of emissions from deforestation and forest degradation and the national emission reduction target. This enables subnational activities (programmes and projects) to have due access to REDD+ resources derived from public funding and from incipient carbon markets.

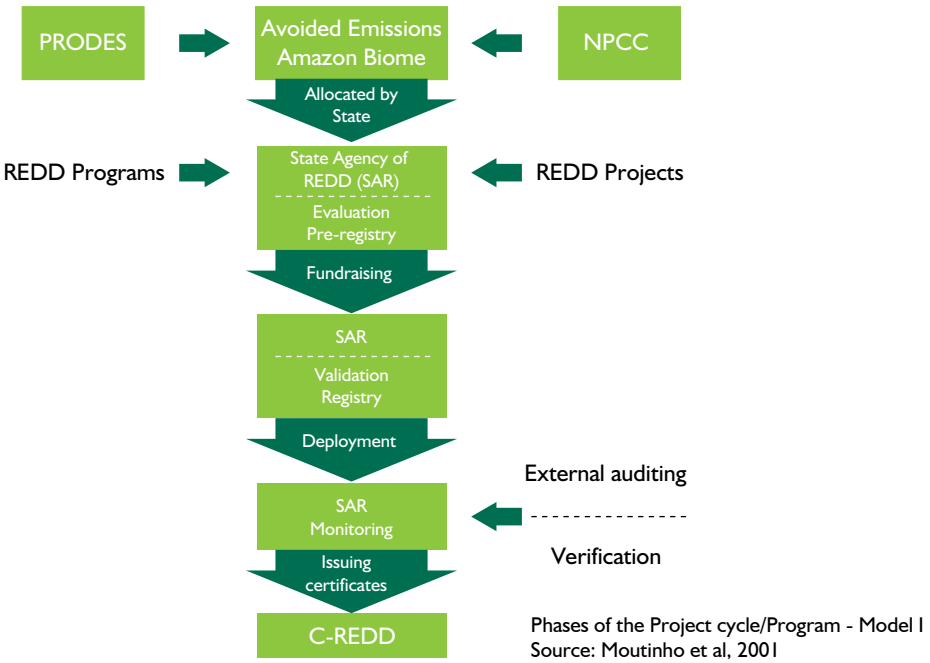


Figure 7. Four stages above summarize the proposal for a federative pact capable of coordinating subnational REDD+ projects, programmes and plans with a national regime agreed between the federal government, states and civil society

National REDD+ Regime: Model II

The second model to be discussed differs from the first in the structure it uses for sharing out the benefits derived from REDD+ activities. In this case, the distribution is based on the contribution made by different land categories, rather than Amazonian states, to reducing emissions from deforestation. The assumption is therefore that different land categories have a different influence on deforestation and forest conservation. The categories selected are: indigenous lands (IL), protected areas and reserves for the extraction of non-timber forest products (PA), forest settlements (ASS) and, together, undesignated public lands and private properties (PL/PP) (Table 12).

Table 7. Forested area (million of ha) and carbon forestry stock (tons) by land category in Brazilian Amazon.

Land Category	Total area (ha)	Area with original forest (ha)	Area with forest in 2008 (ha)	Area without forest (ha)	Deforested area in 2008 (ha)	Carbon stock in the forest in 2008 (t)	Carbon stock in areas without forest (t)	Total of carbon stock (t)	Average density of carbon (t/ha)
P.P. and P.L.	268,376,425	184,336,566	128,845,154	74,644,253	55,491,412	17,330,981,528	2,694,570,642	20,025,552,170	98
IL	101,561,076	88,471,279	87,217,211	12,502,989	1,254,068	12,090,011,243	850,903,364	12,940,914,606	130
PA SU	53,011,489	51,103,145	49,784,935	1,204,782	1,318,210	7,622,713,913	178,747,219	7,801,461,132	153
PA FP	37,304,345	31,233,655	30,820,237	5,547,700	413,418	4,477,771,778	441,152,116	4,918,923,894	135
Settlements	33,291,961	30,019,412	17,096,973	2,839,826	12,922,439	2,317,756,613	190,499,536	2,508,256,149	126
Quilombo	930,204	854,676	768,963	67,592	85,713	138,998,715	6,740,510	145,739,225	174
Overlap between protected areas	6,817,603	5,893,953	5,861,020	900,976	32,933	857,545,268	73,679,370	931,224,638	138
TOTAL	501,293,103	391,912,686	320,394,493	97,708,118	71,518,193	44,835,779,058	4,436,292,757	49,272,071,814	136

Source: Moutinho et al, 2011

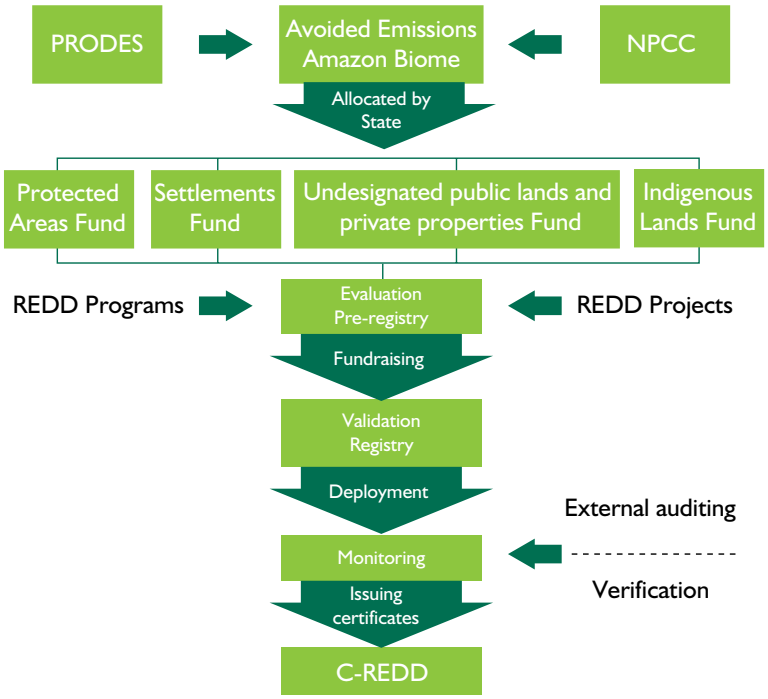
Subtitle:
P.P.: private property
P.L.: undesignated public lands
IL: indigenous lands
PA SU: protected areas (sustainable use)
PA FP: protected areas (full protection)

As in the previous model, the period taken as the baseline for deforestation in the Amazon is 1996 to 2005 (19,533 km^2) for emissions reductions from 2006 to 2010. As set forth in NPCC (Figure 4), this baseline is adjusted (reduced by 42% over the previous period) every five-year period (2011- 2015 and 2016-2020). Also, for each period the corresponding baseline is disaggregated per land category. The contribution to annual reductions in deforestation by a given land category is therefore given by subtracting the deforestation rate given by Prodes for that category from their respective historical deforestation rates. Thus, the annual deforestation prevented by each land category is calculated by subtracting the baseline value from real deforestation (until 2009) or from the target established in the NPCC (i.e. from 2010 onwards). Assuming the targets set in the NPCC are fulfilled, the total emissions prevented by 2020, as in the previous calculation (Model I), come to 2.9 billion tonnes of CO_2.

The second stage of this model is the determination of carbon stocks per land category. The remaining forest carbon stocks should be calculated using Prodes data. To calculate the forest carbon stock for the subsequent periods of reduced deforestation, as specified by the NPCC, this figure is subtracted from real deforestation (until 2020) and from future deforestation (from 2010 onwards), assuming the fulfilment of the national target set in the NPCC by 2020.

The third step is the allocation of C-REDD+s. As already explained, if the NPCC targets are met in full, the volume of prevented emissions comes to 2.9 billion tonnes of CO_2 by 2020. This volume of emissions prevented can then be shared amongst the four funds to be created by the federal government, each of which related to one land category (Figure 12). This allocation is done as a function of the proportional contribution made by each category to

reducing deforestation and conserving forest stocks, because if only one of these criteria is chosen (either reduced flows or increased stocks) this results in discrepancies, as shown in Table 13. A more balanced distribution helps foster a scenario where all the land categories in the Amazon can take part more actively in the national REDD+ system.



Phases of the Project cycle/Program - Model II
Source: Moutinho et al, 2001

Once the credits have been distributed, the volume of emissions allocated to each fund can be converted into C-REDD+s and distributed between different programmes and projects designed for reducing deforestation and conserving forests, grouped by land category. Before this, these projects and programmes should through pre-registration then definitive registration, as explained in Model 1. Figure 12 sums up how Model II would work. An important point is that the funds are created within the federal REDD+ system by a committee or commission made up of representatives from society. However, each fund is managed differently according to the sectors of society (representative entities, social movements, businesspeople, etc.) involved in that land category.

Table 8. Distribution of C-REDDs (million tons of CO_2) among the different land categories according to the emission reduction (flow), conservation of forest stocks, and both criteria combined. The values are calculated for 2006-2020.

Land use	Compensation only for reduction of flows		Compensation only for conservation of forest stocks		Compensation for reduction flows and conservation of forest stocks	
	$MtCO_2$	%	$MtCO_2$	%	$MtCO_2$	%
Indigenous lands	73	3	788	27	431	15
Protected areas	150	5	728	25	439	15
Rural settlements	685	24	149	5	417	14
Undesignated public lands and private properties	1969	68	1212	42	1591	55
TOTAL	2877	100	2877	100	2877	100

Other important points

The models described above are an important starting point for discussions about the consolidation of institutional arrangements and methods for distributing resources from a national REDD+ system. Nonetheless, some points still require careful consideration in order to assure the quality of the REDD+ mechanism. These are set out below and discussed in such a way that we can take forward the debate on REDD+ by resolving the critical points already identified.

Additionality

The negative point concerning additionally is based on the uncertainty that exists about whether reduced deforestation could arise as a result of direct mitigation actions. In many cases, deforestation is reduced as a consequence of falling commodity prices, for instance. However, there is no indication that the deforestation of tropical rainforest will decline significantly in the short term (decades) (Soares et al. 2006), which means that any reduction can be deemed additional. Also, with the recent determination by the Brazilian government to set targets for reductions in deforestation in its PNMC, the issue of additionality can now be parametrized. One can see in advance what will be reduced, taking historical deforestation as the baseline.

Leakage

The argument here is that when deforestation is prevented in one place, it can shift to another where there are no REDD+ activities. There can also be financial leakage, with resources from a fund being either partially or entirely replaced by government funds allocated for controlling deforestation.

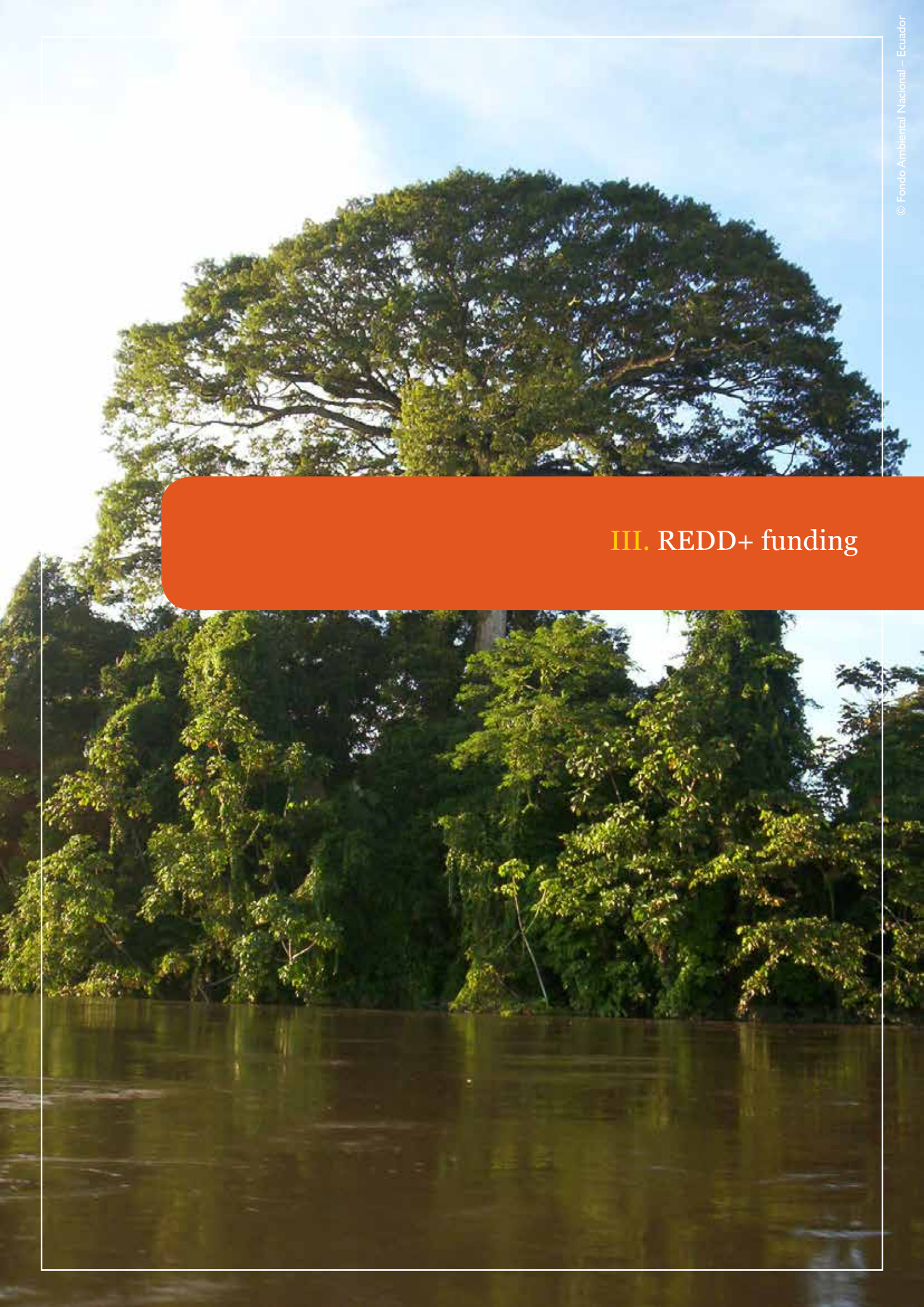
Given that the tendency is for REDD+ to compensate countries, reductions will have to be accounted for nationally or regionally, such as the Amazon, so as to reduce the risk of leakage. The leakage of deforestation from one country to another (e.g. Brazilians who move their illegal logging activities from Brazil to Bolivia) could occur, but the adherence of many countries from the same geographical region (e.g. Amazonian nations) to a mechanism for compensated reduction makes this less likely. Furthermore, unlike CDM projects, deforestation does not "leak" to the energy or transport sectors (Santilli et al. 2005; Schlamadinger et al. 2005). Finally, a few studies (Soares Filho et al. 2010) supply tools for assessing leakage, making use of deforestation simulation models, while the expansion of deforestation monitoring systems to other biomes, such as the *Cerrado* region of Brazil, is also contributing towards controlling the leakage of deforestation. When it comes to financial leakage, there must be a system for monitoring the mechanism to make sure that the resources from REDD+ are added to the resources designated for public policies for fighting deforestation. This is an area where environmental funds could work.

Permanence

The issue of permanence relates to whether the benefits from preventing deforestation in a given region today could be lost in the future if the forest were to be destroyed by a natural disturbance or the predatory action of man. The thinking behind this is that permanence can be assured by a provision whereby participating nations that raise their levels of deforestation (emissions) above their baseline are held accountable for the surplus emitted, and take on this excess as a mandatory reduction target for the future. Further, assuming the existence of carbon credits for REDD+, permanence could be assured by making a kind of "insurance": only a small part of the reduction obtained could be traded, while the rest would be kept as a guarantee of permanence for the credits generated.

Also, as mentioned before, isolated projects are not capable of guaranteeing that a forest will be kept standing in the long term, and this is why it is so important to have federal, state and municipal policies consolidated across the board. Likewise, there is a need for policies that encourage good forest governance, the institutional strengthening of the communities and peoples who live in the forests, policies for technical assistance, and economic development based on products derived from the sustainable management of forest products, associated with targets for reducing deforestation, which jointly contribute towards changing the trends in deforestation and forest degradation, constructing a new low-carbon forest economy in the region. The combination of these policies with a REDD+ regime is certainly a precondition for the permanence of the process.

> **"adherence of many countries from the same geographical region to a mechanism for compensated reduction makes leakage less likely"**



© Fondo Ambiental Nacional – Ecuador

III. REDD+ funding

Most of the financing currently available for activities to reduce or adapt to the climate change outside the scope of the Kyoto Protocol is in the form of funds. Japan, the UK, the US, Norway and Germany have been the primary donors to these funds (Figure 1).

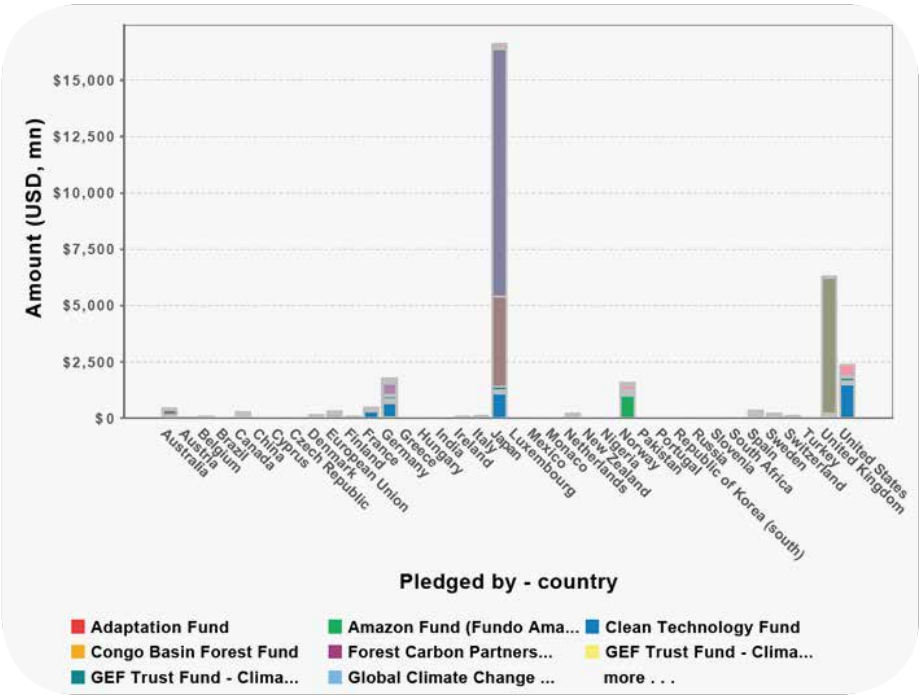


Figure 8 – Pledges of resources to international funds per donor country
Source: http://www.climatefundsupdate.org/graphs-statistics/pledges-by-country

Most of these funds have been used to mitigate climate change (around 80%), especially in projects to develop clean energy and increase energy efficiency. Next in the ranking of use of these resources comes investments in projects for climate change adaptation (around 14%), followed by mitigation projects through REDD mechanisms (around 6%), as shown in the chart below (Figure 9).

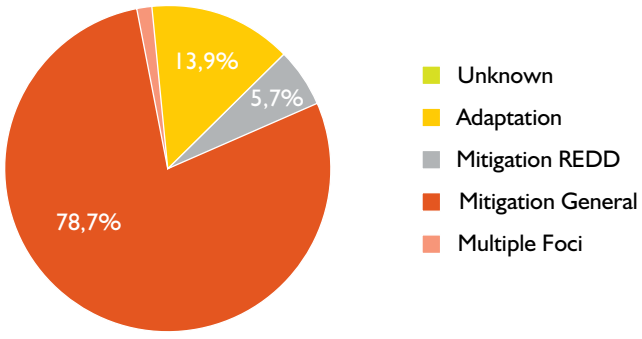


Figure 9 – Focus of approved funding by theme
Source: http://www.climatefundsupdate.org/graphs-statistics/areas-of-focus

Below, we present a brief overview of the eight leading international funds for financing REDD+ activities in tropical countries. The descriptions focus on the origins of the funding, governance, resource management, technical assistance for projects involving communities, the distribution of benefits, , and monitoring and transparency, according to the level of implementation of the fund and the information available.

UN-REDD - The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries3[29]

Description

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD Programme) was created in 2008 to assist developing countries to prepare and implement a REDD+ mechanism. The UN-REDD Programme is formed through the expertise of its three participating UN organizations: the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).

Twenty-nine countries in Africa, Asia-Pacific and Latin America and the Caribbean are partners of UN-REDD global activities. The main activities of the UN-REDD Programme are to support countries to prepare national REDD+ strategies, build monitoring systems, engage stakeholders and assess multiple benefits. The UN-REDD programme also assists countries in the preparation of their public policies and legislations in order to develop a REDD+ programme.

The Programme is working according to UNFCCC decisions and has been strengthening its relations with the World Bank and other initiatives concerning REDD+.

Intermediation of actors and governance

The UN-REDD Programme Policy Board defines the strategic direction of the UN-REDD Programme and decides on financial allocations. It is composed of representatives from partner countries, donors to the Multi-Donor Trust Fund, civil society, indigenous peoples and the three UN agencies (FAO, UNDP and UNEP).

This Programme is a singular one in REDD+ discussion. Since, in the Policy Board of the Programme, civil society is more than a mere observer. Both Indigenous peoples and the civil society have a representative based on a geographical division (three for each developing region: Africa, Asia and Latin America). Civil society also accounts with a Northern representative. In this sense, they also participate in the decisions made by the Board regarding resources allocation, approval of national programmes and guidelines. Decisions under the PB are made by consensus of all PB members.

The UN-REDD Programme Secretariat, based in Geneva, serves the Policy Board, managing the national programme review process. It is in charge of the monitoring and evaluation of the programmes' initiatives.

The UN-REDD Programme is supported by UN Resident Coordinators in their strategic leadership of the UN Country Team and relationships with national authorities. He or she provides ongoing oversight to the programme at the national level, ensuring the UN organizations are fulfilling their functions. The Resident Coordinator is responsible for the reports containing the programme's progress and results. It is important to mention that in this programme, civil society is not only an observer, but also has the competence to participate in the decisions on resource allocation, vetoing it if the national programme was not developed with the participation or consultation of civil society, indigenous peoples and local communities.

Resource management and technical support to projects with local communities

The UN-REDD programme requires that all national REDD+ strategies include guidelines and safeguards that ensure the local communities benefit from REDD+, according to the principles of doing no harm and contributing to improving livelihoods. The Programme promotes actions with countries' governments to involve stakeholders and forest dependent communities in all phases of the programme design and implementation.

Financing mechanisms for distribution of benefits[30]

The UN-REDD Programme is financed by countries' donations. Norway, the largest UN-REDD donor, has contributed US$ 84,406,889,Denmark US$ 8,076,988, Spain US$1, 314,700 and Japan 3,046,138. The UN-REDD Programme is searching for more donors. So far, the approved budget for UN agencies and participant countries is US$ 79,934,068 and transfers sum US$ 54,488, 431.

The administration of the UN-REDD Programme is entrusted to the Multi-Donor Trust Fund (MDTF) Office of UNDP, the administrative agent serving as an interface with donors.

Participating UN organizations (FAO, UNDP and UNEP) are responsible for programmatic and financial accountability for the funds received from the MTDF.

The main institutions that receive funding are national governments, regional development banks and NGOs, which act as executing agencies. The funds are received through participating UN organizations.

Benefits distribution is defined by the national strategy, which varies according to the country. The UN-REDD intends to promote participative processes during the development of the national strategies, through the requirement of consultation with civil society and indigenous peoples, national workshops with stakeholders and National Programme validation meetings.

Monitoring and Transparency

UN-REDD Programme supports the implementation of Measuring and Monitoring Systems in participant countries, according to the measuring, reporting and verification (MRV) concept established by the UNFCCC. These systems combine field inventory data with satellite data to develop greenhouse gas inventories and establish reference emission scenarios. The Programme has partners such as NASA, Brazil's National Institute for Space Research (INPE) and the US Geological Survey to strengthen their technical and institutional capacity for MRV systems. Regarding UN-REDD Programme transparency, the Programme has a website (www.un-redd.org) in which it is possible to follow the decisions of the Policy Board and also subscribe to receive the programme's newsletter. On Part V, three studies case will be given to illustrate some developments under the UN-REDD Programme[31]

[29] http://www.un-redd.org/

[30] http://mdtf.undp.org/factsheet/fund/CCF00

[31] IPAM, which is officially the civil society representative from Latin America and Caribbean region at the Policy Board of the UN-REDD program has created a web site , where people can sign up to share information and post their contributions relate to UN-REDD Programmes established in Latin America. The direct link to the website is: http://un-redd-amlatinaycaribe.ning.com/

> **The UN-REDD programme requires that all national REDD+ strategies include guidelines and safeguards that ensure the local communities benefit from REDD+**

FCPF - The Forest Carbon Partnership Facility[32]

Description

The Forest Carbon Partnership Facility (FCPF), launched in June 2008, is a global partnership that works on the national level demonstrating how REDD+ can be applied in tropical countries, complementing UNFCCC negotiations, demonstrating how REDD+ might be implemented at country and learning the lessons of the initial phase of implementation. The FCPF assists 37 countries with tropical and subtropical forests in the Readiness process for REDD+, developing the systems of financial incentives for REDD+, policies and implementing pilot activities.
The FCPF has a national approach to REDD+ in order to avoid the risk of "leakage" of deforestation and forest degradation within the country and, consequently, of carbon emission reductions. This approach can also include sub-national programmes and projects, since they are linked to the national accounting framework and reference scenario established by countries with the assistance of FCPF.

Intermediation of actors and governance

The FCPF governance structure includes a Participants Committee composed of 28 members elected by the REDD Country Participants and the financial contributors, six Observers nominated by forest-dependent indigenous peoples and other forest dwellers, international organizations, the UNFCCC Secretariat, the UN-REDD Programme, non-governmental organizations and non-contributing private sector entities.
The Committee meetings have the objective of making the main decision for the FCPF and are held three times a year. The Observers can participate in all meetings and have full access to information.
The World Bank is a trustee of the Readiness Fund and the Carbon Fund. Its main functions are providing secretariat services, delivering partners for the FCPF, providing technical support for participant countries and accomplishing due diligence on fiduciary policies and environmental and social safeguards.

Resource management and technical support for projects with local communities

Readiness activities under the FCPF require consultation with civil society and indigenous peoples' organizations during the design and implementation of the national Readiness Plan and REDD Strategy. The FCPF requires governments to establish mechanisms to promote indigenous people and forest dweller participation, capacity building and future financial incentives. In addition, the FCPF supports training activities, workshops, conferences and other initiatives included in a capacity building programme focused on strengthening indigenous peoples' and forest dwellers' understanding of climate change and technical aspects of REDD+. The engagement of forest dependent people in the development of REDD+ is considered valuable as their knowledge about forests can be useful to the design and establishment of national MRV systems.

Financing mechanisms for distribution of benefits

So far USD 217.6 million has been pledged to the Readiness Fund and USD 174.4 million to the Carbon Fund. The funds received by the Readiness Fund sum USD 202.17 million, while the Carbon Fund has received USD 118.4 million[33]

Participation for the construction of public policies (subnational programmes)

The FCPF supports countries in promoting fundamental reforms and investments in the forest sector and other sectors related to the use of forests. In this sense, the FCPF's objective is to design and deliver its support within a framework that is integrated and consistent with the existing national strategy and policies for the forest and agricultural sector. Regarding the participation of stakeholders and right-holders, the FCPF follows the rules and safeguard policies established by the World Bank.

[32] http://www.forestcarbonpartnership.org/fcp/
[33] http://www.climatefundsupdate.org/listing/forest-carbon-partnership-facility

Amazon Fund[34]

Description

The Amazon Fund was created in 2008, after Norway's donation of 700 million Norwegian krones, approximately US$110 million. The fund's objective is to prevent and combat deforestation and to enhance the sustainable use of the Amazon biome. In addition, 20% of the Amazon Fund resources can be assigned to different forest areas in Brazil and to other tropical countries in the Amazon basin.

BNDES, the Brazilian Development Bank, is the agency responsible for managing the Amazon Fund. The fund's resources are voluntary donations, primarily from countries, but they can also come from NGOs, private sector, individuals and multilateral institutions.

There are two donors to the Amazon Fund so far. Norway has pledged a total of approximately US$ 1 billion until 2015, which will be sent through annual donations, and the government of Germany has pledged US$ 30 million through the KfW, Germany's Development Bank. At the present time the fund has a total of 17 approved projects, of which 13 were already contracted.

Intermediation of actors and governance

The main actors involved in the governance of the Amazon Fund are BNDES, the Technical Committee (CTFA) and the Guidance Committee of the Amazon Fund (COFA).

BNDES manages the fund, verifies the documentation of the proponents and approves the projects according to the guidelines and criteria of the Amazon Fund, which are defined by the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM), Sustainable Amazon Plan (PAS), COFA Guidelines and Criteria and BNDES Operational Policies for the Amazon Fund.

The technical committee is composed of 6 experts in Science and Technology, appointed by the Ministry of Environment. It is responsible for validate the methodology for fundraising. The CTFA´s report shall determine the quantity of reduced emissions and authorize BNDES to raise the corresponding funds and issue diplomas.

COFA is in charge of approving information regarding the application of resources, defining the guidelines and approving the annual report written by BNDES. This committee is composed of nine representatives from the federal government (including BNDES and ministries), nine representatives from Amazon state governments and six representatives from civil society organizations, including indigenous peoples, scholars and industrialists. Resolutions are approved by consensus and each of the four categories has one vote (each member is entitled to one vote within the four categories).

Resource management and technical support for projects with local communities

Disbursements of the Amazon Fund are not reimbursable and do not generate carbon credits for compensation of donor countries' or companies' carbon emissions.

The fund provides resources for projects related to monitoring deforestation, recovering forest areas, reducing deforestation and forest degradation, promoting conservation and sustainable management of the Amazon forest.

Funds are approved according to the rules, conditions, guidelines and criteria established within the Amazon Fund by the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM), Sustainable Amazon Plan (PAS), COFA Guidelines and Criteria and BNDES Operational Policies for the Amazon Fund.

In addition, the disbursements by the Norwegian government and the KfW are made at BNDES's request, according to the Fund's financial needs and the amount of reduced carbon emissions originated from deforestation that are attested by the Amazon Fund's Technical Committee (CTFA), which is composed of recognized scientists in the field of climate change.

BNDES is in charge of analyzing, approving, contracting, supervising and monitoring projects. For every contribution to the Amazon Fund, BNDES issues a certificate, identifying the donator and the amount of its contribution to the effort to reduce carbon dioxide emissions. The effectiveness of reducing emissions caused by deforestation, which defines the amount to be received each year by the Amazon Fund, is attested by the CTFA.

Monitoring and Transparency

BNDES supervises, monitors and renders the Fund's accounts. The bank is responsible for providing information on the activities of the Amazon Fund on the Fund's official website and for publishing an annual report of activities. In addition to the official website of the Amazon Fund, Instituto Socioambiental (ISA), an NGO that is an observer at COFA, has created a social network to monitor the Amazon Fund: http://deolhonofundoamazonia.ning.com/

[34] http://www.fundoamazonia.gov.br

FIP - The Forest Investment Program[35]

Description

The Forest Investment Program (FIP) is a targeted program of the Strategic Climate Fund, one of two funds within the framework of the Climate Investment Funds. The FIP supports developing countries' efforts to reduce deforestation and forest degradation and promotes sustainable forest management that leads to emission reductions and the protection of carbon reservoirs. It is an implemented joint partnership of the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank and the World Bank Group. The investment strategies of FIP are country-level and part of the amount can be received as grants, while the other part is transferred to pilot countries in the form of concessional loans.

By May 2011 FIP had received pledges of USD 578 million. Of this total, USD 405 million was pledged as grant resources and $173 million as concessional finance. Regarding the deposits, a total of USD 262 million had been deposited by May 2011:[36]

Pre-financing the project

A preparation grant of up to USD 250,000 for the development of the Investment Strategy may be made available to the country for additional work if it is required to develop or complete the Investment Strategy, including stakeholder consultations and planning sessions.

Intermediation of actors and governance

The decisions about operations and activities of the FIP are made by the FIP Sub-Committee, which is composed by six representatives from contributor countries to the FIP (Australia, Denmark, Japan, Norway, United Kingdom, United States) and six representatives from recipient countries selected on a regional basis (Brazil, Democratic Republic of Congo, Indonesia, Morocco, Nepal, Romania). Decisions are made by consensus and the members serve one-year terms.

Active observers for the FIP Sub-Committee include FCPF secretariat representatives, the Global Environment Facility, UNFCCC and the UN-REDD technical secretariat; and six representatives to be identified through an open and inclusive self-selection process: two from civil society, two from indigenous peoples, and two from the private sector. As such, the representatives from civil society participate in all the meetings and have the power to veto some decisions.

Resource management and technical support for projects with local communities

The FIP has a dedicated grant mechanism to provide grants to indigenous peoples and local communities in pilots to support their participation in the development of FIP investment strategies, programs and projects. Grants for indigenous peoples and local communities should be an integral component of each pilot and linked to the Forest Investment Strategy. The total amount of these grants is estimated at USD 70 million.

A sub-committee with representatives from indigenous peoples and local communities has been formed and is now working on the scope of activities under this fund and on the procedural rules for the distribution of grants.

Financing mechanisms for distribution of benefits

In order to distribute funds, the FIP Sub-Committee considers the country's forest and climate related goals and if the Investment Strategy supports those goals. The FIP investment criteria that must be considered by the FIP Sub-Committee include:

(a) Climate change mitigation potential
(b) Demonstration potential at scale
(c) Cost-effectiveness
(d) Implementation potential
(e) Integrating sustainable development (co-benefits)
(f) Safeguards

(see FIP/SC.3/4 Investment Criteria and Financing Modalities for further information)

Creation of project registry

Pilot countries under FIP are now starting to prepare their investment strategies, so thus far no projects have been registered under FIP.

Risk Analysis and securitization

An assessment of the implementation potential of the alternative GHG emission reduction options in the Investment Strategy should be considered. This would include an analysis of the technical and management capacities of the executing agencies or project sponsors/entities as well as their financial health.

The Investment Strategy should include an initial description of potential risks that might affect the implementation of proposed investments including: country and sub-national level risks; sector policies and institutions; technology, governance, environmental, and social risks.

Monitoring and Transparency

A multi-stakeholder steering committee at the national level is responsible for assisting in program monitoring and evaluation. Such committee should be led by the government and include members of indigenous peoples, local communities, NGOs, private sector and provincial, state and local authorities.

The Committee should receive progress and evaluation reports, provide adaptive management advice and report back on implementation progress of the Investment Strategy. The monitoring of the Investment Strategy should be transparent, measurable, reportable, and verifiable (MRV). The pilot countries are responsible to report on an annual basis on their progress in implementing the Investment Strategy through projects and programs. The report should be approved by the multi-stakeholder national-level steering committee, submitted to the FIP Sub-Committee for review and posted on the CIF website.

Participation for the construction of public policies (subnational mitigation)

It is under FIP criteria that the Investment Strategy is prepared in conjunction with civil society. The process must be fully participative, taking in consideration the suggestions of civil society.

[35] Fip: Investment Criteria and Financing Modalities, Climate Investment Funds, June 29, 2010.
[36] http://www.climatefundsupdate.org/listing/forest-investment-program#TOC-Fund-Governance

> **A key objective is to integrate REDD into planning and governance at the province, district and community levels**

KFCP - Kalimantan Forests and Climate Partnership[37]

Description

Australia and Indonesia are currently working on a demonstration activity in the carbon rich peatland forests of Central Kalimantan – the Kalimantan Forests and Climate Partnership (KFCP). This Partnership is the first large-scale demonstration activity of its kind in Indonesia. It trials an innovative, market-oriented approach to financing and implementing measures to reduce emissions from deforestation and forest degradation in Central Kalimantan, Indonesia.

Intermediation of actors and governance

The partnership builds on the current bilateral cooperation between Indonesia and Australia to reduce greenhouse gas emissions associated with deforestation in Indonesia. This cooperation includes substantial support for the Government of Indonesia's inter-agency working group on Reducing Emissions from Deforestation and Degradation in Indonesia (REDDI).

As part of this demonstration activity, approaches to the management of practical REDD activities are being developed. A key objective is to integrate REDD into planning and governance at the province, district and community levels by building technical capacity and supporting the development of management institutions and legal frameworks. Relevant national, district and provincial authorities are closely involved in this process to ensure full compliance and the successful integration of activities. Consultation with key stakeholders, including forest-dependent communities, is central to this process.

Resource management and technical support for projects with local communities

An innovative payment mechanism is being designed to provide performance-based incentives for REDD to forest-dependent communities in Central Kalimantan, encouraging sustainable land use practices and the conservation of forests. The scheme aims to trial approaches to payments that could be used to support participation in a future REDD mechanism under the UNFCCC. Incentives will initially be tied to performance indicators, such as a reduced incidence of fire, and later to measured reductions in greenhouse gas emissions.

Financing mechanisms for distribution of benefits

Australia has committed $30 million to establish the KFCP.

Climate Fund – National Fund for Climate Change[38]

Description

The National Fund for Climate Change (Fundo Clima) is an instrument created in December 2009 by the Brazilian government to support the financing of activities undertaken within the ambit of the National Climate Change Policy, established by Law 12,187 on December 29, 2009. Its purpose is to provide financing for projects, initiatives and studies geared towards the mitigation of climate change, including efforts to combat deforestation in Brazilian biomes, and climate change adaptation measures.

Intermediation of actors and governance

The Climate Fund is managed under the auspices of the Ministry of the Environment by a Management Committee chaired by the Executive Secretary of the Ministry of the Environment.

Resource management and technical support for projects with local communities

The fund's resources can be allocated in the form of grants or loans. BNDES, the Brazilian Development Bank, is the financing agent of the Climate Fund.

Initially the fund was designed to receive and allocate profits from the oil & gas industry, considered one of the top emitters of greenhouse gases. In effect, the fund can have up to 60% in the form of special participation of the Ministry of the Environment in resources from oil production[39] but alongside this, the fund also receives resources from the federal budget and can receive donations from public or private institutions, both Brazilian and foreign.

Financing mechanisms for distribution of benefits

The Climate Fund can be used for the following activities:

- Education, capacity building, training and readiness for climate change;
- Impact and vulnerability analyses;
- Climate change adaptation and mitigation, including REDD+;
- Development of technologies for mitigating greenhouse gas (GHG) emissions;
- Public policymaking for addressing problems related to climate change and GHG emissions;
- Preparation of GHG emission inventories;
- Recovery of degraded areas;
- Activities for transitioning to low-carbon agriculture.

[37] http://www.ausaid.gov.au/hottopics/pdf/KFCP_factsheet_3_11Dec09.pdf
[38] http://www.climatechange.gov.au
[39] http://www.mma.gov.br/sitio/index.php?ido=conteudo.monta&idEstrutura=251

The table below gives a number of guidelines for the investment of international funds. These guidelines should be taken into account when choosing what projects to support, and should serve as a basis for the development of monitoring mechanisms for the REDD+ initiatives supported.

Recommendations concerning the investment of existing public resources in building a national REDD strategy and programme	
Where to invest REDD resources?	
National REDD strategy and programme	In order to build a national REDD strategy, and a resulting national REDD programme, investments should support: (a) a process of public consultation; (2) execution of political analyses; and (3) creation of the institutional framework necessary to maintain the programme. Further, (4) investments should be made in improving systems for monitoring emissions from deforestation.
State / Subnational REDD Programmes	Investing in aligning state REDD programmes should be a priority in order to achieve regional consensus, providing political and technical support to a national REDD programme.
Investments from the private sector	The investment of public resources in REDD should produce the means for future private investments in REDD activities on a national and subnational (state / municipal) level to be encouraged. This will be crucial for investors to trust REDD programmes, not just individual projects. For instance, public funding of REDD could reduce the risk for private investors, creating a safeguard against the poor performance of a REDD activity. This kind of public-private partnership would give private investors the right to a portion of the future REDD credits to be distributed. Also, the public resources existing should support the development of policies and institutional capabilities so that REDD activities, through means of subnational and national programmes, can connect up with the regulated carbon markets currently in development.
Low-carbon rural development	Public investments should be made in building systems designed for compensating farmers for good farming practice and the prevention of deforestation in their lands, through certification mechanisms. The criteria for certification should include the prohibition of production in recently deforested lands. Such certification systems are hampered by the high cost of their implementation and fulfilment by farmers. They should therefore be incentivized in the short term.
Indigenous peoples and traditional communities	Public investments may promote the institutional and political reforms needed to supply systemic and lasting improvements for forest-dependent people. Production and investment programmes designed to improve the quality of life of these people, and the protection of their lands, are crucial for assuring the maintenance of a large part of carbon stocks. Uncomplicated financing is needed to support the capacity building of these people to address the effects of climate change effectively and to create their own adaptation programmes.
Organized Society	Existing financing should help create, sustain and reinforce non-governmental organizations and associations representing social movements on a local and national level that can help with innovative, objective, technically competent contributions and can legitimize public consultation and society participation processes in discussions for a national REDD programme. Such support should also contribute towards strengthening the emerging networks in different jurisdictions designed to enable different agents to connect in a coordinated manner in the construction of REDD activities.

Source: Moutinho *et al*, 2011.

Case Studies
Government initiatives for forest conservation in the Brazilian state of Acre

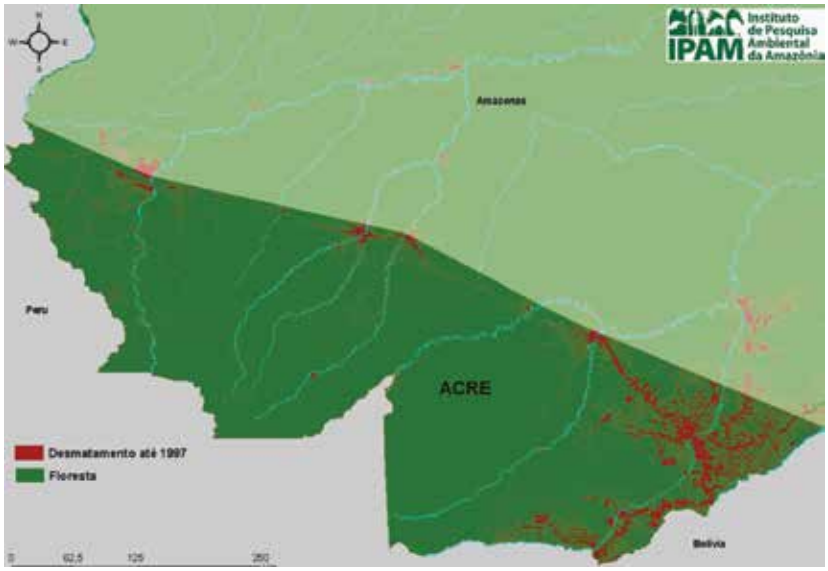
1 - Background information on the state of Acre:

Acre has gained prominence for its pioneering initiatives of a social and environmental nature created with the participation of civil society and aligned with national policies and programmes designed to reduce deforestation.

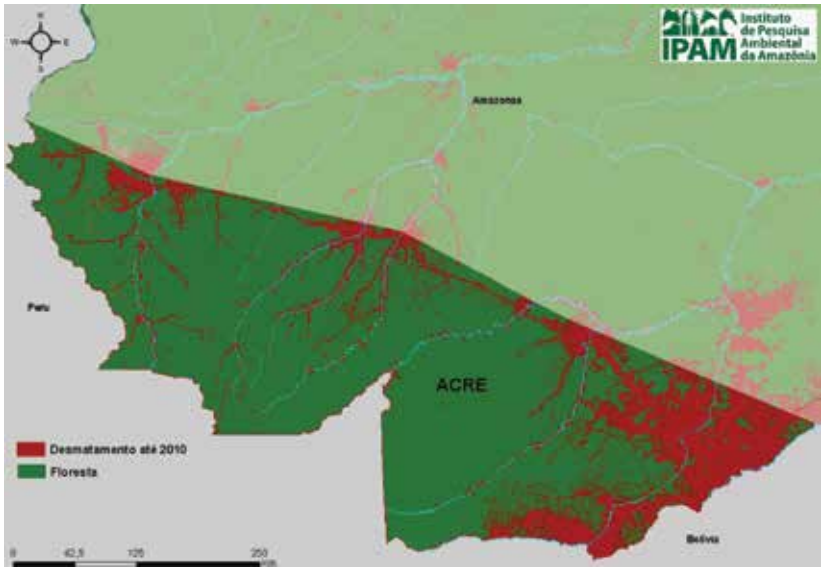
Acre is in the south-west corner of the North region of Brazil and covers around 164,000 km². It contains 22 municipalities and is bordered by two Brazilian states (Amazonas and Rondônia), Bolivia and Peru. Based on an analysis by IPAM using data from INPE (2010), the area of forested land in Acre sums 143,694 km², making it one of the best preserved states in the country. However, there are already signs of increased deforestation in the state.

According to the INCRA Land Atlas (Atlas Fundiário do INCRA, 2008), the area dedicated to crops and pasture in the state rose from around 590,000 ha to approximately 1,210,000 ha between 1996 and 2006. The area of pasture land in the state rose by 58% in this period. Another factor behind the increased deforestation has been the establishment of land reform projects in the state, which, according data from IMAC (Instituto de Meio Ambiente do Acre), account for 37% of the deforestation seen in 2008. In Acre, projects for traditional settlements are no longer created, only settlements for different purposes: forest settlement projects, sustainable settlement projects, and "extractivist" settlement projects (for communities that extract non-timber forest products) (Acre, 2009).

Another factor that affects deforestation in Acre is the surfacing of two highways, BR-364 and Estrada Inter-Oceânica, the latter connects Acre (Brazil) to Pacific Ocean ports in Peru. To prevent further deforestation along these roads, a sustainable land management and organization model must be created.



Deforestation in Acre until 1997 (INPE, 2010; Produced by IPAM)



Deforestation in Acre until 2010 (INPE, 2010; Produced by IPAM)

To address this situation, the Acre government has created a few mechanisms designed to conciliate the economic development of the state with the conservation of the natural resources and environmental services provided by its ecosystems.

2- Description of actions undertaken:

In recent years, Acre has developed four lines of action to reduce deforestation:

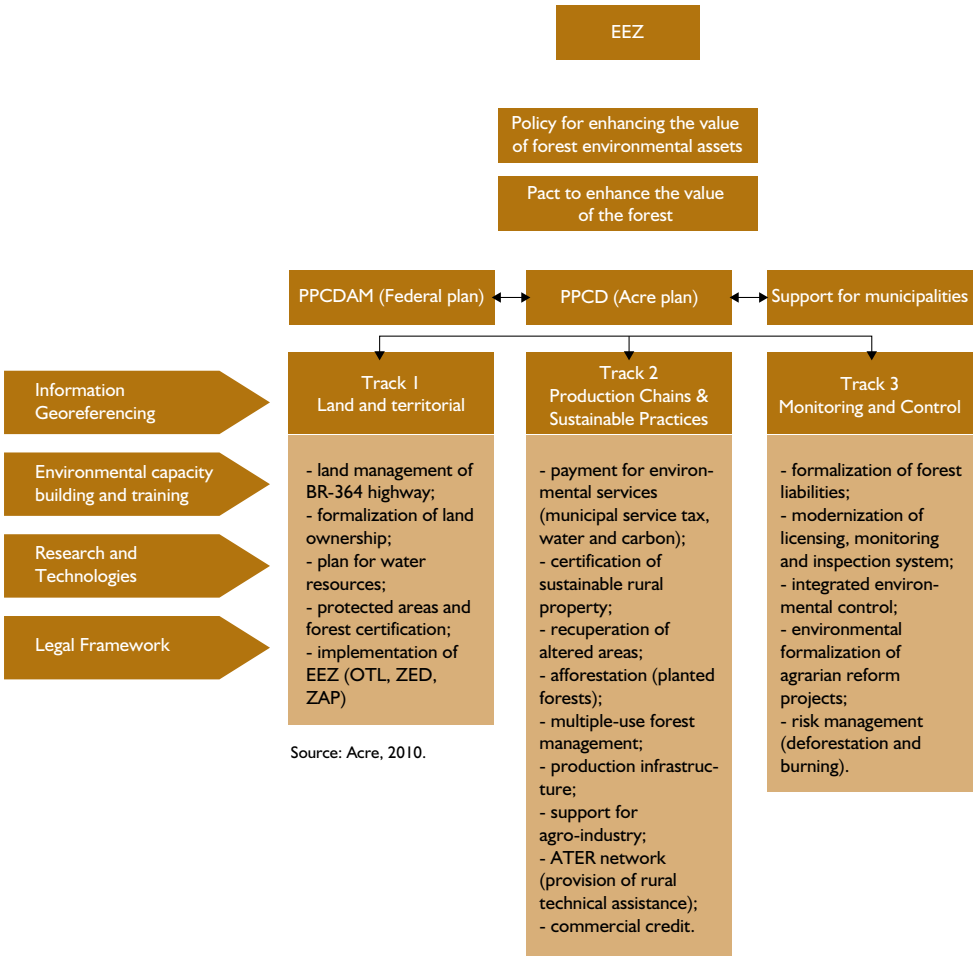
a) State plan for the prevention and control of deforestation (PPCD/Acre):

The aim of the state plan for the prevention and control of deforestation is to "assure significant, consistent, lasting reductions in rates of deforestation in the state of Acre by building the capacities of the government and society in environmental management and consolidating a clean, fair, competitive economy that is strongly rooted in the forest," (Acre, 2009).

With this plan, the state undertakes to reduce deforestation by 75% between 2009 and 2018. This means a reduction of 14 million tonnes of CO_2[40](Acre, 2010).

[40] Taking the historical average annual deforestation rate of 58,300 ha from 1996-2005 and an average CO_2 stock of 366 tonnes per hectare resulting in average historical emissions of 21,358,258 tonnes of CO_2 a year, a 75% reduction in emissions over a ten-year period (2008 to 2017) would result in a reduction of 16 million tonnes of CO_2, with a linear reduction of 4.8 million tonnes of CO_2e (Acre, 2010).

The PPCD/Acre action strategy of can be seen graphically in the figure below:



Source: Acre, 2010.

b) State system of incentives for environmental services (SISA):

SISA was introduced by Law 2,308 of October 22, 2010. It is based on a number of principles, criteria and instruments geared towards enhancing the economic value attributed to environmental preservation. It is the state's system of payments for environmental services.

As set forth in the law, the main aim of SISA is to support the maintenance and expansion of supply of ecosystem services and products, namely:

i. sequestration, conservation, maintenance and increase of carbon stocks and reduction of carbon flows;
ii. conservation of the natural beauty of the landscape;
iii. conservation of sociobiodiversity;
iv. conservation of waters and water services;
v. regulation of the climate;
vi. enhancement of the cultural value and traditional knowledge of ecosystems;
vii. conservation and improvement of the land.

c) Programme of Incentives for Environmental Services (ISA Carbono):

ISA Carbono, in conjunction with SISA, is designed to compensate actions that enable REDD+. These may relate to monitoring forest cover, measuring reductions in carbon dioxide emissions from deforestation and forest degradation against a baseline, verifying and reporting these emissions to the relevant national and international authorities, maintaining and adding to carbon stocks through forest conservation, forest management and afforestation, and assuring the permanence of emission reductions and/or the maintenance of carbon stocks (Neves, 2010).

The overall goal is therefore to bring about a reduction in emissions of greenhouse gases from deforestation and forest degradation in line with the voluntary target set in Acre's State Plan for the Prevention and Control of Deforestation (reduction of 75% or 14 million tonnes of CO_2e).

d) Memorandum of Understanding (MoU) between Acre (Brazil), California (USA) and Chiapas (Mexico):

Another important action involving Acre was the signing of a Memorandum of Understanding between the governments of California (USA), Chiapas (Mexico) and Acre (Brazil). This working group convened in December 2010, with its first set of recommendations proposed for October 2011.

The MoU concerns discussions about the basis for a possible credit trade agreement based on initiatives for the Reduction of Emissions from Deforestation and Forest Degradation (REDD). The idea is to generate carbon credits from reforestation, afforestation and forest management projects in Acre and Chiapas and sell them to California as part of a system of compensated greenhouse gas emissions.

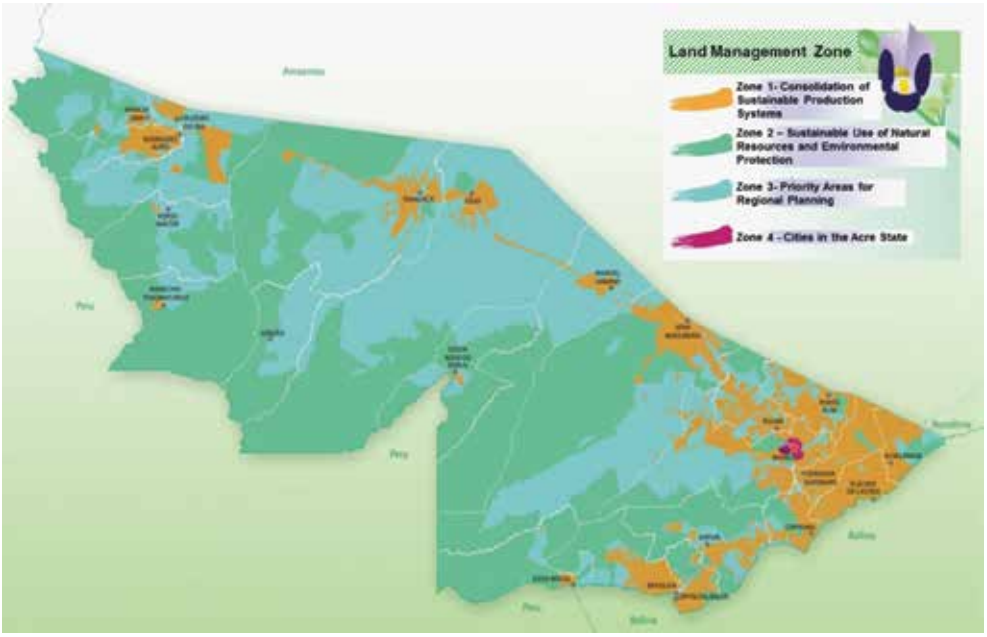
A subnational REDD working group was set up as a result of this MoU. It will draft recommendations for cap-and-trade programmes between California and countries that have REDD credits.

For further information on PPCD/Acre, SISA, ISA-Carbono and the Memorandum of Understanding, access: http://www.ipam.org.br/biblioteca/livro/id/232,

3- What has been done so far?

All four actions described above were developed by the last Acre state administration (2010). Although the government transition after the 2010 elections, the current government is taking them forward with success.

As all the initiatives are recent, no activities have yet got off the drawing board, such as the monitoring of areas, measuring of carbon stocks, etc. However, the Acre government is in constant talks with the international community and has constructed this whole new strategy in a participative format with civil society. The ecological economic zone (EEZ), for instance, was created with the participation of civil society:



Source: Acre, 2010 (presentation at COP-16)

Among its ongoing activities, as part of its investments in technical resources to fight deforestation, the state government has created the Scientific Committee of Acre, in which one of the members is IPAM. The committee's objective is to provide technical assistance and support to actions undertaken within the ambit of deforestation reduction in the state.

It has also created the Agency for the Development of Environmental Services, which is a company of mixed private/public ownership with a market orientation, which is responsible for making projects that use the system to attain the social and environmental goals that inform SISA economically feasible. The agency has engaged in talks with the international community and kept on par with the discussions in the ambit of the GCF (Governors' Climate and Forests Task Force[41]), such as the negotiations resulting from the MOU with California and Chiapas. As such, it is fair to say that Acre has achieved positive results through the increased participation of the public authorities and civil society in the fight against deforestation in the state.

[41] http://www.gcftaskforce.org/

Case Studies
The UN-REDD Programme: cases of support to developing countries

1- Context:

As described in part III, the United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD Program[42]) was created in 2008 to assist developing countries to prepare and implement a REDD+ mechanism. The UN-REDD Program is formed through the expertise of its three participating UN organizations: the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Program (UNDP) and the United Nations Environment Program (UNEP).

Below three examples of national programmes under the UN-REDD Program will be presented in order to provide a different perspective of how the same Programme can focus different activities, adaptation to the needs of each region:

Vietnam:

The UN-REDD Vietnam Program seeks to address deforestation and forest degradation through capacity building at national and local levels. Firstly, it will build capacity at the national level to permit the Government of Vietnam, and especially the REDD focal point in the Department of Forestry (DoF) of the Ministry of Agriculture and Rural Development (MARD), to coordinate and manage the process of establishing tools to implement a REDD program. Secondly, it will build capacity at local levels (provincial, district and commune) through pilots in two districts in Lam Dong province that demonstrate effective approaches to planning and implementing measures to reduce emissions from deforestation and forest degradation. Regional displacement of emissions is known to be a significant problem in the lower Mekong Basin. If REDD is to be implemented effectively so as to reduce emissions from deforestation and forest degradation within the Lower Mekong Basin, as a contribution to global efforts in this regard, there will be a need for coordinated regional action.

The project duration is estimated to be concluded in 20 months and it will spend about USD 4,5000,000.

[42] http://www.un-redd.org/

Ecuador:

In order to reverse forest loss, the Government of Ecuador (GoE) has made reducing the deforestation rate a priority of the National Plan for Good Living (2009-2013). To achieve this goal, the Ministry of Environment is implementing a series of initiatives to reduce deforestation in the country as part of good governance of forest resources and to simultaneously contribute to climate change mitigation by reducing GHG emissions related to this activity.

By the financial support of the UN-REDD Program, a budget of USD 4,000,000 allocations, the Government of Ecuador elaborated a project which intends to allow Ecuador to complete the readiness stage for the implementation of the REDD+ mechanism at the national level with involvement of all relevant institutions and stakeholders by 2013. The main outcomes expected from Ecuador National Joint Programme are:

- Outcome 1: National System of Forest Information designed and implemented
- Outcome 2: Process of consultation and involvement of the civil society, communities, indigenous populations and nationalities, afro-Ecuadorean population, montubio population and communes for the implementation of REDD+ at national level
- Outcome 3: Developed policies and instruments for the implementation of REDD+
- Outcome 4: Development of the operational framework needed for the implementation of the REDD+ mechanism
- Outcome 5: Multiple social and environmental benefits
- Outcome 6: Design and implementation of the benefit distribution system

Source: National Programme Document - Ecuador UN-REDD Programme Sixth Policy Board Meeting, 21-22 March 2011, Da Lat, Viet Nam.

Democratic Republic of the Congo

The Democratic Republic of Congo is the second largest country with tropical forest in the world. It has 145 million hectares of forest. The DRC is considered one of the world's least developed countries, with high levels of extreme poverty. DRC's economy is mainly based on subsistence agriculture and extraction of natural resources. In spite of its low deforestation rates (0.25%), the DRC is among the top ten countries that are losing the most significant surfaces of forest cover in the world per year.

Agriculture is the main cause of deforestation in the county together with fuel-wood, which represents more than 90% of the energy consumption in DRC. Forestry and mining are also important drivers of deforestation in this country . The following eight provinces are the most populated areas and have the highest risk of deforestation: Equateur, Bandundu , Maniema, Orientale province, Occidental Kasai, Oriental Kasai, Sud-Kivu and Nord-Kivu.

The DRC commitment to the REDD+ process since 2009 has made the country one of the most advanced countries on REDD+. The country shares its experiences and contributes to coordination among regional programs

with Central African Forests Commission (COMIFAC) partners. A high level of collaboration and coordination has been established with the international partner institutions for the REDD+ process, particularly the UN-REDD Programme and the FCPF. DRC has become one of the greatest examples of a country receiving support of three different sources funds (UN-REDD, FCPF and FIP) by the same time and using the same basis for the readiness phase. Those three Programs use R-PP as a starting point to provide funding for different activities.

During 2009, the UN-REDD Programme has made its first allocation of US$ 1.88 million (phase 1, 2009-2010), together with a FCPF grant of US$ 0.2 million, in order to start and structure a national REDD+ process.

This REDD+ process involves a continuous dialogue and cooperation among stakeholders in REDD+, and is taking place under the leadership of the Ministry for the Environment (MECNT). On November 26th, 2009 a REDD Decree was signed by the Prime Minister and has formalized the national REDD process, creating key REDD institutions: a National Coordination for REDD (CN-REDD), which is already functional and active, and two steering committees (a National REDD Committee and an Inter-ministerial Committee), which are being established.

A considerable number of organizations from the civil society and representatives of forest people have organized themselves into the Working Group on Climate-REDD (GTCR), an important partner of the REDD process in the DRC, responsible for creating and sustaining a REDD dialogue across the national, provincial and local levels.

The DRC has finished its REDD Readiness Plan (R-PP), for 2010-2012, which also receives UN-REDD's financial support. The R-PP represents the national roadmap for REDD readiness. During its elaboration, both the UN-REDD Programme and FCPF cooperated closely and, due to this fact and to their habit of conducting joint missions in the DRC (4 joint missions in about one year), they will employ the same national R-PP document to mobilize their respective funding.

Regarding the UN-REDD Programme participation, the REDD+ readiness process is conducted and supported by the three UN-REDD agencies, together with other international stakeholders, notably the World Bank and key international NGOs that are active in the REDD domain, such as Rainforest Foundation and WWF.

The DRC Government is the primary responsible for implementing the R-PP, including the UN-REDD funding segment, through the National REDD Coordination (CN-REDD) or other national bodies. FAO, PNUD and PNUMA are technical and financial partners and work according to UN rules and procedures to guarantee DRC's ownership and decision-making during the program's implementation.

The management of funds has to be done in a consisted manner among the three UN-REDD agencies, in accordance with to the UN's Harmonised Approach to Cash Transfers (HACT). The UN-REDD National Programme Document establishes that "Funds will be disbursed in full agreement and accordance with work plans, terms of reference and other operational elements prepared by the CN-REDD or as endorsed by Government"[43].

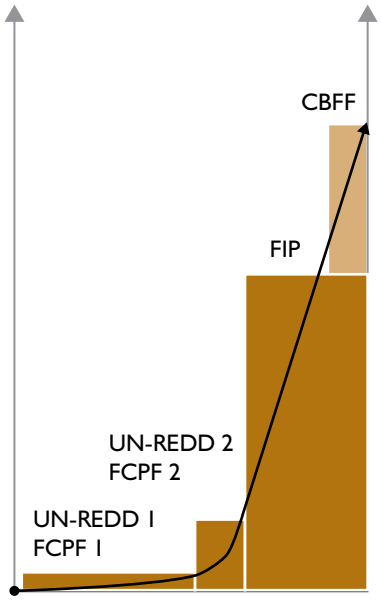
The UN-REDD chief technical advisor (CTA) who works in the country with the National REDD Coordination and with the Government structures is in charge of ensuring due compliance with UN requirements. The imple-

[41] UN_REDD PB 4 National Programme Document. Pg. 11

> **In order to reverse forest loss, the Government of Ecuador has made reducing the deforestation rate a priority of the National Plan for Good Living**

mentation of the UN-REDD funds is supervised by the UN Resident Coordinator, in the strategic direction of the UN Country Team and to ensure that UN organizations are complying with their obligations.[44]

The UN-REDD Policy Board has approved a budget of US$ 1.8 million to the first phase (2009-2010) and US$5.5 million to the second phase of DRC (2010-2013). The total amount received by DRC from UN-REDD is US$ 7,383,200,[45]. These funds are planned to be completed by the FCPF, FIP and by the Congo Basin Forest Fund (CBFF).



Financing Evolution
Sources : UN_REDD PB 4 National Programme Document; R-PP V 3 English July 2010 and
Inventing REDD+ Brochure DRC – December 2010.

[44] UN_REDD PB 4 National Programme Document. Pg. 11
[45] http://mdtf.undp.org/factsheet/fund/CCF00

Case Studies

Capacity building of Colombian communities for Payment for Environmental Services, climate change and REDD+

1. Country Context

Colombia has a continental area of 1,141,748 km² (114,174,800 hectares), of which the total natural forest coverage is 61,246,659 hectares, i.e., 53.64% of the country's continental surface. The departments of Amazonas, Caquetá, Guainía, Guaviare, and Vaupés have the largest natural forest area in the country, with a total of 35,184,675 hectares. According to the following table, yearly average deforestation reaches a little more than 336,000 hectares/year.

Range of deforested areas and yearly average deforestation, 2000–07*

Region	Total Deforestation 2000–07 period (ha)			Yearly Average Deforestation (ha /yr)		
	Lower	Average	Higher	Lower	Average	Higher
Andes	462.902	578.627	694.352	66.129	82.661	99.193
Pacifico	376.718	470.897	565.076	53.774	67.217	80.660
Oninoquia	204.394	255.493	306.592	29.199	36.499	43.799
Amazonia	585.088	731.360	877.632	83.584	104.480	125.376
Caribe	256.054	320.068	384.082	36.579	45.724	54.869
Total	1.885.156	2.356.445	2.827.734	269.265	366.581	403.897

* Preliminary figures subject to validation with high-resolution remote sensing data or field data.

This is due to seven main causes or drivers of deforestation, namely:

- Pushing back the farming and ranching frontier;
- Crops for illicit uses;
- Population settlement / displacement;
- Infrastructure;

- Mining;
- Extracting wood for sale or self-consumption (including both legal and illegal extraction); and
- Forest fires.

Public policies for forests are framed by the Forest Policy (Ministry of Environment and National Planning Department, 1996), approved through document CONPES 2834 of 1996. Its purpose is to achieve sustainable forest use, enable their conservation, consolidate the forest sector's integration into the national economy, and enhance the people's quality of life. The R-PP that is currently being prepared proposes a national REDD+ strategy, institutional arrangements, and other policy elements.

Colombia now has some 12 demonstrative projects in the initial design and implementation stages:

- REDD Amazon Project: This project covers a total of 14.6 million hectares and includes the four types of REDD+ activities: preventing deforestation and forest degradation, capturing carbon by forest regeneration, and conservation.
- Project to implement the enhanced natural forest management strategy in the community council of *Con Costa*: Area – 73,033 ha, No. villages – 18, No. families – 829, No. Individuals – 4743.
- Project to implement the enhanced natural forest management strategy in the community council of Cajambre. Project to implement the enhanced natural forest management strategy in the community council of Cajambre.
- Project to implement the enhanced natural forest management strategy in the community council of *Bajo Mira*: Area – 46,482 ha, No. villages – 42, No. families – 1240, No. individuals – 6271.
- Project to implement the enhanced natural forest management strategy in the town council of Chigorodó: Area – 9,000 ha.
- Technical coaching for the "Corazón del mundo" family forest ranger program in *Sierra Nevada of Santa Marta*, benefitting 1,727 campesino families.
- Incorporating biodiversity conservation by preventing / reducing deforestation in Colombia's Andean–Amazon piedmont. Designing the Project Development Document (PDD).
- REDD project in the San Nicolas forests. REDD project in the San Nicolas forests.
- REDD project in the rural parishes of Pedreras and Tarapacá in the Colombian Amazon region. Area of 649,834 ha, involving the indigenous community groups of Yucuna, Matapí y Miraña. Conservation International, *Corporación Ecoversa, Corpoamazonia*.
- Participatory land use planning, livelihood enhancement & forest conservation in the Macizo Colombiano. 73,183 ha, calculating 80 to 150 tCO_2 /year for 20 years. ONF International and CAM.
- REDD as a funding mechanism for implementing a conservation strategy. 600,000 ha, which cover 19 municipalities in Cundinamarca and one in Meta. Conservation International, *Corporación Ecoversa*, the Provincial Government of Cundinamarca, *Corpoguavio*, and CAR.

2. Describing the project/action in which the Environmental Fund is involved

The project seeks to design and implement a capacity-building program for local community organizations on the thematic areas of environmental services, climate change and reducing emissions from deforestation and forest degradation plus (REDD+). The purpose for this program was to facilitate skill and competency building among these stakeholders, persons and institutions, in order to evaluate initiatives in these areas and successfully establish future local experiences that will:

1. Contribute to biodiversity conservation;
2. Help preserve the related ecosystem services; and
3. Contribute to local or regional economic development.

In order to meet this goal, three REDD+ related outcomes were proposed:

1. Communities, environmental authorities and regional universities are informed of the existence, characteristics and progress of PSE/REDD strategies.
2. Local community members, environmental authorities and regional universities understand the basics of PSE/REDD and are able to convey them to their communities, colleagues, and students.
3. Communities are prepared to take action to develop a REDD – local project. Two courses were implemented with indigenous communities in the Colombian Amazon region with the attendance of more than 40


© Horácio Fernandes

leaders, one high-level course attended by over 100 representatives, and one certificate course for practitioners in alliance with the *Universidad Militar Nueva Granada*. In addition, procedures were put into place to replicate these courses with communities. Accordingly, nine replication courses were held with indigenous communities in Putumayo and Amazonas, where over 300 persons participated.

An internship was also designed and implemented for indigenous leaders in Bogota, with the attendance of 5 indigenous leaders who had been identified during the courses.

Based on this project, the hope is to build alliances with communities and other organizations to develop concrete REDD/REDD+ initiatives, in order to put the abilities learned into practice.

3. What does the Environmental Fund do?

Role: *Fondo Acción* is responsible for designing and implementing this program in partnership with Conservation International Colombia and with the support of the REDD Table. During the design phase, *Fondo Acción* identified the program contents, strategies and tools, considering different audiences. It also managed the program resources, both its own and those of its partner. This administration was in charge of selecting suppliers, accompanying activities, and reporting outcomes.

Background: *Fondo Acción* decided to get involved in this initiative for the following reasons:

- The Fund Board of Directors decided that one of its strategic goals was capacity building for non-governmental organizations in environmental subjects, especially forest-related carbon. This is due to prospects for the REDD+ mechanism to finance forest conservation.
- The AFCP project contemplated developing pilot activities in the Amazon region of participating countries, so it is necessary for forest owners to have everything they need to decide whether to get involved.
- There were philanthropic resources available to develop preparatory initiatives for this.

Budget allocation: The Board of Directors allocated US$ 75,000 of the Americas Initiative budget for implementing activities associated with fulfillment of OE 5. With these resources, *Fondo Acción* leveraged US$ 137,500 from the Gordon and Betty Moore Foundation through Conservation International. In total, the program executed US$ 187,500.

Work Team: Once the agreement was signed, *Fondo Acción* became the administrator of these resources. Within its team, it designated a manager for the technical area initiative, who was responsible for designing program contents in partnership with CI Colombia and with the support of the REDD Table. The manager was also responsible for applying the processes and procedures of the Fund's Quality Management System, for convening the consultants, for accompanying program design and implementation, and for reporting on outcomes and impacts. Administrative and financial personnel also participated in the accounting, IT and archive areas. Finally, the legal area of *Fondo Acción* appointed a team coordinator for hiring and critical path procedures, and in general to support project execution. The financial, administrative, technical, and legal directors also provided support for project implementation, as did the Executive Director.

Challenges and prospects: The project was implemented correctly and the expected outcomes were achieved. However, a few challenges were identified while it was being implemented.

Working with communities requires relationships of trust, which are built upon the foundations of continual communication with project beneficiaries, and this means long time periods and much travel.

When working with this type of community, administrative and financial matters require flexibility on behalf of the manager, since these regions do not have the same conditions as where the Fund usually works.

These preparatory actions should be approached within the context of larger, longer-term investments, so that investments made will be appropriate. For example, capacity building should lead communities and organizations to implement efforts relating to what they have learned (designing projects or plans, organizing communities, implementing financial sustainability mechanisms, etc.).

Although the project has ended, *Fondo Acción* hopes to continue working with these communities and organizations on project development and on partnerships to manage the funds arising from them.

Bibliography

Moutinho, 2006. Biodiversidade e Mudança Climática sob um Enfoque Amazônico. In: Rocha, C. et. al. Biologia da Conservação: Essências. São Carlos. RIMA.

Case Studies

The Paiter Surui Fund: REDD+ and indigenous communities

1. National context

Although there is not a national REDD regime in Brazil yet, the country has made progress in Payments for Environmental Services (PES) programs, in deforestation control, and in a robust National Policy of Climate Change. Brazil has already established a baseline to reduce 80% of the deforestation in the Amazon forest until 2020, and this is useful for REDD+ projects.

An accomplishment was the approval (by the Environment Commission of the House of Representatives) of a carbon credits law project, which was structured with the wide collaboration of the civil society.

In 2010, the Ministry of Environment conducted the first meetings to define an eventual national REDD regime. These meetings were interrupted by antagonistic progress made by different government bodies, but should be resumed soon.

Below the national level, the Brazilian states have moved further, mostly the states of the Amazon region, which constituted the Governors Working Group in favor of a future carbon market with the government of California. In this context, the state of Acre is the most advanced in terms of defining legal agreements to structure a market with the governments of California and Chiapas (Mexico).

The states of Amazonas, Mato Grosso and Pará have advanced PES and climate change legislation. The state of São Paulo, in the country's southeast region, has promoted the development of an internal cap and trade system, with possibilities of compensating emissions – using also REDD forest credits – with other Brazilian states.

The climate change and REDD agenda is new to Funbio, which has taken the initiative of using its experience with financial mechanisms for biodiversity conservation and adapting it to the REDD context.

2. Describing the project/action in which the Environmental Fund is involved

The Suruí territory is located within 249 thousand hectares in the states of Rondonia and Mato Grosso. The Suruí people were contacted by the Brazilian society as late as 1968 and their territories were demarcated in 1983.

Using georeferenced tools such as Google Earth (11oS 63oW), one can note that the Suruí territory ensures the maintenance of the forest: there is deforestation and strong human pressure along the external borders of the indigenous land.

The Suruí is a tribe with 1300 individuals, organized in four clans and 26 villages. They suffered heavy casualties at the time of encounter with the Brazilian society, with a population decline from 5 thousand to 800 individuals. After the demarcation of their territory, they were able to demographically recover.

The Suruí Carbon Project has already obtained its PDD (Project Development Document) and will shortly be validated. The project has unique features that make it distinct from other REDD projects, and outstandingly it goes beyond carbon payments. The tribe has developed a Life Plan for the next 50 years and the carbon project is only one way of financing it. At the COP 16 (Cancun, Mexico), the Suruí Fund was officially launched to raise various types of resources towards the development of the community's Life Plan.

The Project uses two standards: the VCS (carbon related) and the CBA (community and biodiversity related), with a mosaic approach.

At first, it was used a historical baseline, nonetheless this baseline showed no deforestation since 2000, simply because there was nothing left to deforest. A historical baseline, therefore, would not demonstrate the project's additionality. Thus, this approach was combined with the SIMAZONIA model, which also considers the current and projected pressures in the region. The current pressures include the construction of hydroelectric dams, roads and urbanization.

The project expected credits generation corresponds to 8 million tonnes of carbon. These credits will be released in the global market until 2039. The Suruí have decided to wait for the project's validation before offering credits in the market, since the bids received before the validation were too low.

Partners:

- Metareilá Association of the Suruí Indigenous People: project proponents;
- Kanindé Association for Ethnoenvironmental Defense: responsible for the coordination between the Metareilá Association and other partners and for ethno zoning studies in the Suruí land;
- Idesam: carbon project development;
- Forest Trends: studies for the REDD+ project development;
- ACT Brasil: prior informed consent and cartographic base;
- Funbio: financial mechanism for benefits distribution;
- USAID: resources for project development
- National Indian Foundation (Funai): support to the project development

Leadership: Almir Suruí, Suruí Prime-Minister. He has received death threats, because he managed to approve a moratorium on the sales of deforested timber in the Suruí lands, activity which was the community's main source of income.

The project also considered two levels of information: internal, with complete available data on the project development to all members of the Suruí community; and external, with public consultations to local actors such as loggers, farmers, other indigenous groups, organizations of the civil society and the government, in a four-month-long process throughout 2010. This process included meeting minutes, signatures and audiovisual records. Accessible language was used in materials and manuals developed specifically for these actors.

In conclusion, the project has four fundamental aspects:

- Pre-established governance
- Clearly recognized leadership
- Prior informed consent
- Plan for applying the resources

3. What does the Environmental Fund do?

Funbio is responsible for designing the project's financial mechanism. As the Climate Change Unit was created within Funbio in 2008, two objectives were established: to create synergy between the Convention on Biological Diversity and the Climate Convention; and to create financing mechanisms for REDD+ projects and programs, in collaboration with the financial mechanisms team. In 2009, Funbio received an invitation from the leader Almir Suruí

to join the Suruí Carbon project as a collaborator. Almir already knew Funbio from the ARPA - Amazon Region Protected Areas Program.

Funbio's main interest in this initiative is to support the Amazon communities who need robust tools for environmental service projects - in this case, carbon projects. Funbio finances its participation in this project through international grants from private foundations.

To be selected as the manager of financial resources, Funbio presented an operational plan and mechanism concept and received the approval from 25 indigenous leaders.

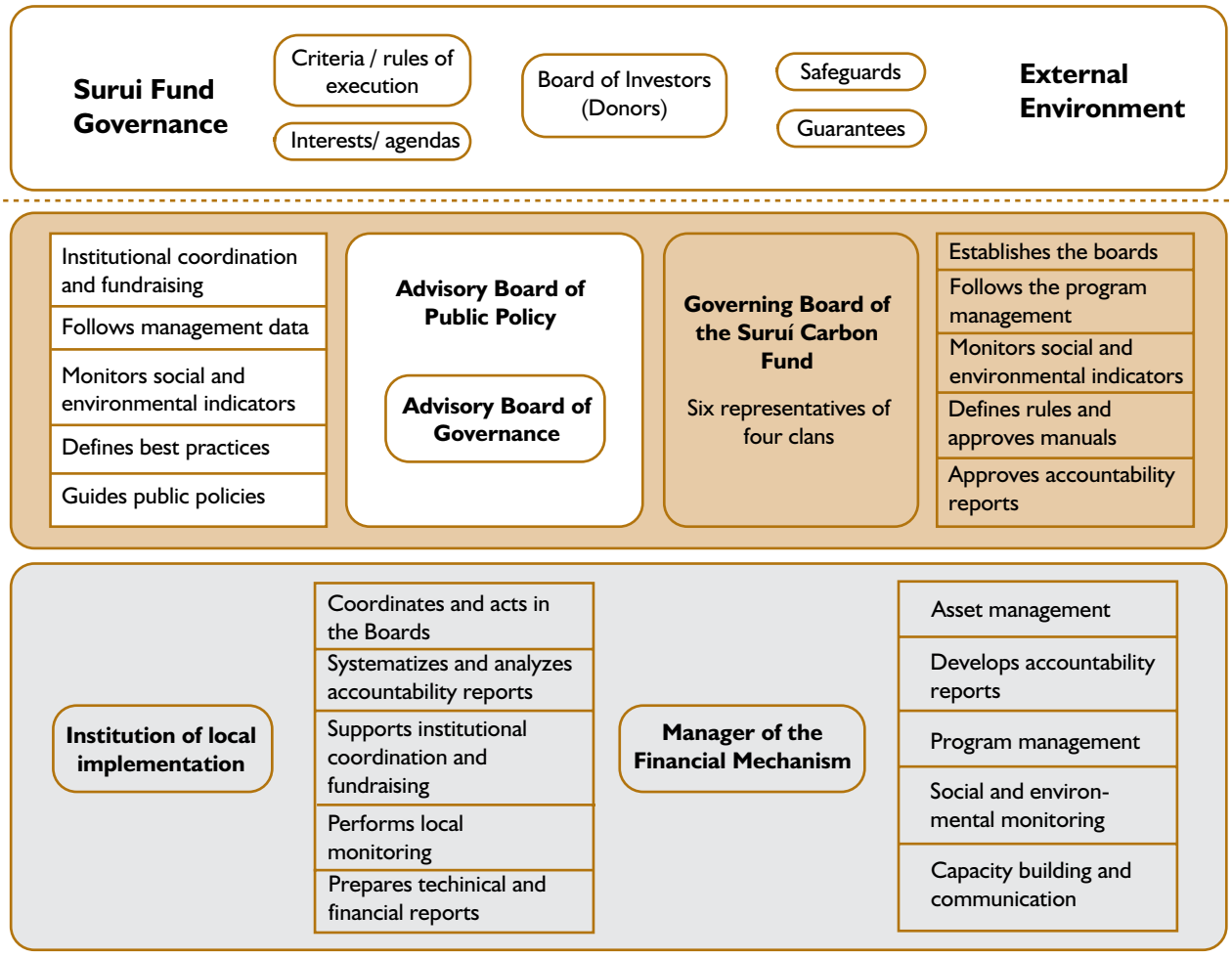
This is a long term project, which means that relationships between partners are also long term. A strong credibility base is necessary between the resources manager (Fund) and the indigenous associations, since these are the players who remain the longest in the project.

The benefits distribution can be made through direct cash remittances, goods or services. The Suruí choose to receive its benefits through goods and services, previously identified in their Life Plan. The Plan's priority areas include: land management, education, health, reforestation and sustainable production. This plan also suggests some alternative sources to potentially attract resources, such as ecotourism and indigenous cultural festivals.

Funbio has established three stages for the resources management:

1. Design of governance structure and manuals
2. Implementation of rules and processes
3. Community capacity building on the financial mechanism management

According to the first stage, the project's governance structure was clearly defined and can be illustrated in the diagram below:



The **Governing Board of the Suruí Carbon Fund** is the main decision making organ, located within the Suruí community. This ensures that the decisions regarding resources allocation are taken by the indigenous community. This Board has six representatives from the four Suruí clans, which represent the indigenous associations.

The **Advisory Board of Public Policy** includes national actors invited by the Suruí people, such as the Federal Public Ministry, the Funai, the Environmental Secretariat of the Rondonia state, the University of Rondonia and the regional municipalities.

The **Advisory Board of Governance** includes the 26 Suruí leaders, with no decision making power.

The participation of external actors in the **Board of Investors** provides guarantees and safeguards to REDD investors.

The **institution of local implementation**, Kanindé Association, works with several indigenous groups. It is relevant to notice that the decision making (Suruí) and the local implementation of these decisions (Kanindé) are distinct processes, as a way to avoid conflict of interests.

To ensure credits permanence, the Project has defined a forest buffer equivalent to 25% of generated credits, as well as allocating 15% of the resources generated by credits sales to an endowment fund for 30 years.

Funbio, as **manager of the financial mechanism**, also ensures permanence through a safeguard that allows the institution to hold back project resources and return it to buyers, in case the Governing Board takes decisions that jeopardize the forest.

Despite the previously mentioned safeguards, the Suruí Carbon project faces two main challenges today:

1. Legal issues: the Suruí are the carbon credits beneficiaries, but their land is legally owned by Funai (government). It remains unclear if the Suruí are entitled to selling the carbon credits through traders or if only Funai would have this prerogative. Funai has signed a support letter to the project, but there is no formal legislation to clarify this issue.
2. Market: the global carbon market may have been overrated and there may not be sufficient demand to these credits. The Suruí take as reference the minimal credit price (USD 5.00) paid by the Norwegian government to the Amazon Fund.

In conclusion, Funbio highly considers its support to REDD+ initiatives in Brazilian indigenous communities and works towards minimizing projects' risks. REDD+ should not be considered as an end in itself, but as an alternative source for leveraging the economic and environmental development of forest communities.

V. Report on the Workshop

Environmental Funds (EFs) have a proven track record in resources mobilization and administration for conservation projects. These core competencies involve financial management capacities, project management skills in the technical staff and strong networking. Funds are used to connect different players – the government, the civil society, academy and private sector – and to intermediate the use of their resources in conservation initiatives. Funds count with financial advisors and asset management committees to manage endowments and sinking funds and have enjoyed healthy average three- and five-year returns of 6,66% and 8,25% respectively[1]. They also learnt to provide specialized services to support these efforts, such as procurement services, capacity building, technical assistance and financial mechanisms designed to ensure projects' long term sustainability. Environmental Funds have built their credibility by providing efficient monitoring, transparency and accountability to conservation processes. This expertise is needed for REDD+ projects.

With the purpose of discussing what are the specific roles EFs can play in REDD+ initiatives, RedLAC organized a workshop with the participation of 20 funds representatives, on July 5 to 7 (2011) in Itaipava, Brazil.

The background concepts are summarized in this handbook, prepared by IPAM – the Amazon Environmental Research Institute, who coordinated the workshop. The content also included case studies presentation by the Funds and a step-by-step approach presented by Forest Trends.

The discussions around the roles Funds can play in REDD+ and the position of the participating Funds in their countries are summarized in this final chapter. It aims at contributing to the path EFs must follow to enter REDD markets.

To work in REDD markets, it is important that EFs know and monitor the international negotiations around REDD and the political evolution of the global debate. Osvaldo Stella, from IPAM, provided a summary of the international context, which was complemented by Bernhard Smid, also from IPAM, who detailed the REDD context in Latin America, with focus in Brazil, Bolivia and Peru. Mariana Christovam, facilitator of the workshop from IPAM, summarized the available international sources of funding for REDD and the UN-REDD Programme, as IPAM is the focal point for this

[1] Conservation Trust Funds Investment Survey 2010 - http://www.conservationfinance.org/upload/library/arquivo20111112064351.pdf

initiative Latin America. These presentations were instrumental for the participants to evaluate their potential actions in REDD+ considering their countries current political status and legal framework.

IPAM also provided Funds with the models they developed and the necessary institutional structures for the implementation of a national REDD+ strategy in Brazil. They highlighted two main critical aspects of the current situation:

- Lack of a legal framework or guidelines established by the Brazilian federal government creating uncertainty and vulnerability to forest stakeholders (e.g. indigenous peoples and local communities).
- Proliferation of REDD+ projects with the use of different methodologies and baselines increasing the difficulties in identifying the real impact of a project and its potential compensation.

The two methodologies presented (see chapter 2) derive from the analysis of the possible distribution of carbon credits and benefits (1) per state and (2) based on land tenure classes (protected areas; indigenous lands; settlements; and public land and private properties).

IPAM reinforced the necessity of a REDD+ strategy in the Brazilian Amazon following a "nested" approach, i.e.: large-scale sub-national programs linked to a REDD+ National scheme. This approach needs to be supported by key aspects:

- National legislation in conformity to sub-national and regional legislations;
- Social and environmental safeguards;
- MRV Mechanism;
- Equitable distribution of benefits to those that are responsible for forest preservation and conservation of carbon stocks.

Phil Covell, from Forest Trends, presented a project approach, detailing the steps to develop a forest carbon project. He announced a new Forest Trends publication: Building Forest Carbon Projects (available at http://forest-trends.org/publication_details.php?publicationID=2555), which details the following main steps summarized below:

REDD+ projects may have a catalytic role for the development and testing of methodologies. Projects' best practices are important to formulate and implement a legal framework.

The workshop participants commented the current implementation status and approach in their countries. In general, the inexistence of a "nested approach" was observed in the majority of the countries, although, in general, the national governments have been open for discussions with the civil society.

After these presentations and discussions, four working groups were established to discuss the roles of the EFs in the implementation of REDD+ policies and activities.

The groups cited 18 different potential roles EFs can play, covering a wide range of tasks in the different stages of development of a REDD+ project and including preparatory activities with the society and governments.

Following the steps presented by Forest Trends to develop REDD+ projects, EFs could play the following roles in the first step "project idea and preliminary assessment":

1 - Capacity building for communities

Capacity building for communities is a key aspect for REDD+ projects to be successful. Communities will provide the forest protection and are the beneficiaries of the generated carbon credits. They need to fully understand the steps of the project development, the time this will take, the long-term objectives and the relation between different partners. This leads to an important need of capacity building in the beginning of the project, even before the project starts to be discussed. After the credits issuance, these local groups need to have the capacity to manage additional resources that will flow to their communities as a result of the project.

EFs are already playing an important role in capacity building for communities. Depending on the EF profile, they work very closely to the communities, providing technical assistance and training in project management, fundraising and other necessary skills to biodiversity conservation and sustainable use projects. Some funds focus their grantmaking on forest communities, located in protected areas buffer zones and also in priority areas for conservation. These EFs have a competitive advantage to work with communities in REDD+ projects.

This is the case of Fondo para la Acción Ambiental y la Niñez, from Colombia, who presented a case study on capacity building for REDD+ (see chapter 6).

Juana Camacho, Environmental Coordinator at this fund, presented the work carried out with the Colombian REDD working group (called Mesa REDD), which includes indigenous organizations, NGOs, and other groups. She emphasized the importance of strengthening communities and local stakeholders, providing knowledge about climate change, conservation, REDD and other related topics. This is especially important due to the presence of **"carbon cowboys"**, who are people that go to the Amazon and offer false opportunities for commercializing carbon credits and projects, and denigrate the image and importance of environmental and sustainable plans, reducing the credibility of REDD+ mechanisms. Juana detailed the program develop by Fondo Acción in partnership with the NGO Conservation International to train communities in these key concepts and get them prepared to negotiate real REDD+ opportunities in their lands.

2 - Fundraising

Another important role EFs are used to play is the mobilization of resources for projects. EFs normally combine diverse sources of funding to support different needs of the projects and a forest carbon project has the necessity of supporting funding since the beginning. Although EFs can have a competitive advantage in fundraising for REDD+ projects, they have not launched a specific program for financing REDD+ projects yet. Some EFs could fundraise for specific activities, such as Funbio in the Surui Carbon Project, which secured some funding for designing the financial mechanism (Surui Carbon Fund) and for capacity building for the indigenous community.

Another role mentioned by EFs in the workshop is to connect the private donors in REDD+ initiatives. Mainly this is related to fundraising. Some private companies may engage in REDD+ projects searching for a carbon neutralization solution, interested in the potential credits. Some may find in REDD+ projects a way to fulfill their social environmental responsibility, with voluntary investments. EFs have a competitive advantage to engage the private sector in REDD+, as they have focused their strategies in working with the private sector in the last years.

In the second step of a forest carbon project - Project design and planning – the group included some other activities for EFs, but none of the participant funds is already playing these roles:

3 - Project design and implementation

EFs are financial mechanisms specialized in conservation, so they count on technical experts in their staff, but they are mainly focused on projects' financial aspects. Depending of the Fund and the country's context, the EF can play an important role in the project design phase, but normally there will be more specialized or local oriented institutions in a better position to design the projects with the community or to develop specific parts of the project design, such as the carbon measurement.

The third step mentioned it the Development of the Project Design Document (PDD), and the group agreed EFs can have a role in the methodology adaptation:

4 - Proposal design and methodology adaptation

Although some funds are involved in discussions about standards and their formulation, the PDD is an extremely technical document, involving baselines establishment, carbon measurement, and other technical issues such as the additionality justification. EFs can play this role, but they don't necessarily have a competitive advantage or an accumulated expertise to coordinate this phase, comparing to other more scientific institutions.

5 - Formulation of criteria for standards

This is the case of five EFs from RedLAC (Profonanpe, Fondo para Acción Ambiental y la Niñez, Funbio, Fundación Puma and FAN) who partnered with the University of Columbia to create a standard focused on the Amazon region context, the Amazon Forest Carbon Partnership. The experiences these EFs have working in the region was considered an important input to design a standard which includes social and environmental criteria.

In the fourth step - Review Project Activities and Develop a Project Implementation Strategy –the same case as the PDD formulation or the methodology adaptation is presented: Funds can have a role, but are not especially positioned to do so.

In the step of Finalizing Financing and Investment Arrangements, EFs do have a unique position to play key roles. Funds have a proven track record in designing financial arrangements for conservation projects and this can be adapted to REDD+ projects. The roles Funds are positioned to play in financing include the following topics.

6 - Design of financial mechanisms

Adapt financial mechanisms developed for biodiversity conservation projects to REDD projects, especially in terms of designing funds, their governance schemes, operational procedures and benefits sharing.

The case presented by Funbio in the workshop, about the Suruí Carbon Fund, is a good example. Angelo Santos, Climate Change Coordinator at Funbio, presented the threats to the *Sete de Setembro* Land, the indigenous territory of the Suruí population, and the proposed Suruí Project, which includes a Carbon Project and the Suruí Fund (a long-term financing mechanism for the implementation of the Suruí Project – see chapter 4).

The Suruí Project was not formulated as a REDD+ project, since it is not the wish of the Surui people to only sell their carbon credits. Instead, they decided to develop and establish a 50-year life plan for the Suruí people. This plan includes elements such as health care, territory protection, agriculture production and sustainable tourism. The REDD component is one of the potential sources of funding to implement this plan. Funbio managed to work in collaboration with the indigenous people, and with the other partners of the initiative, to design a mechanism adapted to their culture, respecting the already established hierarchies in the governance model of the fund.

“The experiences these EFs have working in the region was considered an important input to design a standard which includes social and environmental criteria”

EFs have experience in designing and operating specific funds, but also in formulating arrangements to provide long-term financial sustainability for programs and projects, combining different funding sources, revenue streams and planning the financial needs of these initiatives.

The management of endowment funds, mainly for Protected Areas systems, is a specific role EFs have been playing since they started operating. The design of endowments to receive resources from REDD+ projects may also be a key role for EFs in this context.

7 - Resources management

The core function of EFs in biodiversity projects is to manage the resources, making disbursements, procurement, and financial reporting. Besides managing projects resources, the majority of EFs also manage endowments. They work with external advisors and asset managers, and frequently count with financial committees in their boards, who support the establishment of investment policies, expenditure criteria, etc.

In the sixth step of a forest carbon project, which is Approvals, Validation, and Registration, Environmental Funds may play a role, depending on their countries' context and past experience, but it is not an area of expertise of EFs. There may be other institutions more focused on field work that may be in a better position to play these roles.

The seventh step - Implementation and Monitoring – includes roles EFs are used to playing for biodiversity projects, such as the following.

8 - Project monitoring

EFs are used to monitor projects and provide effective reporting to financers. In REDD projects this may be a more difficult role as it involves specific technical capacities, such as carbon measurement methodologies, but EFs may perform this role through alliances with other partners.

9 - Get constant feedback from partners and promote transparency

One of the strengths of Environmental Funds is their ability to mediate relationships of partners in a project and promote accountability. This allows them to gather relevant information from each stakeholder and present it in a coherent unified format to donors and the civil society. They also rely on a solid credibility based on their previous experiences and constant auditing.

In the last step of a forest carbon project - Verification and Issuance – EFs don't usually play a technical role but can facilitate this step as it requires long-term partnerships. They can strengthen project continuity and bridge new partners in the long run.

Many roles can be played outside the realm of a forest carbon project. These include:

10 - Support the government on establishing public policies

EFs usually work side by side with governments, while public or private institutions. They support government in international fora and debates, assist in the internalization and implementation of national commitments, such as the goals of the international conventions. In some countries they can have a powerful role of helping the government to build their public policies for REDD. In other countries, they don't have such access to what is being decided and have to wait on government decisions to build their own policies for REDD.

11 - Promote dialogue about REDD+

Most EFs are used to organize events, seminar, and workshops, write publications, and perform presentations about their core business. They can use this experience to keep different partners engaged in the dialogue about REDD. This may useful for raising awareness, for getting players together to define policies, to inform the civil society and to bring in external experiences.

12 - Bridge regional initiatives among national programs

Depending on the EF profile, they can play a role by working closely to regional governments, creating the link from their initiatives to the federal government programs. In Brazil, some of the Amazon states are creating their own

REDD public policies, such as Acre, and there is a need to align these regional policies to what the federal government decides about the national policy for REDD. It will depend a lot on the EF profile for it to play a significant role in this relation. It depends on the political situation, on the adherence regional policies have in relation to the national policies and on the EF insertion in the public sector. Public funds may have a role here, but this mostly depends on each country's context. In Brazil, for example, Funbio works with the states, participates in the creation of criteria and principles, but does not have a powerful voice with the federal government to bring together regional and federal policies.

13 - Promote inventories, studies and methodologies

In some countries the EF may be the ideal actor to support the national inventory formulation. It depends a lot on the country and the EF context. This role is not necessarily linked to a competitive advantage EFs would have over other institutions. EFs may be a key player in these tasks if they partner with other scientific institutions. For example, EFs could manage the resources for the formulation of a national inventory, hiring consultants, putting results together.

14 - Promote strategic plans to avoid deforestation

EFs may get involved in the process of designing national strategic plans. Their main contribution in this sense would be to use their previous experiences of successful projects to replicate in the strategic plan, as well as formulating the financial mechanisms required to implement such a plan. This task will depend, again, on the positioning of each EF in its own country. There are EFs that play a key role in the national policies formulation and other EFs that have a more independent work, primarily working with the private sector.

15 - Evaluate how past and current projects have avoided deforestation

This task was cited by the group mainly because some EFs have a long history in financing forest projects, such as the FNMA in Brazil (21 years old). The older EFs can perform this assessment about their own projects - if there is sufficient available data - and contribute to national strategic plans with these results.

16 - Promote the integration of monitoring systems

This is a task that would not specifically be in line with EFs' typical operation, as most EFs don't have integrated monitoring systems for their own projects. EFs are well known for providing transparency to the use of resources, as they historically have built consolidated financial monitoring procedures. However, EFs recognize their weakness in measuring and evaluating biodiversity impact indicators. A goal defined by the group of funds congregated in RedLAC is to discuss and build monitoring and evaluation (M&E) methodologies for EFs to measure their impacts in biodiversity. On another hand, a group of EFs from RedLAC (10 funds) is already involved in the Ecofunds Database project, an online monitoring system for conservation investments in the Andes-Amazon region. With the experience derived from this database and with the development of the impact indicators working group, EFs may probably have a better position to play the role of promoting the integration of monitoring systems in their countries, but this would require a significant evolution to most EFs.

17 - Search for funding sources that are not subject to budgetary restrictions

The group of EFs that participated in the discussion included some public funds, which have different work conditions. For them, it is a key issue to search for non budgetary resources, as the budgetary resources can always be subject to contingencies imposed by the government. This role would be specifically to this type of funds.

18 - Participate in Readiness Preparation Proposals (R-PP)

Some funds in the workshop suggested that they could contribute to the process of formulating the Readiness Preparation Proposals (R-PP) of their countries. Madagascar representatives told the group about the R-PP of Madagascar presented to the World Bank in 2010. The funds were not involved in the preparation process, although they were closely following the implementation. Kenya Wildlife Service representative shared with the group the R-PP recently finalized by the Kenyan government. KWS Fund, as a public fund, followed the process of the R-PP preparation. Again, it is not a role that all EFs are positioned to play or have specific skills to do so.

This list of roles promoted a debate on the particularities among the different realities of countries represented at the workshop, the peculiarities of public and private funds and the importance of having opportunities to share experiences among Environmental Funds.

Main collective conclusions and recommendations

While the workshop had several positive results with specific prospects to each participant, it can be considered as main collective conclusions:

- There are several important roles EFs can play in the REDD+ context, making use of their previous experiences and credibility, but the focus should be in the financial mechanisms design and management, as this is the niche already occupied by EFs.
- Communities and indigenous people need to be part of the national and sub-national discussions on climate change and EFs are used to integrate them in their supported projects. Thus, EFs can be important catalysts to integrate traditional forest people in REDD+ projects.

IPAM considered extremely important the realization of workshops such as this one organized by RedLAC in order to share views, experiences and lessons learned from different perspectives about the REDD+ mechanism. IPAM, as one of the developers of the concept of compensating efforts that reduces deforestation and/or maintains carbon stocks has the great interest in continuing promoting courses and supporting the discussion on REDD+ related issues with the goal of increasing awareness on the importance of addressing emissions from deforestation in a broader perspective for mitigating climate changes impacts. At the same time, IPAM aims to contribute in the debate on the REDD+ strategies to be adopted at national level for tropical forest countries considering their peculiarities to do so, while respecting the indigenous people and traditional community rights. By doing this, IPAM intends to have a better understanding of the forest sector worldwide and provide people with knowledge to take or influence policy-makers relating to environment related issues. This is intended to build a path for a new development model based on low carbon emissions, changing the actual scenario characterized by massive exploitation of natural resources and contributing to tackle climate change impacts.

Bibliography

Angelsen, A.,Brown, S., Loisel, C., Peskett, L., Streck, L. & Zarin, D. Reducing Emissions from Deforestation and Forest Degradation (REDD): An Options Assessment Report. Prepared for the Government of Norway. . 2009. Available at www.REDD-OAR.org

Boden, T.; Marland, G.; Andres, B. World's countries ranked by 2006 total fossil-fuel CO_2 emissions. Carbon Dioxide Information Analysis Center. Oak Ridge National Laboratory. 2006. Available at http://cdiac.ornl.gov/trends/emis/tre_coun.html

Busch, J., Strassburg, B., Cattaneo, A., Lubowski, R., Boltz, F., Ashton, R., Bruner, A. & Rice, R. Comparing REDD+ mechanism design options with an open source economic model. 2009. Available at http://theREDD+site.wordpress.com/2009/07/16/new-tool-comparing-REDD+-mechanism-design-options-with-an-open-source-economic-model/

Centro de Gestão e Estudos Estratégicos (CGEE). Manual de capacitação sobre Mudança climática e projetos de mecanismo de desenvolvimento limpo (MDL). 2nd Edition. Brasília, DF. 2010.

DeFries, R. S., Houghton, R. A., Hansen, M. C., Field, C. B., Skole, D., and Townshend, J. 'Carbon emissions from tropical deforestation and regrowth based on satellite observations for the 1980's and 1990s', PNAS 99, 14256–14261. 2002.

Democratic Republic of Congo (DRC). Inventing REDD plus. 2010.

The Forest Investment Review (FRI). Forum for the Future. 2009. Available at http://www.forumforthefuture.org/projects/forest-investment-review

Global Canopy Programme. The Little REDD Book. A guide to governmental and non-governmental proposals for reducing emissions from deforestation and forest degradation. Global Canopy Foundation. Oxford, United Kingdom. 2008. Available at http://unfccc.int/files/methods_science/redd/application/pdf/the_little_redd_book_dec_08.pdf

Houghton, R.A. Revised estimates of the annual net flux of carbon to the atmosphere from changes in land use and land management 1850–2000. Tellus B, 55(2): 378-390. 2003.

International Panel on Climate Change (IPCC). Climate Change Synthesis Report. Summary for Policymakers. Switzerland. 2007.

Kellndorfer, J., W. Walker, K. Kirsch, D. Nepstad, N. Laporte, C. Stickler, P. Lefebvre, M. Shimada, and A. Rosenqvist. Reducing Emissions from Deforestation and Forest Degradation (REDD): New Eyes in the Sky - Cloud-Free Tropical Forest Monitoring for REDD with the Japanese Advanced Land Observing Satellite (ALOS). A Report for the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), Thirteenth Session, 3-14 December 2007, Bali, Indonesia. Woods Hole Research Center, Falmouth, MA. 2007.

Le Quéré, C. et. al. Trends in the sources and sinks of carbon dioxide. Nature Geoscience 2:831-832. 2009.

Moutinho, P., M. Santilli, S. Schwartzman, and L. Rodrigues. Why ignore tropical deforestation? A proposal for including forest conservation in the Kyoto Protocol. Unasyvla 222 (56): 27-30. 2005.

Moutinho, P. Biodiversidade e Mudança Climática sob um Enfoque Amazônico. In: Rocha, C. et. al. Biologia da Conservação. Essências. São Carlos, RIMA. 2006.

Moutinho, P., Stella, O., Lima, A., Christovam, M., Alencar, A., Castro, I., Nepstad, D. REDD no Brasil: um enfoque amazônico. Fundamentos, critérios e estruturas institucionais para um regime nacional de Redução de Emissões

por Desmatamento e Degradação florestal – REDD. Centro de Gestão e Estudos Estratégicos (CGEE), Instituto de Pesquisa Ambiental da Amazônia (IPAM), Secretaria de Assuntos Estratégicos da Presidencia da República (SAE/PR), Brasilia, DF. 2011.

Nepstad, D., Moutinho P. & Soares-Filho, B. A Amazônia em Clima de Mudança. Relatório. 2006.

Parker, C., Brown, J., Pickering, J., Roynestad, E., Mardas, N., Mitchell, A. The Little Climate Finance Book. Global Canopy Programme. UK: Oxford. 2009.

Pinto, E. P. P., Moutinho, P., Stella, O., Castro, I., Mazer, S., Rettmann, R., Moreira, P.F. Perguntas e Respostas sobre Aquecimento Global. 5ª edição. Belém, Pará, Brasil. Dezembro, 2010.

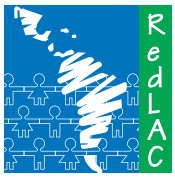
Santilli, M., P. Moutinho, S. Schwartzman, D. Nepstad, L. Curran, C. Nobre. Tropical deforestation and the Kyoto Protocol: an editorial essay. Climate Change 71: 267-276. 2005.

Soares-Filho B., Moutinho P., Nepstad D., Anderson A., Rodrigues H., Garcia R., Dietzsch L., Merry F., Bowman M., Hissa L, Silvestrinia R. e Cláudio Maretti. The role of Brazilian Amazon protected areas in climate change mitigation. PNAS 107(24): 10821-10826. Available at http://www.pnas.org/content/107/24/10821

UNFCCC 2010, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Contents: Decisions adopted by the Conference of the Parties English version. Available at UNFCCC official website: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2

UN_REDD, National Programme Document of the Democratic Republic of the Congo – as presented to the Policy Board of UNREDD Programme (March 2010). Available at UN-REDD official website: http://www.un-redd.org/UNREDDProgramme/CountryActions/DemocraticRepublicofCongo/tabid/1027/language/en-US/Default.aspx

Readiness Plan for REDD (R-PP Version 3) Democratic Republic of the Congo English version. July 2010. Available at Forest Carbon Partnership website http://www.forestcarbonpartnership.org



Latin American and Caribbean
Network of Environmental Funds

Funded by

GORDON AND BETTY MOORE FOUNDATION

FFEM
Fonds Français pour l'Environnement Mondial