

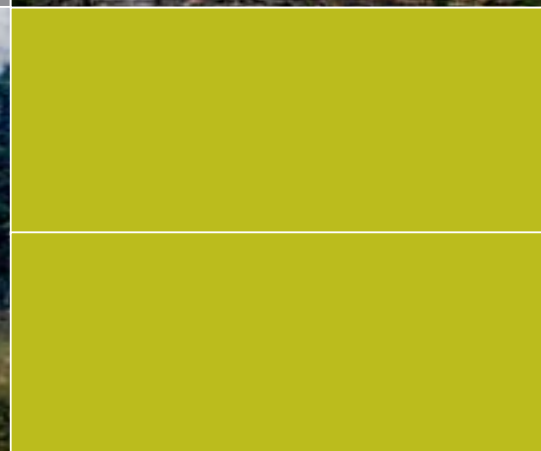
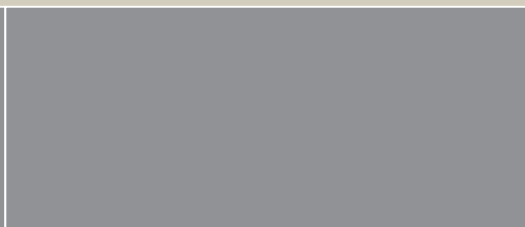
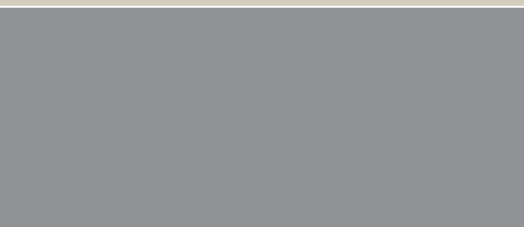


Real-Time Evaluation of Norway's International Climate and Forest Initiative

Contributions to National REDD+ Processes 2007-2010

Country Report: Brazil

Evaluation Report 13/2010



Norad

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LTS International in collaboration with Indufor Oy,
Ecometrica and Christian Michelsen Institute

Preface

This evaluation is part of the first phase of a real-time evaluation of Norway's International Climate and Forest Initiative (NICFI). As such, it is a major undertaking and the first of its kind for the Evaluation Department. The evaluation is conducted by a team of independent evaluators from the British company LTS International in collaboration with Indufor Oy, Ecometrica and Christian Michelsen Institute.

The evaluation was initiated in accordance with the Evaluation Department's mandated responsibility to evaluate Norwegian development cooperation and motivated by the strong interest from NICFI to draw early lessons and allow corrections to be made in 'real time'.

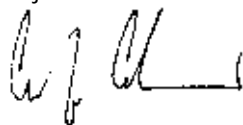
The primary purpose of this evaluation has been to develop a baseline for subsequent ex-post evaluations and to provide early feedback to the stakeholders and the public about preliminary achievements. As with any evaluation, the purpose is to provide feedback of lessons learned and to provide basis for accountability, including the provision of information to the public.

The evaluators have been provided with a rather daunting task, but we believe that the complexity of the evaluation subject has been well captured by the evaluators. Yet it should be recognized that not all aspects of NICFI have been evaluated at this stage and that the evaluation is not intended to give *the* answer about NICFI. It should also be kept in mind that REDD (Reducing emissions from deforestation and forest degradation) is a complex and moving target.

We would like to acknowledge the efforts made and the cooperation rendered by the initiative's staff and their development partners. We also gratefully acknowledge the support of our external advisers who have commented on the draft reports. Our hope is that the reports from the first phase of the real-time evaluation will not only add to the experience and lessons learnt through this initiative, but as well contribute to an informed public debate about an important topic.

Oslo, March 2011

Asbjørn Eidhammer



Director of Evaluation

Acknowledgements

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Marisa Camargo	Indufor	Institutions, REDD strategies, REDD projects
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This report is one of five country evaluations undertaken under a contract held by the consortium led by LTS International and which includes Ecometrica, CMI and Indufor. Each country evaluation was the responsibility of the organization to which the Team Leader belongs.

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Acronyms

BNDES	Brazilian Development Bank
CBFF	Congo Basin Forest Fund
COFA	Guidance Committee of the Amazon Fund
COIAB	Coordination of Indigenous Organisations of the Brazilian Amazon
CTFA	Technical Committee of the Amazon Fund
DEGRAD	Mapping of Forest Degradation in the Legal Amazon
DETER	Detection of Deforestation in Real Time
FCPF	Forest Carbon Partnership
FUNAI	National Foundation for the Indian
GTZ	German Technical Cooperation
IBAMA	Brazilian Institute of Environment and Renewable Natural Resources
ILs	Indigenous Lands
INPE	National Institute for Space Research
IMAZON	Amazon Institute of People and the Environment
IPAM	Instituto de Pesquisa Ambiental da Amazonia
MMA	Brazilian Ministry of Environment
MRV	Monitoring, reporting and verification
NICFI	Norway's International Climate and Forest Initiative
Norad	Norwegian Agency for Development Cooperation
PAS	Sustainable Amazon Plan
PPCDAM	Plan for Prevention and Control of Deforestation in the Legal Amazon
PRODES	Programme for the Calculation of Deforestation in the Amazon
REDD	Reducing Emissions from Deforestation and Forest Degradation
TNC	The Nature Conservancy
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary



Executive Summary

This report presents the results of an evaluation of the Norway's International Climate and Forest Initiative's (NICFI) support to the formulation and implementation of national REDD¹ strategies and other REDD readiness efforts in Brazil. The evaluation has been carried out as part of a series of national-level evaluations of NICFI contracted in connection with an ongoing four year real-time evaluation agreement signed between Norad's Evaluation Department and a consortium of research consultancy companies led by LTS International.

The report identifies that the most concrete contribution made by NICFI to Brazilian climate and forest policy has been its support to the Amazon Fund (Fundo Amazônia). The Amazon Fund is a performance based fund aimed at raising donations for non-reimbursable investments in efforts to prevent, monitor and combat deforestation, as well as to promote the preservation and sustainable use of forest in the Amazon biome. Whilst the creation of the Amazon Fund was a Brazilian initiative, the financial support provided by NICFI can be seen to have produced a significant stimulus to policy debates in the country regarding deforestation, emission reductions and alternatives to REDD. As one informant phrased it, the promise in 2008 of "a billion dollars was like turning the key in the car, it helped start the ignition for the motor to start". The sense of this comment has been widely echoed in media reports² and by many of the government officials, non-governmental organizations and civil society representatives interviewed in the course of this evaluation.

Brazil has developed a strong position on the national ownership and management of its forests in international climate policy debates. When the discussion of REDD re-emerged in the UNFCCC negotiations in 2005, Brazil insisted on taking a broad focus on emission reductions, adopting a national approach (as opposed to a project-based approach), and excluding market-based approaches in the design of the financing system. These views have evolved, adapting to Brazil's own internal processes. Brazil's voluntary emission reduction commitment, announced at the 15th Conference of the Parties of the UNFCCC in Copenhagen (2009), is national in scope, but started only in the Amazon region. Today, market as well as non-market based approaches are being considered in the numerous REDD+ initiatives that are being developed at the federal, state and sub-state levels. Whilst some discussion still surrounds its coverage and accuracy, Brazil is also widely recognised nationally and internationally for the development of an impressive governance system for the national regulation and monitoring of the forests of the Amazon. Following some

1 The terms REDD and REDD+ are used interchangeably in this report. In both instances the intended meaning is REDD-plus, as defined in the Bali action plan - "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 in developing countries".

2 <http://www.reuters.com/article/idUSN14183934>

evidence of a connection between this system and a recorded drop in deforestation levels in the Amazon, proposals are now being implemented to extend this system to cover other biomes in the country.

NICFI's financial support is furthermore recognised as connected to the successful institutional placement and character of the Fund i.e. its placement under the administrative control of the Brazilian Development Bank (BNDES) and the strong role of civil society in the Guidance Committee of the Amazon Fund (COFA). It is for these reasons that the current report concludes that NICFI has made a highly relevant contribution to REDD+ readiness processes in Brazil.

NICFI's support has been effective in that it has successfully stimulated Brazilian environmental and climate policy debates and efforts to reduce deforestation. The fact that the Amazon Fund is widely regarded as an important example of the development of a national mechanism for disbursement of results-based payments, and because NICFI's support had a positive impact on momentum and direction of change in Brazil must also be recognised as successes. Despite these successes, our interviews highlighted a series of areas in which the effectiveness of NICFI support in Brazil could be enhanced in future.

Whilst recognising both that NICFI has been effective in getting things started, and that there are areas for improvement in the operation of the Amazon Fund, as explained in the report, it is too early to usefully make further comment on effectiveness and efficiency. What has been done so far has had limited effectiveness and has not been able to be particularly efficient due to procedural constraints. It is agreed that the approach taken in Brazil was unique and had to be so to clearly recognize Brazilian sovereignty.

As is described in the report, problems in the Fund's application and selection processes have resulted in the widespread qualitative impression that adjustments need to be made in order to ensure that the Fund achieves its objectives. Civil society organisations, community associations, private sector organisations and state governments, who see themselves as central actors and beneficiaries are frustrated with the limitations, complexity, strict specifications and lack of transparency in these processes. As a result of these complications it has not been possible for many organisations to apply, or be successful in their applications to the Fund. The bureaucratic and legal bottlenecks encountered in the Fund's application and selection process, are moreover not only seen by indigenous organisations and community associations as a technical problem, but a mechanism that repeats failures to recognise their rights and importance in reducing deforestation.

We underline in the report that given very real constraints of ownership and time it is questionable whether NICFI could in any way have assisted the Amazon Fund to avoid these problems. Whilst recognition is made of BNDES's knowledge and efforts to address these difficulties, our informants have questioned whether NICFI is in a position to encourage a rapid response to these problems without questioning Brazilian sovereignty over the Fund. Recognizing the importance of national ownership Norway has correctly respected Brazil's sovereignty over the Fund and the

Amazon, but this complicates NICFI's possibilities to request and lobby for adjustments. A rapid response is seen as important because there are indications that, as a result of excessive rigidity in the system, the money promised by Norway is not being used efficiently. More precisely, whilst NICFI is fulfilling its commitments to transfer funds to the Amazon Fund, as a result of these bottlenecks there is a significant mismatch between the resources available in return for reduced deforestation, and the actual disbursement of funds to supported projects.

Further highlight is made in the report of other difficulties facing the Amazon Fund - the main focus of NICFI support in Brazil. Discussions with the Amazon Fund team at BNDES revealed that, as yet, there is no clear sustainability strategy for the Fund. Should deforestation increase again in the Amazon region, the Fund might not be able to raise international funds to help it through this period. Whilst BNDES are working together with Norad and GTZ to develop a logical framework for the strategic operation of the Fund, at present there is no clear strategy in place to use the Fund to address the most critical threats to forests or forest-livelihoods. NGO representatives interviewed in the course of the evaluation questioned the political nature of the choice of the five projects that were funded in connection with the COP-15 meeting in 2009. Frequent comment was also made on the need to clarify the use of the 20%, earmarked for monitoring and verification activities beyond the Amazon area. Emphasis was also made by several analysts and organisations that further care should be taken by the Fund and its supporting structures such as the National Institute for Space Research (INPE) to keep up with the changing nature of deforestation in the country e.g. the move from large-scale to small-scale deforestation.

Whilst there is general support for the make-up and role of the COFA as a body guaranteeing the legitimacy and direction of the Amazon Fund, State-level officials, NGOs and civil society organisations question whether improvements could not be made to both its representation and expansion of support to private, state and federal institutions. Environmentalists and indigenous organisations also question the Brazilian administration's understanding of sustainable development, highlighting what they see as an apparent contradiction between efforts to reduce deforestation and encourage sustainable forest livelihoods through the Amazon Fund on the one-hand; and political and financial support to large-scale infrastructure and extraction projects with highly damaging social and environmental consequences on the other hand. Emphasis was made by a broad array of Brazilian and foreign non-governmental organisations of a need to reconsider these policies and for a more general clarification of carbon rights in the country.

The report highlights the following lessons learnt:

- NICFI support to Brazil has acted as an important stimulus to policy debates and actions on REDD alternatives and the reduction of deforestation. As such NICFI support is evaluated as being highly relevant.
- There is a relationship between NICFI support and national policy, but Brazil has independently developed its own regulatory and monitoring systems, and is in the process of defining its own alternative position on REDD+.
- Brazil aims to develop a national system for not only monitoring and reducing deforestation, but emission cuts and carbon accounting. Whilst insisting on the

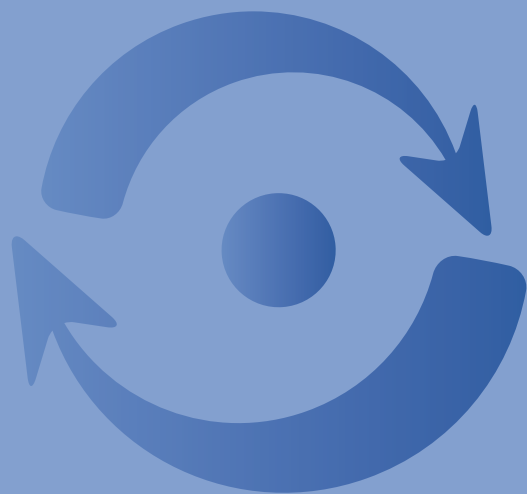
importance of a national system for the verification of emission cuts and socio-economic rights there is growing support from the State level and sectors of the central government for private/public sub-national initiatives.

- Given time constraints, but also the constraints of BNDES regulations and funding structures, the Amazon Fund - the focus of NICFI support in Brazil - has so far faced serious problems in its efforts to efficiently disburse funds.
- Brazil now operates an impressive system for the regulation and monitoring of the forests in the Amazon region, and as such is well advanced in readiness to REDD+. Whilst other countries can learn from the methodologies and technologies operated by Brazil, because of topographic differences and legal restrictions there are difficulties in exporting these systems.

Based on the above comments, and recognising the political necessity for NICFI to recognise Brazilian sovereignty, the report makes the following recommendations, which are intended for follow-up by NICFI and their partners in their ongoing dialogue and partnerships on REDD+:

- Whilst recognising that legal changes can take time, we recommend that a rapid review of the current regulations and application procedures of the Amazon Fund is carried out. Connected with this we also recommend that NICFI discuss with the Amazon Fund the possibilities for a fine grained study of the bottlenecks encountered in the application and processing procedures of the fund.
- We recommend the creation of an integrated plan for the Amazon Fund consisting of projects targeting key deforestation and degradation threats.
- We recommend that a dialogue is opened on how a strategic framework for the Fund can function in parallel with a plan for the disbursement of funds. This would help to ensure that available resources are utilised to achieve effective outcomes.
- We propose that discussions are started on how different initiatives - including the small grants programme now being considered, but also linkage to the private sector and Federal level, could improve the disbursal rates of the Amazon Fund.
- Indigenous peoples and other forest dwelling communities are key to combating deforestation. Appropriate measures to ensure increased participation of these marginalised groups within the scope of the Amazon Fund need to be discussed long with elaboration of projects for sustainable development.

Main Report



1. Introduction

1.1 General background

The primary objective of the Norwegian Government's climate policy is to help establish a global, binding, long-term post-2012 regime that will ensure cuts in global greenhouse gas emissions sufficient to limit global temperature rise to no more than two degrees Celsius above pre-industrial levels. Measures to Reduce Emissions from Deforestation and forest Degradation (REDD¹) in developing countries are considered necessary if this target is to be achieved (Stern 2006; IPCC 2007). To this end, The Government of Norway's International Climate and Forest Initiative (NICFI) was launched in December 2007, pledging substantial development cooperation funding towards efforts to support REDD.

1.2 Real-time evaluation programme

As NICFI will be managing a significant part of Norwegian development cooperation funds for several years, it is in the interest of policy-makers and the wider public to have access to impartial information about its progress and performance. The overall objectives of the real-time evaluation are to assess the impact and results of the Initiative's support:

1. For improving the prospects of the inclusion of a REDD mechanism in a post-2012 climate regime;
2. For the preparation of mechanisms and implementation of activities to attain verifiable reductions in greenhouse gas emissions;
3. For the conservation of natural forests to maintain their carbon storage capacity;
4. With regards to the general objectives of Norwegian development cooperation, such as those related to livelihoods, economic and social development and the environment.

The first three objectives refer to NICFI's main objectives, while the fourth objective derives from the use of development cooperation funds

A real-time approach to this evaluation has been adopted in order to assess and feed back the results of NICFI to facilitate rapid learning, give advice at an early enough stage for changes in implementation to still be feasible, and provide timely information to the international community engaged in REDD and climate change issues. This approach is particularly valid given the intensely dynamic nature of the international debate around REDD.

1 The terms REDD and REDD+ are used interchangeably in this report. In both instances the intended meaning is REDD-plus, as defined in the Bali action plan - "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 in developing countries".

In 2010 there have been two core evaluations:

1. Global level: NICFI's contribution to an international REDD regime;
2. National level: NICFI's support to the formulation and implementation of national REDD strategies.

The Norwegian government Ministries of the Environment and Foreign Affairs, which are responsible for the Initiative, are intended to be the main users of the feedback and recommendations generated by the evaluation programme. However, the wider intended audience for the evaluation also includes:

- The Norwegian Parliament, institutions, organisations, and the general public in Norway;
- Multilateral organisations engaged in REDD activities, including the UN REDD programme, the World Bank and the regional development banks;
- The international community, contributing to overall knowledge concerning the achievement of both REDD and sustainable development in general;
- The national REDD initiatives in target countries.

1.3 This evaluation

The purpose of this evaluation was to assess the International Climate and Forest Initiative's support to the formulation and implementation of national REDD strategies and other REDD readiness efforts. As NICFI promotes an international REDD architecture built on national policies and measures, this national level evaluation will constitute a main pillar of the whole real-time evaluation programme. The evaluation encompassed five case-study countries: Brazil, Democratic Republic of Congo, Guyana, Indonesia, and Tanzania. These countries receive significant support from NICFI through different channels and mechanisms, they represent a range of forest types and conditions, are at different stages in the forest transition, represent different national policy contexts, and together they cover each of the three tropical continents. Consequently, NICFI support in each of these countries has been used for different purposes, including stakeholder consultations, capacity-building, institutional strengthening, demonstration activities, and application of policies and measures.

Within each of the five countries this evaluation had two main objectives:

1. Develop a methodology for the real-time evaluation of NICFI support to the formulation and implementation of national REDD strategies;
2. Establish a baseline for 2007 and evaluate the status and progress of NICFI support to the formulation and implementation of national REDD strategies as of 2010.

This document is one of five case study country evaluation reports and presents results from Brazil.

1.4 The evaluation object – Norway's International Climate and Forest Initiative (NICFI)

1.4.1 NICFI's Objectives

Norway's International Climate and Forest Initiative was launched by Prime Minister Jens Stoltenberg during the climate change negotiations in Bali in December 2007 with a pledge of up to three billion Norwegian Kroner (US\$ 500 million) per year to

reduce emissions from deforestation and forest degradation (REDD) in developing countries.

The rationale behind NICFI's support for REDD is to make a substantial contribution in the struggle against global warming. The climate-related goals will therefore determine which support is to be initiated, continued, terminated or changed. Sustainable development and poverty alleviation are overarching goals of Norwegian foreign and development policy. Thus, in addition to the climate-related goals, these are essential goals for NICFI. In pursuing the different goals, the climate policy and the development policy should be mutually supportive.

The funding shall be used in accordance with the objectives of NICFI:

- To work towards the inclusion of emissions from deforestation and forest degradation in a new international climate regime;
- To take early action to achieve cost-effective and verifiable reductions in greenhouse gas emissions;
- To promote the conservation of natural forests to maintain their carbon storage capacity.

1.4.2 NICFI's internal institutional framework

There is a high level of political drive for NICFI and three key government institutions, presided over by the Minister for the Environment and International Development, are involved in its implementation resulting in a complex structure:

- The Ministry of Environment, in which the NICFI Secretariat is based has overall responsibility for the International Climate and Forest Initiative;
- The Ministry of Foreign Affairs, including the Norwegian missions abroad, is responsible for foreign and development policy related to NICFI, as well as the management and disbursement of funds; and
- The Norwegian Agency for Development Cooperation, Norad, provides technical advice and manages support to civil society and scientific institutions.

1.4.3 NICFI's portfolio of inputs

The International Climate and Forest Initiative provides bilateral support to Brazil (Amazon Fund) and Tanzania, and civil society and scientific institutions through a grant scheme administered by the Norwegian Agency for Development Cooperation (Norad). The majority of financial support is channelled through multilateral entities including: The UN Collaborative Programme on Reduced Emissions from Deforestation and Forest Degradation (UN-REDD Programme), a collaboration between UNDP, UNEP and FAO; The Forest Carbon Partnership Facility (FCPF); The Forest Investment Program (FIP); The Guyana REDD+ Investment Fund (GRIF) all three hosted by the World Bank; and The Congo Basin Forest Fund (CBFF) hosted by the African Development Bank. Norway has entered into an agreement with the Democratic Republic of Congo for the set-up of a climate change secretariat to support DRC's role as technical coordinator of African countries' positions and participation in the UNFCCC processes. NICFI contributes half of the Norwegian support to the secretariat as this function partially relates to REDD. A Memorandum of Understanding has been signed with Mexico (mainly for support to improve, develop and explore methodologies for monitoring, reporting and verification of forest-related emissions and

removals), and a Letter of Intent with Indonesia (for broad support to the national REDD agenda). Disbursal of funds related to these agreements will also be through multilateral routes.

NICFI's funding at the national level to the five evaluation case study countries is delivered through a diversity of channels and mechanisms. The support to Brazil, which is the subject of the present evaluation report, is however only bilateral through a partnership with the Brazilian Development Bank (BNDES) for performance-based payments to the Amazon Fund.

1.4.4 National REDD Strategies

Norway's International Climate and Forest Initiative regards the following as important elements of National REDD+ Strategy development²:

- Establishment of a system for monitoring forest cover and biomass, collecting forest carbon volume data, and for reporting on emission levels from deforestation and forest degradation;
- Incorporation of sustainable development concerns including opportunities for economic and social development for the local population, conservation of biodiversity and promotion of respect for local and indigenous peoples' rights;
- Establishment of systems and national plans to prevent carbon leakage and ensure lasting results;
- Thorough analyses of the drivers of deforestation and forest degradation, and the best ways of dealing with them;
- Institutional and capacity building for national and local authorities, including anti-corruption measures and measures to increase transparency in forest and land use management;
- Mechanisms for compensation for the ecosystem service of carbon storage;
- Establishment of the necessary legal, administrative and economic framework for sound, sustainable forest and land use management, and of the necessary capacity to ensure compliance;
- Cost effectiveness (maximum possible reduction in emissions per unit of expenditure).

1.4.5 The rationale behind NICFI's support to national level activities

NICFI provides the majority of its country level support through multilateral funds / initiatives or via bilateral REDD+ partnerships. Through the multilateral funds and initiatives NICFI seeks to reach a large number of countries involved in REDD+, which they would be unable to do bilaterally, to contribute to the establishment of common donor platforms, and to prevent corruption by working under the auspices of entities like the UN and the World Bank that are able to handle large cash transfers safely. It is also considered important that all the relevant multilateral institutions are engaged and can contribute in a coordinated way in accordance with their comparative advantages.

The REDD+ partnerships, such as NICFI's support to the Amazon Fund in Brazil, are intended to provide the first international examples and experiences with partner-

2 <http://www.regjeringen.no/en/dep/md/Selected-topics/climate/the-government-of-norways-international-/why-a-climate-and-forest-initiative.html?id=547202#Strategy>

ships of this nature. As well as generating climate benefits against agreed reference levels, these partnerships are envisaged to produce a wide range of experiences and lessons learned that will provide input both to the UNFCCC negotiation process and to REDD+ endeavours by other countries' and partnerships. There are six key areas in which NICFI's activities are expected to generate lessons and demonstrations. These include:

1. Modalities of funds transfer;
2. Methodologies for reference level setting in both high deforestation and low deforestation countries;
3. National-level MRV-systems; methodological and institutional choices;
4. Involvement of stakeholders, incl. indigenous and local communities;
5. Design and implementation of social and environmental safeguards in REDD+;
6. Strengthening of institutions relevant for REDD+.

Within these partnerships NICFI is obliged to adhere to Norwegian policy, guidelines and funding regulations for international development cooperation. In addition, NICFI's general responsibilities within its REDD+ Partnerships include the development of the framework documents for the partnerships in accordance with international recognised standards and rules and through dialogue and negotiations with the partner country; fulfilling any responsibilities established in the framework documents; follow up the agreements through annual meetings, comments on annual reports, etc.; and to respect partner country sovereignty in development and implementation of policies and measures in line with the Paris Declaration on Aid Effectiveness 2005³, as long as basic requirements established in framework documents and/or use of development cooperation funding are met.

Partnering with Brazil is regarded by the NICFI secretariat as a crucial step towards achieving NICFI's goals given the country's large share of the world's tropical forests; historically high deforestation rate; importance in the international climate negotiations and emergence as an important player on the global environment and development scene. The partnership is seen as an opportunity to contribute to actual reduction of emissions from deforestation and forest degradation in a country with already proven ability to reduce those emissions significantly, whilst also securing biodiversity.

The NICFI secretariat believe that the payment for performance mechanism at the heart of the Amazon Fund provides a simple, easily communicated, good enough, replicable, effective and efficient approach to payment for verified emission reductions that will generate valuable lessons learned for an international REDD system. The details of NICFI's support to the Amazon Fund are provided in chapter 5.

1.5 Country context

1.5.1 Country profile

Brazil is South America's regional leader and leading economic power with large well-developed agriculture, mining, manufacturing and service sectors and growing presence in world markets. In recent years, Brazil has experienced sustained growth,

³ Available at: <http://www.oecd.org/dataoecd/30/63/43911948.pdf>

strong exports, moderate inflation and decreases in unemployment and debt to gross domestic product ratio. Agriculture is the major sector within the Brazilian economy and key for economic growth and foreign exchange. Brazil is the world's largest producer of sugar cane, coffee, tropical fruits, frozen concentrated orange juice and holds the world's largest commercial cattle herd. Brazil is also an important producer of soya beans, corn, cotton, cocoa, tobacco and major supplier of natural resources including lumber, iron ore, tin, minerals and petrochemicals.

Brazil's population encompasses six major ethnic groups: Portuguese origin, African origin, various other immigrant groups, and indigenous peoples of Tupi and Guarani language stock.

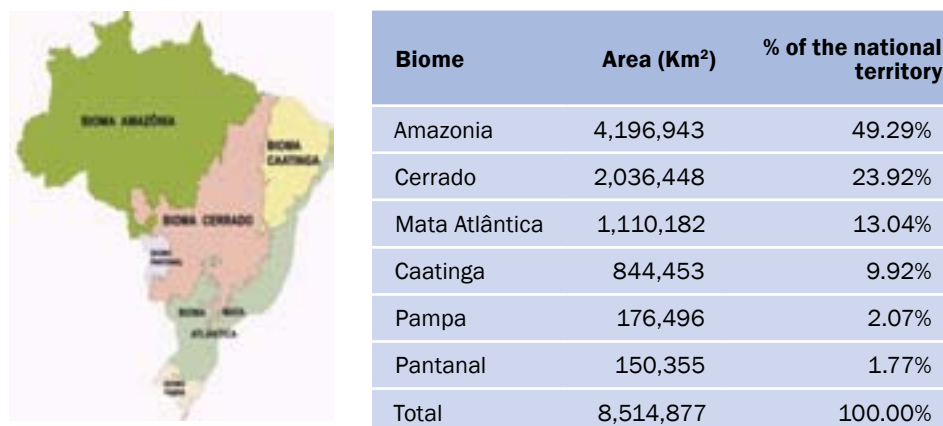
Brazil's population density is 23 people per sq km, with 14% of the total population living in rural areas and 26% living below the poverty line. Although Brazil has experienced a trend of increased human development since 1980, this trend is below the Latin America and Caribbean regional average and Brazil is currently ranked 73 out of 169 countries on the Human Development Index with a score of 0.699 (with 1 being highest, and 0 being lowest score on the index). Brazil scored 3.7 on Transparency International's Corruption Perceptions Index in 2010 and is ranked 69 of the 178 countries included in the index.

Brazil is a Federative Republic headed by outgoing President Lula, who has served two four-year terms. President Lula will be succeeded by Dilma Rousseff, Brazil's first female president, who will take office 1 Jan 2011, after winning October 2010's election with 56% of the vote.

1.5.2 Brief description of Brazil's forests and forest sector

With approximately 5,240,000 km² of forest land (61.5% of the territory) Brazil is a high forest cover country, surpassed in total forest area only by Russia. Natural forests constitute the large majority of the six Brazilian biomes, the Amazon biome being the largest rainforest in the world (Figure 1).

Figure 1: Brazilian Forest Biomes



Instituto Brasileiro de Geografia e Estadística, 2004 – consulted online in August 2010

The country has also established 6.6 million hectares of high-yield forest plantations of mainly *Eucalyptus* (64%), *Pinus* (28%), *Acacia* (2.7%) and rubber tree (2.3%). Minas Gerais (1.4 million ha), São Paulo (1.1 million ha), Paraná (0.8 million ha), Santa Catarina and Bahia (0.6 million ha each) are the states containing most of the plantations in the country.

Protected Areas

Protected areas are demarcated territories, managed according to legal provisions or other equally effective means, with the purpose of conserving nature and related cultural values. They may be public or private. Public protected areas are divided into Indigenous Lands and “Conservation Units”. Private rural properties are required by the 1965 Forest Act to maintain a Legal Reserve area and Permanent Conservation Areas. In addition, property owners may choose to create private reserves, defined as Private Natural Heritage Reserves (RPPN) in the National System of Conservation Units.

- Federal, state and municipal levels can create conservation units. They are divided into two groups: Full-protection Units and Units of Sustainable Use. Each of these two groups has several sub-categories with different specific purposes.
- Indigenous Lands-ILs (105 million ha). Lands traditionally occupied by Indigenous people, on a permanent basis and used for their productive activities. Indigenous lands are essential to preserving natural resources required for their well-being and for their physical and cultural reproduction, according to their uses, customs, and traditions.
- Permanent Conservation Areas. Protected areas located alongside rivers or watercourses, around lakes, ponds, reservoirs, headwaters, top of hills, mounts, etc, which can be covered by native vegetation or not. They and have an environmental role of conserving water resources, landscape, geological stability, biodiversity, genetic flow of fauna and flora, protecting the soil and ensuring the well-being of human populations.
- Legal Reserves. Areas located within a rural property or appropriated area, excluding permanent conservation areas, required for the sustainable use of natural resources, conservation and rehabilitation of ecological processes, for biodiversity conservation and for sheltering and protecting native fauna and flora.

Public and Private Forests

Brazilian public forest areas are in the process of being identified and registered by the Brazilian Forest Service, following the 2006 law on Public Forest Management. Public forests comprise an area of approximately 239 million hectares, which represents 28% of the national territory, and include approximately 26 million hectares of state forests. Private forest areas in Brazil are estimated based on data collected directly from agriculture and livestock and comprise some 98 million hectares.

Forest Concessions

Forest concession is a type of public forest management stipulated by Brazil's Public Forest Management Law. Contributory Forest Concessions, i.e. with payment for sustainable use of forest products and services, is a form of indirect management that may be applicable to National Forests and other public forests which have not

been designated for community use or designated as full-protection conservation units.

Community Forests

Community forests are forests assigned to be used by traditional peoples and communities, indigenous people, family farmers, and settlers registered with the national programme of agrarian reform. Currently, 60% of Brazilian public forests are community forests. Over 2 million people depend on these different types of forest for their subsistence and by the end of 2010, it is expected that sustainable forest management plans will have been implemented over at least 2 million hectares of community forest.

Socioeconomic Aspects of the Forest Sector

It is estimated that the forestry-based sector generates around USD 37 billion and accounts for nearly 3.5% of the national gross domestic product (SBS, 2007). Studies indicate that formal jobs in the main forestry sector totalled 568,460 in September 2009. This represents an annual reduction of 8% against a growth of 0.75% in the whole country across all sectors. The most important wood using industries, in an employment context, are furniture manufacture (30%), paper production (26%) and sawn wood (16%) (percentage of total jobs in the forestry sector shown in parenthesis).

Forest Product Exports and Imports

The main timber forest products directed for export are wood pulp, paper and paperboard, sawn-wood and plywood, and in 2008 represented an income of approximately 7,547 million USD. Main destinations in 2008 were United States (1818 million USD), Netherlands (925 million USD), China (835 million USD) and Belgium (632 million USD).

The most important forest product imports in 2008 were paper and paperboard (1,097 million USD), wood pulp (264 million USD) and fibreboard (51 million USD).

2. Methodology

2.1 Real-time evaluation

The need for timely information and rapid learning calls for a real-time evaluation to progressively assess the results of NICFI with regard to its objectives and the general objectives of Norwegian development cooperation.

A real-time evaluation is distinct from a full-term or interim evaluation insofar as it is part of an ongoing process of reflection and improvement. The findings of a real-time evaluation should therefore be viewed in terms of how they can be used to adjust and improve the ongoing activities of the NICFI rather than providing definitive assessments. The real-time evaluation of NICFI aims to provide feedback to the stakeholders and a basis for subsequent ex-post evaluations.

This report represents one of five country reports from the first iteration of the real-time evaluation of NICFI's support to the formulation and implementation of national REDD strategies and other REDD readiness efforts. It is emphasised that the findings are not assessments of the final impacts of NICFI (which are unlikely to be known for several years) but are conclusions about progress and process towards the end goal.

It is expected that the real-time evaluation method will require some adjustment as NICFI evolves. This is firstly because real-time evaluation is a new element to the overall management of the Initiative, and secondly as the external policy context develops over time, so questions and indicators that are relevant at one stage of development may be less relevant at a later stage.

2.2 The timeframe for the evaluation

The starting (baseline) point for this evaluation was December 2007, corresponding to the launching of NICFI at COP-13, while the end point is October 1st 2010.

The evaluation was carried out between June 28th and October 1st 2010. The country field missions took place in August – early September, and literature was consulted until the end of September 2010.

2.3 Selection of themes and indicators

A standardised real-time evaluation framework was developed that is designed to allow comparisons over time. This included the definition of a set of common indicators that (i) remain valid throughout the real-time evaluation period, (ii) can be used across countries, (iii) address the overall objectives of the real-time evaluation, (iv) cover the issues raised in the Terms of Reference, and (iv) enable assessment of contribution of inputs from NICFI to observed progress.

The 2007 baseline for each indicator was reconstructed and compared to the situation as of 2010. In order to facilitate easy comparisons between (i) the baseline situation (2007), (ii) overall country-level progress from 2007 to 2010, and (iii) the specific NICFI contribution to the progress, the results of the country-level evaluation were summarised in a concise evaluation framework matrix. The evaluation framework is based on indicators grouped under the five following themes:

1. National ownership
2. REDD relevant policies, strategies, plans and actions
3. MRV capacity and capability
4. Deforestation and forest degradation
5. Livelihoods, economic and social development, environmental conservation

Themes 1 to 4 reflect the two NICFI climate objectives that have particular relevance at the national level: (a) to take early action to achieve cost-effective and verifiable emissions reductions, and (b) to promote conservation of natural forests to maintain their carbon storage capacity. Theme 5 reflects the recognition of REDD co-benefits and relates to Norway's development and foreign policy objectives, which apply to the Initiative and all activities that it supports.

These themes and their respective indicators are designed to encompass the whole REDD and development agenda. Although NICFI is only directly involved in, and able to influence, a subset of this (and that subset differs between partner countries), the broad scope ensures that NICFI's contribution is contextualised. Indicators that are not applicable now may also become applicable if NICFI broadens its scope in the future.

The level of achievement against each of the indicators in 2007 and 2010 was assessed as high, medium, low, and a similar system was used to assess the NICFI contribution. These assessments will provide a basis from which to monitor changes over time through subsequent evaluation visits.

2.4 OECD/DAC criteria

NICFI's progress was assessed against the three Organisation for Economic Cooperation and Development / Development Assistance Committee (OECD/DAC) criteria relevance, effectiveness and efficiency. Their application within the RTE of NICFI's support to national REDD processes was as follows:

Relevance – The extent to which NICFI's contribution across the themes and indicators has been consistent and coherent with the individual partner country's policy and development goals and needs, with wider global priorities, with other donors' goals and policies and with NICFI's overall objectives.

Effectiveness – The extent to which NICFI's contribution across the themes and indicators whether direct or indirect, has achieved, or is likely to achieve, NICFI's objectives.

Efficiency – Preliminary reflections on whether NICFI has targeted inputs – finance, personnel time, level and clarity of engagement – in a way that has produced

outputs that have been conducive towards progress by the partner country and to achievement of NICFI objectives.

2.5 Collection of evidence

Evidence was collected through comprehensive programmes of stakeholder interviews, in-depth literature surveys, document reviews of research papers, reports, and policy documents, and triangulated across the data sources and through cross-validation of key pieces of evidence between interviews.

2.6 Methodological limitations

2.6.1 Themes and Indicators

NICFI is a very complex evaluation object due to its size and scope. While performance indicators for NICFI's overall objectives were described in the Ministry of Environment's Proposal 1 to the Storting 2008-2009 (Det Kongelige Miljøverndepartement 2008) and added to in the Ministry of the Environment's Budget Proposal 2009-2010 (Det Kongelige Miljøverndepartement 2009), NICFI has not developed a comprehensive logical framework with detailed indicators for the whole range of activities. For such a large and innovative activity, the lack of a full set of indicators is understandable, but it creates room for interpretation as to which themes and indicators should be included in the real-time evaluation framework.

As REDD is a "moving target" and NICFI's activities will change over time, the themes and indicators assessed in this report may be revised in the next iterations of the real-time evaluation. For the present evaluation, a set of generic indicators was developed during the inception phase and during the field work the team attempted to revise, refine and adapt these to the national situations. The development of the evaluation indicators should therefore be considered a "work in progress".

2.6.2 OECD/DAC Criteria

The multiple components contributing to progress against indicators make assessment and scoring against DAC criteria problematic. NICFI's early stage of implementation also makes assessment of DAC criteria preliminary and subject to interpretation, especially with respect to effectiveness and efficiency. The country reports therefore place more emphasis on the descriptive accounts of the baseline situation, REDD+ developments up to October 2010, and to the NICFI activities and their relevance.

2.6.3 Specifications of the Brazil evaluation

Whilst it is clear that 2007 is a relevant baseline with regards to the commitments made by the Norwegian government in Bali and the formation of NICFI, it is more unwieldy with regards to the context encountered in Brazil. In order to properly evaluate the contribution of NICFI towards the formulation and implementation of national REDD strategies in the context of Brazil, recognition must be made of the significant domestic political and economic developments in the country that predate and overlap in time with the time-frame created for this study i.e. 2007-2010. Recognising this, whilst the information presented in chapter 3 of this report can be used to form a rough baseline, caution must be taken to not only note its

rudimentary nature, but avoid reading 2007 as a significant historic rupture in preceding trends.

It is not possible to establish Brazil's national context for REDD without giving account of its efforts to create an alternative. Brazil's policy developments with regards to deforestation and emissions are domestically not considered progress towards an international agreement on REDD, but rather as national initiatives for cutting emissions and the definition of a critical national position in international REDD debates. In its development of an alternative approach to REDD+, Brazil has opposed international market-led proposals for REDD which the current government suspects will be misused by northern countries to offset their own carbon dioxide production. Despite their support for a national position, it must also be recognised that sub-national private sector proposals and initiatives are tolerated and that in current discussions of a REDD+ regime, proposals for the adoption of a "nested approach" are backed by State governments as well as sectors of the central government⁴.

Given the size of support given by NICFI and the connections between the Amazon Fund and national policies for sustainable development⁵ we consider it necessary to emphasize the role of the Fund as part of wider REDD initiatives. Recognising the close relationship between the Amazon Fund and national policy, we have further chosen to interpret the support given by the Fund as examples of REDD demonstration projects.

In this Brazil country evaluation, biodiversity and conservation indicators were not covered in as much detail as indicators related to indigenous peoples / social / livelihoods issues, and therefore might be considered a useful element for further assessment at a later date.

4 See Bill 5.586/2009 p.20

5 i.e. In keeping with the Sustainable Amazon Plan, the Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAM) as well as State Plans to Combat Deforestation

3. Baseline in 2007

3.1 REDD relevant policies, strategies, plans and actions

Whilst it has taken time for successive earlier Brazilian administrations to deviate from policies that encouraged unfettered population and industrialisation of the Amazon⁶, over the last fifty years significant progress has been made in the legal control of deforestation. The main regulations, governmental and non-governmental bodies directly associated with the fight against deforestation and that can be used to set a rough baseline for 2007 are presented below.

3.1.1 Regulations

The Brazilian Forest Code was introduced in 1965 and requires private landowners to conserve native forests in the following proportions: 20 percent along the Atlantic Forest, 35 percent in the Cerrado, and 80 percent in the Amazon (the “legal reserve”), in addition to conserving habitat along rivers, slopes and hilltops (the “permanent conservation areas”).

Concerned about increasing deforestation, in 2004 the Brazilian government approved the Plan of Action for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM). The Plan was structured to reduce deforestation in the Brazilian Amazon area, which is also known as the “Legal Amazon”⁷. PPCDAM is organised to deal with development questions in three thematic areas: territorial and land tenure organisation; monitoring and environmental control; and fostering sustainable productive activities. The implementation of the PPCDAM over the past six years has improved enforcement of environmental laws significantly via increased monitoring capacity. Other major accomplishments include the creation of 148 new protected areas covering 640,000 km² from 2003-2008; jailing over 700 people, including government employees, for illegal logging; and steps to restrict the market in illegally occupied public lands.

Another important instrument is Brazil’s Public Forest Management Law (Law No. 11,284, March 2006) which creates the potential to tender out forest concessions for sustainable management. According to the law, contributory forest concessions i.e. payment for sustainable use of forest products and services, is a form of indirect management that may be applicable to national forests and other public forests which have not been designated for community use or designated as full-protection

⁶ E.g. Getúlio Vargas’ “March on the West” policy. See Grandin 2009:339.

⁷ The Amazon region (or north region) in Brazil is composed by the States: Acre, Amapá, Amazonas, Pará, Rondônia, Roraima and Tocantins. Legal Amazon refers to the socio-geographic division of Brazil, which contains all of its territory in the Amazon Basin. It encompasses all seven states of the north region (Acre, Amapá, Amazonas, Pará, Rondônia, Roraima and Tocantins), as well as Mato Grosso state in the Center-West Region and most of Maranhão state in the NE Region

conservation units. As a result of the law Brazilian public forest areas are in the process of being identified and registered by the Brazilian Forest Service⁸.

The Public Forest Management Law also created an important legal instrument allowing for integrated planning between infrastructure development, social sustainability and environmental protection. The Sustainable Forest District (DFS) was established in order to identify priority areas for the implementation of public policies that encourage integrated forest-based development. The aim is to develop public policies in various sectors of local government that promote forestry on a sustainable basis, including land policy, infrastructure, industrial development, management of public areas, technical assistance and education, in a coordinated manner. So far, only one forest district has been created. Formed in 2006, the forest district is located in the area of influence of the BR 163 road that links Cuiabá and Santarém.

In addition to these federal initiatives, several State level strategies and regulations to address the issue of climate change have been established. The 2007 Amazonas State Climate Change Policy (Law 3135/2007), and the State System for Protected areas (Complementary law 53/2007) reinforced the commitment of the State to promoting sustainable development and climate change mitigation. These state laws establish the legal framework necessary for implementing a financial mechanism for the payment of environmental services and compensation for activities reducing emissions from deforestation and carbon sequestration. This mechanism is operated by a public-private institution created in the same year i.e. the Sustainable Amazon Foundation (FAS). The Foundation initially received USD 10 million from the State government and an additional 40 million from the private sector.

3.1.2 Government institutions

Brazilian forests are managed by several institutions at three levels of government i.e. federal, state and municipal. On the federal level, direct responsibility for forest management lies with four institutions:

The *Ministry of the Environment (MMA)* was created in 1992 and is responsible for the formulation of forest policies. It is the institution that may award rights in the sustainable forest production sector, as it is responsible for signing forest concession contracts. The Ministry has a Climate Change and Environmental Quality Secretariat where the director of climate change sits

The *Brazilian Forest Service (SFB)* was created in 2006 within the Ministry of Environment and is the body that manages federal public forests for the sustainable production of goods and services. It also has the duty of providing information, training, and promoting the forest sector. The Service is also currently in charge of conducting the national Green House Gas (GHG) inventory in Brazil in partnership with the State governments.

⁸ Public forests enlisted by the National Public Forest Register (CNFP – Cadastro Nacional de Floresta Públicas) by November 2009 comprised an area of approximately 239m hectares, which represents 28% of the national territory, and include approximately 26m hectares of state forests. Brazil's first Forest Concession area is located in the Jamari National Forest and is composed by three Forest Management Units – a small management unit (around 17,000 ha large), a medium one (about 33,000 ha) and a large one (with approximately 46,000 ha). The second forest concession process started in 2008 for an area of approximately 140,000 ha, comprising three Forest Management Units, located in the Saracá-Taquera National Forest, in Pará State.

The *Brazilian Institute of Environment and Renewable Natural Resources (IBAMA)* was created in 1989 and is responsible for the enforcement of environmental control, environmental law and licensing of the Brazilian forests. The institution is linked to the Ministry of the Environment.

The *Chico Mendes Institute of Biodiversity Conservation (ICMBio)* was created in 2007 and operates primarily with the management of federally protected areas (PAs). It is responsible for proposing, implementing, managing, protecting, inspecting and monitoring federal protected areas.

In addition to these central institutions, there are three institutions at the federal level that enable social participation in the forest management decision-making process i.e. *the National Environmental Council (CONAMA)*; *the National Forest Commission (CONAFLOP)*; and *the Public Forest Management Commission (CGFLOP)*.

State level environmental departments are responsible for elaborating forest policies and regulation, and state environmental departments are responsible for licensing, control, and inspection of forestry and conservation activities. Some states have created specific institutions for public forest management. The municipal level has adopted similar arrangements.

Another important player at the federal level is *the Fundação Nacional do Índio (FUNAI)*, a governmental protection agency created in 1967 to safeguard indigenous interests and culture. It is responsible for taking care of issues such as mapping out and protecting lands traditionally inhabited and used by these communities, and preventing invasions of indigenous territories.

The *Instituto Nacional de Pesquisas Espaciais (INPE)* develops science and technology in the areas of space and terrestrial environment in Brazil. The institute was created in 1965 under the name of CNAE (National Commission of Space Activities) and is linked to the National Council for Scientific and Technological Development (CNPq), which is part of the Ministry of Science and Technology. INPE is in charge of monitoring deforestation.

Given that Brazil regards forests as multi-dimensional, several other Ministries other than the Ministry of Environment are also seen as part of the policy environment. In 2002 Brazil created the *Comissão Interministerial de Mudança Global do Clima* (Global Climate Change Inter-Ministerial Commission- CIMGC) to act as the Brazilian Designated National Authority (DNA) under the Kyoto Protocol. In 2007 *the Comitê Interministerial sobre Mudança do Clima* (Inter-ministerial Committee on Climate Change – CIM) was created to guide the elaboration of the National Climate Change Plan. This committee is composed of seven different Ministries.

The Brazilian Environmental and Social Development Bank (BNDES) is the main financing agent for development in Brazil. Since its foundation, in 1952, the BNDES has played a key role in stimulating the expansion of industry and infrastructure in the country. The Bank's operations include support for exports, technological

innovation, sustainable socio-environmental development and the modernization of public administration.

3.1.3 Civil society

Brazil has a large and highly active civil society. Taking this into account, rather than provide a description of individual organisations we outline here the main civil society clusters working on climate and deforestation issues, relevant to the REDD debate.

The main cluster of the Brazilian civil society working on issues related to climate change was founded in 1990 to facilitate the participation of the country's civil society at the *United Nations Conference on Environment and Development* (UNCED), Rio-92. The cluster is called the *Brazilian Forum of NGOs and Social Movements for the Environment and Development* (FBOMS), and has a Working Group on climate under its structure founded in 1992. The Working Group became the national cell of the Climate Action Network and has an important role in informing and mobilizing Brazilian civil society on climate issues. FBOMS is recognised by the Brazilian Government as an important partner, and is present in a range of Governmental meetings that are responsible for decisions concerning the Brazilian environmental policy.

In addition to FBOMS, in 2000 the *Brazilian Forum on Climate Change* (FBMC) was created. This is a partnership between society, government and academia that aims to raise awareness and stimulate discussion on the causes and consequences of climate change, and assist the government in the incorporation of climate change issues at various stages of public policy. The FBMC is composed of 12 Ministers, the head of the *National Water Agency* (ANA) and representatives of civil society.

Another important cluster, the *Climate Observatory*, was founded in 2002 as a voice for civil society organisations in order to pressure the government to take actions towards promoting mitigation and adaptation in Brazil.

The debate around climate change in Brazil is very often associated with the deforestation issue; a traditional theme of the Brazilian civil society agenda. *Amigos da Terra* (Friends of Earth); *IMAZON*; *SOS Mata Atlântica*; *Socio-Environmental Institute*; *Centro Vida* (Life Center), *IPÊ* - (Ecological Research Institute); *Environmental Institute*; *IPAM*; *GTA* - (Amazon Working Party) and *Aliança Povos da Floresta* (Forest Peoples' Alliance) are some of the entities that head this discussion at the national level. International entities like *Greenpeace*, *The Nature Conservancy*, *Conservation International*, *WWF Brazil* and *OXFAM* have also been very active in the country.

At the State level, there has also been considerable debate about climate change. States have been creating their own forums to promote the debate about initiatives and programmes on climate changes, bringing together Government, private sector, academia and civil society. These areas of dialogue are important channels and there are currently around 10 local state forums on climate change in States like Piauí, Minas Gerais, and Rio Grande do Sul.

3.2 MRV capacity and capability

The National Institute for Space Research (*Instituto Nacional de Pesquisas Espaciais* - INPE) was established in 1961 to monitor deforestation in the Legal Amazon. The monitoring programme, i.e. PRODES (*Programma de Cálculo do Desflorestamento da Amazônia*), uses Landsat images to detect deforestation above 6.25 ha. From the establishment of its forest management programme in 1988 up to 2002 Landsat images were visually interpreted from printed hardcopies. No maps, and only state-level numbers, could be published in this period because of national security policies. INPE acknowledges that image interpretation procedures in these years were poorly documented. It has only been since 2003 that INPE has been granted permission by the federal government to publish deforestation maps. In this year, image interpretation started to be assisted by computer technology.

The image processing methodology of the PRODES programme⁹ consists of the following seven steps:

- Selection of Landsat scenes with minimum cloud coverage¹⁰ acquired as close as possible to the reference date (August 1st);
- Image geo-referencing;
- Conversion of radiometric image data into three data components (“vegetation”, “soil” and “shadow”) using a spectral mixture algorithm;
- Image segmentation;
- Unsupervised classification;
- Mapping of the unsupervised classes in informative classes (forest, deforestation, etc.) and building of mosaics.
- Editing of the results and preparation of thematic maps and tables for each State.

In 2004, INPE developed an additional monitoring programme i.e. DETER (*Detecção do Desmatamento em Tempo Real*). DETER is an almost real-time deforestation detection programme that uses the 250 x 250 m resolution data of the Modis satellite to detect deforestation above 25.0 hectares every 15 days. The results are published in the webpage of INPE¹¹ and sent to IBAMA (Brazilian Institute of Environment and Renewable Natural Resources¹²) to intervene on the ground where illegal deforestation spots larger than 25.0 hectares are detected. Data from this programme has allowed IBAMA to close more that 100 illegal operations in the Legal Amazon.

INPE makes all satellite data and deforestation reports freely available on its website. The reports and figures are subject to rather intense public scrutiny. The public and scientific debate resulting from this data transparency is recognised as an important driver for continuous improvements in INPEs forest monitoring systems. However, there has been no formal independent third-party verification of the data.

9 www.obt.inpe.br/prodes

10 Cloud coverage is a problem for monitoring deforestation. Since 2005, INPE has been analyzing cloud obscured areas using images from other satellites. However, some cloud-covered areas always remain in the dataset. Deforestation is calculated by extrapolating the data obtained from cloud free areas to those areas where clouds are present in all image sets.

11 www.obt.inpe.br/deter

12 Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis

3.3 Deforestation and forest degradation rates

About 358,408 km² of pristine forest was clear-cut in the Brazilian Legal Amazon between 1988 and 2007, an area that is 10% larger than Norway (see Table 2). Only one-third of this deforestation can be attributed to the actions of poor subsistence farmers. Commercial interests of large cattle ranchers and agro-businesses, and related land speculation, have motivated the majority of land-use change in the Legal Amazon region. Inappropriate public policies, misguided multilateral projects, and commercial exploitation of forest resources have facilitated the destruction of the forest while the vast expanse of the Amazon rainforest with its scattered and low-density population have made law enforcement by public institutions and independent environmental organisations particularly difficult.

Cattle-ranching has been the leading cause of deforestation in Brazil in the last four decades. Several factors have contributed to the development of the cattle business: (i) the currency devaluation against the dollar has doubled the price of beef in Brazilian Reals making Brazilian beef more competitive on the world market; (ii) the eradication of foot-and-mouth disease contributed to the increase of the demand and price for Brazilian beef; (iii) road construction made previously inaccessible forest lands in the Legal Amazon accessible to cattle ranchers; (iv) pasture land prices exceeded forest land prices, making forest clearing attractive, particularly at times of high inflation; and (v) land titling laws allowed claiming a land title by simply clearing the forest and putting some cows on it.

Table 1: Area (km²/year) deforested in the Brazilian Amazon 1988-2007

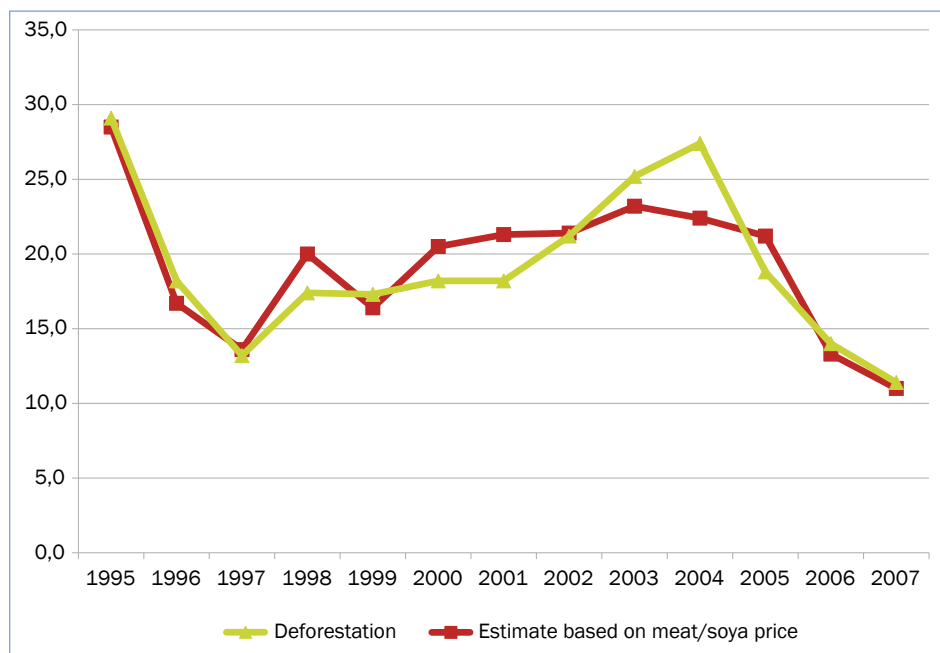
Year	State										Legal Amazon
	Acre	Amazonas	Amapá	Maranhão	Mato Grosso	Pará	Rondônia	Roraima	Tocantins		
1988 (a)	620	1,510	60	2,450	5,140	6,990	2,340	290	1,650		21,050
1989	540	1,180	130	1,420	5,960	5,750	1,430	630	730		17,770
1990	550	520	250	1,100	4,020	4,890	1,670	150	580		13,730
1991	380	980	410	670	2,840	3,780	1,110	420	440		11,030
1992	400	799	36	1,135	4,674	3,787	2,265	281	409		13,786
1993 (b)	482	370		372	6,220	4,284	2,595	240	333		14,896
1994 (b)	482	370		372	6,220	4,284	2,595	240	333		14,896
1995	1,208	2,114	9	1,745	10,391	7,845	4,730	220	797		29,059
1996	433	1,023		1,061	6,543	6,135	2,432	214	320		18,161
1997	358	589	18	409	5,271	4,139	1,986	184	273		13,227
1998	536	670	30	1,012	6,466	5,829	2,041	223	576		17,383
1999	441	720		1,230	6,963	5,111	2,358	220	216		17,259
2000	547	612		1,065	6,369	6,671	2,465	253	244		18,226
2001	419	634	7	958	7,703	5,237	2,673	345	189		18,165
2002	883	885	-	1,085	7,892	7,510	3,099	84	212		21,651
2003	1,078	1,558	25	993	10,405	7,145	3,597	439	156		25,396
2004	728	1,232	46	755	11,814	8,870	3,858	311	158		27,772
2005	592	775	33	922	7,145	5,899	3,244	133	271		19,014
2006	398	788	30	674	4,333	5,659	2,049	231	124		14,286
2007	184	610	39	631	2,678	5,526	1,611	309	63		11,651
Total	11,259	17,939	1,123	20,059	129,047	115,341	50,148	5,417	8,074		358,408
<i>(a) Average from 1977-1988</i>											
<i>(b) Average from 1993-1994</i>											

(INPE, 2010. PRODES data consulted online on August 2010)

Commercial agriculture, particularly soya-bean cultivation, has become another important contributor to deforestation in Brazil. Brazilian scientists developed a variety of soya bean that can be cultivated in the rainforest climate which, combined with high international prices, provided the stimulus for soya bean growers to rapidly expand in the early 2000s. However, only a small portion of the deforestation was caused by the soya-bean growers themselves; most of the soya bean farms were established on already cleared land, savanna, and transitional forests, thereby pushing ranchers and slash-and-burn farmers ever deeper into the forest frontier.

The researchers P. Barreto, E. Arima and R. Salamão at Imazon produced a report in March 2009 in which they demonstrated a strong correlation between deforestation figures from 1995-2007 and the price of beef and soya. In their analysis they used the annual prices of these goods in the Brazilian market to create a formula for estimating deforestation. The figure below demonstrates the correlation the researchers highlighted i.e. between deforestation and estimated meat and soya price.

Figure 2: Correlation between Deforestation and Meat/Soya Prices*



(After Barreto et al. 2009)

Another important cause of deforestation has been colonisation followed by subsistence farming. For decades, government policies promoted the occupation of the Amazon region and squatters were granted the right to use the land in perpetuity by living on a plot of unclaimed public land for more than one year. After five years they were allowed to claim a land title and to sell the land thereafter. Up to the mid-1990s the land claimant was able to gain a title for an amount of land three times larger than the cleared surface. Many areas cleared in this process lost their fertility after one or two years of subsistence farming and are now either abandoned or used for low-productive small-scale cattle grazing.

In addition to the importance to national economic development, the development of road infrastructure is also a major driver of deforestation in the Legal Amazon. Roads provide access to logging and mining sites and an opportunity to expand the agricultural and cattle ranching frontier. They have led to land-grabbing for speculative purposes. After the construction of the Trans-Amazonian Highway, deforestation in Brazil accelerated to levels never seen before. Investment in road construction and infrastructural improvements continue to be pillars of federal and state development policies.

Hydroelectric projects and mining activities which have been essential for the economic development of Brazil are also responsible for deforestation in the Legal Amazon region. The Balbina dam flooded 2,400 km² of forests and led to more than 25 million tons of CO₂-e emissions. During the 1980s more than 100,000 prospectors invaded the state of Para when a large gold deposit was discovered and some level of illegal mining still exist in the state of Roraima near the Venezuelan border. Mining activities lead to deforestation for building material, fuel-wood collection and subsistence agriculture.

Logging is the most important driver of forest degradation and is a precursor of deforestation. Brazil has attempted to control logging by implementing a strict licensing policy which allows timber to be harvested only in specifically designated areas. However, illegal logging has so far not been completely stopped by these policies. The vast territory of the Amazon forest makes this activity difficult to detect. Selectively logged areas are at greater risk of being deforested than intact forests because access is facilitated by the logging roads.

3.4 National ownership

Brazil's national position on forests has always been strong in international forums. When the discussion of REDD re-emerged in the UNFCCC negotiations in 2005, Brazil insisted on avoiding a narrow mechanism focused only on deforestation and on the need for broader policy on emission reductions, adopting a national approach (as opposed to a project-based approach), and excluding market-based approaches in the design of the financing system. These views have evolved, adapting to Brazil's own internal processes (see section 4.4).

3.5 Livelihoods, economic and social development and environment conservation indicators

Many of the significant advances in the formation and successful application of regulatory structures in Brazil predate 2007. As well as recognising these legal and technical advances, it is also important to take into account the importance of a series of wider social, legal and economic developments that further explain the environment in which deforestation reductions are now being made.

3.5.1 Social and economic development

Although many changes had already been initiated by earlier governments, many of the positive legal and technical advances responsible for current reductions in rates

of deforestation can be clearly connected to the reformist agenda of the current Brazilian government. In 2002 the current administration set about introducing a broad range of social and economic reforms in the country aimed at reducing the country's high levels of poverty and social inequality and defining a new route towards sustainable development. Whilst poverty and inequality in the country still remain severe, Brazil has managed to raise the standard of living for millions of its most destitute citizens and ranks as one of the top nations in the world in terms of reducing hunger, a goal that has been the focus of Zero Hunger programme. A key element of the anti-poverty effort has been the much-lauded Bolsa Família programme which has provided stipends to poor families on the condition that their children attend school. The programme is widely recognised internationally as helping to break the previously embedded cycles of poverty and child-labour.

3.5.2 Sustainable development

As well as the implementation of innovative social programmes, sustainable development was also interpreted in practice by the present government in a similar way to its integrated political understanding in Norway i.e. "economic growth with social protection". This understanding resulted in the introduction of the PPCDAM policy and Sustainable Amazon Plan (PAS) as well as creating political space for the positioning of the charismatic environmental activist Marina Silva in the position of Environmental Minister. During the first period of the Lula government, the Brazilian Ministry of Environment made a series of efforts aimed at tightening regulations covering the environmental and social impacts of economic and infrastructure development projects and forest management. Recent plans for road improvement and building have been preceded by the creation of protected areas in unclaimed public lands around the planned projects, and this strategy seems to have the potential to mitigate the impacts that infrastructure development projects will have on forests.

These efforts, however, parallel and stand in contrast with the Lula government's push for economic growth, best exemplified by its 2007 "Plan for Accelerated Growth" (PAC) aimed at infrastructure development in the Legal Amazon, and efforts have also been made by the government to diversify the sources of energy production in the country¹³. Whilst bio-fuels¹⁴ and hydro-electric power¹⁵ remain bastions of the country's energy economy, there has been movement in recent years towards other energy sources including thermo-electric schemes and oil and gas (following the discovery of the deep offshore *presal* deposits near Rio de Janeiro). Another significant development in the country's economy has been the increasing industrialization and expansion of agricultural production¹⁶. Interestingly, as a result of the forest governance laws and monitoring now in place, a significant degree of this industrialization has occurred not at the cost of further deforestation in the Legal Amazon, but as a result of technological developments and lighter environmental

¹³ <http://news.bbc.co.uk/2/hi/americas/6289943.stm>

¹⁴ More than half the cars in Brazil now have flex-fuel engines, and that figure should rise to 90% by 2017. See http://www.economist.com/node/16952914?story_id=16952914

¹⁵ 75% of energy in the country is produced by Hydro-power. BNDES powerpoint presentation 2/8/10

¹⁶ Between 1996 and 2006 the total value of the country's agricultural crops rose from 23 billion reals (USD23 billion) to 108 billion reals, or 365%. Brazil also increased its beef exports tenfold in a decade, overtaking Australia as the world's largest exporter. It has the world's largest cattle herd after India's, and is now the world's largest exporter of poultry, sugar cane and ethanol. Since 1990 its soya bean output has risen from barely 15m tonnes to over 60m. Brazil accounts for about a third of world soya bean exports, second only to America. See http://www.economist.com/node/16886442?story_id=16886442

controls in the Cerrado¹⁷, the country's dry savanna region¹⁸. Agricultural industrialization has also, amongst other fields including infrastructural development, formed the basis of the linked granting of c4 billion USD of foreign aid by Brazil and the active export of technologies to other developing countries¹⁹. In general terms, a bracketing of all these expanding activities is the basis of the explanation for why the Brazilian economy was forecast by international donor organisations to grow strongly (in the 5 to 6 percent range) in 2010 and 2011²⁰.

Whilst poverty reduction and economic growth have generated support for the present government and improved the policy climate for the state regulation of the forests and the environment, the positive picture produced here has to be balanced against the controversies that have also followed these developments. Whilst the current governments' successes at the polls and ballot box have in large part been a result of support by civil society, Brazil's strong environmental lobby, in part described above and with roots back to the rubber tapper movements of the 70s and 80s, have fallen in and out of agreement with the development model followed by the government. Whilst able to consistently push for and gain a strong commitment from the government regarding the environment and reduction of deforestation (explaining the successful lobby for the creation of the Amazon Fund in 2008), environmentalists highlight the inconsistency of the government in continuing to support environmentally and socially costly infrastructure projects.

Of particular focus over the last few years has been the approval of road building schemes (i.e. the BR 163 Cuiaba- Santarém and BR 391 Porto Velho-Manaus) and the Belo Monte hydro-electric damn. Whilst the government and the Brazilian Sustainable Development Bank (BNDES) insist that care is being taken with the environmental and social costs of these projects, environmental organisations highlight recent historic experiences that demonstrate such projects as having an unacceptable cost to nature and human populations. In this light, it is also of note that Marina Silva left her position in 2008 as a result of what she stated was excessive opposition from other parts of the government, and in protest against the passing of a new mining law that enabled mining in the Legal Amazon. Environmental organisations focused on the conservation of forests on Brazil's Atlantic Coast and other inland areas of the coast, also question the actions and rhetoric surrounding the government's high profile support for deforestation efforts in the Legal Amazon, when deforestation and carbon emissions continue to grow elsewhere.

3.5.3 Human and Indigenous Rights

Further critique of the government's "growth with protection" policy conflicts has come from indigenous organisations and other marginalized social sectors that highlight a persisting lack of credibility in Brazil's claims to defend their rights. There

17 Deforestation in the Cerrado has been rising significantly over the past years. As prescribed in the Forest Code, private landowners in Cerrado must conserve 35% of their property's native forests. Because forest cover in this biome is currently greater than 35%, "legal deforestation" is taking place, going against Brazilian's effort to tackle national deforestation.

18 http://www.economist.com/node/16886442?story_id=16886442

19 http://www.economist.com/node/16592455?story_id=16592455

20 [web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/BRAZILEXTN/0,,contentMDK:20189430~pagePK:141137~piPK:141127~theSitePK:322341.00.html](http://www.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/BRAZILEXTN/0,,contentMDK:20189430~pagePK:141137~piPK:141127~theSitePK:322341.00.html)

are 227 indigenous groups in Brazil²¹. The Federal Constitution of Brazil established the “right of origin” of indigenous people over their lands i.e. that they lived there before the creation of the nation-state, and that this right should prevail above all others. The Constitution furthermore grants indigenous peoples permanent ownership and use of the wealth originating from the soil, rivers and lakes in Indigenous Lands (ILs) i.e. according to Article 231 lands “occupied by them on a permanent basis, used for productive activities, essential for conservation of the environmental resources necessary for their well-being and physical and cultural reproduction, in accordance with their uses, customs and traditions. Also according the Constitution, the Brazilian government has the obligation, through the National Indigenous Peoples Foundation (FUNAI) to promote recognition of Indigenous Lands by means of declarations which publicize their boundaries, guarantee protection and prevent occupation by third parties²². Brazil is also a signatory of the ILO 169 Convention on the Rights of Indigenous Peoples which came into force in Brazil in 2004.

Whilst an official basis for protection exists for the country’s indigenous population, many indigenous territories remain threatened by land grabbing, timber extraction, farmers, miners, fishers and hunters in search of natural resources. Moreover, in recent years, indigenous communities, and organisations representing their rights, have highlighted the gap between the government’s commitments to sustainable development and their experience of numerous state-supported economic and infrastructure projects which directly threaten their rights and territories as established in the constitution. In this regard, the Belo Monte hydro-electric scheme has for example become a focus of mobilisation and protest by indigenous peoples in the Xingu river basin area.

Whilst the Federal government is committed to the protection of Indigenous Lands, indigenous peoples are also concerned about the lack of clarity regarding their use rights in these territories and in particular where these territories overlap with conservation areas²³. Whilst in part supportive of the government’s socio-economic projects and reforms, other marginalized sectors (rural landless workers, rubber tapper organisations, marginalised *quilombolo*²⁴ and *coboclo*²⁵ communities etc) in rural Brazil have also protested against the current government’s emphasis on an interpretation of sustainable development that emphasises support to big business, without fully addressing the more complex local challenges of rural livelihoods and, in particular, land access and titling.

21 Whilst a specific indigenous census has never been performed for the entire country, in the last census of the entire population in 2000 over 734 thousand people claimed to be indigenous. In the entire country, there are 643 Indigenous Lands (ILs) in different stages of identification and regularisation, with territories that add up to 1,103,955 km², or approximately 13% of national territory (ISA 2007). 173 indigenous groups live in the Legal Amazon within 405 ILs, covering an area of 1,085,890 km², or 21.7% of the region. According to ISA data, approximately 300 thousand Brazilian indigenous people live in these areas (c1.15% of the entire Amazon population). There are also reference to 46 “isolated” indigenous groups, which have no official contact with the State or society around them, and about whom there is no precise information regarding location and ethnicity (Carniero Filho, A & Braga de Souza 2009)

22 The process of formal recognition of these areas occurs in stages in accordance with administrative procedures originally established by the Indigenous Peoples Statute (1973), and later altered and currently set forth in Decree 1775 (1996).

23 See Rojas Garzon, B (2009)

24 Communities largely comprised of the descendants of black slaves. The Presidential Decree 4887 of 2003 which regulates the procedure for granting property titles to Quilombo communities over the lands they occupy is currently under review by the Supreme Court.

25 Mestizo, or mixed European/indigenous/African communities

4. Status of National Climate/Deforestation Policy 2007- 2010

4.1 REDD relevant policies, strategies, plans and actions

4.1.1 General policy developments

Recognising the importance of tackling deforestation for social, environment and economic reasons, Brazil has continued in recent years to implement a series of measures and policies aimed at equipping the country to effectively control forest loss.

In 2008 the government approved the *Sustainable Amazon Plan (PAS)* which had been under intensive discussion since 2003. It was conceptualised by the Federal government in partnership with the Legal Amazon State governments: Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia, Roraima and Tocantins, and with high participation of civil society. Its purpose is to implement a new model of development in the Legal Amazon, grounded on enhancing the potential of its natural and socio-cultural heritage, and aimed at generating jobs and income; reducing social inequality; making innovative and dynamic economic activities feasible and inserted in regional, national and international markets; and the sustainable use of natural resources, while maintaining ecological balance.

Also in 2008, Brazil adopted the *National Policy on Climate Change* which aims to identify, plan and coordinate actions and measures to mitigate greenhouse gases generated in Brazil, as well as other activities required for adaptation to the impact of climate change. Two of this policy's main targets are related to the forestry sector:

1. Seeking sustained reduction of four-year deforestation rates in all Brazilian biomes until zero illegal deforestation is reached, or, in other words, reducing deforestation between 2006 and 2010 by 40%, compared to the ten-year average recorded from 1996 to 2005, and by an extra 30% for each of the following four-year periods, estimated against the previous periods. In the case of the Amazon biome, such a specific goal may avoid emissions to the extent of 4.8 billion tonnes of carbon dioxide in the 2006-2017 period, based on an estimate of 100 tC/ha. This amount will be reassessed after the inventory of carbon stocks is concluded as part of the National Forest Inventory.
2. Preventing the net loss of forest cover area by 2015, meaning that, in addition to conserving forests at the levels established by the previous goal, the area of planted forests should double from 5.5 million ha to 11 million ha in 2020, 2 million ha of which should be planted with native species, and giving priority to planting forest in degraded pastures with the aim of promoting their economic and environmental rehabilitation. It will be possible to measure the positive impact of this specific goal as soon as the inventory of carbon stocks is concluded as part of the National Forest Inventory.

The National Policy on Climate Change is in the process of being approved. Even though there are several bills in Congress attempting to specify this general law, the Ministry of the Environment is reluctant to support any regulation on forests and climate before an international agreement is reached. The aim is to avoid inconsistencies between the potential international framework on REDD and national policies. However, given that there are several issues that will have to be country specific, such as methods applied for benefit-sharing, the Ministry has composed three working groups on (i) institutional arrangements; (ii) benefit sharing; and (iii) financial mechanism. The aim is to start a national debate with full participation of civil society on the design of a potential climate and forest regulation.

Initial Brazilian efforts to address deforestation specifically target the Legal Amazon, but given that the country aims to develop a national approach, plans are also being made to address the same question in the five other biomes of the country. Work was started on the Cerrado Plan in September 2009 (*Plano de Ação para Prevenção e Controle do Desmatamento e das Queimadas no Cerrado*). The plan aims to coordinate and carry out initiatives to reduce deforestation in the region, define reduction targets for deforestation rates and provide the foundation for estimating greenhouse gas emissions in the biome. These calculations will be used to define emission reduction targets under the umbrella of the National Plan on Climate Change. Given the contrasting realities of the Cerrado and the Legal Amazon, the plan will focus mostly on encouraging sustainable productive activities, including reforestation rather than issues such as land tenure. The country is also taking action to bring sustainable practices to community forests in order to engage them in the fight against deforestation. Taking into account the importance of bringing sustainability to community forest management, in 2009, a presidential decree established the *Federal Community and Family Forest Management Programme* (Decree No. 6,974/2009).

Following the protected areas law framework (2000) Brazil has been creating several new conservation units over the past years. As of 2009, the country had 304 federal protected areas occupying an area of approximately 77 million ha (ICMBio 2009); 79% of these are located in the Amazon biome. This number is a considerable increase from 2006 figures of 260 federal protected areas occupying an area of approximately 56 million ha (IBAMA 2006). Even though the country has been active in creating new protected areas, it does not mean that all 304 federal units are in full operation. Less than two thirds have an approved management plan and only a little over 100 units have a management council in place. In addition, the tenure situation remains a challenge. A recent study estimates that some billions of reals are needed to acquire private property located inside the protected areas (Funbio 2009).

This past year, an elected deputy from the Communist Party aligned with agribusiness representatives has proposed considerable changes to the Forest Code to Congress. The proposed reform puts more power in the hands of State Governments, allowing them to unilaterally decrease the amount of habitat landowners must conserve to 50 percent in the Amazon biome and 20 percent in the Cerrado. In addition, the proposed changes would grant amnesty to landowners who illegally cleared their land prior to 22 July 2008. Civil society organisations, alarmed by these

potential changes, have disseminated information explaining in detail the consequences of altering the forest code in an attempt to inform the public about the implications of such modifications. Some experts have also highlighted that if these changes take place, legal deforestation could significantly increase and signal the view that economic growth cannot be reached in coordination with forest protection in the country.

At the State level, there has been considerable action. Several Brazilian States are making efforts towards developing their State Climate Policy, including: Mato Grosso, Acre, São Paulo, and Rio de Janeiro. In addition, the Amazon States of Amapá, Amazonas, Mato Grosso, and Pará, agreed a partnership with North American States in 2008. California, along with Wisconsin and Illinois, signed Memoranda of Understanding (MOUs) with these four Brazilian states (and two Indonesian provinces Aceh and Papua) at the Governors' Climate Change Summit on November 18, 2008. Although the MOUs provide a foundation for future cooperation on a number of climate policy, financing, technology exchange and research issues, the parties expressly recognise the importance of the forest sector, and have committed to "developing rules to ensure that forest-sector emissions reductions and sequestrations, from activities undertaken at the sub-national level, will be real, measurable, verifiable and permanent, and capable of being recognised in compliance mechanisms." The MOU States are currently engaged in an effort to develop these rules and build a regulatory architecture that allows interoperability between their systems. This process is being considered as a sign that there will be a meaningful process of transnational cooperation among the MOU states to develop workable frameworks and mechanisms for generating compliance-grade assets from international forest carbon activities in Brazil and Indonesia and bringing such assets into existing and emerging compliance regimes in the United States.

The federal government has emphasized over the years that it will adopt a national level Green House Gas accounting system. Consequently, the federal government has until very recently been opposed to bilateral carbon sales transactions taking place under the voluntary market. In case these transactions conflict with a future national legislation on climate and forests, the burden will fall on the State to solve the potential conflicts. The federal level recognises that it is natural and healthy for new initiatives and debates to develop on the State level, so it will not prevent proactive States from exploring new grounds, but stresses that States must bear all risks associated with conducting early actions related to sale of carbon credits. In order to promote better coordination between all government levels, the Ministry of the Environment has been engaging with States and Municipalities to build strong and collective partnerships and better promote the decentralization process. As part of this process, States are encouraged to create their own financial mechanisms, such as environmental funds.

4.1.2 Amazon Fund

In December 2008, the Brazilian President announced Brazil's commitment to sustainable development based on the PAS and PPCDAM strategies and to reduce Amazon deforestation by 80% below its historic baseline over the next ten years. To support this goal a decree (6527) was passed by the Brazilian government creating the Amazon Fund and committing government support to the fund in the period 2008-2011. The fund is aimed at raising donations for non-reimbursable invest-

ments in efforts to prevent, monitor and combat deforestation, as well as to promote the preservation and sustainable use of forest in the Amazon Biome. The Brazilian Development Bank (BNDES) was designated by the government as the official administrative body for the Fund. As such it is charged with the responsibility to raise funds, facilitate contracts and monitor projects that are granted support by the Fund.

An open call for applications is run by the fund for support to projects specified as: promoting a consistent and continuous reduction in the rate of deforestation in Brazil; transforming the reduction of emissions from deforestation into a system that finances the conservation and sustainable use of forests; demonstrating the feasibility of the incentive mechanisms to reduce emissions from deforestation; and making the forest more valuable than other alternative uses of the land.

In an effort to maximise operational efficiency and better distribute the work of analysis and monitoring of projects and their results, BNDES have further organised the aims of the Fund into four main operational categories:

- The promotion of sustainable production activities
- Conservation and protection of protected areas
- Scientific and technological development
- Modernisation and institutional development of agencies working in the region

Matching these goals the first five projects were granted support from the Amazon Fund in late 2009²⁶ and a further three projects have been supported in 2010. Aside from projects in the Amazon biome up to 20% of the Fund's disbursements are earmarked as possible funding for support to the development of systems for monitoring and controlling deforestation in other Brazilian biomes and in the biomes of other tropical countries. According to BNDES and the government the initiatives supported by the Amazon Fund must also be in keeping with the Sustainable Development Plan (PAS), Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAM), and State Plans to Combat Deforestation.

The governance of the Fund is under the charge of the Guidance Committee of the Amazon Fund (COFA). COFA is responsible for establishing guidelines and monitoring the results of the Fund. The Committee is structured to comprise three groups i.e. the federal government, state governments and civil society²⁷. Each group carries one vote in the decision-making process of the Committee, guaranteeing an equal balance of power between the three groups. The Technical Committee of the Amazon Fund (CTFA), consisting of experts appointed by the Ministry of the Environment, has the task of certifying the Emission of Carbon Derived from Deforestation. Participation in the CTFA is considered of public interest and is not rewarded with any form of payment²⁸.

26 Fundação Amazonas Sustentável (FAS); Instituto do Homem e Meio Ambiente da Amazônia (IMAZON); The Nature Conservancy in Brazil; Fundo Brasileiro para a Diversidade (FUNBIO); Instituto Ouro Verde.

27 The Federal Government is represented by: the Ministry of the Environment; the Guidance Committee of the Ministry of the Environment, Industry and Trade; the Ministry of Foreign Affairs; Ministry of Agriculture, Cattle raising and Supply; The Ministry of Science and Technology; The Chief of Staff and Secretariat for Strategic Affairs of the Presidency of the Republic. All of the State governments within the Legal Amazon are included in the Committee. Civil Society is represented by the Forum of NGOs and Social Movements for the Environment and Development (FBOMS); the Coordination of Indigenous Organisations of the Brazilian Amazon (COIAB), the National Confederation of Agricultural Workers (Contag) and the Brazilian Society for the Advancement of Science (SBPC); National Confederation of Industry (CNI) and the National Forum of Forestry-Based Activities (FNABF).

28 The current members of the CTFA include Adalberto Luis Val (INPA), Adalberto Veríssimo (IMAZON), Carlos Afonso Nobre (INPE), Cristiano Pires de Campos (CENPES), Paulo Roberto de Souza Moutinho (IPAM), Roberto Dall'agnol (UFPA).

Fundraising for the Amazon Fund is based on a reduction of emissions of greenhouse gases from deforestation i.e. the reduction of deforestation in the Amazon must be proven to make new funding possible. The Brazilian Ministry of Environment is responsible for the calculation methodology (Figure 3) that sets the limit of annual fundraising, and experts from the CTFA assess its application in the deforestation areas and the calculation of the amount of carbon per hectare. Reliance is made on the efficiency of INPE's monitoring system of forest coverage as the basis for this calculation.

Figure 3: Amazon Fund's Calculation of Reduced Deforestation

$$ED = (TDM - TD) * tC/ha$$

Where:

ED = Reduction of Carbon Emission from Deforestation in tons of carbon (tC)

TDM = Average Deforestation Rate

TD = Annual Deforestation Rate for the period

tC/ha = Tonnes of carbon per hectare of forest

The Amazon Fund currently applies a value of 100 tC/ha (tonnes of carbon per hectare) of biomass, equivalent to 367 tCO₂e/ha (tonnes of carbon dioxide equivalent per hectare). In 2009, the standard price of USD 5.00 /tCO₂e (five USD per tons of carbon dioxide) was used.

BNDES is currently working on a Logical Framework for the Amazon Fund aimed at adding further to its monitoring and consolidation of results by means of an aggregate analysis of the projects supported and impact indicators. The Amazon Fund undergoes a series of internal and external audits aimed at judging compliance with strategic objectives and improving internal practices.

The Amazon Fund has been widely recognised as an important experiment in developing a national climate funding mechanism. A large number of organisations (WWF, Rainforest Foundation, Friends of the Earth, Nature Conservancy Trust etc) and analysts have recognised it as an important example for others who are seeking to develop mechanisms that shift beyond traditional aid models towards direct access to climate finance. According to some analysts such institutions reflect national priorities and are more cost effective, less bureaucratic and more responsive to local needs and stakeholder concerns (Zadek, Forstater & Polacow 2010: 3).

4.2 MRV capacity and capability

Monitoring the Legal Amazon

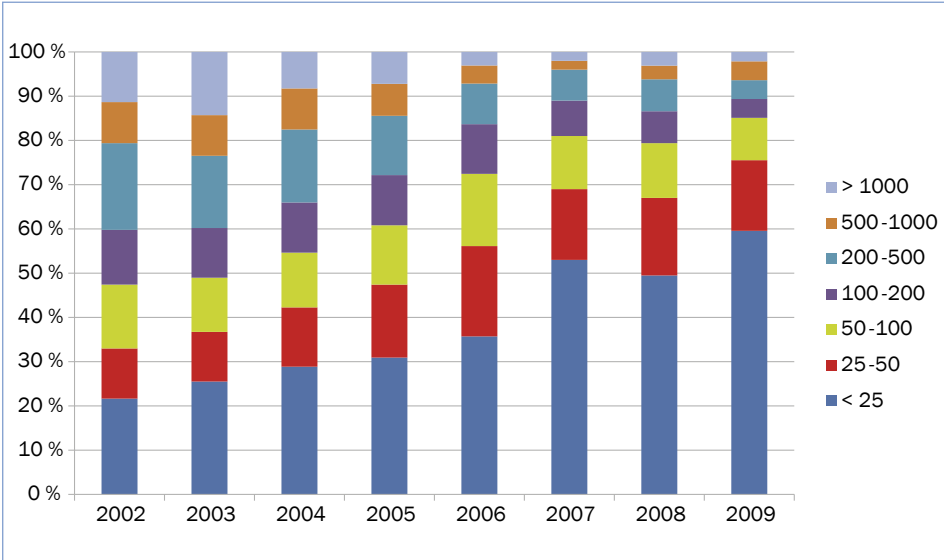
Today the Brazilian Government conducts satellite monitoring of the Legal Amazon through the National Institute of Space Research (INPE), which has four operational, complementary systems: PRODES (annual clear-cutting rates of areas over 6.25 ha in the Legal Amazon Region from Landsat images), DETER (monthly Real-Time Deforestation Detection System based on MODIS sensor of areas over 25 ha), DEGRAD (annual mapping of areas in process of deforestation) and DETEX (for selective logging detection). PRODES and DETER were established before 2007, while DEGRAD and DETEX are more recent programmes.

The PRODES²⁹ programme has generated a consistent time-series of deforestation data for the Legal Amazon on an annual basis since 1988. The image processing methodology of this programme has been improved over time, and according to our interviews at INPE (August 2010) starting from 2010, PRODES data will be reported with an error bar to disclose the estimated accuracy/uncertainty, which is expected to be above 95%/below 5%. Another announced improvement is that starting from 2010, PRODES will generate a new product at a minimum mapping unit (MMU) of 1.0 hectare without discontinuing the time-series at a MMU of 6.25 hectares.

PRODES has so far been using data from the Landsat satellite series. Brazil now intends to launch its own forest monitoring satellite (Amazon 1), probably in 2012 or later. The sensor system on this new satellite will have a swathe of 800 km, a spatial resolution of 40 m x 40 m, and full coverage every five days, which is an important improvement compared to Landsat (16 days) and Cbers (26 days) for building cloud-free mosaics of remotely sensed data.

The DETER³⁰ programme (described in section 2.2) has been functioning since 2004 and has become a major tool for preventing large-scale deforestation by allowing almost real time detection of clear-cuts larger than 25.0 hectares, including when these are generated cumulatively over several months or years. As the data are sent to IBAMA, they have become an important law enforcement tool. Interestingly, however, people in the Amazon region have learned that only larger clear-cuts are detected. In fact, PRODES data indicates that the proportion to total deforestation of clear-cuts in patches below 25.0 hectares has substantially increased in recent years (Figure 4).

Figur 4: Evolution of the distribution of deforestation per patch size (hectares)



(INPE, 2010 consulted online on August 2010)

The DEGRAD³¹ programme was designed to detect forest degradation using Landsat and Cbers sensor data. As in the case of PRODES, the minimum mapping unit is

29 PRODES = Programa de Cálculo do Desflorestamento da Amazônia
 30 DETER = Detecção do Desmatamento em Tempo Real
 31 DEGRAD = Mapeamento da Degradação florestal na Amazônia Brasileira

6.25 hectares. INPE developed specific image processing techniques to detect degradation. Currently, results of this programme are available only for the years 2007 and 2008 (See Table 3), with 2009 to be published probably before the end of 2010. Initial data suggests that while deforestation has been decreasing in the Legal Amazon, degradation has been increasing.

DETEX³² is a new programme designed to monitor forestry concessions on public land. The objective is to control and verify that logging activities are implemented at the locations and with the intensities established in Forestry Management Plans approved by the Brazilian Forest Service. DETEX is not yet fully operational, but a technical cooperation agreement has already been signed between INPE and the Brazilian Forest Service for its implementation.

Monitoring other biomes

The monitoring of other forest biomes in Brazil is less developed and INPE is now analysing how improved and long-term monitoring could be coordinated among different institutions and implemented to produce consistent and long-term data series.

According to a recent publication of the Brazilian Forest Service³³ deforestation data is being estimated for the Atlantic Forest and the Cerrado biome, which is an open, savanna-like forest formation. In both cases, estimates were produced by analysing a combination of Cbers and Landsat image data. In the Atlantic Forest the deforestation estimated in 2005-2008 totalled 34,000 ha annually, more or less the same as in 2000-2005. In the case of the Cerrado about 85,074 km² of natural vegetation was suppressed between 2002 and 2008, which amounts to an annual average of 14,179 km².

Monitoring wildfires

INPE has been producing data obtained from different satellites on hot spots available daily since 1998. Data from the night passages of the NOAA, and Terra and Aqua satellites (MODIS sensor) are loaded onto IBAMA's information system. The hot spots detected at national level in risk areas are recorded into an alert system that classifies them according to persistence, location, and hazard in order to detect likely illegal deforestation.

Monitoring on the ground

While INPE's remote sensing programmes are impressive, large-scale monitoring of carbon stocks on the ground is less developed in Brazil. The National Forest Inventory (NFI) is the first attempt being planned in Brazil to collect country-wide forest carbon stocks data on a systematic fashion and over a longer period of time. Prior to this new initiative, carbon stocks data were collected by research institutions at specific locations within the Legal Amazon, but not following a statistical design intended to generate biome-wide data. This may explain why Brazil has reported emission reductions in the Amazon region using a biome-wide conservative assump-

32 DETEX = Monitoramento de Florestas Públicas

33 Ministry of Environment, Brazilian Forest Service, 2009. Brazilian Forests at Glance - Reference Period: 2005-2009. Brasília, 124 p.

tion of an emission factor³⁴ of 100 tC ha⁻¹ (= 367 tCO₂-e ha⁻¹), while Brazilian research institutions have published carbon stock data between 130 and 320 tC ha⁻¹ (477 – 1173 tCO₂-e ha⁻¹).

The National Forest Inventory is coordinated by the recently created Brazilian Forest Service (a dependency of the Ministry of Environment). It is being implemented for the first time and it will be completed in five years, and then repeated. The sampling system for field data collection is based on the systematic distribution of clusters over a national grid of sample points lying at an equidistance of approximately 20 km between sample points. All sample points are visited regardless of whether they are in forest areas or not.

The estimate for biomass in Brazilian forests is made by extrapolating the figure based on studies on the volume of each forest type per area unit to the total area occupied by each forest type in existing mappings. Once the National Forest Inventory is implemented, data on forest biomass will be more consistent and reliable and the emission factor used to report emission reductions may be revisited.

4.3 Deforestation and forest degradation rates

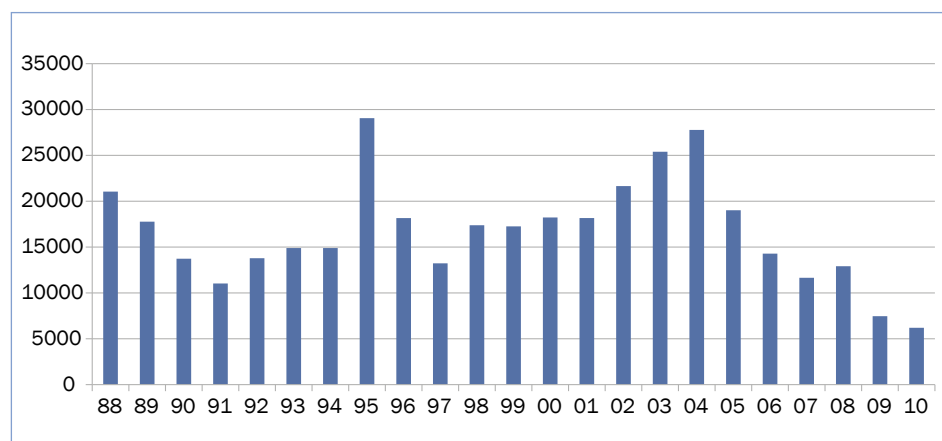
While deforestation rates in the Legal Amazon have followed a clear trend of reduction since 2004- and recent figures show a further decrease of 14% in 2010 (See Figure 5), initial data of the DEGRAD programme suggest that degradation is not on the same track (See Table 3) - although it is difficult to extrapolate a trend from just two data points (2007 and 2008).

Since monitoring programmes in other Brazilian biomes are less developed, a consistent historical time-series of data is unavailable for these biomes. However, studies mentioned in section 3.2 and Brazilian informants interviewed in August 2010 suggest that a trend of deforestation reduction cannot be generalised for all Brazilian Forest biomes.

Opinions regarding a possible leakage from the Legal Amazon region to other biomes were not consistent, but many of our informants argued that inter-biome leakage has not taken place. Intra-biome leakage within the Legal Amazon, as associated to the creation of protected areas or individual REDD projects, has not been formally researched yet, but perceptions at INPE are that this form of leakage has been very local. This is a very relevant observation in the context of designing an appropriate national and international REDD mechanism allowing direct incentives to be granted to sub-national REDD initiatives, as leakage has always been pointed to as a problem for smaller-scale REDD activities. If leakage has truly been local in the context of the Legal Amazon, a forest-agricultural frontier area *par excellence*, then monitoring and quantifying leakage in leakage belt areas around individual REDD project areas should be possible, and activities at sub-national scale, understood as activities implemented at the level of Brazilian States and below, may be considered eligible for direct international incentives.

34 Emission Factor is the difference between the estimated carbon stock in the forest and the estimated carbon stock in post-deforestation land-uses.

Figure 5: Evolution of the deforestation (km²/year) by shallow cut in the Legal Amazon



INPE: Consulted 1 Dec 2010. See http://www.inpe.br/ingles/news/news_dest54.php

Table 2: Forest area degraded (km²) in the Legal Amazon (DEGRAD data)

State	Area of degraded forest		Area degraded in 2007 and maintained as degraded in 2008	Area degraded in 2007 and clearcut in 2008
	2007	2008		
Acre	122.80	121.34	13.65	12.41
Amazonas	257.46	412.42	33.86	15.33
Amapá	50.42	63.18	3.91	4.49
Maranhão	1,976.75	4,230.70	443.93	169.99
Mato Grosso	8,951.14	12,987.74	2,280.78	932.93
Pará	3,899.23	8,264.82	836.13	681.19
Rondônia	412.32	643.32	61.53	107.24
Roraima	137.28	171.39	2.97	40.03
Tocantins	179.71	522.18	21.57	18.87
Total	15,987.10	27,417.10	3,698.33	1,982.48

INPE, 2010. Consulted online on August 2010

4.4 National ownership

Brazil's voluntary emission reduction commitment, announced at the 15th Conference of the Parties of the UNFCCC in Copenhagen (2009), is national in scope but started only in the Legal Amazon region. Today, market as well as non-market based approaches are being considered in the numerous REDD+ initiatives that are being developed at the federal, state and sub-state levels.

While international negotiations are advancing slowly, individual Brazilian States and civil society organisations have started to take concrete actions. Five Amazonian States in Brazil, two Provinces in Indonesia and a Peruvian Department created a partnership with the State of California aiming to foster a market for REDD. States such as Acre, Amazonas and Mato Grosso developed their own

state-level climate change legislation and programmes, and several sub-state REDD project initiatives, such as those in Juma, Noroeste MT, Suruí emerged across the whole Amazon Region. At the federal level, Brazil created the Amazon Fund (described more fully in 3.2) as an instrument to finance project activities related to deforestation reduction and to capture international compensation for emission reductions achieved since 2006 in the Amazon region compared to the 1996-2005 baseline. All these initiatives created momentum for the REDD discussion in Brazil, but also a need for new regulations to bring REDD-related initiatives under a coherent national framework.

The need for a new regulatory framework for REDD+ in Brazil led to the formulation of a proposed Bill 5.586/2009 (PL REDD+) authored by Deputy Lupércio Ramos and revisited by Deputy Rebecca Garcia in March 2010. This legislative project gained strength when Rebecca Garcia convened a team of legislators and stakeholders aiming to draft a substitute for the Bill, with the goal of gathering updated input and suggestions from Brazilian society in the preparation of the text of the Bill. Since then, several meetings have been held with both government and non-governmental organisations. From these meetings a second version of the Bill was drafted, which already included several of the considerations made by the stakeholders consulted in the first round of consultation.

In June 2010, additional meetings with various industry groups (private companies, social movements, state governments and NGOs) were organised. In each of these meetings, the different sectors presented their thoughts and suggestions on the second version of the Bill, which was compiled again and generated a third version. The final text was then sent to the Committee on Environment and Sustainable Development of the Parliament. The Bill is now under review but will be voted on only after the October 2010 elections. Although the final version of the Bill may still be subject to change, the main structure is interesting and proposes REDD+ implementation under national and sub-national scales (states, districts and projects), using both public funding and market mechanisms³⁵.

As a parallel process, the Ministry of Environment (MMA) convened a task force in 2009 for a National Regime on REDD+ aiming to integrate ongoing sub-national initiatives (State programmes as Acre, Amazonas and Mato Grosso, and projects as Juma, Noroeste MT, Suruí, etc.) and the national policies and programmes, such as the Amazon Fund. At that time, the MMA issued a publication recognising the role of REDD+ pilot projects and a need for the creation of a national registry system to allow accountability of emission reductions (ERs) generated by these projects. The MMA-led process did not make substantial progress until May 2010, when PL 5586 started to move forward significantly bringing attention to the increasing urgency of a REDD+ regulation. From there on, the MMA organised two meetings and created three working groups to involve a broader consultation and discuss further implications of this process, including the ongoing PL 5586.

35 The final document (only in Portuguese) can be downloaded at: http://www.idesam.org.br/programas/mudancas/politicas_lei5586.php

The two political processes, led by the legislature and the MMA respectively, will soon have to converge to create Brazil's coherent national REDD+ policy framework. The outcome of these processes is still uncertain, but it could result in a more flexible position for Brazil in the UNFCCC negotiations on issues such as accounting (national versus sub-national) and incentive mechanisms (market versus non-market based approaches).

4.5 Livelihoods, economic and social development and environment conservation indicators

4.5.1 Social and Economic Development

There is considerable evidence in recent years of the government's efforts to place increasing importance on consultation with civil society. This effort runs parallel to governmental processes aimed at the decentralisation of resources and development planning to the regional and local levels. As mentioned above the development of regional development plans for the Legal Amazon have included the strong participation of civil society organisations, including representatives of the private sector and marginalized groups in discussion and dialogue. Current efforts to develop Regulations for a National Policy on Climate Change also aim to be participatory with the inclusion of civil society in each of the working groups established to consider the design of a potential national system for climate and forest regulation.

According to a recent Brazilian government study, poverty has fallen by three percent annually over the past five years and could fall to four percent of the population by 2016, from 28 percent in 2008³⁶. The Gini coefficient for Brazil whilst remaining high has also fallen from 0.64 to 0.54 in the period 1998-2008³⁷ demonstrating a sharp decrease in conditions of inequality. As well as a generator of economic change, the success of the present government's social reform agenda has also played a remarkable role in creating political stability. The popularity of the government, generated in particular by its work for the urban poor, has allowed the administration to weather a series of corruption scandals. It has also created the possibility for the Brazilian Workers Party (PT) to win a third national election.

4.5.2 Sustainable Development

Having gained the government's ear, civil society organisations have also been able to force an important dialogue with the country's private sector. Environmental organisations successfully lobbied the government in 2006 to push the private sector to agree on a moratorium on soya production - one of the main causes of deforestation in the Brazilian Legal Amazon. The first field evaluations conducted after the moratorium was put into place showed that soya harvested in 2008 in the Brazilian Legal Amazon did not come from newly deforested areas. The positive results led to the extension of the moratorium until 2011. A European alliance of soya consumer companies, led by McDonald's, Marks & Spencer and Carrefour, also welcomed the extension and, in a joint statement, renewed their commitment to remaining actively engaged. In Brazil, the companies Wal-Mart, Sadia and Yoki also supported this statement.

36 <http://www.reuters.com/article/idUSN2514111020100525>

37 <http://www.opendemocracy.net/arthur-ituassu/brazil-democracy-vs-poverty>

Following the success of the soya moratorium, Greenpeace and other NGOs began working with the cattle sector to reduce the impact of cattle ranching, one of the biggest drivers of deforestation in the Legal Amazon. As a result of this effort, in August 2009, major beef and leather producers in Brazil have agreed not to use cattle raised in recently deforested areas of the Amazon rainforest. The Brazilian government and independent third-party observers will enforce the meat moratorium using satellite photographs, aerial surveys, and site visits. Many leaders in business and government are embracing the green agenda. Brazilian meatpackers like Marfrig, food sellers like Wal-Mart, footwear companies such as Timberland, and thousands of ranchers have signed up to a moratorium on using beef from recently deforested areas.

4.5.3 Human and Indigenous Rights

Despite these improvements, civil society organisations remain vigilant to a possible breach between government plans for sustainable development and commitments to recognise rights and spread benefits. Whilst recognising the improvements that have been made in consultation processes and impact evaluations, the civil society organisations and indigenous NGOs we consulted in the course of our evaluation were less than convinced by the government's interest and abilities to listen to their wider concerns with the inconsistency in current government environmental policy i.e. between conservation and growth, and protection and growth. They also commented on the small amount of evidence of benefit sharing generated by government policy. As such, comment was made that protests such as those surrounding the Belo Monte dam would be likely to continue and spread. Moreover, whilst these organisations acknowledge the work now being done by government ministries and offices (e.g. FUNAI and BNDES) to explain the significance of climate change and REDD, comment was also made that the level of knowledge about these themes was still too low for many communities to make informed choices. As a result many communities remain vulnerable to the still unregulated activities of speculators or "cowboys", interested in buying the local rights to carbon stocks.

5. Contribution of NICFI to National Climate/Deforestation Policy

5.1 REDD relevant policies, strategies, plans and actions

5.1.1 The Amazon Fund

The most concrete contribution made by the NICFI to Brazilian climate and forest policy has been its support to the *Amazon Fund (Fundo Amazônia)* (see 4.1.2 for a fuller description of the Fund). At the International Climate Summit in Bali in 2007, Brazilian authorities announced plans for the establishment of a fund that would generate resources in support of its new policy commitments to reduce deforestation in the Legal Amazon. This new fund was open to donations from nation-states, individuals and private business. Following the Bali Summit, in February 2008, Erik Solheim, the Norwegian Minister for the Environment and International Development announced plans to support the establishment and development of the fund³⁸. A short time after its official establishment by Brazilian governmental decree, the Norwegian Prime Minister, Jens Stoltenberg, visited Brasilia and committed his government to contribute up to one billion dollars to the fund³⁹. Seeing their support of the Amazon Fund as a means to show-case the stated objectives of the NICFI i.e. the inclusion of a forest mechanism in the future post-Kyoto climate convention, Norway entered into a technical contract with the Brazilian Development Bank⁴⁰ (BNDES) – which had been chosen by the national government to administer the fund, on the 25th of March 2009.

In summarised form, the Memorandum of Understanding (MOU)⁴¹ between Norway and Brazil states that Norwegian support for the Fund is to be based on four major pillars of cooperation:

- A systematic political dialogue to facilitate regular exchanges of views regarding global climate change, related environmental issues and issues of sustainable development
- Contributions from Norway to the Amazon Fund
- Cooperation regarding monitoring, reporting, assessment and verification of greenhouse gas emissions resulting from deforestation and forest degradation
- Cooperation to stimulate the development and implementation of Clean Development Mechanism (CDM) project activities

38 As well as a significant lift to international efforts to reduced deforestation, domestically the support given to Brazil was seen in the light of the current Norwegian "red-green" coalition government's wider expressed commitments to support a "democratic revolution in Latin America". As the main architect of this support, Solheim has highlighted the wave of electoral success of left-leaning presidential candidates in the region. Since his ministerial position, a number of official delegations have visited Brazil and other countries in the region.

39 <http://www.regjeringen.no/en/dep/md.html?id=668>. Press release, 16.09.2008

40 BNDES is one of the largest development banks in the world - in 2009 alone, it disbursed a total of USD 72.2 billion. It is estimated that BNDES now manages financing four times the size of that managed by the World Bank.

41 www.regjeringen.no/upload/MD/Vedlegg/Klima/klima_skogprosjektet/MoU_Norway_Brazil.16.09.08.pdf

Recognising that the funds used to support the Amazon Fund are drawn from Norway's Overseas Development Budget, NICFI describes⁴² the agreements' development objectives in the following manner:

- 23 million people live in the Brazilian Amazon, and the lives of these people – most of them poor – are hugely affected by both deforestation and climate change. Contributing to reducing deforestation and thus climate change is one important development objective in itself, especially for those living in and from the forest.
- Norway's contributions to the Amazon Fund are invested in activities aimed at reducing deforestation. Some of these activities have direct impact on the people living in the Amazon, such as alternative livelihoods, payments for ecosystem services, land tenure rights; indigenous peoples rights etc.
- Reduced emissions at such a significant scale have, in itself, a development effect.

Norway was the first donor to the Amazon Fund and intends to allocate payments based on annual performance in terms of reduced deforestation rates⁴³. Norway's first commitment to the fund was 100 million NOK (USD 16 million) for results achieved in 2006-2007. A further 600 million NOK was committed for 2007-2008. On November 9, 2009, additional terms to the original donation agreement were agreed. The Norwegian government committed to making a further donation of up to NOK 750 million (USD 122 million) and up to NOK 750 million in 2011. Additional donations by the government of Norway are also foreseen (or as the documents state: "do not limit the possibility"), in 2010 and 2011. Disbursements by the Norwegian government are made every six months or more frequently, at the request of BNDES and based on the Fund's financial needs and the proven reductions made by Brazil of Carbon Emissions from Deforestation. It is BNDES' responsibility to analyse, approve and contract projects, to monitor, track and settle accounts, and to maintain the resources from donations separate in its accounting records.

5.1.2 Other support

Whilst not directly attributable to NICFI, in the course of our interviews in Norway and Brazil it was made clear by a number of civil society representatives and Embassy personnel that any consideration of impact should take with it mention of the more long-term assistance Norway has given to environmental debates and policy in Brazil. These can roughly be divided into two areas of support i.e. indigenous peoples and environmental policy.

The Norwegian Embassy has, for example, since 1983 been providing support to a Human Rights /Indigenous Peoples Programme. This programme, financed in 2010 to the sum of NOK 23 million (3 million USD), currently supports a series of projects principally aimed at developing the organisational capacities of indigenous associations and NGOs. This direct support to Brazilian organisations parallels other support given directly to the Rainforest Foundation Norway (RFN) and Norwegian Church Aid.

⁴² NICFI Secretariat's Feedback on Evaluation questions 07.12.2010

⁴³ Besides NICFI, Kreditanstalt für Wiederaufbau (KfW), the German Development Bank have recently entered into discussions of a new agreement totaling 18 million euros. A recent expansion of the existing cooperation agreement (4 million euros) will also allow GTZ to assist the Fund with the development of a logical framework, assist investment decisions and to improve applications from prospective interests.

RFN receives 60 million NOK (9.8 million USD) per year from Norad of which NOK 12 million (1.9 million USD) is used to support its work with indigenous organisations in Brazil. In 2007 RFN also entered into an agreement for 69 million NOK (11 million USD) with the Norwegian Ministry of Foreign Affairs for a project which includes Brazil as one of its central components i.e. “Right-based Sustainable Development in the Amazon Basin region”. This support to indigenous peoples is considered to be pertinent to NICFI, as it is pointed out by informants that it was the organisational support and networks developed by this support that operated as one of the central lobby’s behind the creation of a favourable climate for the Amazon Fund and improvements in general environmental policy.

In addition to these indigenous peoples’ projects, the Norwegian government has been providing other sums of support to environmental projects in Brazil (totally 55 million NOK- 9 million USD). This support includes assistance given to the planning of sustainable forests in Brazilian States (Pará, Acre, Mato Grosso) in 2008 and support for a project aimed at the creation of extractive reserves channelled through the UNDP and administered by the *Chico Mendes Institute of Biodiversity Conservation (ICMbio)*. This support, whilst indirect, was seen by some informants as being partly responsible for encouraging the formation of a generally positive environmental policy climate in Brazil.

5.2 MRV capacity and capability

INPE is today an internationally recognised forest monitoring institution with ambition to expand the scope of its Amazon programmes to other Brazilian biomes and other tropical countries. As mentioned earlier INPE’s programmes are designed for a diversity of objectives, including monitoring and reporting (MR), but lack independent verification (V). Most Brazilian informants are proud of the capacities and capabilities of their institutions and do not think independent verification is necessary. Further elements are also missing in terms of comparison with IPCC standards and the guidelines of the GOF-C-GOLD sourcebook for REDD (2008). INPE’s systems mainly generate “Activity Data” (the geographical extent of changes). IPCC guidelines also require data on “Emission Factors” (the size of the five key carbon pools). INPE does not generate data on emission factors, which is one reason why the default value of 100 tonnes C/ha is used by the Amazon Fund.

Some controversy also continues on what are the real deforestation figures in the Legal Amazon. Data from Imazon, an independent organization that aims to improve forest transparency through advanced analysis of satellite imagery and other tools, sometimes contradict INPE’s data. A recent discussion was published on mongabay.com about INPE reporting a 51% drop in Amazon deforestation in the six months ended February 2010 compared to the period a year earlier, and Imazon a 23% increase for the same period. Imazon scientists claimed that INPE’s tracking system captured a lot of forest degradation as deforestation in 2009, inflating forest loss numbers for this year. INPE scientists say that Imazon is using Modis sensor data, which they consider too coarse (250 m x 250 m) for accurate deforestation measurements. As a result Imazon estimates are generally significantly lower than PRODES figures.

Independent verification of deforestation and emission reductions is a politically sensitive issue in most developing countries, including Brazil, but discussions such as those between INPE and Imazon demonstrate that an international incentive scheme for REDD without using agreed methodologies and independent verification is difficult to imagine.

An advantage of INPE's systems is their transparency, founded on an already established open-data policy and the publication of the image processing methodology, which should make independent scientific audits (verifications) easy to implement. However, such pre-conditions do not exist in other developing countries. Where government institutions are weak and governance is poor, the lack of agreed monitoring methodologies and independent verification become important issues. This has been acknowledged by at least one Brazilian informant, who said that having independent institutions doing independent verification, such as FAO continuing its work but with a deeper focus on emissions, will be necessary to build a credible international REDD mechanism.

The secret of INPE's achievements lies with a number of factors, such as:

- (i) an indisputable scientific capacity;
- (ii) institutional stability, as indicated by adequate and increasing budgets which are allocated over four-year periods, allowing the development of long-term research programmes and the maintenance of capable personnel in the institution;
- (iii) the open-data policy that has contributed to increasing the visibility of the institution and allows the use of INPE's data and information for a variety of academic, enforcement and awareness building purposes; and
- (iv) the improved cooperation among public institutions promoted under the governments of Lula.

NICFI did not directly contribute to INPE's achievements and to the creation of monitoring and reporting (MR) programmes in Brazil. However, it has certainly contributed to enhancing the relevance and visibility of these programmes in Brazil and internationally. Although it is difficult to judge whether Brazil will now accelerate the development of its MR capacities in other biomes and further expand MR-related services to other countries, it is likely that the political momentum created by NICFI in Brazil and globally will facilitate these ambitions.

5.3 Deforestation and forest degradation rates

In the Legal Amazon, the average annual deforestation between 2006-2009 was 59% of the baseline, or the average between 1996-2005. According to INPE's PRODES data, the trend has been a reduction from 19,014 km² deforested in 2005 down to 7,464 km² deforested in 2009 (Table 1). Because programmes similar to PRODES do not exist for other Brazilian biomes, evidence about similar trends in other Brazilian biomes does not exist. Existing studies, such as those mentioned earlier for the Atlantic Forest and the Cerrado Biome, actually suggest that deforestation has not been reduced in other biomes. Initial data of INPE's DEGRAD programme also suggest that degradation is increasing in the Amazon region.

The reduced deforestation in the Legal Amazon observed since 2004 is unrelated to NICFI. As mentioned in section 1.3, Brazilians attribute the reduction in deforestation to a series of factors, such as:

- (i) Changes in public policy induced by a growing Brazilian environmental movement and public awareness about environmental issues and climate change;
- (ii) Improved command and control policies, enabled by enhanced forest monitoring capacities at INPE and better law enforcement by IBAMA;
- (iii) Improved clarification and regularisation of land tenure;
- (iv) Changes in loan policies, now denying access to credits in recently deforested areas;
- (v) Creation of federal and state protected areas in areas expected to become under increased deforestation pressure;
- (vi) Environmental concerns of soybean and meat buyers, having led to the soya bean and beef moratoria;
- (vii) International soya bean and beef prices, having been below their historical highest levels in recent years.

Whilst it is not possible to claim that NICFI has induced a change in the trend, it is likely that its assistance in the creation of the Amazon Fund and the political momentum created in Brazil and internationally has indirectly but positively encouraged policy developments within Brazil.

5.4 National ownership

Brazil has developed its own alternative position on REDD internationally and has made significant progress on developing appropriate domestic policy, monitoring and governance systems.

5.5 Livelihoods, economic and social development and environment conservation indicators

5.5.1 Social and economic development

It is impossible to claim that NICFI has had any direct impact on the wider context of livelihoods, social and economic rights and conservation in Brazil. However, as is evidenced by the aims and content of the first five projects supported by the Amazon Fund (described in more detail in section 5.6), it is clear that serious effort has been made by the Fund and BNDES to encourage concrete initiatives that will have a direct and positive impact on social and economic rights and conservation efforts. Whilst closer analysis of the internal workings of these projects is required, at face value, it appears that each of the projects seeks to contribute to the formation of sustainable local economies, in which conservation and regularisation as well as the realistic use of the forests as the basis of livelihoods are encouraged.

5.5.2 Sustainable development

Through its support for the Amazon Fund NICFI has only had indirect influence on policies for sustainable development in Brazil. BNDES has been carrying out a series of exercises to both spread information about the Fund and to encourage local

consultation on its content and direction⁴⁴. With regard to the current and future operation of the Amazon Fund, respect for a concept of sustainable development that includes the participation of local forest dwelling communities was strongly articulated throughout the interviews we carried out with BNDES, national and state level government, and NGOs. The Director of the Climate Change Department in the Ministry of the Environment was also very candid in her responses about the significance of the Fund. She stated that all too few people think about why the Fund was established. In her opinion the Fund has a clear mandate for benefit sharing i.e. creating the right incentives to crucial local actors at the local level in order to respond to the complex circumstances behind deforestation.

Government ministries have also been slowly developing a series of mechanisms to encourage the participation and consultation of local municipalities and communities in policy discussion about the challenges and possibilities posed by climate change, REDD and the Amazon Fund. The current efforts of FUNAI to develop knowledge on these issues and contribute to the Brazilian Forum on Climate Change should be seen in this light. The current structure of the Guidance Committee of the Amazon Fund in which civil society participation and equal voting powers are assured are also reassuring signs that public social and economic interests are being taken seriously and that respect for human rights continues to play a central role in the actions and decision of the Fund.

5.5.3 Human and Indigenous Rights

Whilst Human and Indigenous Rights are highlighted as important concerns of NICFI, its support in Brazil is somewhat abstracted from any direct impact on these issues in the country. Whilst, as mentioned above, there is some evidence that Norwegian support of NGOs and an Embassy led Human Rights Programme represent important element in the history of the establishment of the Amazon Fund this is separate from the recent support provided by NICFI. In respecting Brazilian sovereignty over the Fund, decisions over questions of the direction and emphasis of the Fund are left to BNDES and the COFA.

Despite evidence that the question of rights, livelihoods and sustainable conservation do matter to BNDES and the COFA, it was also evident from our interviews that there are some blockages in ensuring that these issues are given full expression. In almost every interview we carried out, outside of BNDES, the initial praise given to the creation and administration of the Fund was tempered by comment on the complexity and lack of transparency of its application and evaluation procedures. NGOs and government agencies alike expressed their frustration with these issues and highlighted, as a result, that many smaller NGOs and civil society organisations had either failed in their efforts to apply to the Fund, or had lacked sufficient confidence to apply at all. The strictness of the application process is evidenced, they say, by the fact that up until the end of 2009 only five out of over fifty applications to the Fund have been granted support. Indigenous NGOs also criticised the application system of BNDES for ensuring that only the “usual suspects” i.e. well established

⁴⁴ e.g. In May 2009 the Amazon Fund in partnership with the Indigenous Organisations of the Brazilian Amazon (COIAB), held a seminar to discuss environmental issues related to indigenous communities. In August and September 2009, BNDES with support from the Brazilian Forestry Service and Ministry of the Environment held several presentations to promote the Amazon Fund in all of the States of the Legal Amazon.

NGOs, received support and that this was evident in the projects now being supported. Even amongst the NGOs who have received support from the Fund comment was made that the application procedure had been overly complex, there had been little indication of time-lines whilst their application was being processed, and that resulting contracts appeared to have differing reporting and accounting requirements. NGOs and state governments also criticise the current requirement of the Fund that the financing provided be considered as a loan by the bank until all final accounting and assessments are made, after which it becomes a grant. Whilst the State government of Pará and Amazonas have successfully submitted applications to the Fund⁴⁵, it was made clear in our interviews with the Environment secretariats of these States that as a result of the procedures of the Fund they were currently more enthusiastic about recent private carbon offsetting agreement, such as with the governor of California.

In response to the evaluation team's questioning on these issues, the Amazon Fund team at BNDES highlighted that whilst these concerns are regrettable, they were required to follow the standard procedures and regulations of the bank and that these procedures were the guarantee that a responsible treatment was given to each applicant. It is, however, also recognised that given their history of working with private industry, parts of this regulatory framework may be too strict for the operation of a Fund that aims at grant giving and not the provision of loans. BNDES are currently looking at several initiatives, including the creation of small grants programme and training exercises that could help smaller and less well established NGOs and associations to apply to the Fund in the future. However, in the meantime, there are a number of parties who claim that they are marginalised by the current systems applied.

Whilst, in general, the people interviewed were supportive of the work and make-up of the Guidance Committee of the Amazon Fund (COFA), some questions were raised about the operation of certain prejudices within it. Questions were raised about the significance of COFA's decisions to block proposals from BNDES - first for a small grants programme and later for the use of financing to support a private equity trust. COFA has also, reportedly, blocked proposals that the Fund could be used to support large scale initiatives at the Federal level. Whilst there was general agreement that as a public fund the Amazon Fund should be aimed at benefit sharing and a stimulus of sustainable livelihoods and environmental service, COFA's decision to exclude the possibility of generating its own capital through private sector investment was questioned. It was pointed out that as well as generating capital for the Fund itself, private investments could have been directed to the development of technologies and patents that could have been supportive of community level initiatives. The rejection of COFA to even discuss the direction and possibility of funding to the private sector was seen by some informants as a sign of unnecessary ideological prejudice and an indication of an unhealthy suspicion by civil society towards the private sector. Federal level spending has also been blocked by COFA, on the basis

⁴⁵ The environment secretariat of Pará (SEMA) received support from the Fund in the first semester of 2010 (15.9m reales). Other applications from Pará have also been accepted for consideration (Fire fighters, Ideflor, Iterpa and SEPAQ). The State of Amazonas has also had a project approved. Acre, Tocantins and Rondonia have also had applications registered with the Fund.

of arguments that in a time of economic crisis it would be all too easy for the government to draw on the Fund to fill gaps in federal budgets.

Further questions were raised about COFA with regards to its representation and internal workings. Whilst there was general support for its current - federal/ state/ civil society - structure, some questions were raised about the participation and choice of representative bodies in each of these blocks. It was, for example, highlighted by a number of NGOs that the indigenous federation COIAB⁴⁶ had failed to take part in the last three meetings of the COFA. In discussion about the reasons for this failure, explanation was made of the current financial and legal difficulties faced by this organisation. Some NGO respondents questioned whether as a result of the difficulties faced by COIAB another organisation should take its place in the COFA⁴⁷. BNDES are clear in stating that they see no policy contradiction between its operation of the Amazon Fund and wider financial support for infrastructure and resource extraction projects in the Legal Amazon area. In its opinion the regulatory system that now exists in Brazil, which it follows to the letter, provides sufficient social and environmental checks and balances that these two operations do not have to be at odds with one another. Despite these reassurances from BNDES, several civil society organisations and indigenous NGOs we consulted stated that they saw a clear contradiction between these two functions carried out by the Bank. They considered it difficult to think that on the one hand they were running campaigns confronting the social and environmental impacts of infrastructure and resource extraction projects, and on the other hand invited to apply for support from a Bank responsible for the same destructive practices.

5.6 Amazon Fund pilot projects

Five projects were granted support by the Amazon Fund in late 2009. In four out of five cases support was made to the extension or secondary phase of pre-established projects. The projects are:

The Bolsa Floresta Programme (FAS)

The programme is implemented in the Juma Sustainable Development Reserve in the State of Amazonas. Created in 2007, the project aims to reduce emissions of greenhouse gases caused by deforestation, and the improvement of the standard of living of the population living in the forest. Its operation is based on paying communities for environmental services i.e. forest maintenance. The Bolsa Floresta Programme consists of four components of which the Amazon Fund supports the Bolsa Floresta Income and Bolsa Floresta Association, giving priority to the investment of resources in the generation of sustainable production activities and in support of local community associations. The programme contributes to the maintenance of approximately 10 million hectares of forests (6.4% of the territory of the State of Amazonas). Funds from the Amazon Fund will allow the number of people benefitting from the programme to rise from 6,000-10,000, reaching a total of 60,000 people. The Sustainable Amazon Foundation (FAS), responsible for the project, is a public-private non-profit entity established initially by the local governor to foster sustain-

⁴⁶ Officially recognised federation representing indigenous peoples in Brazil.

⁴⁷ COFA has been established by a Presidential Decree, and thus its substitution by another organisation would require change in that Decree.

able development, environmental conservation and the improvement of the standard of living of people living in the Amazon Conservation Units. The Amazon Fund will contribute 11 million USD to the project. Some controversy has surrounded the project focused on its political leadership and the level of individual payments it currently provides⁴⁸.

IMAZON Project

The Rural Environmental Registration in the State of Pará was established as an instrument of State Policy for Forests and the Environment and establishes that all rural properties in the State are registered or will be considered environmentally irregular. Support from the Amazon Fund will enable the entire database of the properties to be structured, facilitating the use of information by property owners and public authorities in the region. Current legislation requires that, upon registration, owners undertake to restore illegally degraded land or deforested areas. The public and environmental agencies will be able to evaluate the results of the project at Imazon and in the accompanying reports prepared by the Amazon Fund itself. IMAZON (The Amazon Institute of the People and Environment) is a non-profit association, qualified as a civil society organization of public interest. The organisation was created with the aim of promoting sustainable development in the Brazilian Amazon through research, support for public policy, the broad dissemination of information, and professional development in the area. The organisation is widely recognised for work monitoring deforestation and challenge of INPE results through its use of alternative satellite imagery and algorithms. IMAZON is now developing a project to monitor degradation levels. The project will receive 5.6 million USD in support from the Amazon Fund.

TNC Brazil Project

The TNC project aims to encourage environmental regularisation in the production chains of wood, livestock and soya in 12 municipalities of Pará and Mato Grosso. These activities are considered driving forces behind local deforestation in the Legal Amazon. Farmers will be encouraged to participate in the survey and registration of their properties, through field research and use of satellite imaging. A cartographic database will be set up to assist with the delimitation of Legal Reserves and Permanent Conservation Areas. These measures are aimed to assist local land owners to adhere to environmental requirements and assist the wider monitoring of deforestation. TNC is a non-profit NGO, based in Brasilia with branches in Rio de Janeiro, Curitiba, Belém and Cuiabá. The project will receive 9.2 million USD in support from the Amazon Fund.

Sementos do Portal Project

The project is aimed at the recovery of 1,200 hectares of degraded forest (the restoration of permanent protected areas and legal reserves). In addition, the project will encourage family farming by introducing agro forestry systems. These systems develop land use that combines trees, crops and animal breeding simultaneously in the same area. The project draws on the “muvuca” technique, which works with direct tillage and handling of various species of forest and agricultural seeds. The

48 See: <http://www.redd-monitor.org/2010/08/02/juma-reserve-project-in-brazil-fundacao-amazonas-sustentavel-responds-to-criticism/>

seeds used will be acquired from the indigenous Terena community, an integral part of the project. The project envisages the following efforts: strengthening of local associations in the process of environmental management; structuring of a selection of environmental services for technical support; targeting the environmental licensing of small properties; training and technical support; dissemination of information and socialization of knowledge. The Ouro Verde Institute (IOV) responsible for the project is a NGO established in São Paulo in 1999. It is more widely known as the “Portal da Amazônia” in the State of Mato Grosso where it has operated since 2004. The project will receive 3.1 million USD.

Amazon Protected Areas Project (ARPA) 2nd Phase

In the second phase of ARPA, Funbio aims to support the creation of 13.5 million hectares of conservation units in the Legal Amazon and to support the consolidation of 32 million hectares of conservation units (of which 6.5 million hectares of conservation units have already been created). The first phase of the ARPA project was established in 2002. Amazon Fund assistance will also be used to stimulate further donations. The Brazilian Biodiversity Fund (Funbio) is a non-profit civil society organisation of public interest, created in order to generate resources for the conservation of biodiversity in Brazil. Based in Rio de Janeiro it operates through partnerships with institutions that carry out field work and articulate with donors. It is specialized in project creation, fundraising and the management of environmental funds. The project will be given 11.5 million USD in support from the Amazon Fund.

6. Evaluation of the Contribution of NICFI

6.1 Relevance

It is not possible to claim that NICFI support is directly responsible for the character of current environmental policy, REDD debates or cuts in deforestation rates in Brazil. Here positive recognition must be made of the domestic policy decisions and governance, as well as economic and environmental pressures that lie beyond the control of planned human action. However, the support provided by NICFI to the creation of the Amazon Fund has generated an unquestionably relevant stimulus to ongoing Brazilian policy debates and actions. Whilst Brazil is far from reliant on the support from NICFI, it is clear that the speed and direction of change in the country was encouraged by the size and form of commitment Norway made to the Amazon Fund. A good example of the positive and relevant impact of NICFI support is the comment made by Paulo Moutinho from IPAM that the promise of “*a billion dollars was like turning the key in the car, it helped start the ignition for the motor to start*” (11.08.2010). At both the national and state levels the creation of the Fund helped to crystallise policy discussions aimed at responding to deforestation as well as the need for long term sustainable development plans.

It was also clear from the responses made by Brazilian authorities and representatives of the Fund in BNDES that one of the reasons why Norwegian support had been so successful in sparking action was that other than transparency and reporting requirements, NICFI funding had not been introduced with a long set of rules attached. As such, the support was not seen as being a threat to Brazilian sovereignty over the Amazon region (historically a sensitive issue in Brazilian international relations), or the Lula government’s renewed emphasis on pragmatic nationalism.

The creation and operation of the Amazon Fund has also provided the Brazilian government with credibility and a basis for leadership in international climate policy debates. Whilst taking a different line to Norway by clearly rejecting market-led approaches to REDD, it is clear that much of its kudos comes from being one of the few nations able to lead by example. The stimulus provided by the creation of the Amazon Fund has also concretely contributed to underlining the importance and value of the monitoring and regulatory structures that now exist in Brazil. Indeed, these are given clear roles in the basic set up and operation of the Fund itself.

For these reasons, the relevance of NICFI financing and support in Brazil is assessed to be high.

6.2 Effectiveness

NICFI's support has been effective in that it has successfully stimulated Brazilian environmental and climate policy debates and efforts to reduce deforestation. The fact that the Amazon Fund is widely regarded as an important example of the development of a national mechanism for disbursement of results-based payments, and because NICFI's support had a positive impact on momentum and direction of change in Brazil must also be recognised as successes.

Despite these successes, our interviews highlighted a series of areas in which the effectiveness of NICFI support to Brazil could be enhanced in future. Whilst continuing to respect Brazilian sovereignty, which was a precondition for Brazilian acceptance of NICFI financing, the present evaluation has identified areas where the Governments of Brazil and Norway, along with BNDES, could have discussions with the aim of further improving the effectiveness of NICFI support to Brazil. These areas can be summarised as the following:

Application and Selection Process of the Amazon Fund

As indicated in section 5.5.3 BNDES procedures have resulted in the widely held view that the project application and selection process of the Amazon Fund needs adjustment in order to reach its objectives. Rather than encountering "radical simplicity"⁴⁹, interested civil society organisations, NGOs and government officials are confused by the complexity, strict specifications and lack of transparency of the current application procedures to the Fund. As a result of these problems it is emphasized that it has been difficult, or impossible, for many NGOs and community associations to apply and be successful in applications to the Fund. Repeated comment was made by informants - indeed, in almost every interview conducted - that BNDES needs to change its operating procedures and documentation in order to be able to attract and assist applications from the stakeholders for which it was intended i.e. public institutions, state-owned companies and non-governmental organizations. BNDES are aware of these criticisms and difficulties, and whilst defending the complexity of its procedures on the basis of rigorous and careful administration, are currently working to develop a small grants programme and system for application support as a response to these issues. More information on their portfolio and processing of applications is also being made available⁵⁰. There do, however, appear to be remaining procedural bottlenecks and capacity gaps. Whilst needing more in-depth study, these have clearly resulted in a situation in which very few NGOs or civil society organisations have the required capacity and organisation to meet the strict regulations of the Bank, or to administer projects currently set in the range of 15-20 million reals. However, comment has been made by several people interviewed that the fact that the Bank is even considering a response to these problems suggests that some positive change in banking culture has already been stimulated by its administration of the Fund.

49 See Zadek, S; Forstater, M; Polacow, F & Bonino, J (2009)

50 http://www.amazonfund.gov.br/FundoAmazonia/export/sites/default/site_en/Galerias/Arquivos/Informes/informe_carteira_fa_30nov10_english_01.pdf

Strategic Planning

BNDES is currently working together with Norad and GTZ to develop a clear logical framework for the strategic operation of the Amazon Fund⁵¹. In the absence of this, it is clear that whilst the projects given support are relevant to the overall goals of the Fund and create synergy with other support given by the Bank, they are not optimal in addressing critical deforestation or forest livelihood threats. Indeed, a number of people interviewed, including those working for projects supported by the Fund, commented that the choice of projects had so far been more of a response to the need to present results at the COP-15 meeting than as part of an overall strategy i.e. their relevance to the synergy between the Amazon Fund and government policies (PPCDAM, PAS) were unclear. As well as encouraging the development of the logical framework, several interviewees proposed that the effectiveness of the Fund's support might be improved through the announcement of specific project calls e.g. conservation areas surrounding road projects, small scale deforestation etc.

Changing Patterns of Deforestation

Linked with the question of strategy is the ongoing need to identify the changing nature of deforestation in Brazil. Whilst large-scale deforestation has been reduced in the Amazon area over the last few years, the tactics of loggers and farmers have changed and there are signs of an increase in small-scale deforestation. In this process forest is hollowed out not in one go, but like air bubbles in a swiss-cheese, small holes are created and slowly expanded. Current satellite monitoring technology, whilst under improvement, has difficulty following such processes. With this change to small-scale and much more dispersed deforestation, enforcement agencies are also becoming over-stretched as it becomes increasingly difficult to cover all deforestation events. Added to these changes, whilst deforestation in the Amazon has been reduced, a slacker regulation regime in the Cerrado has meant that deforestation may have increased there. Whilst it is beyond the scope of NICFI or Amazon Fund to respond directly to these challenges, strategic calls could help to establish projects that could make more effective and practical responses.

COFA organization

There is general support amongst civil society organisations and government institutions for the current operation and make-up of the Guidance Committee of the Amazon Fund (COFA). The COFA is seen as playing a key role in guaranteeing the legitimacy and direction of the Amazon Fund. NGOs and civil society organisations nonetheless question whether the effectiveness of the Committee could not be enhanced through review of its membership and reconsideration of its blockage of certain interests i.e. private sector and federal government. Proposals were made that more effective participation in COFA meetings could be encouraged by a facility to provide financial support to its members. Some concern was also raised at the possible conflict of interests that could arise, given that under current regulations members of the COFA remain eligible to submit applicants to the Fund.

51 A first draft of a logical matrix was made public in October 2010. See: http://www.amazonfund.gov.br/FundoAmazonia/export/sites/default/site_en/Galerias/Arquivos/Boletins/boletim_out10_english.pdf

Lack of clarity on use of 20% international support

Under current specifications up to 20% of the Amazon Fund can be used to develop systems to monitor and control deforestation outside of the Amazon biome and outside the country⁵². The current government regulations do not allow entities outside Brazil to receive money from the Fund, and the support is limited to the use of Brazilian services paid for by the Fund. However, it appears that INPE has capacity constraints to provide services to outside clients, and consequently non-Brazilian applicants may not be able to really benefit from this opportunity.

Marginalised Sectors

As a result of the problems faced in the application process of the Amazon Fund many civil society organisations, including indigenous organisations, have been unable to, or have failed to successfully, apply for support from the Amazon Fund. Given the history of Norwegian support to indigenous people and the lobbying of the Rainforest Foundation Norway and its partners, there is a sense amongst Brazilian indigenous organisations that they should have a right to gain access to the Fund. As a result, the complexities and bureaucratic bottlenecks encountered in the Fund's application and selection process are seen, not only as a technical problem, but also as a mechanism which they feel compounds their marginalisation and evidences Brazilian authorities failures to recognise their rights and importance in efforts to reduce deforestation. BNDES is carrying out a series of convincing consultation exercises⁵³, but it is clear that a more efficient dialogue between them and indigenous groups requires further participatory exercises and concrete financial support. Indeed, it is clear that whilst indigenous rights are recognised, COFA clearly needs to integrate a clear interpretation of "free, prior and informed consent" (FPIC) as a guiding principle of the Amazon Fund. Further participatory discussions with indigenous peoples are also needed in order to discuss questions of land and resource ownership and profits from environmental services in indigenous reserves. Whilst the projects supported by the Fund are carrying out important work regulating land titles and considering economic alternatives for large scale soya and cattle farmers, it is also clear that consideration should also be made of similar efforts amongst other less empowered, but equally crucial local groups in deforestation and conservation e.g. rubber tappers, charcoal producers, slave communities, landless peasants, etc.

Lack of Clarity on Carbon Rights

The Brazilian government is currently encouraging a series of internal policy debates and work groups to look closer at the issue of climate change and to better define the national system of emission cuts and carbon accounting. Argument is clearly made by the Minister of the Environment and Ministry personnel that such a system is required to ensure accurate monitoring and verification of deforestation and carbon levels as well as to create an effective and secure system for the operation of sub-national carbon sequestration and trading initiatives. Recognition is made of the need to have oversight over the range of existing initiatives in order to guarantee the

52 Presidential decree nr. 6.528 of 1st August 2008

53 E.g. Consultation on the National Regime of REDD in Brasilia http://www.amazonfund.gov.br/FundoAmazonia/export/sites/default/site_en/Galerias/Arquivos/Boletins/boletim_out10_english.pdf

rights and interests of those communities and social sectors involved. Opinions differ as to whether this system will take years to define or is just around the corner.

Whilst recognising both that NICFI has been effective in getting things started, and that there are areas for improvement in the operation of the Amazon Fund, the complexity of the situation, given the unique circumstances of Brazil and the need for a specific and unique approach by NICFI, is such that the evaluation team is not able at this point to do more than recognise that the process of engagement has had a good impact. We are not at this stage able to comment in detail on the extent to which NICFI's contribution is likely to achieve NICFI's objectives. We believe that progress along the lines indicated above will provide a basis to assess effectiveness during the next evaluation visit.

6.3 Efficiency

Failure to use available NICFI funds

A consequence of the rigorous project application and selection process at BNDES is that only a few projects have been able to benefit from NICFI finance so far, and that only a few organisations have the management capacities and project formulation skills that will allow them to access the funds in the future. This is leading to an accumulation of financial resources in the Amazon Fund⁵⁴. It is worth noting that other research into the operation of the Amazon Fund resulted in a similar finding. Zadek, Forstater and Polocow (2010:1.2) note that “While the Amazon Fund has been able to get started quickly, compared with other funds, the actual rate at which money is being invested on the ground is much slower than the rate that it is being ‘earned’ through reductions in deforestation within the agreement with Norway”.

If BNDES does not find a pathway to disburse the money faster and to adopt policies that will allow a broader base of social actors to apply to the Fund, while still maintaining good spending policies and oversight on how the resources are invested in good projects, there is a risk of accumulating Norwegian resources in the Fund. This could potentially become a serious issue, because the Norwegian government has already made additional pledges for future years and at present there are no signs that the procedural bottlenecks at BNDES will be removed soon.

The fact that deforestation is being reduced in the Amazon without the spending of international REDD resources could create negative perceptions with consequences for international negotiations e.g. that deforestation can be reduced without international support (which appears to be true in the case of Brazil, but is certainly not the case in other countries), or that developing countries do not have the capacities to spend the money they receive for/from REDD.

Sustainability of the Amazon Fund

Discussions with the Amazon Fund team at BNDES revealed that, whilst a logical framework is under development, there is no clear sustainability strategy for the

⁵⁴ From the figures we were given by the Embassy there is indication that the Amazon Fund has, in terms of dispersal rate, so far been falling short in its use of the money agreed with the Norwegian government in return for performance and the stated project requirements of BNDES. For example of the 700 million NOK available to the Fund in 2009, only 123 million was transferred to BNDES. A similar prognosis is also expected for 2010, where of the total 1427 million available to the Fund the Embassy expects only that 169 million will be transferred.

Fund. Should deforestation increase again in the Amazon region (which most Brazilian informants consider unlikely), the Amazon Fund would not be able to raise international funds, and this constraint would exist exactly during a period when financing for REDD activities would be most needed. In the current structure of the Fund there is no mechanism to collect domestic resources. As a result an increase in deforestation would represent a threat to the sustainability of the fund and its ultimate contribution to reducing emissions.

A strategy to reduce dependence on international donations would be to increase the self-sustainability of the Fund and the project activities it finances. Such a strategy could be envisioned in several ways, including the option of creating appropriate pathways for incentivising private sector initiatives. A Fund window for the private sector might also contribute to accelerating disbursement⁵⁵.

Performance-based payments to developing country governments, as an approach to compensate and stimulate additional reduction in deforestation, forest degradation, and associated greenhouse gas emissions, seems to entail a chicken-and-egg problem that requires more thinking in the context of international negotiations. If a country fails to reduce deforestation, it will not have access to much needed international financial support to strengthen and improve the national REDD programmes that were designed in the readiness phase, or be shown to be insufficient during implementation phase. Under such circumstances, the performance-based phase could only be reached by that country if additional investments in the fight against deforestation are made using the country's own financial resources, something that poorer developing countries may not be in a position to afford. In addition to the donor financing to the readiness and implementation phases (such as through UN-REDD, FCPF and FIP), a market-based approach could be allowed to develop so that private finance would flow at a sufficient scale into up-front investments in REDD activities as a complement of public investments. This would require appropriate signals at the international policy level.

In countries where deforestation is being successfully reduced, as in the case of the Brazilian Amazon, there may be no real need to rush the investment of additional money in REDD activities. Indeed, as is being proposed by some Brazilian analysts such as Don Sawyer at the Centre for Sustainable Development at the Federal University of Brasilia, the resources the international donor community is spending on performance might be more useful in countries that are unable to perform.

The points noted above reflect issues we have identified that have precluded rapid progress. We do not consider it helpful to make any definitive assessment of efficiency at this stage for the same reasons as described above in relation to effectiveness. The extent to which the issues noted are addressed as part of revised procedures and processes before the next evaluation visit will provide a basis for assessment at that time.

55 BNDES has another window of financing for private sector; COFA has rejected so far the access of private sector to NICFI funds.

7. Lessons Learnt and Recommendations

7.1 Lessons learnt

- NICFI support to Brazil has acted as an important stimulus to policy debates and actions on REDD alternatives and the reduction of deforestation. As such NICFI support is evaluated as being highly relevant.
- There is a relationship between NICFI support and National policy, but Brazil has independently developed its own regulatory and monitoring systems, and is in the process of defining its own alternative position on REDD+.
- Brazil aims to develop a national system for not only monitoring and reducing deforestation, but emission cuts and carbon accounting. Whilst insisting on the importance of a national system for the verification of emission cuts and socio-economic rights there is growing support from the State level and sectors of the central government for private/public sub-national initiatives.
- Given time constraints, but also the constraints of BNDES regulations and funding structures, the Amazon Fund - the focus of NICFI support in Brazil - has so far faced serious problems in its efforts to efficiently disburse funds.
- Brazil now operates an impressive governance system for monitoring and enforcing the protection of the forests in the Amazon region, and as such is well advanced in readiness to REDD+. Whilst other countries can learn from the methodologies and technologies operated by Brazil, because of topographic differences and legal restrictions there are difficulties in exporting these systems.

7.2 Recommendations

The evaluation team's following recommendations are intended for follow-up by NICFI and their partners in their ongoing dialogue and partnerships on REDD+:

- Whilst recognising that legal changes can take time, we recommend that a rapid review of the current regulations and application procedures of the Amazon Fund is carried out. Connected with this we also recommend that a fine grained study of the bottlenecks encountered in the application and processing procedures of the fund is undertaken.
- We recommend that an integrated plan for the Amazon Fund is formed consisting of projects targeting key deforestation and degradation threats.
- We recommend that a dialogue is opened on how a strategic framework for the Fund can function in parallel with a plan for the disbursement of funds. This would help to ensure that available resources are utilised to achieve effective outcomes.
- We propose that discussions are entered into on how different initiatives - including the small grants programme now being considered, but also linkage to

the private sector and Federal level, could improve the dispersal rates of the Amazon Fund.

- Indigenous peoples and other forest dwelling communities are key to combatting deforestation. There is a need to ensure the increased participation of these marginalised groups within the scope of the Amazon Fund and elaboration of projects for sustainable development.

Table 3 NICFI Country-level Evaluation Framework – Brazil

Detail of Indicator	Situation in 2007	Progress 2007 to 2010	Contribution of NICFI to progress 2007 to 2010
1. National ownership			
Position of REDD in the national agenda	Low REDD was not considered in contemporary legislation and policy	High Brazil has developed its own alternative position on REDD internationally and has made significant progress on developing appropriate domestic policy, monitoring and governance systems	Medium NICFI support to the creation of the Amazon Fund sparked off positive policy debates about national ownership and the Brazilian position on REDD
Transparency and stakeholder inclusion of REDD coordination	Low	Medium As well as wider moves to decentralisation and consultation, the particular formation of COFA has underlined the seriousness of Brazil's commitment to participation and openness.	Medium In negotiating the creation of the Amazon Fund and its administration by BNDES, NICFI and the Norwegian Embassy have consistently emphasised the importance of transparency and stakeholder inclusion. Decisions regarding REDD coordination in Brazil, are however more the product of domestic political decisions and thinking than NICFI proposals.

Detail of Indicator	Situation in 2007	Progress 2007 to 2010	Contribution of NICFI to progress 2007 to 2010
Civil society participation	Low	Medium Considerable effort has been made by the Brazilian government to encourage participation in local development policy decisions.	Medium Norwegian support to civil society organisations encouraged the creation of the Amazon Fund and wider environmental policy debates. They have also consistently emphasised the importance of civil society participation in REDD related debates. Whilst this may have had some influence on levels of civil society participation, the social movement and political history of Brazil demonstrates, however, that the high level of participation in the country is more the product of internal mobilisation and organisation.
2. REDD relevant policies, strategies, plans and actions			
Policy addresses the key issues	Did not exist	Medium The Brazilian position on REDD does not only focus on deforestation, but a much wider set of policies including monitoring, enforcement and emission reductions	Medium Whilst the Amazon Fund was a stimulus to further policy debate, Brazil's actions to reduce deforestation are the product of internal political processes and decision-making. Norway encourages national ownership and has respected Brazilian sovereignty over the Fund.
REDD strategy links well with NFP (or similar)	Did not exist	Medium Whilst there is no direct connection between forest legislation and Brazil's national position on REDD there are important synergies	Low There are no formal links between Brazilian REDD thinking and current domestic legislation. This is presently being developed.

Detail of Indicator	Situation in 2007	Progress 2007 to 2010	Contribution of NICFI to progress 2007 to 2010
Plans allocate adequate resources	Did not exist	Medium Significant resources have been used to develop monitoring and governance systems	Low As described in the report there are problems in the Amazon Fund's dispersal rates
Actions are addressing key policy issues	Low Brazil had started to develop necessary legislation, institutions and monitoring systems	Medium Brazil has had some considerable success in reducing deforestation rates	Indirect There is an indirect stimulus
3. MRV capacity and capability			
Quality of national forest inventory	Low Under development	High Brazil has an impressive system for monitoring, governance and enforcement	Indirect There is indirect stimulus
Frequency of national communications to UNFCCC	medium Brazil has been active in international environmental debates since the Rio climate summit	Medium Brazil is an active player in international Climate policy and REDD negotiations	Medium The creation of the Amazon Fund has undoubtedly provided Brazil with kudos in international negotiations, as it has Norway
Quality assurance and quality control of verification	Low	Medium Brazil has adopted an Open Source policy to its forest data	Medium Norway has provided support to the creation and continuance of Brazil's monitoring systems
4. Deforestation and forest degradation			
Rate of deforestation	See Table 1	Trend in area deforested is declining	?
Rate of forest degradation	See Table 2	Data time series limited – too early to draw conclusions	?

Detail of Indicator	Situation in 2007	Progress 2007 to 2010	Contribution of NICFI to progress 2007 to 2010
5. Livelihoods, economic and social development and environmental conservation			
Share of forest-based income of rural family income	Not known	Medium Brazilian decentralisation and participatory policies have had a demonstrable positive impact on the incomes of marginalised communities	Low The Amazon Fund supports projects aimed at encouraging forest based income generation. However, Civil Society Organisations and Indigenous Communities, argue that as a result of the current regulations there are too few of these projects.
Present or planned sharing of REDD payments among stakeholder groups	No sharing nor plans	Medium Plans formulated through Amazon Fund and other sub-national initiatives	Low Plans formulated through Amazon Fund
Rights of indigenous peoples and local communities to land and forest resources	Low Whilst Brazil provides federal protection to indigenous territories, there are ongoing tensions between indigenous communities and the government with regards to the operation of state control and paternalism.	No change	Low NICFI provides no direct support to indigenous communities or their rights. The Embassy has, however, run a Human Rights Programme focused on indigenous groups in Brazil for some time.
Share of conservation forest of all forests	?	?	?
Proportion of certified production forests	?	?	?
Conservation included and applied in forest management guidelines	Partial	No changes	?

Annexes



Annex 1

List of Interviews

Date	Institution	Name(s)
28.05	Rainforest Foundation: Amazon Fund Meeting	Lars Løvold, Adriana Ramos, Inge Nordang, Thaís Linhares-Juvenal
16.06	Rainforest Foundation (Regnskogsfondet)	Lars Løvold; Nils Hermann Ranum; Anne Bjørndal; Vemund Olsen
16.06	Fremtiden i Våre Hender	Arild Hermstad
16.06	Friends of the Earth Norway	Bård Lahn
23.06	Norad	Turid Johansen Arnegaard
02.08	Norwegian Embassy (Teleconference)	Inge Nordang , Kristian Bengtson
02.08	Brazilian Development Bank (BNDES)	Sergio Weguelin; Claudia Soares Costa; Bernardo von Haehling Bruane; Guilherme A. Accioly; Maria Helena de Oliveira;
03.08	Green Party (Partido Verde) / Camara Municipal do Rio de Janeiro	Alfredo Sirkis
03.08	Instituto Bioatlantica (IBIO)	Miguel Calmon; Beto Mesquita
04.08	Brazilian Biodiversity Fund (Funbio)	Rosa Lemos; Angelo Augusto dos Santos
05.08	National Institute for Space Research (INPE)	Dalton de Morrison Valeriano
06.08	Brazilian Development Bank (BNDES)	Claudia Soares Costs; Bernardo von Haehling Bruane; Vinicius Vidal de Almeida.
09.08	Instituto Sociambiental (ISA)	Adriana Ramos
09.08	Ministry of Environment	Juliana Simões; Nazaré Soares
09.08	Nature Conservancy Trust (TNC) Brasilia	Ana Cristina Barros; Gustavo Pinheiro; Fernanda Viana de Carvalho
09.08	Fundação Nacional do Índio(FUNAI)	Igor Ferreira; Thais Goncalves
09.08	Brazilian Forest Service	Marco Conde
10.08	Kreditanstalt für Wiederaufbau (KFW)	Jens Ochtrop

Date	Institution	Name(s)
10.08	GTZ	Waldemar W. Wirsig; Christiane Ehringhaus
10.08	Conselho Indígenista Missionário (CIMI) (Representatives of INBRAPI and CTI did not turn up at the scheduled interview)	Saulo Fetosa
10.08	Norwegian Embassy	Inge Nordang; Kristian Bengtson
10.08	Equipo Conservação da Amazônia (ACT)	Vasco de Roosmalen
10.08	Grupo da Trabalho Amazonica (GTA)	Paulo Brasioli
10.08	Institute for Society, Population and Nature (ISPN)/ Center for Sustainable Development of the University of Brasilia.	Don Sawyer
11.08	Instituto de Pesquisa Ambiental da Amazonia (IPAM)	Paulo Moutinho
11.08	Director of the Brazilian Department of Climate Change	Thais Juvenal
11.08	Conservation International	Paulo Prado
11.08	National Research Institute for the Amazon (INPA), Ministry of Science and Technology	Adalberto Luis Val
12.08	Nature Conservancy Trust (TNC) Belem	Ian Thompson
12.08	Environment Secretariat. State Government of Pará	Anibal Picanço; Claudio Mauricio Flores Morales
12.08	Federação das Indústrias do Estado do Pará (FIEPA)	Derick Pantoja Martins
12.08	Foundation for a Sustainable Amazonas	Virgilio Viana
12.08	Centro Estadual de Mudanças Climáticas (CECLIMA), State Secretariat for Environment and Sustainable Development (SDS), Amazonas	Natalie Unterstell; Rodrigo Mauro Freire
12.08	Institute for Sustainable Development of the Amazon (IDESAM)	Mariano Colini
13.08	Amazon Institute of People and the Environment (IMAZON)	Brenda Brito
14.08	Conselho Indígena dos Rios Tapajos e Aropians (CITA)	Florencia Vaz

Date	Institution	Name(s)
08.10	Feedback Meeting. NICFI	Jørn Stave, Leif Tore Traedal, Gry Asp Solstad, Andreas Tveteraas, Tove Stub, Hans Brattskar, Per Fredrik Pharo, Mette Kottman, Per Mogstad, Ingrid Dana, Trygve Bendiksby, Ellen Bruzelius Backer, Marte Nordseth
09.10	Feedback Meeting. NICFI: Brazil	Marte Nordseth, Ellen Bruzelius Backer

Annex 2

Documents Consulted

- Angelsen, A (2008) Moving Ahead with REDD: Issues, Options and Implications. CIFOR.
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- Accra Caucus on Forests and Climate Change (2010) Realising Rights, Protecting Forests: An Alternatic Vision for Reducing Deforestation: Case Studies from the Accra Caucus.
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Annex 3

Terms of Reference

Real-time evaluation of Norway's International Climate and Forest Initiative: The Initiative's support to the formulation and implementation of national REDD strategies

Final version, 11 June, 2010

General background: REDD and Norway's Initiative

The primary objective of the Norwegian Government's climate policy is to play a part in establishing a global, binding, long-term post-2012 regime that will ensure deep enough cuts in global greenhouse gas emissions. To this end, the Government has launched Norway's International Climate and Forest Initiative and pledged substantial funding towards efforts to reduce emissions from deforestation and forest degradation.

Reducing emissions from deforestation and forest degradation in developing countries (REDD) has the potential to generate significant, cost-efficient and quick reductions in greenhouse gas emissions. It has been estimated that emissions from the forestry sector in developing countries account for about one fifth of the global CO₂ emissions. REDD has therefore attracted high-level political attention over the last few years¹.

REDD is based on the idea that the international community can pay developing countries, either directly or to sub-national actors, to put in place policies and measures to reduce their rate of deforestation and forest degradation. This would be a cheaper option than reducing greenhouse gas emissions from sources in developed countries as well as from most other sectors, yet there is widespread consensus that REDD must add to deep emission reduction commitments from industrialised countries. REDD could also generate a range of co-benefits, such as biodiversity conservation and poverty alleviation.

However, as with any transforming policy, the success of REDD is dependent on numerous conditions. The debate and emerging literature on REDD has especially concentrated on the difficulty of designing an international and national REDD architecture that can channel reliable funding and ensure real emissions reductions, while also delivering co-benefits². This involves issues such as determining the source and mechanism of finance (public or private, fund-based or market-based,

¹ REDD is used here in a broad sense and generally includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (i.e. REDD+).

² See, for example: (1) Angelsen, A. (ed) 2008. Moving ahead with REDD: Issues, options and implications. CIFOR, Bogor, Indonesia. (2) Angelsen, A. with Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W.D. and Wertz-Kanounnikoff, S. (eds) 2009. Realizing REDD+: National strategy and policy options. CIFOR, Bogor, Indonesia.

compliance or non-compliance markets) and the scale of REDD (national or sub-national accounting), setting reference levels for REDD payments, developing systems for monitoring, reporting and verification (MRV), addressing possible land tenure reforms, ensuring the rights of indigenous peoples and local communities, and establishing governance safeguards, including fighting corruption in the forestry sector.

Norway's International Climate and Forest Initiative was launched by the Norwegian Government at COP-13 in December 2007, pledging up to 3 billion Norwegian kroner per year over five years to reduce emissions from deforestation and forest degradation in developing countries³. The objectives of the Initiative are⁴

1. to work towards the inclusion of emissions from deforestation and forest degradation in a new international climate regime
2. to take early action to achieve cost-effective and verifiable reductions in greenhouse gas emissions
3. to promote the conservation of natural forests to maintain their carbon storage capacity.

The Initiative is being financed by official development assistance (ODA) funds. Thus, the overriding objectives of Norwegian foreign development policy also apply to the Initiative, in addition to the directly climate-related objectives listed above. These objectives include social and economic development, poverty reduction, the welfare and rights of indigenous peoples and other people living in or from forests, better land use, and the protection of biodiversity and the environment in general. In the work towards these goals, it is a goal in itself that the climate policy and the foreign development policy are to be mutually supportive.

The Initiative supports the UN Collaborative Programme on Reduced Emissions from Deforestation and Forest Degradation (UN-REDD Programme) jointly managed by FAO, UNDP and UNEP, the Forest Carbon Partnership Facility (FCPF) and the Forest Investment Programme (FIP) managed by the World Bank, the Congo Basin Forest Fund (CBFF) managed by the African Development Bank, and the Amazon Fund managed by the Brazilian Development Bank (BNDES). Norway has also entered into a bilateral agreement with Tanzania, signed a Memorandum of Understanding with Guyana and with Mexico, and a Letter of Intent with Indonesia. Non-governmental organisations are funded through a grant scheme administered by the Norwegian Agency for Development Cooperation (Norad)⁵.

The overall responsibility for the Initiative lies with the Ministry of the Environment, where a secretariat has been established. The Ministry of Foreign Affairs, supported by Norwegian missions abroad and Norad, is responsible for foreign and development policy related to the Initiative, as well as the management and disbursement of funds. An inter-ministerial body has been established for coordination and, when necessary, the facilitation of government discussions related to the Initiative.

³ COP is an abbreviation for Conference of the Parties, which is the supreme body of the UNFCCC. COP-13 took place at Bali, Indonesia.

⁴ See Proposition No. 1 to the Norwegian Parliament 2008-2009

⁵ For more details about NICFI, see the web site (also available in English): <http://www.regjeringen.no/dep/md/tema/klima/klimaogskogprosjektet.html?id=548491>

It is essential to recognise the strategic nature of the Initiative. It was launched with the aspiration that it would contribute in building support for the potential of REDD to prevent climate change and encourage initiatives and funds from other parties in the international community. Substantial risks due to existing economic interests and weak governance in many of the countries harbouring the largest remaining tropical forests were recognised, and the Initiative was launched with an emphasis on the importance of patience, a long-term perspective and the need to experiment and learn from experience. Indeed, the development of national REDD strategies and implementation mechanisms are expected to require substantial time and support in most countries. An important objective of the Initiative is therefore to support capacity development and the political reforms needed to facilitate REDD over the longer term.

The real-time evaluation framework

The need for timely information and rapid learning calls for a real-time evaluation to progressively assess the results of the Initiative with regard to its objectives and the general objectives of Norwegian development cooperation. The real-time approach is especially useful in fast-moving situations, and the developing issues around REDD are just that. As the Initiative is expected to be a significant recipient of Norwegian ODA funds for several years, it is also in the interest of policy-makers and the public to have access to up-dated and impartial information about the progress and status of the Initiative. Hence, the real-time evaluation should serve both a documentation function and a learning function. This approach allows the Initiative to adjust its programming during the course of implementation, i.e. in real time.

The real-time evaluation will cover a time span of four years, i.e. 2010-2013. A framework agreement has been signed with a consortium of independent consultants and experts led by LTS International. The work load has been estimated at 150 weeks per year, distributed among several evaluation assignments. The terms of reference and timing of the different evaluation tasks will be agreed with the consultants and concerned stakeholders on a case-by-case basis. Each evaluation will be commissioned as a call-off order under the framework agreement.

The real-time evaluation should cover all the partners that have received ODA grants, including multilateral, bilateral and non-governmental agencies. In order to stimulate continuous learning and debate, the concerned stakeholders will be actively consulted during the evaluation process and reports will be made available to the general public.

The overall objectives of the real-time evaluation are to assess the results of the Initiative's support:

1. for improving the prospects of the inclusion of a REDD mechanism in a post-2012 climate regime
2. for the preparation of mechanisms and implementation of activities to attain verifiable reductions in greenhouse gas emissions
3. for the conservation of natural forests to maintain their carbon storage capacity

4. with regards to the general objectives of Norwegian development cooperation, such as those related to livelihoods, economic and social development and the environment.

The first three objectives refer to the objectives of the Initiative, while the fourth objective derives from the use of ODA funds.

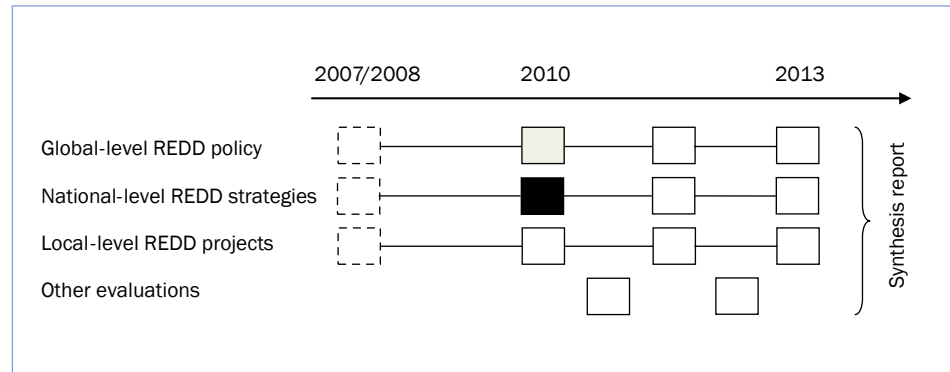
The final product of the real-time evaluation is expected to be a synthesis report that addresses the four overall objectives. However, in order to develop a synthesis and to create learning and provide feedback to the Initiative along the way, a series of evaluations will be carried out. It is envisaged that the real-time evaluation will consist of three core evaluation tasks, which will be repeated at regular intervals (e.g. 2010, 2012, 2013), combined with stand-alone evaluations or studies of specific thematic or geographical areas (e.g. evaluations of anti-corruption measures, effectiveness of different funding channels and mechanisms). The backbone of the real-time evaluation will be the following three core evaluations:

- Global level: The Initiative's contribution to an international REDD regime
- National level: The Initiative's support to the formulation and implementation of national REDD strategies
- Local level: Lessons learned from REDD demonstration projects supported by the Initiative

The global level evaluation will primarily address the first objective of the real-time evaluation, while the national and local level evaluations will primarily address the second, third and fourth objective of the real-time evaluation.

The three levels correspond to the notions of policy, programme and project. While the global level evaluation is policy-oriented and the local level evaluation is project-oriented, the national level ('programme') evaluation will assess the formulation and implementation of REDD strategies in a selection of case study countries. All the evaluations shall combine assessments of the status and progress of the overall REDD agenda with efforts to identify the actual contributions of the Initiative. The latter will be a main methodological challenge for the whole evaluation exercise, especially in cases where funding has been channelled through multilateral agencies and development banks.

Figure 1. A conceptual model of the real-time evaluation. Dashed lines indicate baseline (which shall be established retrospectively), grey box indicates an on-going evaluation, black box indicates the present evaluation, and white box indicates a planned evaluation.



There is also a need to closely coordinate this real-time evaluation with the monitoring and evaluation programmes of the Initiative's partners. It is known that the UN-REDD Programme, FCPF, CBFF, BNDES, and Norad's Civil Society Department are already planning reviews of their respective portfolios. There are also numerous research and development groups involved in REDD related studies, e.g. Centre for International Forestry Research (CIFOR) is conducting a global comparative study on REDD⁶. Norad's Evaluation Department and the evaluation team need to continuously follow the developments across the international REDD arena in order to avoid duplication of work and to incorporate knowledge generated by others.

The present evaluation

The present evaluation task concerns the national level described above. It aims to evaluate the Initiative's support to the formulation and implementation of national REDD strategies and other REDD readiness efforts, as of 2010. As the international REDD architecture is likely to build on national policies and measures, this evaluation task will constitute a main pillar of the whole real-time evaluation programme. The target countries for Norway's International Climate and Forest Initiative are at different stages of REDD planning and implementation, ranging from initial readiness stage (early phase 1) to advanced REDD strategy formulation (late phase 1) and results-based REDD actions (phase 2)⁷. Consequently, the funds are used for different purposes, including stakeholder consultations, capacity-building, institutional strengthening, demonstration activities, and enforcement of policies and measures. In Brazil and Guyana, the Initiative's payments are intended to create incentives for REDD actions while the funds will be used to address a wider agenda beyond the Initiative's REDD related objectives (cf. the Amazon Fund and Guyana's Low Carbon Development Strategy, respectively).

The Initiative's funding at the country level is delivered through a diversity of channels and mechanisms, including a single multilateral institution with multiple donors

⁶ See CIFOR's web site: <http://www.cifor.cgiar.org/>

⁷ The phased approach to REDD has not been formally adopted. For details about the proposed phases, see the IWG report (Report of the Informal Working Group on Interim Finance for REDD+. Discussion document, 27 October 2009). In short, phase 1 refers to national REDD strategy development, phase 2 refers to implementation of national policies and measures for REDD, and phase 3 refers to performance-based payments on the basis of quantified forest emissions and removals against agreed reference levels.

(e.g. FCPF in Ghana), a single multilateral institution with multiple donors combined with a multi-bi programme through an international financial institution (FCPF and Guyana REDD+ Investment Fund in Guyana), two multilateral institutions (e.g. FCPF and UN-REDD Programme in Bolivia), two multilateral institutions combined with a bilateral programme (e.g. FCPF, UN-REDD Programme and Royal Norwegian Embassy in Tanzania), two multilateral institutions combined with a regional fund (e.g. FCPF, UN-REDD Programme and CBFF in the Democratic Republic of Congo), and direct bilateral payments to a national fund (Amazon Fund in Brazil). Among these mechanisms, only the support to the Amazon Fund is directly performance-based (phase 2), but the Initiative also plans to make performance-based payments to Guyana and Indonesia.

The Initiative's wide geographical coverage (> 40 countries) and multiple support channels (multilateral, bilateral and non-governmental) create methodological and practical challenges in the evaluation process⁸. However, assessing the aid effectiveness with respect to REDD performance over time in a few selected countries may serve both the documentation function and the learning function of the real-time evaluation. In this initial evaluation, five countries have been selected for case studies, but other countries may be added at a later stage.

Purpose and objectives

The purpose of this evaluation is to assess the Initiative's support to the formulation and implementation of national REDD strategies⁹. This will be achieved by developing a real-time methodology upon which the status and progress of national REDD performance can be evaluated¹⁰. The national level evaluations using the same methodology (or adapted methodology if found necessary) will be carried out periodically in the selected countries.

Accordingly, the present evaluation has two main objectives:

1. Develop a methodology for the real-time evaluation of the Initiative's support to the formulation and implementation of national REDD strategies
2. Evaluate the status and progress of the Initiative's support to the formulation and implementation of national REDD strategies in a selection of case study countries as of 2010

As an integral part of the real-time evaluation approach, the learning aspect shall be addressed by identifying lessons learned and their potential implications for the Initiative's future support to the formulation and implementation of national REDD strategies.

Scope

The evaluation shall include the following five countries: Brazil, Guyana, Democratic Republic of Congo, Tanzania, and Indonesia. These countries receive significant support from the Initiative through different channels and mechanisms, they are at

⁸ The geographical coverage also includes countries supported by FCPF only.

⁹ 'Support' refers to financial contributions and policy and technical advice conveyed through the different channels and mechanisms that ultimately target national REDD efforts.

¹⁰ Status and progress of national REDD performance shall be measured against the second, third and fourth objective of the real-time evaluation, cf. page 3.

different stages in the forest transition, they represent different national policy contexts, and they cover each of the three tropical continents.

Whereas the evaluation shall attempt to identify the actual contributions of the Initiative, it shall also include an assessment of the status and progress of the national REDD processes as a whole. This will ensure that the findings and recommendations from this evaluation could also be relevant for other REDD actors. The contributions of the Initiative need to be mapped by providing a summary of how its financial resources are being used by year (i.e. fund recipients, size of funding, country, activities).

National REDD strategies are expected to be informed by demonstration projects at the sub-national level, and hence, the evaluation shall carry out a preliminary mapping of such projects in the case study countries. While also relevant for addressing the objectives of this evaluation (cf. evaluation questions below), the available information about the REDD demonstration projects shall primarily feed into the subsequent local level evaluation described above¹¹. In Brazil, therefore, the performance of the Amazon Fund's project portfolio is, for the purpose of the present evaluation, subordinate to the wider REDD policies and measures at national level¹².

As the three climate-related objectives of the Initiative are supplemented with the development-related objectives associated with the use of ODA funds (cf. objective 4 of the real-time evaluation), including those related to poverty alleviation, indigenous peoples' rights, environment, and anti-corruption, the evaluation should try to distinguish between the climate-related effects and the development-related effects of the Initiative.

The time period under investigation in the present evaluation is 2007-2010. The launching of the Initiative in 2007 (COP-13) should serve as a base year for later evaluations, and hence, particular emphasis should be placed on assessing the national REDD situation at that stage, i.e. constructing a baseline retrospectively. The contributions of the Initiative towards the formulation and implementation of national REDD strategies should then be evaluated for the period 2007-2010.

The evaluation should focus on the relative contributions of the Initiative rather than the overall performance of the fund recipients.¹³ This is particularly relevant in cases where the funding is channelled through multilateral agencies and development banks. In such cases, the emphasis should be on the strategic contributions of the Initiative in influencing the policies and programmes of the fund recipients, and not only on the actual outcomes in terms of carbon effectiveness, cost efficiency, equity and co-benefits on the ground.

11 Separate Terms of Reference will be developed for the local level REDD project evaluation.

12 The activities financed through the Amazon Fund are not necessarily part of the government's action plan to combat deforestation or an integral part of Plano Amazonas Sustentavel (PAS) since there is no direct link between the Amazon Fund and these programs (see 'Assessment of BNDES as a potential mechanism for Norwegian support to the Fundo Amazônia (Amazon Fund)', Norad, 27 June 2008).

13 It should be recognised that NICFI operates in an institutional context that is largely determined by other actors. The preexisting actors and frameworks limit the range of available options.

Evaluation questions

The below list of questions is not exhaustive and the questions may have different relevance for the different case study countries.

Formulation of national REDD strategies

National ownership:

- To what extent has the Initiative's financial and policy support contributed to building political REDD leadership and commitment?
- To what extent has the Initiative contributed to strengthening institutional capacities at the national level?
- To what extent has the Initiative contributed to cross-sectoral coordination within the government in the target countries?
- To what extent has the Initiative contributed to active involvement by civil society to enhance national ownership?

Donor support and coordination:

- To what extent has the Initiative and its partners contributed to a coordinated and harmonised approach to REDD at the country level?
- To what extent have the Initiative's multilateral partners responded to the support needs of the country?
- How has Norwegian ODA policies and the Initiative's viewpoints on social and environmental safeguards related to equity and co-benefits been communicated and negotiated with the fund recipients?¹⁴
- To what extent has the Initiative contributed to creating synergies across countries?

Consultation process:

- To what extent has the REDD stakeholder consultations been inclusive and participatory?
- To what extent has the national REDD process involved indigenous peoples and local communities?
- To what extent has the Initiative's support to civil society organisations and research institutions contributed to the national REDD strategy?
- How has the issue of equity and co-benefits been treated in the stakeholder consultations?

Policy content:

- Is the REDD strategy at present soundly formulated, based on solid analysis and data, and likely to be efficient and effective in promoting emissions reductions?
- Has the REDD strategy been effective in promoting diagnosis of causes of forest carbon emissions, including external drivers, and formulation of plans to reduce emissions?
- To what extent is the REDD strategy integrated into the wider policy framework of the country, including land tenure policies, agricultural and energy policies, and infrastructure development plans?

¹⁴ Equity refers to the sharing of REDD benefits among different stakeholders, while the debate on co-benefits in REDD has concentrated on environmental services (e.g. biodiversity), socio-economic services (e.g. poverty alleviation), governance and rights issues (e.g. rights of indigenous peoples and local communities), and climate change adaptation. Safeguards refer to donor policies that promote equity and co-benefits, while avoiding harmful side-effects, e.g. anti-corruption safeguards and anti-plantation safeguards.

- To what extent is the REDD strategy coordinated with Nationally Appropriate Mitigation Actions (NAMAs) or broader national low carbon strategies, and to what extent are REDD payments proposed to be channelled into NAMAs?
- Which sub-national incentives for REDD have been developed in the REDD strategy?
- Which institutional set-up is proposed at the national level in order to manage sub-national payments and ensure that the MRV system would meet international reporting and verification requirements?
- How adequate are the proposed MRV systems for carbon fluxes?
- To what extent are the proposed reference levels robust and credible enough to prevent any profiteering and free riding (capturing REDD payments on changes that would have taken place anyhow)?
- Is the REDD strategy likely to have a positive impact on livelihoods, development, and local environment (i.e. equity and co-benefits)?
- To what extent have social and environmental safeguards related to equity and co-benefits been incorporated into the REDD strategy?

Implementation of national REDD strategies¹⁵

- To what extent have the Initiative's REDD payments contributed to cost-effective and verifiable reductions in greenhouse gas emissions?¹⁶
- To what extent is the implementation of the REDD strategy addressing the underlying drivers of deforestation and forest degradation in the country?
- What is the quality of greenhouse gas emissions data on which the payments are based?
- To what extent is the Initiative contributing to improving the MRV system?
- To what extent is the Initiative's funding mechanism additional, contradictory or supplementary to other REDD-related policies and measures of the government?¹⁷
- To what extent are social and environmental safeguards related to equity and co-benefits being enforced and implemented through national REDD policies and measures?
- To what extent is the implementation of the REDD strategy likely to achieve the development-related objectives and contribute to equity and co-benefits?¹⁸
- How are stakeholders, especially indigenous peoples and local communities, involved in the implementation of the REDD strategy?

Methodology

The evaluation shall apply international best-practices to ensure objective, transparent, evidence-based and impartial assessments and learning. The methodology shall be standardised into a real-time evaluation framework that allows comparisons over time. This includes the definition of a set of common indicators that (i) remain valid throughout the real-time evaluation period, (ii) can be used across countries,

¹⁵ Mostly relevant for Brazil and Guyana at present (i.e. phase 2 countries), but also applicable in countries where REDD measures are implemented while the REDD strategy is being developed. Note that the strategy in Guyana refers to REDD+, while Brazil's policies and measures predate the REDD agenda and primarily deal with reduced deforestation in the Amazon.

¹⁶ REDD payments can contribute either directly to reductions in greenhouse gas emissions by earmarked funding to REDD activities (e.g. support to REDD demonstration projects), or indirectly by creating incentives where payments are based on documented results (e.g. the Amazon Fund).

¹⁷ This is particularly relevant in Brazil, cf. footnote above.

¹⁸ Where REDD funds are provided or planned to be provided to national entities, it is important to map how and to whom they are distributed to assess whether those sectors or social groups who are bearing the main costs of REDD are being compensated.

(iii) address the overall objectives of the real-time evaluation, (iv) cover the issues raised in the evaluation questions, and (v) enable attribution of observed results to inputs from the Initiative. The baseline for each indicator shall be reconstructed and compared to the situation as of 2010.

The country case studies shall include field visits and in-depth literature surveys. The evaluation shall be based on stakeholder interviews and document reviews, including research papers, reports and policy documents.

The analysis shall refer to the three OECD/DAC criteria relevance, effectiveness and efficiency. The latter will require that the evaluation prepares an inventory of the actual outputs and outcomes at the national level and compare them with the Initiative's inputs through the different funding channels and support mechanisms. The corresponding terminology in the REDD literature, i.e. carbon effectiveness, cost efficiency, and equity and co-benefits (the 3E+ criteria), may also be helpful in analysing the data.

In developing the evaluation framework, the monitoring and evaluation systems developed internally by the Initiative's partners (e.g. FCPF's M&E framework) should be considered and drawn upon.

Based on these guidelines, LTS International shall develop a detailed work plan and methodology.

Evaluation team

This evaluation will require team members with in-depth knowledge about the forestry sector and policy development in the target countries combined with international REDD experts.

LTS International shall suggest a composition of team members, taking notice of the size of the evaluation (see below) and the expected distribution of personnel categories agreed for the overall real-time evaluation.

Budget

The estimated size of this evaluation is 83 person weeks. LTS International shall propose a budget based on the personnel requirements and the expected travel and subsistence expenses.

Deliverables and time frame

14 June: Proposed team and final Terms of Reference

16 June: Start of the evaluation

20 July: Inception report¹⁹

August: Country field visits, including validation workshops

10 September: Five draft final country evaluation reports

1 October: Draft final synthesis report

29 October: Final report

November: Seminars in Oslo

The reports shall be prepared in accordance with the Evaluation Department's Guidelines for Reports.

¹⁹ The inception report shall pay special attention to possible country-specific adjustments in the evaluation questions and the scope of the evaluation, presenting an adjusted and extended outline of the country evaluation reports of the four countries reflecting the respective country situation as well as an extended outline for a synthesis report. It shall also propose a detailed time schedule of each country evaluations, methodology for collecting and analysing data using a real-time approach.

Annex 4

Evaluation questions and respective indicators

National ownership:

Evaluation question	Indicators
To what extent has the Initiative's financial and policy support contributed to building political REDD leadership and commitment?	Brazil does not have a clear REDD strategy as it is not under FCPF. It has a proposal for national legislation (PNMC ¹) which is about to be regulated. We will therefore trace elements of NICFI in the Brazilian government's proposals for alternatives to REDD (PNMC), strategic development plans for the Amazon region, funded projects.
To what extent has the Initiative contributed to strengthening institutional capacities at the national level?	National institutional mechanisms, coordination structures and training programmes established with NICFI support
To what extent has the Initiative contributed to cross-sectoral coordination within the government in the target countries?	Identifiable synergies between Amazon fund eligible actions and Brazilian national/regional/state climate change strategies? As a result of practical limitations the study will only look at Amazonas and Pará States.
To what extent has the Initiative contributed to active involvement by civil society to enhance national ownership?	Operation and Representation of the COFA. Limitations to participation.

Donor support and coordination:

Evaluation question	Indicator
To what extent has the Initiative and its partners contributed to a coordinated and harmonised approach to climate change and combating deforestation at the country level?	Have NICFI and its partners support been coordinated to form a single harmonised approach to deforestation. How does this contrast with other approaches to REDD?
To what extent have the Initiative's multilateral partners responded to the support needs of the country?	Response by international organisations i.e. UN-REDD and FCPF?
How has Norwegian ODA policies and the Initiative's viewpoints on social and environmental safeguards related to equity and co-benefits been communicated and negotiated with the fund recipients?	Can the initiative be said to be rights-based i.e. are there indications that transparency, good governance as well as gender, indigenous and children's rights are central concerns?
To what extent has the Initiative contributed to creating synergies across countries?	Does NICFI support in Brazil have any clear and explicit influence on regional debates on environmental and climate mitigation policies?

Consultation process:

Evaluation question	Indicator
To what extent have stakeholder consultations been inclusive and participatory?	Which organisations / entities / groups have been invited / have participated in the consultations? Are they clearly representative of all potential key stakeholders.
To what extent has the national process involved indigenous peoples and local communities?	A total of 170 different ethnic groups live in the Brazilian Amazon, of which there are 227 indigenous groups speaking a total of 180 languages. To what extent are these groups contributing, or enabled to contribute to the PNMC process?
To what extent has the Initiative's support to civil society organisations and research institutions contributed to the national strategy?	Are there been feed-back mechanisms from civil society organisations and research institutions to the national PNMC strategy development / up-dating?
How has the issue of equity and co-benefits been treated in the stakeholder consultations?	How the following issues have been addressed in consultations? <ul style="list-style-type: none"> • benefits among different stakeholders • Environmental services (e.g. biodiversity) • Socio-economic services (e.g. poverty alleviation, land rights) • Governance and rights issues (e.g. rights of indigenous peoples and local communities) • Climate change adaptation

Policy content:

Evaluation question	Indicator
Is the national strategy at present soundly formulated, based on solid analysis and data, and likely to be efficient and effective in promoting emissions reductions?	Does the PNMC strategy reflect national policy governing deforestation in the Amazon (PPCDAM; PAS)? Do policy proposals to combat deforestation address capacity and governance constraints in the country?
Have national strategies been effective in promoting diagnosis of causes of forest carbon emissions, including external drivers, and formulation of plans to reduce emissions?	What diagnosis activities have been carried out? Have proposals for PNMC drawn on the experience of earlier forest and development policies carried out the Amazon?
To what extent are proposals for combating climate change and deforestation integrated into the wider policy framework of the country, including land tenure policies, agricultural and energy policies, and infrastructure development plans?	What are the concrete policy integration elements in the PNMC strategy? Are they adequate?
To what extent is the REDD strategy coordinated with Nationally Appropriate Mitigation Actions (NAMAs) or broader national low carbon strategies, and to what extent are payments proposed to be channelled into NAMAs?	Links between national proposals for and other broader national climate change strategies? Proposed financing / payment channelling mechanisms - are they harmonised? Are there contradictions between private and public capital?
Which sub-national incentives for combating deforestation have been developed?	What are they in Brazil?
Which institutional set-up is proposed at the national level in order to manage sub-national payments and ensure that the MRV system would meet international reporting and verification requirements?	What are the criteria and procedures followed by BNDES? Is the proposed system likely to meet the international reporting and verification standards?
How adequate are the proposed MRV systems for carbon fluxes?	Are they adequate?
To what extent are the proposed reference levels robust and credible enough to prevent any profiteering and free riding?	Do Brazilian baseline levels match international standards? Are they robust and credible? To what extent are they adjusted according to leakage?
Is the national strategy likely to have a positive impact on livelihoods, development, and local environment (i.e. equity and co-benefits)?	How approachable, and economically relevant, is the Amazon Fund for local indigenous organisations and marginalised peasant communities? Are local communities aware of its possibilities and pitfalls?
To what extent have social and environmental safeguards related to equity and co-benefits been incorporated into the strategy?	What official efforts are being made to improve awareness and participation? What other options for the protection of forests and livelihoods are available?

Implementation of national REDD strategies

Evaluation question	Indicator
To what extent have the Initiative's payments contributed to cost-effective and verifiable reductions in greenhouse gas emissions?	Financial indicators of the value added of the Amazon Fund and deforestation efforts. Do reference levels match best practices?
To what extent is the implementation of the strategy addressing the underlying drivers of deforestation and forest degradation in the country?	What are the other drivers e.g. infrastructure development, extractive industries, land hunger, climatic change etc?
What is the quality of greenhouse gas emissions data on which the payments are based?	What mechanisms for quality assessment are in place? What is their basis?
To what extent is the Initiative contributing to improving the MRV system? Brazil has set aside 20% of the Amazon Fund's resources ² to develop one of the world's most advanced systems for satellite monitoring of the rainforest.	How transparent and freely available is the statistical material they provide? Do their technologies really provide accurate and relevant measurements of forest cover and deforestation? Are these technologies transferable?
To what extent is the Initiative's funding mechanism additional, contradictory or supplementary to other REDD-related policies and measures of the government? ³	Does the Amazon Fund complement and assist, or make little contribution to the wider environmental strategies of Brazil?
To what extent are social and environmental safeguards related to equity and co-benefits being enforced and implemented through national policies and measures?	How has this been done / expected to be done? How are social and environmental impacts measured?
To what extent is the implementation of the strategy likely to achieve the development-related objectives and contribute to equity and co-benefits?	How and to whom are NICFI funds expected to be distributed? Is this equitable?
How are stakeholders, especially indigenous peoples and local communities, involved in the implementation of the strategy?	What role are local communities given in measurement, supervision and decision-making?

1 Sistema nacional de redução de emissões por desmatamento e degradação, conservação, manejo florestal sustentável e manutenção e aumento dos estoques de carbono florestal.

2 UD Bevilgningsnotat: Norsk Støtte til Amazonasfondet 11/03/09.

3 This is particularly relevant in Brazil.

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