



WWF

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2012

REDD+ DEVELOPMENTS IN THE GUIANAS

The evolution of the concept and activities
undertaken in Guyana, Suriname and French Guiana

WWF GUIANAS

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The Guianas Sustainable Natural Resources Management (GSNRM) Project is co-funded by the Embassy of the Kingdom of the Netherlands in Suriname, the French Global Environmental Fund (FFEM) and WWF Netherlands.

Cover picture:
*View from the inselberg in the
Nouragues Nature Reserve,
French Guiana.*
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FOREWORD

For decades WWF has advocated integrating the values of nature in the global economy. Related to this, Payments for Environmental Services (PES) has often been a subject of WWF's international lobby. PES pilot projects, involving payments for services that watersheds offer and the value of biodiversity for ecotourism, have also been carried out in several countries. All of these trials, however, are still confined to the local level and entail limited payments.

Slowly but surely the world is awakening to the importance of the integration of ecosystems services in the financial systems of the global economy. Both the Convention on Biological Diversity in Nagoya in 2010 and *The Economics of Ecosystems and Biodiversity* study (TEEB, 2010) reflect the growing attention that ecosystem services now command. Likewise, the upcoming Rio +20 meeting in Brazil in June 2012 revolves around the concept of the Green Economy and how to integrate ecosystem services in the global economies.

Since 2007, one particular ecosystem service provided by forests has commanded attention worldwide: the sequestration of carbon. The uptake of CO₂ by trees mitigates the devastating effects of climate change caused by the global rise of temperatures in the atmosphere through the ever increasing burning of fossil fuels.

It was former President Bharrat Jagdeo of Guyana who, back in 2007 during the meeting of the UNFCCC in Bali, drew attention to the value of standing forests and the importance of avoiding deforestation in the battle against climate change. The Kyoto Protocol left no opening for payments for avoiding deforestation or for carbon stored in standing forests, but the momentum of the Bali conference provided the impulse for Reducing Emissions from Deforestation and forest Degradation (REDD and subsequently REDD+). REDD+ offers incentives for managing forests to reduce carbon emissions and to maintain the fullest range of values such as biodiversity, water supply, soil protection, economic productivity, sustenance and indigenous territories, thereby bringing multiple benefits for ecosystems and people.

This WWF publication *REDD+ developments in the Guianas* showcases the evolution of the concept of REDD+ in Guyana, Suriname and French Guiana, and the numerous activities undertaken in these countries. It also explains where WWF was instrumental in further developing the concept.

As Regional Director of WWF Guianas, I hope this brochure will provide you with an insight into the history and present status of REDD+ in the Guianas. WWF will continue to help countries prepare for REDD+ and contribute to the worldwide lobby to ensure they receive the promised financial resources and that these are shared equally among the beneficiaries. I wish to express my sincere gratitude to the author of this report and the donors who made this publication possible.

Dominiek Plouvier
Regional Representative WWF Guianas
Paramaribo, January 2012

Forests play a critical role in the carbon cycle as they store carbon and exchange it with the atmosphere through photosynthesis and respiration. They are also sources of atmospheric carbon when they are disturbed by natural or human causes, such as fire and conversion.

WWF targets

2012:

emission reductions from deforestation are included in a post-2012 climate treaty.

2013:

six countries have national strategies in place to reduce emissions from deforestation.

2020:

zero net deforestation and degradation and zero net emissions from deforestation and degradation.



Through forest fires large amounts of CO₂ are released into the air
©WWF PRE, Mark Edwards

INTRODUCTION

WWF believes that the following five principles set a global benchmark for success in tackling the problem of deforestation and forest degradation, at the scale and pace needed to prevent catastrophic climate change, to avoid further decline in biodiversity, to promote human wellbeing and to support low carbon development.

Climate

REDD+ demonstrably contributes to greenhouse gas emission reductions with national goals working toward a global objective

Biodiversity

REDD+ maintains and/or enhances forest biodiversity and ecosystem services

Livelihoods

REDD+ contributes to sustainable and equitable development by strengthening the livelihoods of forest-dependent communities

Rights

REDD+ recognizes and respects the rights of indigenous peoples and local communities

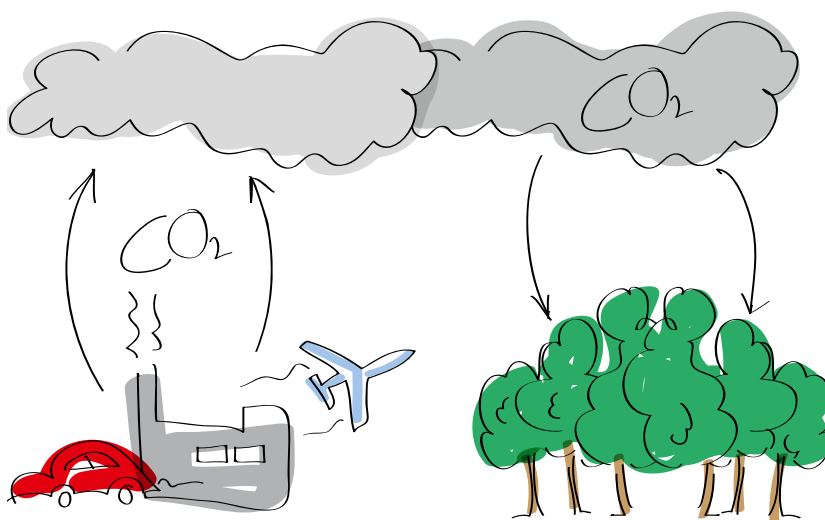
Fair and effective funding

REDD+ mobilizes immediate, adequate and predictable resources for action in priority forest areas in an equitable, transparent, participatory and coordinated manner

In many tropical countries forests are under great pressure from agricultural expansion, infrastructure development and wood production. Deforestation and forest degradation have become the second largest contributors to worldwide carbon emissions (up to 20% of global anthropogenic carbon emissions). At the same time, the reduction of emissions caused by deforestation and forest degradation (a concept known as REDD) provides an opportunity for mitigating the effects of climate change. REDD has evolved into REDD+ which includes the conservation and sustainable management of forests and the enhancement of forest carbon stocks. In making forests more valuable when standing than when cut down, REDD+ makes it possible to protect natural forests while fostering sustainable development.

WWF has been active in the forest carbon field since 2007 and aims to have REDD+ included in the post-2012 climate treaty. WWF works at international, national and sub-national level on capacity building, the development of national REDD+ programs, the establishment of credible REDD+ standards, and on new funding mechanisms for REDD+.

Many developing countries, including Guyana and Suriname, are now preparing for REDD+. WWF Guianas has been contributing in a number of ways to the development of REDD+ programs in both countries as well as in French Guiana, and plans to continue to do so in the next program period (2012-2016).



Forests are by far the largest terrestrial carbon stores.



*Hatchlings of the Leatherback turtle
(Dermochelys coriacea) going to the
sea in French Guiana.*
©WWF Canon, Roger Leguen



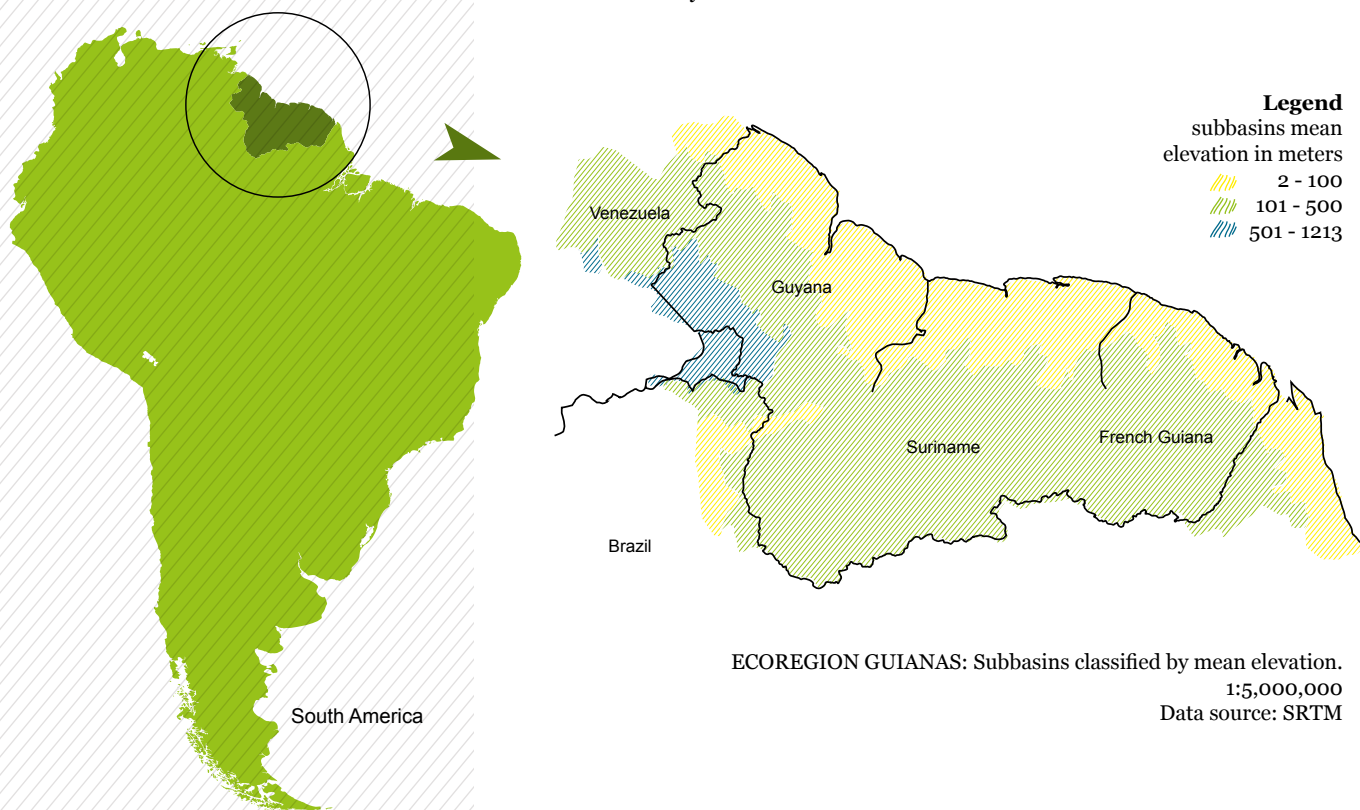
*The giant water lily (Victoria amazonica) is
native to the shallow rivers of the Amazon river
basin and found in all three Guianas.*
©WWF Guianas

THE GUIANAS

The Guianas -made up of Guyana, Suriname and French Guiana on the northeast coast of South America- have a rich diversity of coastal mangroves, globally significant marine turtle nesting beaches, fresh and saltwater swamps, grassy savannas, and pristine low and highland rainforests. The interior of the Guianas has more than 40 million hectares of undisturbed rainforest. Together with adjacent forest zones in Brazil and Venezuela, this area constitutes the Guianan Ecoregion Complex. It has a rich biodiversity with an extremely high level of endemism. It is estimated that 40% of the flowering plant species in the Guianan Ecoregion Complex are found only here.

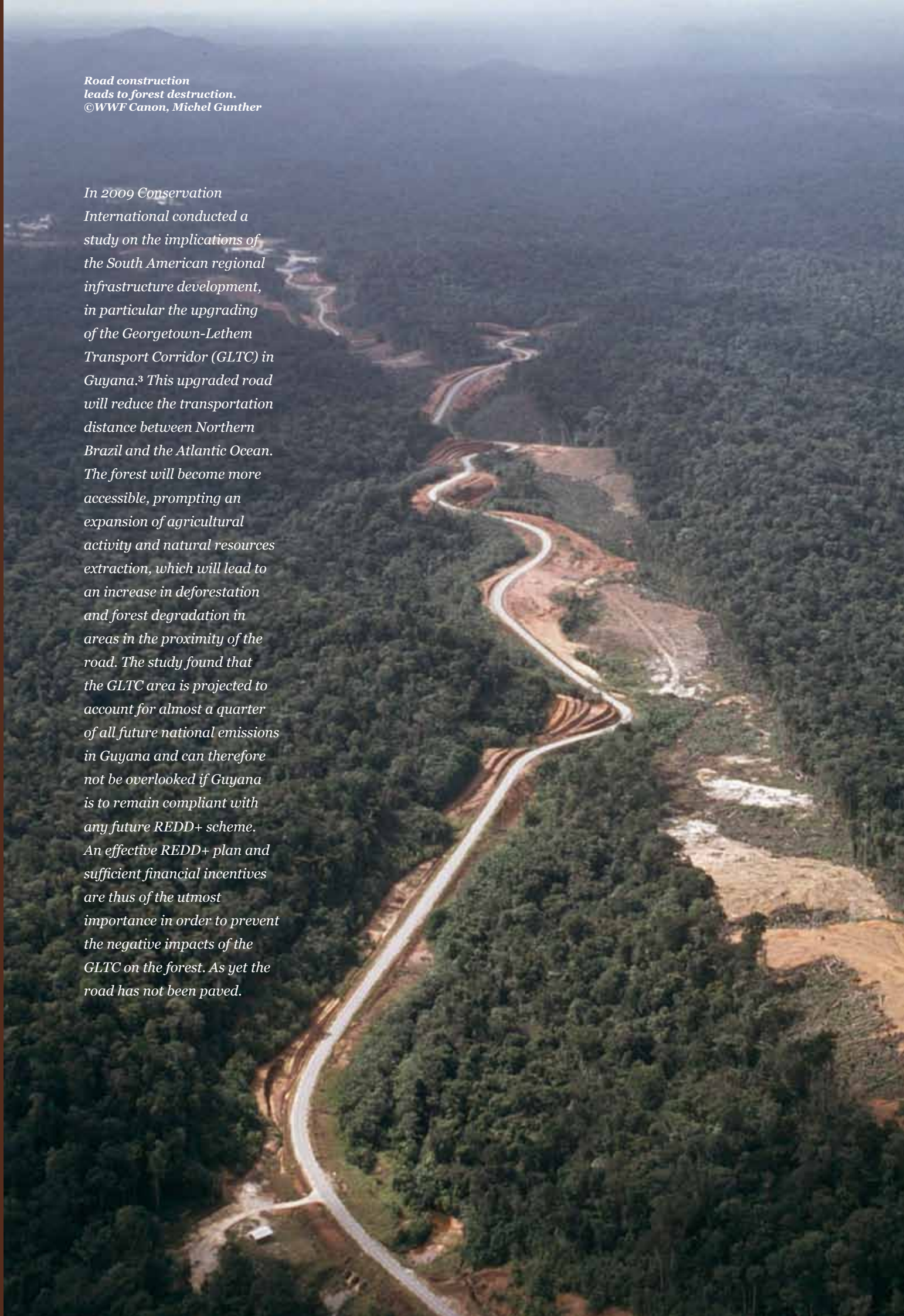
Until a decade ago, the forests of the Guianas were under little threat in comparison with other tropical forests. However, economic progress, especially in Suriname and Guyana, have led to increased logging and mining activities, which if done badly, endangers the forests.

WWF has supported conservation in the Guianan region since the mid-1960s. The goal is to conserve the integrity of the forest and freshwater ecosystems of the Guianas, and maintain and conserve the ecological processes responsible for their equilibrium in such a way that their social and economic roles are preserved, particularly the ecosystem services they provide to local communities. The WWF Guianas Program is a conservation initiative launched in 1998, covering Guyana, Suriname and French Guiana, and targeting the Guianan Ecoregion Complex. The regional office is located in Suriname while two satellite offices are located in Guyana and in French Guiana.



*Road construction
leads to forest destruction.
©WWF Canon, Michel Gunther*

In 2009 Conservation International conducted a study on the implications of the South American regional infrastructure development, in particular the upgrading of the Georgetown-Lethem Transport Corridor (GLTC) in Guyana.³ This upgraded road will reduce the transportation distance between Northern Brazil and the Atlantic Ocean. The forest will become more accessible, prompting an expansion of agricultural activity and natural resources extraction, which will lead to an increase in deforestation and forest degradation in areas in the proximity of the road. The study found that the GLTC area is projected to account for almost a quarter of all future national emissions in Guyana and can therefore not be overlooked if Guyana is to remain compliant with any future REDD+ scheme. An effective REDD+ plan and sufficient financial incentives are thus of the utmost importance in order to prevent the negative impacts of the GLTC on the forest. As yet the road has not been paved.



HIGH FOREST LOW DEFORESTATION

Both Guyana and Suriname belong to a group of countries referred to as High Forest Low Deforestation (HFLD) countries.¹ The HFLD countries are estimated to store 18% of the world's tropical forest carbon.² HFLD countries have historically low rates of deforestation but in the future these rates may rise due to the growth of the population and the national economy, the increased demand for timber and agricultural land, and increased access to forests as a result of road construction. Moreover, deforestation activities may shift across borders once countries with higher rates of deforestation start to reduce emissions.

How can countries with low deforestation rates generate revenue by reducing emissions from deforestation and degradation (REDD)? The REDD agenda has expanded to include conservation, the sustainable management of forests and the enhancement of forest carbon stocks (REDD+). This opens up possibilities for HFLD countries by providing opportunities for protecting forest areas, promoting sustainable forest management and rehabilitating degraded forest areas.

Although the details of a REDD+ program are still a matter of international debate, it is clear that payments will be based on the difference between current deforestation rates and a baseline scenario. Some argue that HFLD countries should be allowed to use adjusted baselines with a deforestation rate higher than the actual rate. This is currently the case in Guyana. The governments of Guyana and Norway have reached an agreement to reduce deforestation whereby Guyana is permitted to use an adjusted baseline that involves deforestation rates higher than the actual rates.

International climate negotiations will have to bring more clarity for HFLD countries.



Wood yard in French Guiana.
©WWF Canon, Roger Leguen

FOREST CARBON PARTNERSHIP FACILITY

The Forest Carbon Partnership Facility (FCPF) which became operational in June 2008, helps tropical and subtropical forest countries develop the systems and policies for REDD+ and will provide them with performance-based payments for emission reductions. The FCPF consists of two separate mechanisms, each with its own trust fund for which the World Bank acts as a Trustee: The Readiness Mechanism (to prepare for REDD+) and the Carbon Finance Mechanism (for performance-based payments).

The first step for interested countries was to submit a “Readiness Plan Idea Note” (R-PIN) to the FCPF. The R-PINs were reviewed based on which 37 countries were selected for the Partnership, including Guyana and Suriname. The next step is for the selected countries to prepare their Readiness Preparation Proposal (RPP). The RPP provides a framework for a country to draw up a clear plan, budget and schedule to achieve “REDD Readiness” to undertake REDD+ activities, in the specific country context. The Proposal enables a country to develop and implement a common vision of the role of REDD+ in the nation’s development, which is broadly shared within national and subnational government, civil society, land users and other stakeholders. The Partnership’s Participants’ Committee reviews and assesses RPPs, and on the basis of its assessment decides on the allocation of FCPF grants to countries. A few countries that have successfully participated in the Readiness Mechanism will be selected to participate in the Carbon Finance Mechanism, through which the FCPF will pilot incentive payments for REDD+ policies and measures.

Guyana’s R-PIN was approved in June 2008. Its Readiness Plan was subsequently submitted and approved in June 2009, making Guyana one of the first countries in the world to have its Readiness Plan approved by the FCPF. After a number of revisions, the Readiness Plan was renamed the Readiness Preparation Proposal, with Guyana’s current version being the one adopted from April 2010. Guyana qualified for the receipt of a RPP Formulation and Readiness Preparation Grant of USD 200,000 but it has not as yet received the actual payments. In November 2010, Guyana was invited to be one of five pilot countries to explore the option of using a financial partner under the Readiness Fund of the FCPF. Guyana chose to work with the Inter-American Development Bank (IDB) and is currently working with the IDB not only to process the initial USD 200,000, but also the remaining USD 3.4 million it was awarded to help prepare the necessary environment to participate in the Carbon Finance Mechanism of the FCPF.

Suriname’s R-PIN was approved in 2009 and it is now preparing the third revision of the RPP which is to be submitted early in 2012.

French Guiana is not eligible to apply for funding from the FCPF.



Piloting methodologies for a carbon stock assessment in Guyana.
©Marijke van Kuijk

GUYANA



Guyana's forests cover approximately 85% of the country (c.18 million ha). About 80% of this is classified as State Forest. Many fresh water rivers and creeks run through the forests. Deforestation rates are close to zero. Guyana has a population of approximately 750,000.

Guyana was one of the first countries in the world to promote and lobby for international payments for carbon in standing forests, thanks to the advocacy of former President Jagdeo and His Climate Advisory Team. Towards the end of 2007, the Guyana government had taken bold measures to further develop its technical ability to promote initiatives pertaining to REDD+ and climate issues.

In December 2007, at the United Nations Framework Convention on Climate Change (UNFCCC) in Bali, former President Jagdeo made a remarkable statement that boosted the development of REDD+ worldwide. He offered the whole Guyana forest to the United Kingdom, if in return they would pay for the standing carbon stock in the forest. This money in turn would be used for low carbon development of Guyana in social and other development sectors. While the UK Government never formally replied, from that time onwards former President Jagdeo and the Guyana Government invested time and money to work out the concept more scientifically. To that end, McKinsey consultants were contracted to perform a study on the opportunity costs of no-deforestation.⁴ The McKinsey scenario suggests that Guyana could potentially earn approximately USD 580 million per annum by cutting its forest and replacing it with high value activities such as agriculture and mining. Former President Jagdeo quoted this figure at international meetings as the level of funding Guyana would need to receive to prevent deforestation.

institutional setting

A solid institutional and policy framework is essential for any forest conservation activity, including REDD+. Without an effective forest policy that is linked to other national policies (for instance the policy on mining), actions to reduce emissions are doomed to fail.

Low carbon development strategy

In June 2009 Guyana launched its Low Carbon Development Strategy (LCDS). This strategy is unique in its kind, as it sets out Guyana's approach to a transition to a green economy. Its aim is to combat climate change while simultaneously promoting economic growth and development by investing payments received for avoided deforestation into strategic low carbon sectors. These payments will catalyze Guyana's efforts to diversify its economy and provide new economic opportunities, employment and more efficient use of resources, while maintaining a valuable forest ecosystem. REDD+ is an important component of the LCDS. The LCDS is based on a strong commitment to reduce emissions from deforestation and forest degradation and the significant contribution it can make to the global effort to mitigate climate change. The activities under the LCDS are guided by a multi-stakeholder steering committee.



Information sharing session in Nappi village, Rupununi, Guyana.
©Marijke van Kuijk

In Guyana the focal institution for climate change is the Office of the President, attached to which is a secretariat for which well-qualified staff was recruited. The Guyana Forestry Commission (GFC) is the body responsible for the management of Guyana's forest resources and implementation of the technical aspects of REDD+, for which a REDD Secretariat has been established. Previously, but especially since the launch of the LCDS, the GFC has been engaged in ongoing stakeholder review in processes regarding the implementation of REDD+ in Guyana. The consultation process, the free flow of information and regular media debate (covering a wide range of views) has resulted in the general population being remarkably well-informed about the LCDS and REDD+.

Only State Forest is included in the REDD+ scheme under the LCDS. Concession holders lease land from the government for either forestry or mining. These lands are thus automatically included while Amerindian communities with land titles may opt in voluntarily, in alignment with the principles of free, prior and informed consent. LCDS recognizes the need for improved practices on forest use and in mining although it does not offer direct benefits in return. Both sectors are vital to the economy and to employment. Discussions are on-going about how the logging and mining sectors will have to meet environmental and sustainability standards.

Governance

In accordance with the agreement with the Norwegian government (see paragraph 'bilateral agreement'), Guyana developed a REDD+ Governance Development Plan.^{5,6} The plan outlines key activities to be carried out, a time-



*Paintings on the sea wall
in Georgetown, Guyana.
©Marijke van Kuijk*



frame for implementation and lead agencies responsible for each of these. It provides for revisions of national policies and plans and a code of practice for timber and other forest products, designing and implementing a revenue structure, implementing the Legality Assurance System, increasing the capacity of relevant agencies, and extension activities to forest communities.

One of the main policies relevant to REDD+ is that concerning forestry. Formerly the forestry strategy focused on increasing access to the forest and widening the range of species harvested so as to expand the level of economic activities in the forest. This policy has been revised. The new law prescribes sustainable logging techniques. Other important policies include those on mining, agriculture, land use planning and Amerindian affairs.

monitoring, reporting and verification

For REDD+ to succeed, a country needs to demonstrate that the carbon stored in forests can be efficiently and accurately measured, so that changes can be monitored and reported across large forest areas. This will ensure that it is possible to verify whether real progress is being made in preventing emissions from forest loss.

Prior to 2009, there were few data sources available in Guyana that were relevant to REDD+. The data set was limited to a series of forest inventories dating from different periods,⁷ a vegetation map and estimations of carbon stocks.⁸ There were gaps in the existing field data since these excluded smaller trees, non-commercial species were often not included, and the data failed to

WHAT IS MRV?

*Monitoring the
carbon stored in forests
Reporting the amount of
carbon and changes over time
Verifying whether the reported
measurements are accurate*



©WWF Guianas

©Marijke van Kuijk

Mining activities are very destructive to the forest.

cover the whole country. The vegetation map was over five years old and, given the requirements of REDD+, was unsuitable as a benchmark map.

In January 2009, WWF Guianas awarded the Guyana Forestry Commission a grant to support the Government of Guyana with the piloting of the collection of data on forest carbon stock at a national level as a step towards the development of a Monitoring, Reporting and Verification System (MRVS). The project was co-funded by Conservation International. Two international consultants were hired to pilot the development and implementation of a methodology for the measurement and monitoring of national forest carbon stocks, to establish pilot plots and to strengthen and develop capacity for a forest carbon stock assessment.⁹ In addition, based on available data, an interim deforestation rate was calculated for the period 1963-2001,¹⁰ and the value of the current standing carbon stock was estimated.¹¹

In the same period a forest cover map was prepared by SarVision (Netherlands) based on radar imagery which can ‘see’ through clouds (ALOS PALSAR), in collaboration with Conservation International. SarVision worked on land cover mapping and stratification of the whole of Guyana into biomass strata in support of national REDD+ policy development and as preliminary input to the national MRVS.

In 2009 Guyana also developed a national framework for a MRVS. This framework was developed as a “Roadmap” that outlined the successive steps over a three-year period leading up to full implementation of the complete



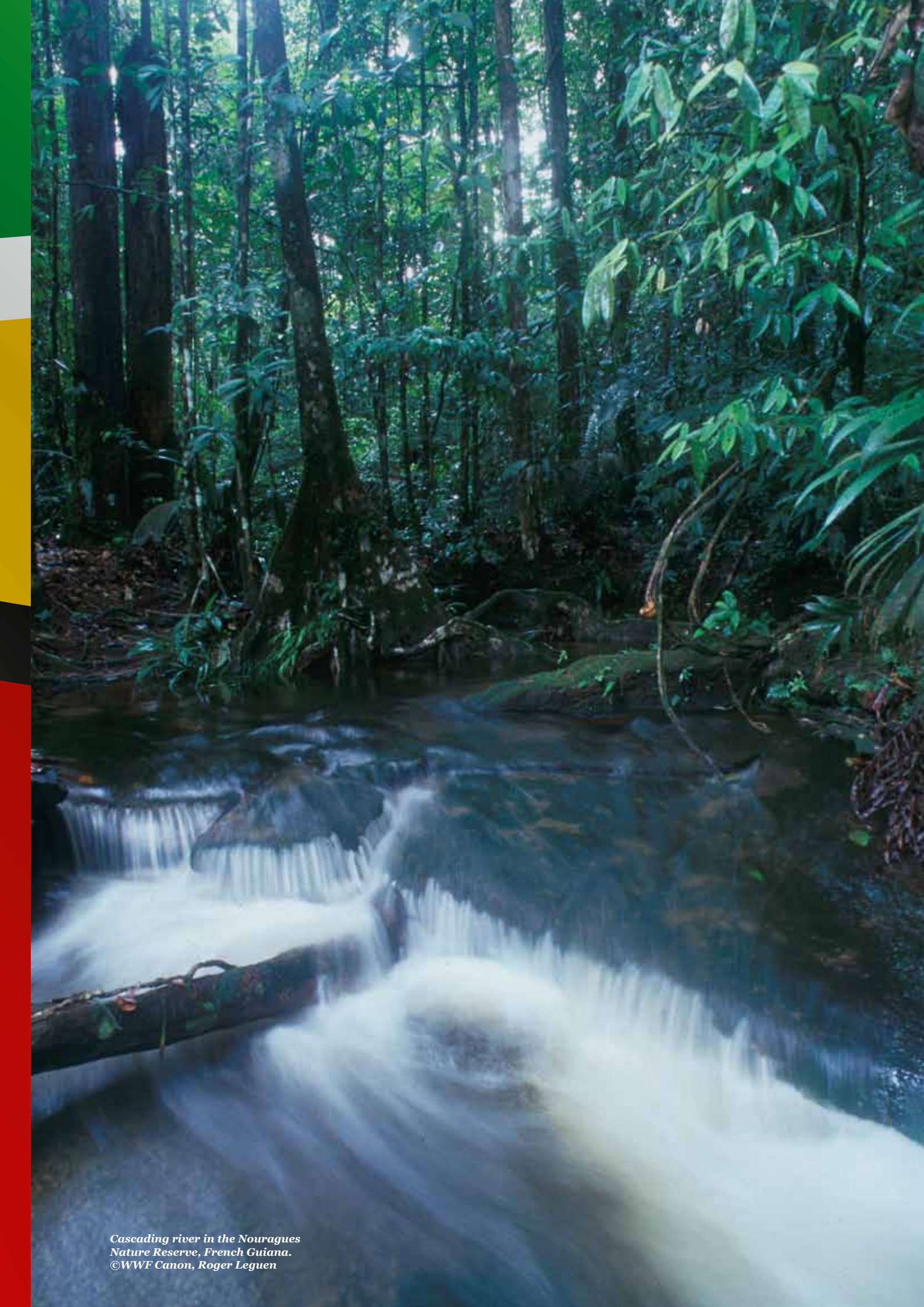
©WWF Canon, Michel Gunther

MRVS.¹² The purpose of the MRVS was to establish a comprehensive, national system with which to measure, monitor, report and verify forest carbon emissions resulting from deforestation and forest degradation. The MRVS will essentially be the performance measurement system of the LCDS.

In accordance with the MRVS Roadmap, in 2010 implementation began in two main areas: forest area change assessment and forest carbon stock assessment and monitoring. These activities determine the historical and current patterns of emissions from deforestation and forest degradation, their drivers and the carbon stock present in the various pools. This work builds on earlier work by Alder and Van Kuijk, and SarVision.

Pöyry Management Consulting Ltd. (New Zealand) was hired to conduct an assessment of the change in forest cover using a minimum of four time steps since 1990, i.e. 1990-2000, 2000-2005, 2005-2009 and 2009-2010.¹³ They found a yearly deforestation rate of 0.06% in the Year 1 Period (October 1, 2009 to September 30, 2010). This is higher than the historical deforestation rate of 0.02% they had calculated for the period of 1999-2009 (the benchmark period).¹⁴ The largest driver of deforestation is mining.

In 2010 Winrock International (USA) was awarded the contract to conduct work on the design of a national forest carbon monitoring system. This program will establish carbon conversion values, expansion factors, wood density and root/shoot ratios as necessary. In addition, they will carry out a detailed assessment of key processes affecting forest carbon including a summary of key results, and



*Cascading river in the Nouragues
Nature Reserve, French Guiana.
©WWF Canon, Roger Leguen*

capacities as well as a long-term monitoring plan for forest carbon. The project is expected to be finalized in 2012.

In mid-2011, the Guyana Forestry Commission invited bids for two new assignments relating to the MRVS. One concerns the execution of technical work in three areas: forest degradation, exploring reference level setting, and exploring methodological issues in monitoring ecosystem services. The contract for this project was awarded to Winrock International. The second is for conducting the second-year forest area assessment and change monitoring, building on Pöyry's initial assessment in 2010, and will be executed by Indufor Asia Pacific.

bilateral agreement

In November 2009 the Governments of Guyana and Norway signed a Memorandum of Understanding (MOU) whereby Norway committed to provide financial support to Guyana for limiting emissions from deforestation and forest degradation. Under this agreement, over a period of five years, the Government of Norway has agreed to allocate USD 250 million to the Guyana REDD Investment Fund (GRIF) as performance-based payments to develop the LCDS. The President of Guyana personally thanked WWF Guianas for the role it played in creating capacity in Guyana and obtaining the Norwegian grant.

The MOU is accompanied by a Joint Concept Note (JCN) in which the Governments of Guyana and Norway identified the stepwise approach towards REDD+ readiness, including the MRVS. The JCN also outlines that the mechanism for financial contributions to Guyana is based on its performance in keeping its deforestation and forest degradation below an agreed level. Guyana will report on an annual basis to the Norwegian government on forest loss and other relevant indicators, until such a time the MRVS system is operational.¹³

forest dependent people

While REDD+ has the potential to generate revenue for a nation and its inhabitants, there is international fear that forest dependent people, and most notably indigenous communities, will not enjoy a fair share of the revenue even though they play an important role in managing the forest resources. The main reason for this is the fact that land rights are not properly registered nor recognized by the national government in many tropical countries.

In Guyana, most communities have secure land titles and there is legislation that governs the land rights and security of tenure of indigenous people. The Amerindian communities in Guyana are specifically mentioned in the MOU between Norway and Guyana. Amerindian titled land may be included in the LCDS if the community wishes to 'opt in'. As titled Amerindian communities legally own the forest on their land, they can benefit directly from REDD+ payments if they chose to commit their forested lands to the LCDS.



Submerged forest in Suriname
©WWF Guianas



SURINAME

Suriname's forests cover approximately 90% of the country (c. 15 million ha). The government owns close to 97% of all forest lands. Deforestation rates are close to zero. The coastal area in the north is made up of fertile agricultural land. The country has a population of approximately 500,000.

The government of Suriname was much slower than Guyana to show an interest in REDD+. In 2007¹⁵ and 2008¹⁶ lectures were organized to stimulate information sharing. To raise awareness and strengthen capacity, in June 2008 the government mounted a four-day workshop to discuss the financing of sustainable forest management in Suriname with local and international participants. This workshop prepared the way for the Country Led Initiative (CLI) which was held in September 2008. This conference brought together more than 200 people from Suriname and other countries. WWF Guianas contributed both technically and financially to this event. The consultancy report of this meeting¹⁷ was used as input for the Readiness Plan Idea Note (R-PIN) and Readiness Preparation Proposal (RPP).

Interest in REDD+ in Suriname soared after the CLI and attendance of the United Nations Climate Change Conference (CoP 14) in Poznan in December 2008 by a Surinamese delegation. Upon their return, the Ministry of Physical Planning, Land and Forest Management (RGB) contacted Conservation International, Tropenbos International and WWF for technical and financial support to conduct a series of workshops in March and April 2009 and discuss the way forward.¹⁸ The purpose of the workshops was to raise the awareness of the community and relevant stakeholders to the progress of the negotiations and the status of Suriname as a HFLD country. They also helped strengthen institutional capacity, which led to the development of an action plan for CoP 15 in Copenhagen in 2009. The government sent a delegation of 20 persons to Copenhagen, which had a positive impact on the awareness and capacity building of the delegation.

Forest Carbon Assessment

The first experience with carbon stock assessment in Suriname was gained in a one year project coordinated by the Ministry of RGB. The project was funded by WWF Guianas and Tropenbos International and executed by Aidenvironment.²¹ The project was divided into three phases. In the first phase, an assessment was carried out of the available capacity and equipment in Suriname, on the basis of which a capacity enhancement plan was developed. Discussions with local experts resulted in a preliminary plan for measuring carbon stocks. In the second phase, two field trainings, a lab training and a database management training were organized. The FCU was trained in all aspects of gathering and storing data for a carbon stock assessment. After these trainings, the FCU continued with the collection of data. In the third phase, the participants of the field course were trained in how to calculate carbon stock from the measurements in the field. In addition, the field methodology was reviewed and where necessary adapted.



institutional setting

Green Development

Just before the CoP 15 in Copenhagen (2009), the government presented plans for a Green Development Strategy. The Strategy provided for the country to pursue environmentally sustainable economic development using anticipated revenue from payments for the carbon stored in its vast forest estate. The payments - which would help keep Suriname's forest intact while fueling green development- are planned from a number of sources including REDD+.

In August 2011 Suriname took a step towards a more structural approach to its climate change issues by installing a special agency to consolidate all existing governmental climate change efforts. The Climate Compatible Development Agency (CCDA) will be tasked with formulating the government's climate change policies and is responsible for executing the Climate Compatible Development Strategy (CCDS, the successor of the Green Development Strategy). In the future the National Development Plan will be based on the principles of Climate Compatible Development. As yet a national REDD+ strategy does not exist but the development of this strategy will be part of the RPP which is to be submitted early in 2012.

Forest Carbon Unit

The Ministry of RGB coordinates REDD+ activities in relation to carbon monitoring and works closely with the Foundation for Forest Management and Production Control (SBB). The Ministry installed a Forest Carbon Unit (FCU), consisting of people from RGB itself, SBB, the National Herbarium and the Center for Agricultural Research (CELOS). The FCU performs the field work that is needed to assess and monitor carbon stocks.



*Left and right:
First experience with carbon
stock assessment in Suriname.
©Marijke van Kuijk*



*A misty tropical forest at higher
altitude in French Guiana.*
©WWF Canon, Roger Leguen

monitoring, reporting, verification

Towards the end of 2009, when Guyana was rounding off its first trials with a carbon stock assessment, WWF Guianas organized an information session in Suriname with a view to learn from the experience in Guyana. The consultant working in Guyana at that time¹⁹ visited Suriname to inform the Ministry of RGB and other Surinamese stakeholders about REDD+ developments in Guyana, in particular the carbon stock assessment and preliminary elements needed for the setting up of a MRV system. As a result, WWF Guianas offered to support the Ministry of RGB in developing a similar project.

In 2010-2011 Aidenvironment (Netherlands) was hired by the Ministry of RGB to assist with the development of a national plan for measuring, monitoring and calculating carbon stock. Staff of the FCU was trained in measuring biomass of all carbon pools, in laboratory skills and in the calculation methodology. Such training is essential for the development of a MRV system. This project was funded by WWF Guianas and Tropenbos International, and resulted in a preliminary dataset on carbon stock in the Surinamese forest belt.

In 2010, funded by Tropenbos International, Alterra (Netherlands) also supported the development of an adequate MRV system in Suriname.²⁰ Based on an evaluation and analysis of existing field data and locally available information on biomass expansion factors, the researchers assessed above ground carbon stocks in living biomass for a number of important combinations of forest and soil types. Based on plot data from a long-term logging experiment at Kabo (CELOS plot), the researchers also quantified changes in carbon stocks over time and the effect of selective logging under different harvest intensities.

In 2011 SarVision (Netherlands) developed the first forest cover map in collaboration with several partners. SarVision developed an up-to-date vegetation map for Suriname for the year 2010 based on ALOS PALSAR radar, as input to the national MRV system. They also provided hands-on training to local partners in the use of advanced radar remote sensing technology for land and vegetation cover mapping, classification and monitoring. While the map is detailed for the coastal area and the forest belt, it is less detailed for the interior of Suriname due to lack of information about vegetation types.

forest dependent people

In Suriname there are basically two groups of forest dependent people. There are the Amerindians, who were the original inhabitants of the country, and the maroons, who are the descendants of runaway slaves who established independent communities in the interior. Organizations that safeguard the interests of indigenous peoples and maroons are warning that the communities living in the interior have not been consulted in a proper manner on REDD+ and were not involved in discussions on a REDD+ program so far.



*Looking down the waters and
marshes of the marais de kaw in
French Guyana.
©Julian Elliott*



FRENCH GUIANA

French Guiana's forests cover approximately 95 % of the department (c. 8 million ha). About 95 % of the forest land is owned by the State and managed by the National Forestry Office (ONF) and by the Parc Amazonien. Deforestation rates are close to zero and are among the lowest in South America. French Guiana has a population of approximately 230,000.

French Guiana occupies a special position in the international arena of climate change and the REDD+ mechanism. In contrast to Guyana and Suriname, it belongs to the Annex 1 countries of the Kyoto Protocol since it is an overseas department of France.

Being part of the French territory, French Guiana is obliged to follow the national position on climate change and REDD+, developed by the government in Paris. However, the two members of National Parliament coming from French Guiana have shown a particular interest in REDD+.²² One of them travelled to Guyana in 2009 to meet former President Jagdeo and his climate advisors to learn about the developments there. The Regional Authorities in French Guiana see a similar possibility for compensation for the carbon stock in their forests and for avoiding deforestation.

institutional setting

Guiana Shield

The French Environmental Fund (FFEM) plans to launch a project in 2012 to provide technical and scientific support with setting out a strategy to combat deforestation and forest degradation in the Guiana Shield. This project will be executed by ONF International (a consulting agency related to ONF with experience with carbon assessment). FFEM is currently looking for co-financing.

The project will contribute to the study of the drivers of deforestation, support MRV systems in the Guiana Shield countries and improve dialogue and information sharing amongst countries. It is also intended to raise people's awareness to REDD+ in French Guiana. This could fill an important gap since many of its national actors (civil society, local, regional and national decision-makers, administration, etc.) are unfamiliar with many of the issues involved with climate change, carbon trading and REDD+ discussions.

Although the involvement of WWF Guianas in this project has yet to be defined, many REDD+ related activities are already being carried out or are on the planning agenda of WWF Guianas.

GUYASIM

In a context of rapid demographic and economic growth, territorial planning decisions can be crucial. Decision-making institutions have to combine development with the conservation of precious sets of environmental assets and services. The GUYASIM project (2011-2013), funded by the European Regional Development Fund and executed by CIRAD²³, is designed to simulate the environmental impact of different development scenarios for French Guiana, including high deforestation for agricultural development, road



*Misty Amazonian tropical rainforest
landscape. French Guiana
©WWF Canon, Roger Leguen*

construction in the interior and biomass as an energy source.²⁴ The impact of these developments on forest carbon stocks, biodiversity and soil dynamics will be predicted by modelling. The project brings together decision-making institutions of different administrative scales, and a number of research institutes focusing on tropical forests. The WWF office in French Guiana is represented on the steering committee.

The GUYASIM project will be important for REDD+ negotiations since carbon storage is one of the main environmental services identified. The data delivered by the project, especially the carbon measurements and simulations, will be valuable in any future REDD+ framework.

forest carbon assessment and monitoring

To comply with the agreements under the Kyoto protocol, France has to report on the major changes in forest cover and the changes in carbon stock. The management of French Guianese forests is a key element in this report. However, estimates of carbon stocks and the changes in these are not yet available for the forests of French Guiana, even though they constitute over one-third of all French forests. For this reason alone, it is important to assess the carbon storage capacities of French Guianese forests and understand their role in climate change mitigation. The GUYAFOR network of permanent measurement stations means to produce the data required to answer these questions.²⁵ This network, which was jointly launched in 2000 by CIRAD and ONF, covers the French Guiana territory and takes account of the diversity of forest types.

WWF Guianas currently supports the Trésor Regional Reserve, one of the GUYAFOR locations, in a project studying carbon storage under several forest management scenarios.²⁶

forest dependent people

Like Suriname, French Guiana holds two categories of forest-dependent people: Amerindians (six ethnic groups) and maroons (three major groups). The term “communities traditionally dependent on forest for their subsistence” is used to identify these groups. The French government will have to decide how to involve these communities in stakeholder discussion processes.



Red howler monkey
(*Alouatta seniculus*) in
French Guiana.
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IS REDD A 'GREEN' SOLUTION TO CLIMATE CHANGE?

REDD+ is a highly debated topic. It includes discussions about the financing of REDD+ (funds versus markets), social and environmental safeguards, and technical issues such as forest definitions, reference levels and MRV systems.

Most tropical countries are engaged in REDD+ programs in one way or another. The REDD+ programs currently being implemented are largely donor driven. It is clear that a vast amount of money is needed for REDD+ implementation and public funding alone cannot produce the money that is required. Increased private sector involvement seems to be necessary but the uncertainty about whether or not regulatory markets will include forest carbon has adversely affected demand. Some organizations hold objections against a market mechanism and fear that it will only reward the amount of (cheap and unreliable) carbon credits, and that social and ecological safeguards will receive insufficient attention.

Some say REDD+ does not address the fundamental problem of the green house gas emissions from fossil fuel burnt by the industrial countries. Others stress that the REDD+ projects can easily degenerate into land grabs, displacement, conflict, corruption, impoverishment and cultural degradation. Organizations defending the rights of forest-dependent people worry whether the benefits are fairly distributed and whether all communities have an equal say in projects. They fear that, given the level of corruption and lack of clear land rights in most poor countries, the native people in developing countries who have lived on and are sustained by forest products may find themselves landless and without a means to survive.

Another troublesome issue is the definition of forests. Certain forest definitions, such as the one adopted by the Kyoto protocol, allow for monocultures or clear cut areas waiting to be replanted to be included. Likewise, while the term “deforestation” has been defined as the direct human-induced conversion of forested land to non-forested land, there is no universally agreed definition of “forest degradation”. This will cause complications when REDD+ projects are implemented. Another concern is that conserving a forest under REDD+ may simply shift the deforestation and forest degradation activities to another location. Also the use of reference levels and MRV systems are subject to much debate since the way in which these are developed and implemented, will determine to a large extent the effectiveness of any REDD+ program.²⁷

Many governments and organizations see REDD+ as a way of reducing the impacts of climate change, but the effectiveness of the programs will depend on its implementation. Financial, environmental, technical and social issues related to REDD+ are being discussed, but international negotiations take time. What is more, the absence of an overarching climate treaty also slows down further development of REDD+.



Scarlet macaws (*Ara macao*)
in French Guiana.
©WWF Canon, Roger Leguen

FUTURE PLANS

For the time being, there is still much uncertainty surrounding REDD+ and the mechanism has yet to be formally adopted in a treaty by parties to the UNFCCC. Nevertheless, Guyana, Suriname and French Guiana are making headway along the REDD+ path, for whether or not REDD+ is soon to be a component of a climate treaty, it already offers countries opportunities to conserve their forests and receive funding for sustainable economic development.

Guyana

Guyana is fast moving ahead with its Low Carbon Development Strategy and REDD+. The large sources of funding (i.e., Norway) it has attracted have certainly spurred developments. However, a number of matters still need to be resolved, for instance, the way in which the forestry and mining sectors will meet sustainability standards.

Much of what Guyana has attained so far can be attributed to the powerful lobby of former President Jagdeo. On 28 November 2011 elections were held and Donald Ramotar was elected as the new president, heading a Parliamentary minority government. While the general expectation is that the current REDD+ policies in Guyana will be perpetuated and that President Ramotar will follow the course set out by former President Jagdeo, the extent to which he will succeed will depend upon the willingness of the different political parties to work together in the future.

Suriname

Suriname has taken some very effective steps towards developing a MRV system. It is now essential that these are taken to another level and that the MRV system is fully developed and implemented. Stakeholder meetings are essential in this and consultations will have to be organized throughout the country, in particular in the forest dependent communities. The MRV system should be embedded in a national strategy on REDD+ and low carbon development, which is supported by all the relevant ministries. The establishment of the Climate Change Development Agency is a promising step in this direction. The further development of REDD+ activities requires money which makes the development of a donor fundraising strategy essential.

French Guiana

French Guiana is in a complicated position as an overseas department of France that is located in the Guiana Shield. Activities are now being undertaken to raise awareness and build up the capacity for REDD+ and its related issues.

Endnotes

1. French Guiana is not deemed a country in its own right and as such is not officially a HFLD country, despite similar high forest cover and low deforestation trends to Guyana and Suriname.
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16. Prof. Dr. Rene Boot from Tropenbos International, March 2008. REDD+ as payment mechanism for sustainable forest management in Suriname.
17. Rapid assessment of existing financial mechanisms for sustainable forest management in Suriname. Republic of Suriname, Dutch Ministry of LNV, Tropenbos International, 2009.
18. The series of workshops has been documented as 'Opportunities for HFLD countries on REDD'. Tropenbos International, 2009.
19. Dr. Marijke van Kuijk, later employed by Aidenvironment.
20. Arets EJMM et al., 2011. Towards a carbon balance for forests in Suriname. Wageningen University, Alterra.
21. See a series of reports by Aidenvironment 'Forest Carbon Stock Assessment in Suriname': Verslag van de inceptiefase, 2010; Verslag van fase 2, training deel 1, 2010; Verslag van fase 2, training deel 2, 2011; From field data to carbon stock, 2011.
22. Mrs Berthelot and Mrs Taubira.
23. CIRAD is a French research centre working with developing countries to tackle international agricultural and development issues. In French Guiana, CIRAD has experimental and observation sites and advanced technology platforms of use in studying and promoting local biodiversity and resources.
24. <http://www.ecofog.gf/IMG/pdf/PresentationGuyasim.pdf>
25. <http://www.ecofog.gf/spip.php?article364>
26. The Trésor Foundation, founded in 1995 at the initiative of Utrecht University in the Netherlands, owns about 2,450 hectares of tropical rainforest in French Guiana. In 1997 it officially became a nature reserve.
27. See the discussion about the use of adjusted baselines in Guyana.



*Rivers are stained yellow to black
by decaying plant matter, Guyana.*
©WWF Canon, Martin Harvey

40 million ha

The interior of the Guianas has more than 40 million hectares of undisturbed rainforest. WWF has supported conservation in the Guianan region since the mid-1960s.

REDD+

REDD+ provides an opportunity for mitigating the effects of climate change and makes it possible to protect natural forests while fostering sustainable development.



20%

Deforestation and forest degradation have become the second largest contributors to worldwide carbon emissions (20%).

Carbon storage

Forests play a critical role in the carbon cycle as they take up CO₂ and store carbon as biomass.



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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