



3.9 Chainsaw milling in Suriname

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Introduction

Chainsaw milling (CSM) is underestimated in the government statistics that are maintained by the Foundation for Forest Management and Production Control (SBB) in Suriname. An important part of the domestic timber market is supplied by CSM, both in production volume and source of income for forest dwellers and other people involved in the marketing chain. SBB also controls the timber markets but there are no exact figures on the extent of CSM timber in these markets.

Forests and the forestry sector

Suriname has a population of approximately 520,000 on 16.4 million hectares (ha) of land. The forest area covers approximately 90% of the country. The forest, which is considered under-utilized, contributes less than 2% to the Gross Domestic Product (GDP), most of which comes from timber production and processing. The contribution of the forest sector is slightly higher if shifting cultivation and nature-related tourism are included.

Logging in Suriname is restricted to an area known as the Forest Belt within reach of road and river transport systems. Within this area, which covers around 4.2 million ha, 2.2 million ha are timber concessions; 1.5 million ha of these are issued to private entrepreneurs and 0.5 million ha to indigenous and tribal communities (Table 1).

The country's original inhabitants or Amerindians (4% of the total population) and Maroons (descendants of African slaves who successfully fought for their freedom; 12% of the total population) depend on the forest for their livelihoods. Amerindians live in the savanna and Maroons live along the major river basins. A considerable number of the Amerindians and Maroons live in the coastal area.



THE MAIN PROBLEM FACING CSM OPERATORS IN SURINAME IS THE UNCERTAINTY OF OPERATIONS, WITH NO SECURE LONG-TERM ACCESS TO FOREST RESOURCES.

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Table 1. Key facts about forestry in Suriname

Land area	16.4 million ha
Population	520,000
Forest area	14.8 million ha
▪ not considered for log production	8.4 million ha
▪ destined for log production	4.2 million ha
▪ protected	2.2 million ha
Yearly average log production	160,000 m ³
Yearly average chainsaw lumber production	20–30%
Yearly average sawmill lumber production	70–80%
Deforestation rate	0.07%
Contribution to GDP	2%

Annual registered timber production, mostly roundwood, averaged 160,000 m³ from 1998–2009. Of the total roundwood production of 206,970 m³ in 2009, 10,787 m³ was produced by CSM and transported as sawnwood to the market (Table 2). SBB estimates that illegally produced CSM timber is about 20–30% of total annual production. There are about 70 sawmills, mostly in the coastal area. Logs are transported by road (60–70%) and river (30–40%). There are about 200 loggers (small companies or groups of individuals).

Table 2. Total roundwood production in Suriname (m³), 1998–2009

year	logs	hewn squares/ poles	fence posts	sawnwood pro- duced by chainsaws	total roundwood production
1998	141,031	2,524	996	3	144,554
1999	89,930	1,685	1,044	1,256	93,915
2000	171,265	2,030	1,550	1,616	176,461
2001	155,135	1,804	3,033	2,334	162,306
2002	145,353	3,972	2,682	1,769	153,776
2003	147,053	3,712	3,290	1,394	155,449
2004	153,279	1,519	2,137	2,477	159,412
2005	170,391	648	2,415	7,437	180,891
2006	190,119	654	1,591	692	193,056
2007	154,207	601	2,235	9,322	166,365
2008	178,576	689	2,021	16,108	197,394
2009	188,269	1,388	6,524	10,789	206,970

Source: SBB Timber Production Statistics, 2010

Institutional and legal framework

Suriname's *Forest Management Act* dates from 1992 and the National Forest Policy from 2003. The Forest Management Act is being updated. In 2009 a Strategic Action Plan for the forest sector was approved. It focuses on forest management and includes no specific

articles and statements on CSM. The plan does allow the on-site processing of timber, by both portable mills and chainsaws, in all types of timber harvesting licences.

Suriname has five types of harvesting licences (Table 3). Concessions larger than 150,000 ha have to be approved by Parliament. Communal Cutting Licences, which are registered in the name of village captains, are issued for an unlimited time.

Table 3. Size and duration of timber harvesting licences in Suriname

area (ha)	duration (years)	renewal (years)
less than 5,000	5	5
5,000–50,000	5	5
50,000 –150,000	10	10
larger than 150,000	10	10
community logging: average of 3,000–4,000	undetermined	n/a

Source: *Forest Management Act 1992*; Note: renewal is for one period only

After 20 years the large concessions cannot be renewed by the same licence holder. This makes management systems for longer than 20 years impractical, unless the licence is renewed in the name of another individual who is linked to the enterprise. There are no specific concessions or licensing agreements for CSM and there are no specific restrictions on CSM of privately owned trees. The activity is allowed, but policy guidelines for the use of both chainsaws and mobile mills are not yet in place. There is no data on potential conflict with other types of forest use. Chainsaws and mobile mills can be bought without any restrictions. Purchasers pay value added taxes but do not need to register the machines. CSM operators pay operational and harvesting costs (US\$30–35 for tree felling and transport per m³ of timber).

A specific planning and control system for CSM is not yet in place. The tracking system for all types of timber production systems consists of listing felled trees in a cutting register and recording the timber for transport. Sawnwood is also recorded on the transport form. All recordings are the responsibility of the producers. Forest charges on sawnwood are calculated on the basis of the estimated roundwood volume. SBB maintains a conversion factor of 50%. The fee is US\$6.00 and US\$5.50 per m³ for classes A and B, respectively. Area fees are SRD 0.03, (US\$0.01); SRD 0.05 (US\$0.02); and SRD 0.10 (US\$0.04) per ha per year, respectively for short-, mid- and long-term concessions. Community forests are free of charge. A concessionaire with 25,000 ha pays an annual fee of around US\$450.

One of SBB's objectives is to make the CSM sector more transparent, stop illegal logging and bring producers into the formal economy. This can be done by issuing short-term forest concessions to registered producers. Chainsaw millers are very mobile, however, and shift locations almost every day; SBB does not have the facilities or staff to locate and control them. At the time of writing this article the government had plans to establish a new Forest Management Authority (Bosnas) to improve forest management and monitoring. It is not yet known when this will occur. In the meantime SBB has invested in field posts and transportation facilities, and is planning to recruit more forest guards.

Chainsaw milling

Origin of CSM

Chainsaw milling became widespread in the mid-1990s when Maroon people started to rehabilitate villages damaged during the armed conflict in the interior (1986–92). People from Amerindian villages and the coastal area also started to use CSM to transform forest areas into agricultural plots. More and more people are purchasing mobile mills. NGOs have tried to encourage the use of mobile mills in communities and provided support in the form of training and funding. None of the initiatives were successful, partly because of the villages' lack of capacity in project administration. The fact that neither chainsaws nor mobile mills are registered upon purchase makes it difficult to regulate the activity.

CSM activities

People from the hinterland villages carry out CSM in community forests or outside the region. Producers work individually or in small groups consisting of one operator and two helpers, usually family members or friends. Most CSM operators are working or have worked in the logging and wood-processing sector. This form of CSM is illegal.

CSM is also used on land that is being cleared for shifting cultivation. This practice is not illegal. CSM is used for processing useful timber species in forest areas (1–2 ha) that are cleared for small-scale gold mining. This mining activity is often uncontrolled.

Marketing of CSM lumber

People in forest-dependent communities produce timber for their own purposes. The timber is also used in the artisanal gold-mining sector. Most of the commercial timber goes to the furniture industry or to small timber markets in the coastal area (statistics are not available). The price of CSM timber is low due to smaller production costs and lack of fees; owners of traditional sawmills claim that they cannot compete with this price.

The main problem facing CSM operators in Suriname is the uncertainty of operations, with no secure long-term access to forest resources. This makes it difficult to plan investments, such as replacing chainsaws and buying parts for mobile mills. The chainsaw business has a hit-and-run nature.

A significant percentage of CSM timber is transported to the markets in closed trucks, evading SBB forest inspectors, who are only allowed to inspect open trucks. Only the police are allowed to inspect container trucks.

Social impacts

CSM is an important source of income for people in forest-dependent communities. Some CSM operators have been able to purchase new chainsaws and or mobile mills, presumably with revenue from the activity. The structure of the communities, whereby the village captain decides the way and by whom the community forest can be utilized, can drive illegality and uncontrolled logging and chainsaw milling within and outside community forests.

CSM requires relatively little financial investment; this creates an opportunity for many unemployed people from the forest. Community members who do not have permission

from the village captain to work in the community forest try to make a living elsewhere in the forest by producing boards with the chainsaw without a licence or permission.

The Government of Suriname has started a process to provide all community members with equal development opportunities. The process is being led by the Ministry of Regional Development in cooperation with the Ministry of Physical Planning, Land and Forest Management. Under this new approach decisions on the use of resources by communal cutting licences will no longer be made solely by the village chief but by a group of villagers. Villagers do not see much of the revenue from traditional communal cutting licences and village captains often allow contractors to harvest the forests unsustainably.

CSM provides an opportunity for timber production with a relatively small investment in areas which are less accessible, such as the Afobakka Hydro-electric Lake in central Suriname. If it is efficiently carried out, CSM can contribute significantly to the development of community forestry, resulting in increased income for the local people, work opportunities and a more sustainable way of maintaining both forests and livelihoods.

Conclusions and recommendations

At this moment CSM is not considered a threat to forests in Suriname. Although data is not available, chainsaw milling is expected to increase. If conducted safely, under the principles of sustainable forest management and governed by effective regulations, CSM can contribute to sustainable livelihoods in the interior, since relatively small investments are needed to start production and there is a market to supply. Other people involved in the activity — such as loggers from other areas, transporters, lumber markets and wood processing industries — can also benefit from CSM. At present, only a few persons have accumulated enough capital to improve their business by purchasing mobile mills.

The government intends to incorporate CSM in the legal framework and transform it into a regular economic activity that guarantees steady long-term incomes for community members, helping to alleviate poverty.

In 2009 the FAO National Forest Programme (NFP) facility was launched, with SBB as the focal point and project administrator. As part of an overall NFP, the facility can improve the effectiveness of community forestry and hence CSM. Communities can apply for projects that focus on training in production skills, management and bookkeeping.

In March 2009 the country's REDD Project Implementation Note was accepted by the Forest Carbon Partnership Facility of the World Bank. In its Readiness Preparation Proposal, Suriname outlined a strategy to be eligible for REDD+ projects. The focus is on forest conservation and SFM as well as financial incentives for avoided deforestation and forest degradation. Since the latter is directly linked with the Code of Practice for SFM, it is important to include regulations for CSM in the code. Any form of CSM that does not fit in a concession from SBB will not be part of the land-use planning outlined in the REDD+ strategy and will therefore be classified as a driver of forest degradation.