



## 3.5 Chainsaw milling and Guyana's LCDS

OFFICE OF CLIMATE CHANGE

### Introduction

Lying on the northeast shoulder of South America, Guyana possesses approximately 15 million hectares (ha) of tropical rainforest, which cover roughly 80% of the country. Guyana has been practising sustainable forest management (SFM) for decades, resulting in one of the lowest deforestation rates in the world. Its forests are among the most pristine on the planet, even though chainsaw milling is widely practised.

At the same time, Guyana is a poor developing country. The great majority of the forests is suitable for timber extraction and post-harvest agriculture, and significant mineral deposits exist below its surface. The country is therefore faced with an apparent trade-off between development through deforestation on the one hand, and limited growth through little or no logging and forest usage on the other. To resolve this dichotomy, Guyana has prepared a Low Carbon Development Strategy (LCDS) whereby it seeks to maintain its pristine rainforests for the purpose of contributing to climate mitigation in return for positive incentives linked to the opportunity cost of doing so. The revenues earned would be utilized to invest in low-emission economic activities and to develop a green economy.



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### The forestry sector in Guyana

The forests of Guyana are used for multiple purposes: harvesting of forest produce, agriculture, mining, research, ecotourism, sustaining the livelihoods of Amerindian communities, conservation and protected area management and biodiversity reserve protection.<sup>1</sup> There are some 350 forestry concessions of varying sizes, all of which are privately operated. The state holds no equity or other management interest in any forest concession. The Government, through the Guyana Forestry Commission (GFC), manages and regulates the activities of forest concessions to ensure that operators effectively implement SFM rules, guidelines and forest legislation. Logging companies are required to complete comprehensive forest management and annual plans that include forest inventories. They are also required to comply with control procedures, legality assurance measures and log tracking.

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Guyana's forestry and mining sectors are major contributors to the economy. The forestry sector accounts for approximately US\$45–60 million in export value and employs more than 20,000 people.<sup>2</sup> They also generate significant government revenue that is invested in public services. At the same time, they are the main contributors to Guyana's low rates of deforestation and forest degradation.

#### Chainsaw milling

Chainsaw milling is allowed by policy in Guyana. It is supported by an institutional framework that permits and regulates its use. On the operational side, the GFC conducts procedural and environmental monitoring to ensure that chainsaw milling activities are executed in a manner that satisfies the guidelines set forth in the GFC Code of Practice.

Regulated chainsaw milling has economic, social and environmental benefits, if practised correctly and regulated effectively. Chainsaw/portable mill lumber production ranged from 28,800 m<sup>3</sup> in 2000 to 73,000 m<sup>3</sup> in 2009.<sup>3</sup> It also provides substantial employment in the forest sector. Many small- and medium-size operators have leasing contracts with community logging associations. To date, 42 associations have been established; they directly support more than 8,000 people. The operators mainly practise chainsaw milling, which in most cases is the main economic activity for these communities.

Chainsaw milling has developed in Guyana as a key subsector in the forest industry that supports rural livelihoods. The identified and preferred role of chainsaw milling activities are set out in a regulatory framework that aims to ensure that economic and social benefits do not result in negative effects on environmental sustainability or forest management.

In recognition of the importance of chainsaw milling in Guyana, a concerted and pragmatic approach has been taken from a regulatory perspective to allow for the existence of chainsaw activities through a comprehensive system of regulatory standards and requirements. The Code of Practice for timber harvesting sets the standards to be complied with in chainsaw logging. It also includes guidelines to allow for the effective protection of the forest, such as buffer zones, and to comply with health and safety standards.

While strengthening compliance with standards addresses improvement from the regulatory side, the government has also addressed the need to build the technical capacity of stakeholders through the work of the Forestry Training Centre Incorporated (FTCI). FTCI has developed a manual on chainsaw use and maintenance, tailored for small operators. The FTCI has also executed several courses with a number of communities and groups. Chainsaw milling has its context within forestry as a whole, which in turn is a vital component of Guyana's recently adopted LCDS.

## Guyana's Low Carbon Development Strategy

The LCDS is based on the belief that Guyana's forests are its most valuable resource. The Government of Guyana recently completed a study<sup>4</sup> to estimate the value of its forests. If the forest is harvested and the land then put to its most valuable subsequent use, the total economic value (EVN) to the nation would be approximately US\$580 million annually. Generating this high economic value, however, although economically beneficial for Guyana, would have significant negative environmental consequences for the country and the world. The deforestation that would accompany this development would reduce the important environmental benefits that Guyana's forests provide. Therefore, it would be more cost effective to provide financial incentives to compensate countries such as Guyana for leaving their forests standing as a climate mitigation measure. The financial flows could then be used to pursue low-carbon alternative livelihoods.

This is in essence the major thrust of Guyana's LCDS. Alternative low-carbon activities include development of hydro-electric power, solar wind and biomass energy, agriculture on non-forested lands, information and communication technology, ecotourism, and adaptation works such as sea and river defences, drainage and irrigation infrastructure and water conservancy management.

Another high-priority area is the development of Amerindian Communities. This will include support for the process of titling of Amerindian lands, as well as demarcation and titling of approved village extensions. Amerindian villages will have the choice about whether to participate in the interim REDD+ mechanism,<sup>5</sup> following the principle of free, prior and informed consent. Those who opt in will receive their share of the revenues that flow through payments for their forest carbon. In addition to this opt-in mechanism for Amerindian communities, an Amerindian Development Fund will be established to provide grants for low-carbon energy and economic or social investments in Amerindian villages.

Forest payments will be used to invest in and support the creation of new low-carbon economic opportunities for small and micro enterprises (SMEs) and vulnerable groups. Grants will be provided to SMEs in key low-carbon growth sectors, such as fruit and vegetables, aquaculture, sustainable forestry, ecotourism and sustainable mining.

## Memorandum of Understanding between Norway and Guyana

In November 2009 Guyana signed a Memorandum of Understanding (MOU) with Norway. The MOU essentially remunerates Guyana for the services its forests provide in the fight against climate change. The level of financial support by Norway will depend on the delivery of services. The rate of delivery will be measured against indicators of enabling activities and indicators of REDD+ performance that measure the reduction in emissions. Norway has committed up to US\$250 million until 2015.

To date Guyana has met all its commitments under the MOU and has reached all the established benchmarks for December 31, 2009:

- producing an outline of Guyana's REDD+ Governance Plan;
- starting work on a Monitoring, Reporting and Verification (MRV) system;

- establishing a Project Management Office (PMO) and an Office of Climate Change (OCC);
- continuing the multi-stakeholder consultation process;
- supporting an annual verification by neutral experts that REDD+ enabling activities have been completed;
- establishing a system for Independent Forest Monitoring (IFM);
- establishing the Guyana REDD+ Investment Fund (GRIF).

Norwegian financial support is being channeled through a dedicated financial mechanism (GRIF). The support will finance two sets of activities: the implementation of Guyana's LCDS and building capacity to improve REDD+ and LCDS efforts.

#### **REDD+**

Reducing emissions from deforestation and degradation and avoiding deforestation are key elements of the LCDS. Guyana strongly supports the enhanced scope of REDD (REDD+) to include forest conservation and SFM. Guyana also supports a staged approach to REDD, whereby public funding will be required for the early readiness and capacity-building phases, and a combination of public and market-based funding will support the later phases, when forest carbon can be traded in the compliance markets.

Guyana was one of the first countries to have its Readiness Plan (R-Plan) approved under the World Bank Forest Carbon Partnership Facility project to support capacity building and readiness preparation for access to REDD climate funds and ultimately, carbon market financing. This R-Plan will assist Guyana in developing the monitoring, reporting and verification system required.

#### **Conclusion: The role of chainsaw milling in the LCDS**

Chainsaw milling is relevant to Guyana's LCDS, as it is an important part of the wood processing sector. Owing to its versatility and small operation size, regulated chainsaw milling in many cases allows for a smaller carbon footprint than conventional milling. Chainsaw milling, by its very nature, leads to lower clearance rates because of limited roads and infrastructure requirements; for example, most chainsaw milling operations use tractors instead of skidders, which allow for reduced clearances from skid roads and pathways.

Additionally, conversion on site reduces the transportation of waste products and thereby reduces the fossil fuel use of operators. Infrastructure maintenance is limited; it also lends itself to a low carbon operation with relatively little environmental damage. Further, the scale and versatility of chainsaw milling allows for forest extraction activities to be confined to a shorter time and smaller area, thereby enabling the forest area and ecosystems to regenerate.

It has generally been recognized that when chainsaw milling is properly practised, the waste remaining enhances the nutrient level of the soil, boosting its regenerative capacity. Chainsaw milling, practiced efficiently, has the potential to be a low-carbon subsector of

the forestry industry. Unfortunately, some of these advantages are lost when the recovery rate is low. This is often the case; the conversion rate per tree in Guyana is usually below 40%.

Environmental and safety standards are very important in this regard. All efforts will therefore be made to ensure that operators meet these standards, while maintaining the activity as an important source of economic livelihood. From the standpoint of the government, monitoring and enforcement is being strengthened, while training and sensitization are being done on an ongoing basis. Occurrences of illegality and breach of standards will not be tolerated; the LCDS will require all operators in the managed forest area (State Forest Estate) to strictly comply with rules and regulations.

Chainsaw milling is part of forestry activities in Guyana. The LCDS is a much wider strategy that addresses more than forestry alone, and it provides a suitable framework to support forestry activities, under strict regulation and codes of practice. Guyana is moving from vision to action to demonstrate the effectiveness of providing economic incentives to reduce deforestation and forest degradation. The country has set out a practical, replicable model of how to protect its forests and reduce greenhouse gas emissions and at the same time provide a sustainable path for economic development and improved standards of living.

### Endnotes

1. See Government of Guyana. 2010. Guyana's Readiness Preparation Proposal (R-PP), 2010, World Bank Forest Carbon Partnership Facility.
2. See Bank of Guyana Annual Reports.
3. See the Guyana Forestry Commission annual production report 2009.
4. This was performed by McKinsey & Company, incorporated in the U.S.
5. REDD is Reducing Emissions from Deforestation and Forest Degradation. REDD+ goes beyond deforestation and forest degradation and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.