

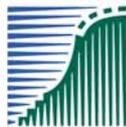
# **Rapid Assessment of Existing Financial Mechanisms for Sustainable Forest Management in Suriname**

**January 2009**

**Prepared by:  
Sheila Bhairo-Marhé  
Winston Caldeira  
Cornelis Pigot  
Winston Ramautarsing**



**Republic of Suriname**



**landbouw, natuur en  
voedselkwaliteit**





## TABLE OF CONTENTS

<b>Foreword.....</b>	<b>3</b>
<b>Abbreviations.....</b>	<b>5</b>
<b>Executive Summary.....</b>	<b>7</b>
<b>Samenvatting.....</b>	<b>17</b>
<b>1 Introduction and background.....</b>	<b>27</b>
<b>2 Scope of the study.....</b>	<b>29</b>
<b>3 Approach followed during the study.....</b>	<b>31</b>
<b>4 Setting.....</b>	<b>33</b>
4.1 The economy.....	33
4.2 The forest sector.....	34
<b>5 Policy context.....</b>	<b>37</b>
5.1 General.....	37
5.2 The business climate in Suriname.....	37
5.3 The enabling conditions for SFM.....	39
5.4 Strategies considered for SFM.....	41
5.4.1 Public sector strategy (Central Government).....	41
5.4.2 Strategies of international entities (multilateral, bilateral).....	44
5.4.3 Strategies of forest communities and NGO's.....	44
5.4.4 Commercial private sector strategies.....	46
<b>6 An overview of existing regional and international forest finance mechanisms.....</b>	<b>49</b>
6.1 International Context.....	49
6.1.1 History.....	49
6.1.2 International Conventions and Institutions.....	49
6.1.3 Financial instruments.....	49
6.2 Regional Context.....	51

<b>7</b>	<b>The forest finance mechanisms in Suriname.....</b>	<b>53</b>
7.1	Investment mechanisms .....	53
7.1.1	Investment instruments .....	53
7.1.2	Investment sources and operators .....	55
7.1.3	Potentials and opportunities of investment mechanisms .....	61
7.2	Payment mechanisms for forest goods in Suriname .....	61
7.2.1	Timber .....	62
7.2.1.1	Operators .....	62
7.2.1.2	Payment instruments .....	63
7.2.1.3	Payment sources.....	64
7.2.1.4	Potentials and opportunities in the timber sector .....	64
7.2.2	Non timber forest products.....	65
7.2.2.1	Operators .....	65
7.2.2.2	Payment instruments .....	66
7.2.2.3	Payment sources.....	68
7.2.2.4	Potentials and opportunities in the NTFP sector.....	68
7.3	Payment mechanisms for environmental services in Suriname.....	69
7.3.1	Operators .....	71
7.3.2	Payment instruments .....	71
7.3.3	Payment sources.....	74
<b>8</b>	<b>Discussion and analysis.....</b>	<b>75</b>
8.1	Coverage of the study .....	75
8.1.1	SWOT analysis for financing SFM.....	75
8.1.2	Non-financial mechanisms promoting sustainable forest management.....	79
8.2	Evaluation of existing forest finance mechanisms in Suriname and their impact on SFM.....	79
8.3	Factors promoting or militating against the effectiveness of identified finance mechanisms in Suriname .....	84
8.3.1	Assessment of the mechanisms in the Surinamese situation .....	84
8.3.2	The business environment for SFM in Suriname.....	84
8.4	Requirements and elements of a possible National Forest Finance Strategy.....	85
8.5	Lessons learned and recommendations including follow-up action .....	91
8.5.1	Lessons learned .....	91
8.5.2	Recommendations and follow-up action.....	91
<b>ANNEXES</b>		
<b>Annex A:</b>	<b>Conceptual Framework for a National Forest Financing Strategy .....</b>	<b>95</b>
<b>Annex B:</b>	<b>List of persons interviewed .....</b>	<b>97</b>
<b>Annex C:</b>	<b>Recommendations from the draft Interim Strategic Action Plan.....</b>	<b>99</b>
<b>Annex D:</b>	<b>Tables from timber production .....</b>	<b>105</b>
<b>Annex E:</b>	<b>References .....</b>	<b>107</b>

## **FOREWORD**

Traditionally Suriname has taken good care of its rainforest which comprises important natural renewable resources. We have one of the densest tropical rainforest and modern days require significant income generation from this sector for the benefit of our economy, the people active in the sector and its inhabitants.

In September 2008 the Government of Suriname hosted the Country Led Initiative (CLI) on Forest Financing Mechanisms. The President of the Republic of Suriname, Runaldo R. Venetiaan appointed a Presidential Task Force with representatives from ministries and institutions involved in the forest sector. The conference was organized in cooperation with the governments of the Netherlands and the United States of America.

About 227 people from Suriname and from abroad attended the CLI Paramaribo and it served as an input to the Ad-hoc Expert Group meeting of the UN Forum on Forests (UNFF), held from 3 to 7 November 2008 in Vienna, Austria.

One of the activities during the preparation for the CLI was the compilation of the Suriname Case Study by four consultants, contracted by Tropenbos International - Suriname on behalf of the organizers. Based on extensive consultations with relevant actors the document was drafted and served as an input for the CLI. Afterwards, this final document was shaped also based on the experiences during the conference.

It is with great satisfaction that we present the Suriname Case Study. We would like to express our sincere gratitude to all those who have contributed to the outcome of this study and we are convinced that this will serve as an input for further actions. It is expected that the importance of the forest sector in Suriname will increase. With the suggested portfolio approach, the benefits of our forest can be increased significantly to the welfare of our people, while at the same time we can continue to serve as an example for others how to live in harmony with the forest.

Sincerely

Ambassador Ewald Limon  
Chairman of the Presidential Task Force



## ABBREVIATIONS

ACTO	Amazon Cooperation Treaty Organization
AHEG	Ad-hoc Expert Group
ATM	Ministry of Labor, Technological Development and Environment
BOSNAS	Forest and Nature Authority in Suriname (not yet formalized)
BSH	Bruynzeel Suriname Houtmaatschappij
CDE	Centre for the Development of Enterprises
CDM	Clean Development Mechanism
CET	Common External Tariff
CELOS	Centre for Agricultural Research in Suriname
CI	Conservation International
CLI	Country Led Initiative
CSME	Caricom Single Market Economy
CSNR	Central Suriname Nature Reserve
EDF	European Development Fund
EU	European Union
FAO	Food and Agricultural Organization
FDI	Foreign Direct Investment
FF	Forest Financing
FIAS	Foreign Investment Advisory Service
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GoS	Government of Suriname
HFLD	High Forest cover Low Deforestation
HKV	Communal Wood Cutting License
ICMM	International Council on Mining and Metals
IDA	International Development Association
IDB	Inter-American Development Bank
IFC	International Financial Corporation
IIC	Interamerican Investment Corporation
IMF	International Monetary Fund
IsDB	Islamic Development Bank
ITTO	International Tropical Timber Organization
JSOOC	Jan Starke Training and Recreation Centre
LBB	Suriname's Forest Service
LLC	Limited Liability Company
LNV	Ministry of Agriculture, Nature and Food Quality of the Netherlands
MFI	Multi Financial Institution
MUMA	Multiple Use Management Area
NBSAP	National Biodiversity Strategy and Action Plan
NFF	National Forest Fund

NGO	Non Governmental Organization
NLBI	Non-Legally Binding Instrument
NTFPs	Non timber forest products
ODA	Official Development Assistance
PAS	Pater Albrink Foundation
PES	Payment for Environmental Services
PHS	Platform Houtsector
PTF	Presidential Taskforce
REDD	Reduced Emissions from Deforestation and forest Degradation
RO	Ministry of Regional Development
ROGB	Ministry of Physical Planning, Land and Forest Management
SBB	Foundation for Forest Management and Production Control
SBF	Suriname Business Forum
SCF	Suriname Conservation Foundation
SCS	Suriname Case Study
SFM	Sustainable Forest Management
SWOT	Strengths, Weaknesses, Opportunities and Threats
TA	Technical Assistance
TBI	Tropenbos International
TCT	Ministry of Transport, Communications and Tourism
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Program
UNF	United Nations Foundation
UNFF	United Nations Forum on Forests
WWF	World Wildlife Fund

## EXECUTIVE SUMMARY

### Introduction

This study presents a national inventory and evaluation of existing finance mechanisms in Suriname with a focus on the support of sustainable forest management (SFM), including conservation of forests.

Suriname is categorized as a high forest cover, low deforestation (HFLD) country, with a very low population density. Suriname has a population of approximately 500,000 inhabitants on 163,384 km<sup>2</sup> land surface area. The forest area covers approximately 90% of the land area, establishing Suriname as one of the most forest-rich country in the world, in terms of forests per capita (according to the Food and Agricultural Organisation (FAO)). Despite being Suriname's most abundant natural resource, the forest is considered as 'under-utilized', as it directly contributes only 2% to Gross Domestic Product (GDP), of which most is considered sustainable (timber and non-timber forest products) forest exploitation. However, the non-monetary contribution of forests to human well-being is not expressed in terms of GDP and national income, e.g. the indirect economic contribution from watershed management, soil and biodiversity conservation and worldwide climate stabilization through carbon fixation.

This report estimates the wider forest-related economic activities' directly and indirectly contributing to GDP roughly at US\$ 98 million (4% of GDP) through:

- Directly: sustainable forest logging and industrial processing (US\$ 33 million)
- Directly: sustainable production of non-timber forest products (US\$ 5 million)
- Indirectly: non-sustainable shifting cultivation in agroforestry and agriculture (US\$ 35 million)
- Indirectly: sustainable nature related tourism and other paid for services (US\$ 25 million).

Timber harvesting remains by far the most important economic activity in the forest, but largely inefficient and with low productivity at 0.11 m<sup>3</sup> roundwood per hectare (utility rate), around 19% of its potential.

### **The business environment in Suriname and its impact on forest financing**

The business environment is not sufficiently enabling the promotion of the development of SFM and other sustainable activities.

Macro-economic policies are satisfactory, including monetary policies resulting in moderate inflation and low fiscal deficits, together with low indebtedness and a stable foreign exchange rate.

However, the country's economic development is structurally skewed towards investment in sectors that do not promote sustainable socio-economic development.

This report estimates that in 2007 approximately 32% of Suriname's GDP, 90% of the country's exports and 40% of public revenues are generated from the exploitation of its mineral and hydropower resources: mining of petroleum, gold, bauxite, and their related industries, and generation of hydroelectricity.

The assessment of the enabling environment for SFM resulted in the definition of factors promoting the effectiveness of forest financing as well as factors militating against forest financing.

Enabling factors, promoting the effectiveness of forest financing include:

- The Government forest policy, which is generally supportive to SFM;
- Increasing macro-economic stability and improved country credit/debt ratings;
- Existence of an agriculture and forestry research institute, namely the Centre for Agricultural Research (CELOS; although in need of research capacity and equipment).

Disabling factors, militating against the effectiveness of forest financing include:

- Absence of a clear investment policy framework with specific incentives, arrangements, and facilities for the forest sector;
- Absence of formal collective land rights and titling for traditional forest communities;
- Absence and/or outdated legislation, among others, concession policies for timber and non-timber forest products (NTFPs);
- Absence of an enabling investment law with clear defined incentives, which protects domestic and foreign investors, to attract bona fide investments;
- Insufficient capacity to access and to utilize available funds;
- Increased high conditions and demands to access available funds;
- Lack of international arrangements for HFLD countries like Suriname.

### **Forest finance mechanisms in Suriname and their impact on SFM**

The benefits from existing financial mechanisms for the forest-related sector are limited, as are the direct financial contributions to the economy (roughly 2% of GDP). In general, existing financing mechanisms for SFM are all underdeveloped, not always available and if available, under less favourable conditions (at a relative high price, no grace periods).

The study evaluated forest finance mechanisms, considering five categories:

1. Public sector (Central Government)
2. International entities (multilateral, bilateral)
3. Commercial private sector
4. Forest communities and NGO's
5. International private sector

## **1. Public sector (Central Government)**

The Government is charging forest operators through general and specific taxes, royalties or fines. Currently, the revenues for the Government of Suriname (GoS) from the timber sector are around US\$ 1 million annually. These revenues are by far not sufficient to finance public sector expenditures towards SFM. Limited amounts of the public budget are invested in research, training and awareness and also in some specific SFM projects. Capital investments in infrastructure (roads, bridges) in forest areas are limited and restricted to necessary maintenance and repair. Due to budgetary constraints, the required further improvement of production planning, improvement of production control, improvement of law enforcement and financing of technical assistance and provision of services to the private sector as needed is not a priority.

External funding is required to finance public sector activities towards SFM, particularly forest conservation and sustainable community forest development.

Considering the existing low productivity rates (forest concession utilization) and favorable export prices for timber, the revenue potential for timber logging and timber processing could increase substantially. The potential of the trade in NNTP's such as wildlife, medicinal plants, ornamental plants, fruits and plant parts, is also underutilized. The Dutch Government invested in the forest by regular Treaty Funds, by implementing the Dutch 'PSOM' investment stimulating mechanism and by their own Environment Fund. In 2008 there were still substantial funds reserved but not utilized.

## **2. International entities (multilateral, bilateral)**

Multilateral financing agencies and international NGO's also show interest in funding sustainable forest-related activities. WWF Guiana's financed several studies and projects in Suriname, among others in SFM, protected area management, wildlife management and awareness building. Suriname Conservation Foundation, with its Endowment Fund, received financing from GEF, Conservation International (CI), United Nations Foundation (UNF) and the Dutch Treaty Funds, specifically for biodiversity conservation. United Nations Development Program (UNDP) and UNDP-Global Environmental Facility (GEF) also supported the formulation of the Biodiversity Strategy and Action Plan (on-going) and the Climate Change Action plan (on-going), research activities and small investments.

Recently the IDB approved a grant for three studies for the general development of the Interior, including options for forest management, channelled through the Ministry of Regional Development. The International Tropical Timber Organization (ITTO) supports sustainable timber production and marketing activities.

These activities lack coordination, but they all contribute to improving the capacity for SFM in the interior.

International financing for *environmental services* however, remains very limited and opportunities still have to be explored. Suriname does not receive international financial compensation for the preservation of its forest and terrestrial carbon stock.

It is presumed that Suriname has low potential for Reduced Emissions from Deforestation and forest Degradation (REDD) credits and for reforestation payments under Clean Development Mechanism (CDM).

It is expected that the water markets will be even more important in quality and volume, than the carbon markets in the future. The international demand for water is increasing rapidly and investment in watershed management is cheaper than treatment or obtaining new water supplies.

### **3. Commercial private sector**

Financing by the commercial private sector in the forest sector is very limited. Commercial bank loans have not played a major role in financing forestry projects in Suriname. The total credit provided by the formal banking sector to the forestry sector is very low, approximately 0.2% of the total bank loan portfolio. The banks are not encouraged by the overall investment climate to provide loans particularly to new clients in what they consider risky areas such as forests (in the interior). The two credit unions, GODO and De Schakel have played an important role in mobilizing (micro-) savings and providing (micro) credit to its members. However, their contribution to forest financing is limited.

Community businesses (formal and informal) in the interior are stimulated by the provision of Communal Wood Cutting Licenses (HKVs) to their village captain. However, due to lack of financing, appropriate equipment, awareness and capacity regarding SFM, the village captain usually rents the HKV out to private sector loggers, who are in a better position to secure financing.

Apart from some grants from WWF Guianas and UNDP Small Grants Program, household savings and own labour are invested in several small-scale agroforestry activities in the Surinamese hinterlands.

The volume of the informal financial market is substantial. It involves lending and saving schemes among families, friends and outsiders and remittances from relatives and friends abroad. The amount of money which finds its way to SFM is estimated to be more or less equal to the formal credits provided by the commercial banks.

### **4. Forest communities and NGO's**

Indigenous and Maroon communities have very limited access to formal finance. The economic activities in which the Indigenous and Maroon communities are involved are mainly self-supporting, except for commercial logging, nature tourism and goldmining activities in some Maroon communities.

Many Indigenous and Maroon groups earn their living by forest logging (including rent of HKV), collecting and marketing NTFPs and/or collecting NTFPs on a daily basis for subsistence use.

The contribution of some social- and environmental NGOs/CBOs active in small community projects in the interior is positive for poverty reduction and human development, but its impact is still relatively small.

The potential of charities (national and international) from faith based organizations and secular organizations like service clubs to provide funding to the forest activities is still underutilized.

Nature tourism in Suriname is growing. Funding for specific projects by national and international donors and/or service clubs are provided in some cases, such as in nature tourism activities. Additional financing is needed to improve the quality of the ecotourism facilities, the existing infrastructure, the hospitality services and the marketing abilities.

On the national level the enabling environment must be improved such as visa policy and international (flight) connections.

## **5. International private sector**

The Foreign Direct Investment (FDI) flow into Suriname's forest sector is negligible.

Chinese logging companies in Suriname have their own financing schemes, at low interest rates, outside the national banking sector. The system seems to work fine.

## **Assessment of the mechanisms in the Surinamese situation**

The assessment of the finance mechanisms resulted in the definition of factors promoting the effectiveness of forest financing, such as increasing interest of foreign financing institutes to provide loans and decreasing trend in local commercial interest rates. The assessment also resulted in the definition of factors militating against forest financing, such as limited public funds made available from the annual budget and risk-avoiding behaviour of the local banks.

## **Requirements and elements of a possible National Forest Finance Strategy**

Forest financing is needed to cover the expenditures of four categories of operators, each of them having specific financing needs.

Current and possible sources/instruments are listed for each of these categories hereafter.

### **1. Expenditures by the public sector (Central Government and parastatals) for:**

- public transport infrastructure: roads, bridges, waterways, jetties, harbors;
- public administrative tasks of planning, zoning, control, safety, research, extension services, training, and other support services to be provided by the Government to the private sector.

Sources/instruments:

- Increased public revenues from new payments for environmental services and from economic growth in timber and mining industries;
- Soft loans and grants from ODA, including Multi Financial Institutions.

The three most likely sources for increased public revenues appear to be: 1) new payments for international environmental services, notably towards the mitigation of climate change and the conservation of biodiversity, 2) increased public revenues from timber and NTFP production, and 3) increased public revenues from the mining and the tourism sector. More intensive borrowing from multilateral financing institutions (IDB/IIC, World Bank, EDF/EIB, IsDB) and bilateral financing (the Netherlands, China) appear to be the most likely sources for SFM soft loan and grant financing in the next decade.

## **2. Expenditures by the commercial private sector for:**

- commercial timber production, including logging and transport;
- certification processes;
- development of NTFPs and environmental services;
- processing activities;
- marketing activities;
- capacity building activities;

Sources/instruments:

- Re-activation of a Loan Guarantee mechanism to promote bank financing;
- Amendment of the Investment Code;
- Tax exemptions and other incentives for NTFPs production;
- Establishment of a special window for SFM development within an Investment Promotion Agency (Investsur);
- Increased private incomes and or profits;
- Improved utilization of existing funds especially for improvement of efficiency and capacity building.

## **3. Expenditures by the forest communities and NGO's involved in SFM for:**

- programs and projects to increase awareness and capacity building on SFM;
- community forest investments in projects for sustainable timber, NTFPs and environmental services;
- replanting of commercial trees and fast growing species on abandoned areas after being submitted to shifting cultivation (slash and burn agriculture);
- sustainable management, including commercial management of protected areas;
- sustainable management and utilization of biodiversity;
- programs and projects to promote permanent agriculture techniques.

These activities, except the awareness increase program and promotion of permanent agriculture techniques, are of investment type and are private sector demand driven.

Sources/instruments:

- Soft loans and grants;
- Increased revenues from commercial management of protected areas;
- Re-activation of a Loan Guarantee mechanism to promote bank financing;
- Increased revenues from SFM.

**4. Expenditures by international private companies, including joint ventures with nationals or Government for:**

- production, processing and/or marketing of timber, NTFPs and environmental services;
- research to quantify products and environmental services in order to determine opportunity costs for establishing commercial businesses;
- capacity building activities.

Sources/instruments:

- Amendment of the Investment Code with a view to promoting foreign investment in timber and NTFPs production, including processing industries;
- Establishment of a special window for SFM development within an Investment Promotion Agency;
- Bi- or multilateral funding;
- Increased revenues from the commercial activities.

**Lessons learned**

Historically, Suriname has been very modest in its forest exploitation, using principles of SFM for public policy and concession policy. However, resource stewardship and forest conservation did not pay off financially to date.

If this remains unaddressed, unsustainable practices will seem to be more profitable than SFM and deforestation will be more tempting than sustainable resource use.

The current increase in formal and informal non-sustainable activities (particularly goldmining) by national and foreign companies is already alarming.

Compared to the forest surface area, the impact of these activities seems small but the negative impact on the environment and the human health is substantial, especially because of the impact on soil erosion and water quality.

Another lesson learned is that there is a lack of a comprehensive strategy and enabling environment to develop natural resources. The focus to date is attracting investments for bauxite, gold and petroleum, with seemingly less attention for other forest-related natural resources.

There is a growing market for NTFPs and environmental services, with increasing revenue potential (carbon storage, water supply, nature tourism, medicinal plants etc). By proper strategizing, Suriname could diversify and increase its income generation.

### **Recommendations and follow-up action**

A financing strategy should concentrate on improving revenue collection and securing SFM funding based on different elements for different operators with different needs. Strategic options/actions are recommended towards adequately increased financing of SFM. The recommendations are based upon the primary assumption that the forest sector has the potential to be a profitable productive sector, which could be self-financing and which could contribute to the national income and national economy on a sustainable basis.

The recommendations are:

1. Improve the enabling environment to stimulate private sector involvement in forestry by amongst others adjusting the existing relevant laws including government concession policy (including differentiation in timber, NTFPs, biodiversity and carbon concessions), providing financial incentives, facilitating transfer of technology, eradicating unnecessary bureaucracy, constructing and maintaining roads and water ways. Create an adequately mandated forest regulatory authority. Also, improve the enabling environment for the development of nature tourism, by amongst others adjusting visa policy and expansion of (inter)national transport facilities.
2. Address capacity needs for both private and public sector in assessing and utilizing existing and emerging finance mechanisms, and capacity for planning, enforcement, management, negotiating and research.
3. Establish a National Forest Fund (NFF) as a commonly used instrument to channel and administer financing for specified purposes in the forest sector.
4. Re-activate the existing foundation for a Loan Guarantee Fund with a special window for the forest sector because risks in the hinterlands are relatively greater than in the coastal plain.
5. Establish a special window for financing the sustainable development of NTFPs. Specific attention should be given to promoting the development of higher value added production, with special reference to niche market products.
6. Continue and finalize the process of effectively acknowledging collective land rights to Indigenous and Maroon communities. Rights to property are an important factor towards sustainable resource use and provide access to capital markets to finance investments.

7. Study the feasibility of charging environmental taxes on mining companies. The multinationals which are operating in Suriname are affiliated to international mining organizations which have regulations on 'Sustainable Mining Principles'. These guiding principles are of particular interest when negotiating with these multinationals.
8. Pursue biodiversity research contributing to the knowledge and understanding of the biological diversity and the function of the ecosystem of particular forest areas (i.e. genetic resources, pollination of crops, watershed function). Also study the value of the biodiversity of particular forest areas, not only in terms of its existing value but also the eventual value for future use.
9. Pro-actively explore financial mechanisms for carbon credits, especially the voluntary market and the concept of selling terrestrial carbon credits. Pro-actively support development of financial mechanisms for standing forests and sustainable managed forests. Meanwhile the GoS should consider some specific activities to be prepared once the situation changes in favor of standing forests (or carbon storage), in anticipation to the possibility that HFDL countries will be taken into consideration in the development of international financial mechanisms. Mechanisms as REDD require institutional adjustments and management authorities, accounting requirements, monitoring, benefit sharing mechanisms and land use planning. Consider hiring 'proven successful expertise' to market the value of Surinamese forests and their biodiversity assets.
10. Perform an assessment on the amounts of carbon stored in the forest, and changes in carbon stored under different management options. Develop a comprehensive land use plan in order to determine what percentage of the Surinamese forest can be issued for credits.
11. Liaise with other forest-rich countries that also have low deforestation rates such as Suriname and collectively explore opportunities. Also, increase participation in regional agendas such as the Amazon Cooperation Treaty Organization (ACTO) which comprises all eight Amazon countries.
12. Consider charging tourism fees, either national or local. The income of the entrance fee could support management of a specific protected area as well as local development projects, like restoration of landscape appeal in abandoned mining areas. Nationals should pay a reduced entrance fee in comparison with foreigners.



## SAMENVATTING

### Introductie

Deze studie omvat een inventarisatie en evaluatie van bestaande financieringsmechanismen in Suriname, met een nadruk op de bijdrage aan duurzaam bosbeheer (SFM), inclusief conservering van het bos.

Suriname valt onder de categorie van landen met een hoge bosbedekkingsgraad en een geringe ontbossing (HFLD land = high forest cover, low deforestation). Suriname heeft een geringe bevolkingsdichtheid met ongeveer 500,000 inwoners en 163,384 km<sup>2</sup> landoppervlak. Het bosoppervlak is ongeveer 90% van het totale landoppervlak. Uitgedrukt in bos per inwoner, is Suriname één van de meest bosrijke landen in de wereld, volgens de Wereld Voedsel en Landbouw Organisatie (FAO).

Het Surinaamse bos is de meest overvloedige natuurlijke hulpbron die het land bezit, doch is sterk onderbenut: bosgerelateerde economische activiteiten dragen op directe wijze slechts 2% bij aan het Bruto Nationaal Product (BNP), merendeels door duurzame exploitatie van hout, bosbijproducten en toerisme.

De niet-monetaire bijdrage van bossen aan het leefklimaat, vooral de indirecte economische bijdrage van stroomgebieden, bodem- en biodiversiteitconservering en wereldwijde klimaatstabilisatie door koolstofbinding, wordt echter niet uitgedrukt in termen van BNP en nationaal inkomen.

De in dit rapport geschatte directe en indirecte bijdrage van de bosgerelateerde economische activiteiten aan het BNP is ongeveer US\$ 98 miljoen (4%) waarvan:

- Direct: duurzame houtkap en industriële verwerking (US\$ 33 miljoen)
- Direct: duurzame productie van bosbijproducten (US\$ 5 miljoen)
- Indirect: niet-duurzame zwerflandbouw in agroforestry en landbouw (US\$ 35 miljoen)
- Indirect: duurzaam natuurtoerisme en andere betalingen voor milieudiensten (US\$ 25 miljoen).

Houtkap is de meest belangrijke duurzame economische activiteit in het bos, maar geschiedt zeer inefficiënt, met een geringe productiviteit van 0.11 m<sup>3</sup> rondhout per hectare (benuttingsgraad), overeenkomend met ongeveer 19% van het potentieel.

### Het ondernemingsklimaat in Suriname en de invloed daarvan op financiering van de bossector

Het macro-economisch beleid is stabiel, in het bijzonder het monetair beleid, resulterend in matige inflatie, geringe fiscale tekorten, een stabiele wisselkoers en een geringe nationale schuldenlast.

De economische ontwikkeling echter, is structureel verbonden aan investeringen in sectoren die geen duurzame sociaal-economische ontwikkeling bevorderen.

Het ondernemingsklimaat is niet zodanig faciliterend dat SFM en andere duurzame economische activiteiten worden gestimuleerd.

Dit rapport schat dat in 2007 ongeveer 32% van Suriname's BNP, 90% van de exporten en 40% van de publieke inkomsten werden gegenereerd door exploitatie van minerale hulpbronnen en waterkracht: exploitatie van aardolie, goud, bauxiet en de bijbehorende verwerkingsindustrie en de opwekking van waterkrachtenergie.

De beoordeling van de randvoorwaarden voor SFM heeft geresulteerd in het benoemen van factoren die een positieve invloed hebben op de financiering van de bossector en factoren die financiering van de bossector negatief beïnvloeden.

Factoren die een positieve invloed hebben op de financiering van de bossector zijn onder meer:

- Het nationale bosbeleid dat over het algemeen is gericht op duurzaam bosbeheer;
- Toenemende macro-economische stabiliteit en verbeterde krediet/debet ratios;
- Het bestaan van een landbouw- en bosbouw onderzoeksinstituut, namelijk het CELOS (weliswaar nog met onvoldoende onderzoekscapaciteit en -apparatuur).

Factoren die de financiering van de bossector negatief beïnvloeden zijn onder meer:

- Het ontbreken van een transparant investeringsbeleid, met specifieke stimuleringspremies en faciliteiten voor de bossector;
- Het ontbreken van formele collectieve grondtitels ter regulering van de grondenrechten van traditionele gemeenschappen;
- Geen of verouderde wet- en regelgeving, onder andere het concessiebeleid voor hout en bosbijproducten;
- Geen stimulerende Investeringswet, met duidelijk gedefinieerde incentieven, en die bescherming biedt aan nationale en buitenlandse investeerders;
- Beperkte deskundigheid voor toegang tot en gebruik van beschikbare fondsen;
- Toename in condities en vereisten om toegang tot beschikbare fondsen te hebben;
- Gebrek aan internationale regelingen voor HFLD landen zoals Suriname.

### **Mechanismen voor financiering van de bossector en hun effect op duurzaam bosbeheer**

De huidige financiële mechanismen hebben weinig ontwikkeling teweeg gebracht in de bossector. Ook is de directe financiële bijdrage van de bosgerelateerde activiteiten aan de nationale economie beperkt gebleven tot ongeveer 2% van het BNP.

Over het algemeen zijn de huidige financieringsmechanismen voor duurzaam bosbeheer onderontwikkeld, niet altijd beschikbaar, en voorzover beschikbaar, onder onaantrekkelijke voorwaarden.

De financieringsmechanismen voor de bossector zijn geëvalueerd voor de volgende vijf categorieën:

1. Nationale publieke sector (Centrale Overheid)
2. Internationale organisaties (bilateraal, multilateraal)
3. Nationale private sector
4. Gemeenschappen die in stamverband leven in het bos en NGO's
5. Internationale private sector

### **1. Financiering door de nationale publieke sector (Centrale Overheid)**

De overheid verkrijgt inkomsten van bosexploitanten middels gangbare en specifieke belastingen, heffingen en geldboetes. De jaarlijkse opbrengsten uit de houtsector bedragen ruim US\$ 1 miljoen. Deze opbrengsten zijn niet voldoende om uitgaven van de publieke sector voor SFM te financieren. Een geringe hoeveelheid van het overheidsbudget wordt geïnvesteerd in onderzoek, training, kennisontwikkeling en in een aantal projecten voor duurzaam bosbeheer. Kapitaalinvesteringen in fysieke infrastructuur (wegen, bruggen) voor de bosgebieden zijn gering en blijven beperkt tot het noodzakelijke onderhoud en reparatie. Vanwege begrotingstekorten wordt nauwelijks geïnvesteerd in de noodzakelijke verbetering van productie planning, productie controle, wetshandhaving en de financiering van technische assistentie en dienstverlening aan de private sector.

Externe financiering is noodzakelijk om de activiteiten van de publieke sector voor SFM te financieren, vooral voor conservering van bos en duurzame ontwikkeling van gemeenschapsbossen.

Gelet op de huidige lage houtopbrengsten en de gunstige export prijzen voor hout, heeft de houtsector een veel hoger inkomsten potentieel. Ook het potentieel van de handel in bosbijproducten wordt niet benut, bijvoorbeeld de handel van dieren in het wild, medicinale planten, sierplanten, vruchten en plantendelen.

### **2. Internationale organisaties (bilateraal, multilateraal)**

De Nederlandse overheid heeft geïnvesteerd in de bossector middels de Verdragsmiddelen, het Nederlandse investeringsbevorderende financieringsmechanisme PSOM (Programma Samenwerking Opkomende Markten) en haar eigen Milieu Fonds. Daarnaast zijn er nog substantiële fondsen die niet worden benut.

Multilaterale financieringsorganisaties en internationale NGO's hebben ook bos gerelateerde activiteiten gefinancierd. World Wildlife Fund Guianas (WWF) heeft een aantal studies en projecten in Suriname gefinancierd, onder andere op het gebied van duurzaam bosbeheer, beheer van dieren in het wild en kennisontwikkeling.

Suriname Conservation Foundation, met het Endowment Fund, heeft financiering verkregen van de Global Environmental Facility (GEF), Conservation International (CI), United Nations Forum (UNF) en uit de Verdragsmiddelen, speciaal voor conservering van biodiversiteit. United Nations Development Program (UNDP) en UNDP-GEF hebben ook de formulering van de Nationale Biodiversiteitsstrategie en Actieplan (nog in ontwikkeling) en het nationale Klimaat actieplan (nog in ontwikkeling), onderzoeksactiviteiten en kleine investeringen gefinancierd. Recentelijk heeft de IDB de uitvoering gefinancierd van drie studies voor de algemene ontwikkeling van het binnenland, inclusief opties voor bosbeheer. De International Tropical Timber Organization (ITTO) financiert duurzame houtproductie en marketing activiteiten.

Deze activiteiten worden niet gecoördineerd uitgevoerd, maar dragen wel bij aan de verbetering van de capaciteit voor duurzaam bosbeheer in het binnenland.

Internationale financiering voor *milieudiensten* blijft echter beperkt. Duidelijk is dat de mogelijkheden voor Suriname nog moeten worden onderzocht.

Suriname ontvangt geen internationale financiële compensatie voor het conserveren van in het bos aanwezige koolstof voorraden. Suriname heeft op dit moment weinig mogelijkheden om in aanmerking te komen voor Reduced Emissions on Deforestation and forest Degradation (REDD) credits en weinig financieringsmogelijkheden voor herbebossing onder het Clean Development Mechanism (CDM).

Het is te verwachten dat de handel in water in de toekomst veel belangrijker zal worden dan de huidige CO<sub>2</sub> handel, zowel in kwaliteit als in volume. De internationale vraag naar water is snel aan het toenemen.

### **3. Nationale private sector**

Financieringsinitiatieven door de nationale commerciële private sector zijn beperkt gebleven. Commerciële bankleningen hebben tot nu toe geen grote rol gespeeld in het financieren van bosbouw projecten in Suriname. Het totale krediet dat door de formele banksector aan de bosbouwsector is verstrekt, is zeer laag, ongeveer 0.2% van de totale bankleningen.

Vanwege het algemene investeringsklimaat voelen banken zich niet aangemoedigd om leningen te verstrekken aan met name nieuwe klanten voor wat zij als een risicogebied (de bossector, in het binnenland) beschouwen.

De twee kredietorganisaties, GODO en De Schakel spelen weliswaar een belangrijke rol in het mobiliseren van (micro)besparingen en aanbieden van (micro) kredieten aan hun leden, maar hun bijdrage aan financiering van de bossector is beperkt.

Bedrijven opgericht door gemeenschappen in het binnenland worden gefaciliteerd door het verstrekken van Houtkapvergunningen (HKVs), doorgaans aan het dorpshoofd. Vanwege onvoldoende financiële middelen, gebrekkige apparatuur, onvoldoende milieubewustzijn en onvoldoende capaciteit met betrekking tot duurzaam bosbeheer, verhuren deze dorpshoofden de HKVs aan private houtkapbedrijven, die beter in staat zijn om financiële investeringen te plegen.

Afgezien van een aantal subsidies van WWF Guianas en het UNDP Small Grants Program, worden voornamelijk spaargelden en eigen inzet geïnvesteerd in kleinschalige agroforestry activiteiten in het binnenland van Suriname.

Het volume van de informele financiële markt is substantieel. Het omvat leen- en spaarsystemen tussen families, vrienden en overschrijvingen van relaties uit het buitenland. De geldhoeveelheid die uiteindelijk in duurzaam bosbeheer terechtkomt wordt geschat op min of meer gelijk aan de formele kredieten die door de commerciële banken worden verschaft.

#### **4. Gemeenschappen die in stamverband leven in het bos en NGO's**

Inheemse en Marron gemeenschappen hebben geringe toegang tot formele financieringsbronnen. Ze zijn meestal betrokken bij zelfvoorzienende financiële activiteiten, met uitzondering van de commerciële houtwinning, natuurtoerisme en goudwinningsactiviteiten die in bepaalde Marron gemeenschappen worden uitgevoerd.

Vele Inheemse en Marron gemeenschappen verdienen hun bestaan door houtwinning (inclusief verhuur van de HKV), verzamelen en verhandelen van bosbijproducten, of verzamelen bosbijproducten dagelijks voor hun eigen levensonderhoud.

Het potentieel van liefdadigheidsinstellingen (zowel nationaal als internationaal) dat voorziet in financiering van bosbouw activiteiten, is onderbenut. Een aantal sociale en milieu NGOs/CBOs zijn actief in kleinschalige gemeenschapsprojecten, maar hun invloed is relatief gering.

Natuurtoerisme in Suriname is zich aan het ontwikkelen. Financiering van specifieke projecten door nationale en internationale donoren en/of service clubs vindt plaats in bijvoorbeeld natuurtoerisme activiteiten. Additionele financiering is echter nodig om de kwaliteit van de toerismefaciliteiten, aanwezige infrastructuur en dienstverlening te verbeteren. Op nationaal niveau dienen ook de randvoorwaarden voor groei van toerisme te worden verbeterd zoals het visumbeleid en (inter)nationale transportverbindingen.

#### **5. Internationale private sector**

Het volume van buitenlandse investeringen in Suriname is gering.

Chinese houtkapbedrijven in Suriname hebben hun eigen financieringssystemen buiten de nationale banksector, met lage rentes. Het systeem schijnt goed te werken.

### **Beoordeling van de financieringsmechanismen in de Surinaamse context**

De beoordeling van de financieringsmechanismen resulteerde in het benoemen van factoren die financiering van de bossector stimuleren zoals toenemende interesse van buitenlandse financieringsinstellingen om leningen te verstrekken en afnemende trend in hoogte van lokale commerciële rente tarieven.

Ook heeft de beoordeling van de financieringsmechanismen geresulteerd in het benoemen van factoren die financiering van de bossector juist belemmeren zoals een gering overheidsbudget en onvoldoende fondsen ter stimulering van duurzame bosexploitatie en risicomijdend gedrag van de lokale banken.

## **Voorwaarden en elementen van een mogelijke Nationale Financieringsstrategie voor het bos**

Bij financiering van de bossector dient rekening te worden gehouden met uitgaven van vier categorieën van gebruikers. Elk van deze gebruikers heeft zijn eigen specifieke financieringsbehoefte. Onderstaand worden de huidige en mogelijke financieringsbronnen/instrumenten genoemd voor elke categorie.

### **1. Uitgaven door de publieke sector (Centrale Overheid en parastatalen) voor:**

- Fysieke infrastructuur: wegen, bruggen, watervervoer, havens;
- Dienstverlenende taken zoals planning, zonerings, controle, veiligheid, onderzoek, training en andere taken die de overheid verricht voor de private sector.

Financieringsbronnen/instrumenten:

- Toegenomen overheidsinkomsten afkomstig van nieuwe betalingen voor milieudiensten en economische groei in de houtsector en in de mijnbouw industrie;
- Zachte financiering en subsidies afkomstig van Officiële Ontwikkelingshulp (ODA), inclusief multilaterale financieringsinstituten (MFI's).

De drie meest voor de hand liggende inkomstenbronnen voor de overheid zijn

1) inkomsten uit internationale betalingen van milieudiensten, met name voor de klimaatstabiliserende diensten en conservering van biodiversiteit, 2) toegenomen overheidsinkomsten uit de productie van hout- en bosbijproducten en 3) toegenomen overheidsinkomsten uit de mijnbouw- en de toerisme sector. Intensiever lenen van MFI's (IDB/IIC, Wereldbank, EDF/EIB, IsDB) en bilaterale financiering (Nederland, China) schijnen in de naaste toekomst de meest voor de hand liggende financieringsbronnen voor zachte leningen en subsidies te zijn.

### **2. Uitgaven door de nationale private sector ten behoeve van:**

- Commerciële houtproductie, inclusief houtkap en transport;
- Certificeringsactiviteiten;
- Ontwikkeling van bosbijproducten en milieudiensten;
- Verwerkingsactiviteiten;
- Marketing activiteiten;
- Capaciteitsopbouw.

Financieringsbronnen/instrumenten:

- Heractiveren van het 'Garantie fonds' om financiering door banken te bevorderen;
- Wijzigen van de Investeringswet;

- Belastingvrijstelling en andere incentieven voor productie van bosbijproducten;
- Instellen van een speciaal loket in de ‘Investment Promotion Agency (Investsur)’ voor de ontwikkeling van duurzaam bosbeheer;
- Toegenomen private inkomsten en winsten;
- Verbeterd gebruik van bestaande financieringsmechanismen, vooral ten behoeve van efficiëntie verbetering en capaciteitsopbouw.

**3. Uitgaven door gemeenschappen die in stamverband leven in het bos en NGO’s voor:**

- Programma’s en projecten voor kennisontwikkeling en capaciteitsopbouw ten aanzien van duurzaam bosbeheer;
- Investeringsprojecten voor duurzame houtwinning en de ontwikkeling van bosbijproducten en milieudiensten;
- Planten van snelgroeibomen en commerciële houtsoorten op verlaten gronden die onderhevig zijn geweest aan zwerflandbouw;
- Beheer, inclusief commercieel beheer, van beschermde gebieden;
- Beheer en benutting van biodiversiteit;
- Programma’s en projecten ter bevordering van permanente landbouwtechnieken.

Deze activiteiten zijn investeringsgericht en vraag-gedreven door de private sector, met uitzondering van de programma’s ten behoeve van kennisontwikkeling en permanente landbouw.

Financieringsbronnen/instrumenten:

- Zachte leningen en subsidies;
- Toegenomen inkomsten uit commercieel beheer van beschermde gebieden;
- Heractiveren van het ‘Garantie fonds’ om financiering door banken te bevorderen;
- Toegenomen inkomsten uit duurzaam bosbeheer.

**4. Uitgaven door internationale private bedrijven, inclusief joint ventures met Surinaamse bedrijven of met de overheid, voor:**

- Onderzoek naar mogelijkheden voor commerciële exploitatie van milieu goederen en diensten;
- Productie en/of verwerking en marketing van hout, bosbijproducten en milieudiensten;
- Capaciteitsopbouw.

Financieringsbronnen/instrumenten:

- Wijzigen van de Investeringswet met als doel het bevorderen van buitenlandse investeringen in de houtsector en de productie van bosbijproducten in Suriname, inclusief de verwerking.

- Instellen van een speciaal loket in de ‘Investment Promotion Agency (Investsur)’ voor de ontwikkeling van duurzaam bosbeheer.
- Bi- of multilaterale financiering.
- Toegenomen inkomsten uit commerciële activiteiten.

### **Geleerde lessen**

Suriname is tot nu toe zeer bescheiden geweest in het exploiteren van haar bos, waarbij er principes van duurzaam bosbeheer zijn toegepast. Echter, het instandhouden van het bos heeft Suriname financieel weinig opgeleverd. Indien dit zo blijft zal het financieel voordeliger blijken om niet-milieuvriendelijke activiteiten te ontplooiën en zal ontbossing aantrekkelijker blijken dan duurzame exploitatie van het bos. Nu al is de huidige toename van legale en illegale niet-duurzame activiteiten (in het bijzonder goudwinning) door nationale en buitenlandse ondernemingen in de bosgebieden verontrustend. Hoewel gering ten aanzien van het bosareaal (ontbossing), is er een grote negatieve invloed op het natuurlijk milieu en de menselijke gezondheid, in het bijzonder vanwege de impact op bodem erosie en waterkwaliteit.

Ook ontbreken een uitgebreide strategie en randvoorwaarden voor de ontwikkeling van natuurlijke hulpbronnen. Tot nu toe is de aandacht van beleidsmakers sterk gericht geweest op het aantrekken van investeringen voor de bauxiet-, goud- en aardolie sector, en is er geringe aandacht geweest voor duurzame bosgerelateerde natuurlijke hulpbronnen. Er is echter een groeiende markt voor bosbijproducten en milieudiensten. Door strategisch te plannen en beleid daarop te ontwikkelen kan Suriname diversificatie en toename bewerkstelligen in de publieke inkomstenstroom.

### **Aanbevelingen en vervolgactiviteiten**

Een financieringsstrategie dient zich vooral te richten op het verbeteren van de inkomsten door duurzaam bosbeheer en dient te zijn gebaseerd op verschillende elementen voor de verschillende gebruikers: elk heeft zijn eigen financieringsbehoeften. Strategische opties/acties worden aanbevolen die financiering van duurzaam bosbeheer bevorderen. De aanbevelingen zijn gebaseerd op de veronderstelling dat de bossector het potentieel heeft om een winstgevende productieve sector te worden, die zichzelf financiert en die wezenlijk bijdraagt aan het nationaal inkomen en de nationale economie, op een duurzame basis.

De aanbevelingen zijn:

1. Verbeter de randvoorwaarden voor de private sector ten aanzien van bosbouw, door het aanpassen van onder andere de bestaande wetgeving, inclusief het nationaal concessiebeleid (inclusief differentiatie in hout, bosbijproducten, biodiversiteit en koolstof concessies); verschaft financiële incentieven; faciliteer overdracht van kennis en technologie; verminder onnodige bureaucratie; construeer en onderhoud wegen en waterwegen. Creëer een gemandateerde bosbeheer autoriteit. Verbeter ook de randvoorwaarden voor de ontwikkeling van natuurtoerisme, door onder andere het aanpassen van het visumbeleid en het creëren van (inter)nationale transportmogelijkheden.
2. Verbeter de capaciteit van zowel de private- als de publieke sector in het benutten van bestaande en nieuwe financieringsmechanismen, en de capaciteit voor planning, wetshandhaving, management, onderhandelingsvaardigheden en onderzoek.
3. Stel een Nationaal Bossenfonds in als algemeen middel om financieringen voor specifieke doeleinden in de bossector te kanaliseren gericht op duurzaam bosbeheer.
4. Heractiveer het Garantiefonds, met een speciaal loket voor duurzame bosbouw, omdat de risico's in het binnenland relatief groter zijn dan in de jonge kustvlakte.
5. Creëer een speciaal loket voor de financiering van duurzame exploitatie van bosbijproducten. Speciale aandacht moet er zijn voor het ontwikkelen van hogere toegevoegde waarden en de ontwikkeling van producten voor niche markten.
6. Continueer en finaliseer de toekenning van collectieve landrechten (grondtitels) aan de Inheemse- en de Marrongemeenschappen. Landrechten zijn essentieel voor duurzaam gebruik van de bossen en ze bieden toegang tot kapitaalmarkten om investeringen te financieren.
7. Onderzoek de haalbaarheid om belasting te heffen bij de multinationals voor het aantasten van het bos en het aantasten van de waterregulerende functie. De multinationals die in Suriname actief zijn, zijn gerelateerd aan internationale mijnbouw organisaties die zich geïnteresseerd hebben aan gedragsregels, zogenaamde 'Sustainable Mining Principles'. Deze principes zijn vooral van belang tijdens onderhandelingen met de multinationals.
8. Bevorder biodiversiteits-gerelateerd onderzoek, dat bijdraagt aan kennis en begrip over de biologische diversiteit en het functioneren van ecosystemen van bepaalde bosgebieden (bijvoorbeeld genetische bronnen, bestuiving van planten). Doe onderzoek naar de biodiversiteitswaarde van bepaalde bosgebieden, niet alleen in termen van huidige, maar ook toekomstige waarde.

9. Bestudeer financiële mechanismen voor carbon credits, met name de vrijwillige markt en het concept van de handel in terrestrial credits. Ondersteun pro-actief, de ontwikkeling van financieringsmechanismen voor bestaand bos en duurzaam beheerd bos. Wees voorbereid op compensatiemechanismen en anticipeer op de mogelijkheid dat de situatie van HFLD landen zal worden meegenomen in de ontwikkeling van internationale financieringsmechanismen. Mechanismen als REDD vereisen institutionele veranderingen, rekenkundige modellen, monitoring, mechanismen voor het verdelen van gelden, en landgebruiksplannen. Overweeg het aantrekken van bewezen succesvolle expertise om de waarde van de Surinaamse bossen te vermarkten.
10. Bepaal de hoeveelheid koolstof die is vastgelegd in het bos en veranderingen in koolstof hoeveelheden in geval van gewijzigde beheersopties. Ontwikkel een landgebruiksplan, om daarna het percentage Surinaamse bos dat beschikbaar kan worden gesteld voor CO<sub>2</sub>-credits te bepalen.
11. Ga overeenkomsten aan met andere bosrijke landen, die ook een dergelijke lage ontbossingsgraad hebben als Suriname en onderzoek gezamenlijk de mogelijkheden. Participeer ook in regionale agenda's zoals in die van de Amazon Cooperation Treaty Organization (ACTO), waarin alle acht Amazone landen zijn vertegenwoordigd.
12. Overweeg de optie van toerisme vergoedingen. Zulke vergoedingen kunnen nationaal zijn of lokaal. De inkomsten uit de toegangsgelden kunnen het beheer van een specifiek beschermd gebied financieren, maar ook de ontwikkeling van lokale projecten, zoals de rehabilitatie van uitgemijnde gebieden. Surinamers moeten een lager tarief betalen dan buitenlanders.

# 1 Introduction and background

This study presents a national inventory and evaluation of existing finance mechanisms in Suriname with a focus on the support of sustainable forest management, including conservation of forests. The study aims at addressing the existing financing sources, mechanisms, and current policies, strategies and structures for the forest sector, in order to improve financing of Sustainable Forest Management (SFM) in the future. As a result, this inventory will contribute to the development of a national forest financing strategy for Suriname and will contribute to a fundamental discussion about an appropriate portfolio of finance mechanisms for SFM. The conceptual framework for a national forest financing strategy, attached as **Annex A**, was used as a guideline during the study.

The objectives of the study are:

- To describe recent past, current and future forest sector financing systems and related mechanisms including innovative new initiatives.
- To assess the strengths and weaknesses towards SFM financing.
- To formulate lessons learned about their application for SFM.

This study, defined as ‘*the Suriname Case Study*’ also facilitated discussions during the Country-Led Initiative (CLI) meeting in September 2008 in Suriname on forest finance, in order to create optimal participation of stakeholders at the CLI meeting and to further discussions.

The CLI meeting from 8 – 12 September 2008 has been organized by Suriname and co-hosted by the Netherlands and the United States of America. The objective of this CLI was to provide technical input into the Ad Hoc Expert Group (AHEG) and the United Nations Forum on Forests (UNFF) process, taking into account other regional and international processes and country experiences in the field of forest finance.

The UNFF process, as mentioned above, is linked with the decision of the General Assembly of the United Nations on the Non-Legally Binding Instrument (NLBI) on all types of forests on 17 December 2007 (Resolution 62/198).

As part of this resolution, it was decided:

- To develop and consider, with a view to adopting at the eighth session of the UNFF 8 (April 2009), a voluntary global finance mechanism / portfolio approach / forest finance framework for all types of forests, aiming at mobilizing significantly increased, new and additional resources from all sources, based on existing and emerging innovative approaches, also taking into account assessments and reviews of current finance mechanisms, to support the implementation of sustainable forest management, the achievement of the global objectives on forests and the implementation of the non-legally binding instrument on all types of forests;

- That the Forum should convene before its eighth session an open ended AHEG meeting (November 2008) to develop proposals for the development of a voluntary global finance mechanism / portfolio approach / forest finance framework, and invited the Collaborative Partnership on Forests to assist in the development of these proposals.

## **2 Scope of the study**

This study covers the financing of SFM in a wide sense, including conservation, taking the multi-functionality of forests as a starting point. It includes the sustainable management for goods, such as timber and ‘non timber forest products’ (NTFPs), and for environmental services, such as nature based tourism, carbon storage and sequestration, and preservation of biodiversity, taking into account the traditional lifestyle of forest communities such as the Indigenous and Maroon communities and the development objectives of the Government of Suriname (GoS). Where appropriate, both production and processing aspects have been included. A broad array of finance mechanisms has been examined, including public and private mechanisms, formal and informal mechanisms, national and international mechanisms and investment and payment mechanisms.

The study is intended as a qualitative assessment (a quick scan). It provides an overview covering finance mechanisms and discussing their relative importance, strengths and weaknesses, opportunities and threats (SWOT) within the Surinamese context. The eventual result of the assessment study provides elements and recommendations for improved financing of SFM and further data collection and studies.



### 3 Approach followed during the study

The study was commissioned by Tropenbos International (TBI) Suriname and financed by the Ministry of Agriculture, Nature and Food Quality of the Netherlands (LNV). The study was prepared by a team of four national consultants.

The consultants are Mrs. Sheila Bhairo-Marhé as team leader, and team members Mr. Winston Caldeira, Mr. Cornelis Pigot and Mr. Winston Ramautarsing.

The consultants worked closely with the Ministry of Physical Planning, Land and Forest Management (ROGB), the Foundation for Forest Management and Production Control (SBB), TBI Suriname and LNV.

A Presidential Taskforce (PTF) was established, charged with the duty to prepare the CLI meeting and to guide the work on the study. The members of the PTF were:

Ambassador E. Limon	Ministry of Foreign Affairs
Mrs. N. Hindori-Badrising	Cabinet of the President of the Republic of Suriname
Mrs. C. Blom	Cabinet of the President of the Republic of Suriname
Mrs. I. Sandel	Ministry of Planning and Development Cooperation
Mrs. M. Djosetro	Ministry of Physical Planning, Land and Forest Management
Mrs. H. Uiterloo	Ministry of Labor, Technological Development and Environment
Mrs. M. Playfair	Centre for Agricultural Research in Suriname
Mr. R. Somopawiro	Foundation for Forest Management and Production Control
Mrs. S. Bijlhout	Ministry of Finance

The consultancy team interviewed representatives of key Ministries, Governmental Institutions, donor agencies, forest sector companies, private sector financing institutions, Non Governmental Organizations (NGO's) and representatives of the tribal communities. The list of persons interviewed is attached in **Annex B**. The consultancy team also collected and studied background documentation (**Annex E**), but it should be noticed that national statistics on topics, other than timber logging, is limited.

A meeting with key stakeholders and informants took place at the beginning of the study, with the objective to discuss the contents of the report and prepare for a national workshop in June 2008.

A national pre-CLI workshop and training (16 – 19 June 2008) was organized by TBI Suriname, with the objective to discuss the implications for financing SFM in Suriname.

The results of the national workshop, together with the results of interviews and desk study are integrated in the final report.



## 4 Setting

### 4.1 The economy

The economy of Suriname is very small and highly open, with external trade in goods and services (import plus export) around 65% of GDP.

GDP was estimated to be US\$ 2,377 million (SRD 6,609 million) in 2007 by the General Bureau of Statistics (ABS). This report estimates the following shares in GDP:

- mining and related processing industries 32%
- agriculture, fisheries and their domestic raw material-based related processing industries 9%
- sustainable forestry and sawmilling of domestic roundwood 2%
- non-resource (import) based manufacturing 8%
- utilities and construction 4%
- commercial services 30% and
- public services 15%, mostly Government

A Dutch study (Unger 2008) recently reported external financing through remittances from family members from the Netherlands to be around € 115 million per annum, representing 85% of the total remittances received in Suriname.

The total amount of remittances received in Suriname is therefore estimated at around € 135 million per annum, equivalent to US\$ 185 million (at an exchange rate of € 1.00 = US\$ 1.37), i.e. 8% of GDP. A very small amount of the remittances end up financing SFM production activities since these income transfers (non-savings) are used consumptively by the poorest that receive such aid.

In the past decade mining (petroleum, bauxite, gold), tourism and construction have shown strong growth (above 5% per annum), while other sectors remained stagnant (agriculture, forestry) or experienced low growth (non-resource based manufacturing, services other than tourism).

The main financing characteristics for economic development are:

- Dependence on grant financing (Dutch bilateral funds and EU), although its contribution decreased from 9% (1982) to presently 2% of GDP. Further decrease is envisaged in the next few years when Dutch Treaty Funds will be exhausted.
- Dominance of foreign direct investment (FDI) in the non-sustainable, environmentally damaging, and resource depleting mining sector (bauxite and gold).
- Negative national savings leading to heavy dependence on FDI and ODA.
- Poorly developed alternative financing, in the absence of increased domestic and national savings.

- Relatively little external borrowing from multilateral financing institutions, alternative bilateral and commercial borrowing and little use of portfolio investments by e.g. World Bank and IDB.
- Little development of local capital markets.

## 4.2 The forest sector

Suriname is categorized as a high forest cover, low deforestation country, with a very low population density. Suriname has a population of approximately 500,000 inhabitants on 163,384 km<sup>2</sup> land surface area.

The forest area covers approximately 90% of the land area, establishing Suriname as one of the most forest-rich country in the world, in terms of forests per capita, according to the Food and Agricultural Organization (FAO). The country contributes worldwide to SFM by conserving its natural forests, with 13% of total forest land allocated for protected forests, 57% as reserve forests, and only 30% as production forests, of which less than half is issued as timber concessions (2 million ha).

The forests with its valuable biodiversity quality thus represent an important natural resource available for socio-economic development and human well-being. Despite being Suriname's most abundant natural resource, the forest is considered as 'under-utilized', as it contributes directly only 2% to Gross Domestic Product (GDP), of which most is considered sustainable (timber and NTFP) forest exploitation. However, the non-monetary contribution of forests to human well-being is not expressed in terms of GDP and national income, e.g. the indirect economic contribution from watershed management, soil and biodiversity conservation and worldwide climate stabilization through carbon fixation.

This report estimates the wider forest-related economic activities' directly and indirectly contributing to GDP roughly at US\$ 98 million (4% of GDP) through<sup>1</sup>:

- Directly: sustainable forest logging and industrial processing (US\$ 33 million)
- Directly: sustainable production of non-timber forest goods (US\$ 5 million)
- Indirectly: non-sustainable shifting cultivation in agroforestry and agriculture (US\$ 35 million)
- Indirectly: sustainable nature related tourism and other paid for services (US\$ 25 million).

Timber production is around 160,000 m<sup>3</sup> roundwood per annum, i.e. less than 19% of its potential, since the potential sustainable production from the 2 million hectares concessions issued for timber production is at least 850,000 m<sup>3</sup> per annum.

---

<sup>1</sup> Sustainable forest use is understood as using natural resources without affecting abilities of future generations to meet their needs.

This estimate of potential roundwood production is based on 2 million hectares timber concessions issued, of which an estimated 1.7 million hectares is suitable for logging.

A minimum of 0.5 m<sup>3</sup> roundwood per ha per year is further assumed for areas suitable for logging, considering a sustainable cutting cycle of 30 years and a minimal sustainable productivity of 15 m<sup>3</sup> roundwood per ha logged (SBB). However logging activities are mostly taking place in easily accessible parts of the forest. This results in the overlogging of some forest areas.

Logging in Suriname is restricted to an area within reach of road and river transport systems, known as the Forest Belt. The Forest Belt covers some 4.5 million ha, of which 2.0 million ha is issued as timber concessions to private entrepreneurs (1.5 million ha) and tribal communities (507,000 ha).

During the 1986-1991 armed struggle in the interior (referred to as the insurgency in the interior) logging and forest control was practically halted, since safety of equipment and personnel could not be guaranteed. Logging was resumed after the Government reached an agreement which halted the armed struggle.

Shifting cultivation (a sequence of slash and burn the forest, land cultivation for a 2 - 4 years, followed by several years of land recovery) is a traditional type of agriculture which becomes unsustainable when population pressure and/or increase of production becomes higher than the land can sustain. This is now the case in several parts of the hinterlands. Shifting cultivation has been applied one or more times on an estimated 250,000 ha of forest land (estimated by CELOS/NARENA).

Thus, 1.6% of total forest land has been converted towards agriculture, i.e. a high 20 ha average deforested land per household (12,500 households from 50,000 inhabitants) because land was used extensively, with a recovery period of 25 years. This report estimates shifting cultivation per household at 20 ha per 25 years, i.e. an average 0.8 ha cultivated per year, providing a low agricultural income of less than US\$ 1,440 per household per annum (SRD 4,000/year), due to non-intensive land use. The shift towards permanent and more intensive sustainable agriculture is an important challenge.

Suriname has established eleven nature reserves, one Nature Park and four Multiple Use Management Areas (MUMA), with a total of formally protected land area of 2.1 million ha. The conservation areas thus encompass 13% of the land area of Suriname.

Important forest sector characteristics are:

- 1) Suriname is a High Forested Low Deforestation (HFLD) country with 14.8 million ha natural forests and approximately 500,000 inhabitants.
- 2) The government of Suriname owns close to 97% of all forest lands.
- 3) Suriname has rich natural resources for SFM, which are substantially underutilized, especially for timber production (19% of potential), non-timber goods (among others water, medicinal and ornamental plants), nature tourism and for carbon stocks and sequestration.

- 4) Deforestation has been limited to 3% of original forest lands (since 1650), i.e. on average less than 0.1% deforestation per year.
- 5) The financial contribution of the forest-related activities to the economy is approximately 4% of GDP, employment is less than 4%, export earnings from forest related goods and services are less than 1% of total.
- 6) Public revenues from forest lands do not cover public expenditures for SFM, including maintenance of infrastructure, forest control, research, management of protected areas. This causes insufficient public financing of SFM as well as heavy dependence on bilateral and multilateral grant funding.
- 7) There is no full fledged plan with detailed zoning for multiple forest resource use, but the Government has allocated 16% of total forest lands to be used for commercial forest exploitation, i.e. 14% for sustainable forest logging and only 2% for exploitation with deforestation for hydropower development, mining, and agriculture.
- 8) Another 14% of forest lands have been reserved for the eventual issuance of additional timber logging concessions.
- 9) Around 13% of forest lands are declared and managed as protected areas, including Multiple Use Management Areas (MUMA's), nature reserves, Nature Park, and special protected forests (mangrove, river banks).
- 10) 57% of forest lands are reserve forest, which has no special allocation, is mostly located in the southern high hill hinterlands, which is uninhabited and inaccessible by car.

## **5 Policy context**

### **5.1 General**

National forest policy and national biodiversity strategy are highly influenced by international policy developments, especially worldwide increased awareness on the need to conserve and sustainably use biodiversity and thus sustainably managed forests. The national and international policy objectives can be combined very well with mutual benefits to be achieved. The international trend to achieve (i) green certification labels for forest products, and (ii) payments for international environmental services, fits well into the national objectives of forest preservation. However, in the absence of clear cut international arrangements, Suriname will have to take action to position itself well to achieve the desired benefits from its resources, while public ownership of 97% of the forests requires actions foremost from the government. In this regard strengthening institutional capacity is a key policy instrument.

The country is characterized by a very low population density, very high forest coverage and low deforestation, without the financial and economical returns the country needs. Suriname does not yet benefit sufficiently from its forest resources, both nationally and internationally, and will therefore have to increase its efforts to exploit its forest resources in a sustainable way and at the same time ensure its fair share in receiving global payments for environmental services, through a set of actions including international participation and alliances.

### **5.2 The business climate in Suriname**

Economic and political stability in recent years have created a more attractive investment climate. There has been an increased interest in investment in Suriname from local and international investors.

However, there is insufficient investment and growth in sustainable natural resource based activities, namely agriculture, fisheries, and forestry. Such, despite a favorable natural resource base, especially agricultural land, water, and forest resources. There has been a lack of financing of these natural resource based sectors and their related industries, mostly due to:

- predominant reliance on public and foreign direct investment in mining
- poor enabling business environment, that should promote private investment in sectors with sustainable production systems, including SFM
- consumptive allocation (civil service) of public revenues from mining
- dependence on bilateral and multilateral grants for investments
- substantial loss of preferential treatment in EU markets (rice, bananas)
- slow and limited privatization of failed state owned enterprises in agriculture and forestry.

The legislative framework in Suriname is often not stimulating the sustainable development of the forest due to:

- the existence of a unclear investment policy framework with inadequate specific incentives, arrangements, and facilities for the production sectors;
- the existence of a large number of laws and regulations often implying limitations, rather than offering sufficient facilities, incentives and perspectives to the sector.

Bureaucratic procedures are mostly neither sufficiently streamlined nor transparent. The Chamber of Commerce opened up a "One-stop Window" aimed at simplifying the process of setting up a business and/or renewing business documents. This effort is a first step in improving the cumbersome procedural hurdles, which, as the IFC/ World Bank Foreign Investment Advisory Service (FIAS) noted, have caused some businesses to endure a two-year registration process.

The labor market is heavily distorted. Employment, to date, is mainly provided by the government as a major employer (45% of total employment), with substantial hidden unemployment. As a consequence the labor capacity for forestry is little. Hidden unemployment and underemployment are also substantial in trade, banking and similar services.

Apart from the distorted labor market and a national savings gap, the macro-economic policies are satisfactory, including monetary policies resulting in moderate inflation and low fiscal deficits, together with low indebtedness and a stable foreign exchange rate. However, the country's economic development is structurally skewed towards investment in sectors that do not promote sustainable socio-economic development. Fortunately, during the past decade the tourism sector has experienced high growth, and has proven to be a sector with good potential for sustainable development, including forest related nature tourism.

This report estimates that in 2007 approximately 32% of Suriname's GDP, 90% of the country's exports and 40% of public revenues were generated from the exploitation of its mineral and hydropower resources: mining of petroleum, gold, bauxite and their related industries, and generation of hydroelectricity.

Except for on-shore petroleum mining, the financing of investments in production sectors is predominantly based on direct foreign investment in the aforementioned sectors. Also, recent and future planned economic growth, are predominantly based on expansion of mining (petroleum, gold, bauxite) and related processing industries, and hydropower.

These activities are non-sustainable and environmentally unfriendly, while they provide employment to less than 4% of the national workforce.

Mining, however, can become a meaningful contributor to sustainable socio-economic development if its contribution to public revenues are maximized and used to finance sustainable development in other sectors. This, however, requires far reaching public sector reform, since a large portion of public revenues is absorbed by the large civil service, inefficiencies and a high level of subsidies.

### **5.3 The enabling conditions for SFM**

#### **Policy**

In 2003 a National Forest Policy document was formulated in a participatory process with stakeholders and declared as official policy document. The National Forest Policy is a balanced policy and conducive for achieving sustainable forest management.

In addition a draft Interim Strategic Plan for Sustainable Multiple Forest Use was formulated in October 2007, which is envisaged to soon be approved by the GoS.

Increasing timber production, renovation and expansion of the local wood processing industry and increasing exports are firm objectives set by the National Forest Policy. The Government has identified priority actions to set the required process change into motion. However, many constraints have to be dealt with to effectively realize these objectives.

In the 2003 report of the International Tropical Timber Organization (ITTO), an attempt was made to rank the identified constraints. This is based on the assumption that certain constraints may be of a higher order than others, which means that elevation of a higher ranking constraint is a condition for elevation of constraints at lower levels. This concept has led to the following hierarchy of constraints and opportunities:

1. Policy and legal framework
2. Land tenure
3. Concession reform
4. Financing infrastructure

The conclusion is that the elevation of the forest financing constraints will only have limited impact if the constraints at the higher level are not simultaneously addressed.

#### **Legislation**

The Nature Conservation Act and the Game Act cover the conservation of nature and biological diversity and hunting, but both are outdated and need to be revised.

The Forest Management Act of 1992 covers sustainable and rational use of forest resources, taking into account the interests and needs of forest communities (shifting cultivation, modern agriculture), with a focus on timber production, including:

- i. classification of forests: reserve, production, conservation, and conversion forests
- ii. rules and regulations for sustainable forest management, with a focus on rational and sustainable use of timber forest concessions issued
- iii. regulations for forest transport and timber processing

A draft Environmental Framework Act has been formulated, which is being discussed in the Council of Ministers for approval. The Environmental Framework Act will have important consequences for amongst others the issuance of timber concessions (licenses) and timber processing units especially by requiring Environmental Impact Assessments.

### **Institutions in charge of forests**

The Ministry of ROGB is responsible for the utilization and management of forest resources and the implementation of the forest policy. The semi-autonomous foundation SBB was established in 1998 as a first step towards the establishment of a Forest and Nature Management Authority (BOSNAS). One of its major duties is to put the forest production sector under effective control by ensuring that producers conform to regulations.

SBB is in charge of forests and derives its mandate from the Forest Service (LBB, Dienst Bosbeheer). The LBB is still in charge of nature conservation and the management of nature reserves in collaboration with the Foundation for Nature Conservation (Stinasu). Preparations are now being made to establish one Forest and Nature Management Authority, which will be responsible for timber and non-timber regulation as well as forest protection.

The Ministry of Labor, Technological Development and Environment (ATM) is responsible for the incorporation of the National Biodiversity Strategy 2006 into a National Biodiversity Strategy and Action Plan (NBSAP) and for the eventual implementation of the NBSAP.

Other institutions dealing with SFM are the Ministry of Regional Development (RO) and the Ministry of Transport, Communications and Tourism (TCT). The Ministry of RO is responsible for the development of the rural districts of Suriname, with a focus on improving living conditions for people in the rural districts, including Surinamese hinterlands. TCT is responsible for the sustainable development of the tourism sector, with a focus on removing barriers in order to improve the already growing market for nature tourism.

### **Forest operations**

Until now, timber harvesting practices are by far the most important sustainable economic activity in the forest, but largely inefficient and with low productivity at 0.11 m<sup>3</sup> roundwood per hectare, around 19% of its potential, as explained under paragraph 4.2.

Recovery rate in sawmilling are estimated at only 32 - 37% of roundwood input. The timber processing is characterized by inadequate management, inadequate skilled workers, technology which is mostly obsolete, poorly maintained equipment, wood rests not fully utilized and inadequate transport equipment used to transport roundwood from the forest to the market. Even though most of the skidders are old, many of them are used below their present capacity, as most of the logging operations are small and scattered. Labor productivity in forest operations is low compared to neighboring countries.

Despite large forest resources, the monetary contribution of forests to the economy has been little, due to absence of certain enabling conditions:

- Absence of a proper land-use planning (zoning). Currently, the many small and scattered concessions hamper efficiency in the use of expensive infrastructure, especially in timber logging and reforestation, and for multiple forest use;
- The 1992 Forest Management Act is not always in accordance with modern principles of SFM, and in some cases counterproductive for forest industry development, especially its outdated concession policy (size, tenure period and type, spatial location, multiple forest use, user fees, conditionality and legislation);

- A lack of formal titling of the collective land property rights of traditional forest communities, resulting in the inability to issue and use individualized land right titles as a collateral when acquiring loans for investments. The communities can issue subtitles to individuals or groups within the tribal society, only after the collective land property rights are recognized through formal titling;
- Insufficient financing resources for multiple use and reforestation of community forests;
- Poor infrastructure in many areas with timber concessions issued;
- Insufficient programs for support services such as research and development and enhancement of skills in the production of timber and non-timber goods and services;
- Insufficient investments and poor access to financing resulting in outdated and poorly maintained equipment in logging operations and in sawmills;
- Insufficient capacity and awareness regarding SFM.

One of the positive developments is the recent establishment of the Suriname Business Forum (SBF), which is a platform for structural cooperation between the public and the private sector. The business goal of SBF is to create a climate that is conducive to business. In order to strengthen Suriname's competitiveness, the SBF will, among other things help ministries and other relevant agencies to comply with their international obligations that are relevant to the business community. Important tax incentives, such as the 'suspension mechanism' and the 'double taxation agreement', which will be applicable to Surinamese enterprises with Suriname's entry to the Caricom Single Market Economy (CSME), will be incorporated in the Surinamese legislation.

Another development is the establishment of the 'Platform Houtsector' (PHS) at the Chamber of Commerce that has become one of the active private sector coordinating forums on forest development issues.

## **5.4 Strategies considered for SFM**

### **5.4.1 Public sector strategy (Central Government)**

The National Biodiversity Strategy distinguishes seven goals with strategic directions which are the basis for the completion of the NBSAP. The NBSAP is in the process of becoming national policy. The NBSAP will serve as a guide to develop the economy and manage the natural resource base of Suriname in a manner that sustains the biological and cultural resources. In box 1 the seven goals of the National Biodiversity Strategy are shown.

## **BOX 1      Goals of the National Biodiversity Strategy**

### **Goal 1**

Biodiversity will be conserved in Suriname through protection and enhancement of habitat and species at local, regional and national scales.

### **Goal 2**

The sustainable uses for biological, cultural and natural resources will be enacted in local and national economies.

### **Goal 3**

Research and education will be applied to create access to environmentally sound and safe developments, transfer, handling and use of biotechnology and modified organisms, and increased benefit sharing among all citizens for these resources.

### **Goal 4**

Access to genetic resources and the associated traditional knowledge and equitable benefit-sharing will be regulated and monitored.

### **Goal 5**

Institutional capacity will be enhanced to sustainably manage and monitor biodiversity.

### **Goal 6**

Education and communication opportunities will be strengthened to improve public awareness of biodiversity, cultural and nature conservation planning, management and monitoring at local and national levels.

### **Goal 7**

Local participation by communities, scientific community and businesses in biodiversity planning, management and monitoring will be enhanced as well as participation with other countries, by strategic alliances with members of, among others, the Amazon Cooperation Treaty, SIDS and CARICOM.

The National Forest Policy distinguishes one overall objective and several specific objectives, which are outlined in the draft Interim Strategic Action Plan (2007). The order of precedence is shown in box 2, though slightly amended.

**BOX 2      The National Forest Policy**

<b>1 Overall objective</b>	<b>To enhance the contribution of the forests to the national economy and the well-being of current and future generations with due regard for the conservation of the biodiversity, the mitigation of climate change and the prevention of land degradation</b>
<b>6 Strategic goals</b>	<ol style="list-style-type: none"><li>1. To improve the enabling environment to implement the national forest policy</li><li>2. To increase the contribution of the commercial forestry and forest industry sector to the national economy, by increasing the sustainable timber production from forest concessions, added value of the timber processing industry and timber exports</li><li>3. To increase the contribution of multiple-use community forestry, including timber and non-timber forest products to the national economy, by increasing the sustainable subsistence and commercial production of timber and non-timber forest products from communal forests</li><li>4. To increase the contribution of non-timber forest products to the national economy, by promoting tourism and by increasing the commercial supply of sustainably extracted non-timber forest products from concessions and other non-communal forests</li><li>5. To increase the physical and financial contribution of the ecological functions to the national economy, by realizing the monetary value of ecological functions</li><li>6. To preserve biodiversity and essential environmental functions, such as carbon sequestration and prevention of land degradation, by expansion and sustainable management of the protected areas network as well as the reserve forests and the production forests</li></ol>

In order to establish an enabling environment towards the achievement of the objectives of the National Forest Policy, the following investment and non-investment measures are suggested in the draft Interim Strategic Action Plan:

***Non-investment measures:***

- Revision of concession policy
- Revision of fiscal policy
- Land use planning and zoning
- Land rights of forest-based communities

***Investment measures:***

- Public transport infrastructure: roads, bridges, jetties, waterways
- Strengthening public institutions: amongst others Stinasu, Jan Starke Training and Recreation Centre (JSOOC), the Anton de Kom University of Suriname, CELOS and including the establishment of the Forest and Nature Management Authority
- Establishment of a National Forest Fund, primarily for the financing of public infrastructure, training, extension, research, product and market development in timber and non-timber goods and services, community forestry development, building environmental awareness, management of conservation and special forests (mangrove, river banks), protection of reserve forests, support towards certification of private SFM products
- Public support services: training, extension services, research, marketing and development in timber and non-timber goods and services

In **Annex C** recommendations from the draft Interim Strategic Action Plan are elaborated.

#### **5.4.2 Strategies of international entities (multilateral, bilateral)**

The strategy of international entities regarding the utilization of the ecological function of the forest corresponds with the strategy of the GoS. The strategic specific objectives are:

- 1) To increase the physical and financial contribution of the ecological functions to the national economy, through payments for environmental goods and services.
- 2) To promote adequate payment for international environmental services, especially for carbon sequestration towards mitigation of the negative effects of climate change.
- 3) To preserve biodiversity and essential environmental functions by expansion and sustainable management of the protected areas network and watershed management.
- 4) To provide access and transfer of biotechnology under fair and most favorable terms.
- 5) To provide scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components.
- 6) To build national and local capacity to plan, manage, evaluate and finance conservation projects and programs.

#### **5.4.3 Strategies of forest communities and NGO's**

An overriding issue in the tribal communities is *the land rights based issue*. People from the interior, especially the Indigenous people consider themselves not to be stakeholders but right holders. The land and the economic resources in the interior are considered theirs.

On February 1<sup>st</sup>, 2006, the ‘Commissie Grondenrechten’ (Commission Land Property Rights) was established by Presidential Decree PB/02/2006. The Commission had to work in close relation with the Indigenous and Maroon communities in Suriname. The task of the Commission was to identify the problems related to land property rights and to advise the GoS on this issue, especially in relation to the tribal communities. In 2008 the Commission has submitted its report to the President.

In the vision of the Indigenous people and the Maroons the prime priority in their strategy towards forest financing is acceptance of their collective land rights by the Government. The second priority is to come in a position of co-decision-taking and co-management through institutional strengthening, including training and better infrastructure as well as electricity. Well motivated and good trained villagers are considered the best wardens to protect the forests. They may also form a guarantee of control within the society of proper management of the village forest lands. The third priority is to increase local based production and to add value to the local products by processing raw material into finished products.

The strategy of communities and NGO’s are more or less the same. The strategy of NGO’s is to increase the contribution of multiple-use community forestry, including timber and non-timber forest products and services to the national economy, by increasing the sustainable subsistence and commercial production of timber and non-timber forest products from communal forests, in cooperation with the public sector, the domestic private, and international entities.

### **BOX 3      Traditional approach to the forests**

#### **Background**

The difference between a western and the traditional approach to the forests is based on the perception of the tribal rights. Western modern style development is perceived as short term. Traditional tribal development is perceived to be holistic, participatory, integrated and land property rights based. The approach is holistic because it integrates economic, social, cultural, religious, environmental and political issues in the communities. Until now the tribal land property rights are not officially settled. This situation sometimes results in outside companies getting concessions and becoming key factors in the developments in the villages. The tribal communities claim the right to own the land and the right of self determination of their development. This position will need additional institutional strengthening and commitment to inclusion of the tribal communities. The strengthened communities will improve their capacity to produce and to generate income and to be the lead factor in their own development. It is also eminent that NTFPs like medicinal plants, fruits, flowers, are part of this holistic approach. Traditional shifting cultivation methods have proven to be sustainable as long as land pressure was not too high due to the number of people in the region and / or a shift toward commercial production. Innovative reforestation of the fallow areas and improved agroforestry methods are options in an eventual program for the promotion of permanent farming in the interior areas.

#### **5.4.4 Commercial private sector strategies**

Important elements in the strategy of the private sector are:

- 1) To increase the contribution of the commercial forestry and forest industry sector to the national economy, by increasing the sustainable timber production from forest concessions, increasing added value of the timber processing industry and increasing timber exports.
- 2) To increase the contribution of multiple-use community forestry, including timber and non-timber forest products and services to the national economy, by increasing the sustainable subsistence and commercial production of timber and non-timber forest products from production forests and in particular communal forests.

It is worth mentioning that a platform of local entrepreneurs in the forest sector, called the Platform Houtsector Suriname, proposed a special law, which is not widely supported by other stakeholders and which would facilitate an exclusive group of national private entrepreneurs in the forest sector. The special law would authorize the GoS to enter into a special preferential agreement with an umbrella limited liability company (LLC) founded by that private sector group. The LLC would achieve economies of scale through lower costs in logging infrastructure, log transport, sawmilling and marketing, while financing would be easier to achieve for individual companies with logging rights derived from the umbrella organisation. This could be one of the opportunities for matching initiatives of the private sector with measures to be taken by the Government to implement the National Forest Policy, to step up timber production and to achieve sustainable forest management by zoning. The private sector can demonstrate their capability of cooperation according to their presented business model. This model is welcomed in the ITTO Report 2003, however with some observations. In doing so the theoretical debate would be substituted by practical evidence of the feasibility and the impact of the concept. The ITTO report warns that 'exclusive privileges do not favour sustainable forest management or a healthy sector. Creating oligopoly may not be in the interest of long term forest development'. There should be guarantees for fair competition, i.e. a specific private company should not be singled out for investment privileges. The Government should not grant exclusive privileges to a small group of national entrepreneurs living in the coastal areas, while the land rights and development potential of forest communities in the interior are not prioritized.

In table 1 the strategies of the Government, international entities, communities, NGO's and the private sector are categorized according to the specific objectives of the draft Interim Strategic action plan.

**Table 1 Specific objectives and actor groups for improvement in SFM**

<b>4 Actor Groups 6 Specific Objectives</b>	<b>Government</b>	<b>International Entities</b>	<b>Communities and NGO's</b>	<b>Commercial private sector</b>
1. Improve enabling environment for commercial and non-commercial forest financing	1	n.a.	2	n.a.
2. Increase net value added from timber	n.a.	n.a.	2	1
3. Increase value added from NTFP and services	3	n.a.	1	2
4. Increase contribution from environmental products and services	1	2	3	4
5. Increase payments for environmental services	2	1	n.a.	n.a.
6. Preserve biodiversity and prevent land & water degradation	1	2	3	4

The numbers 1 – 4 indicate in decreasing order the responsibility of the stakeholders.  
n.a. = not applicable



## **6 An overview of existing regional and international forest finance mechanisms**

### **6.1 International Context**

#### **6.1.1 History**

Forests emerged as a priority on the international political agenda at the UN Conference on Environment and Development (UNCED) held in Rio de Janeiro (1992). Significant progress in international forest policy has been made at the UNFF and its predecessor bodies established in 1995. At its seventh session, the UNFF agreed to a Non-Legally Binding Instrument on all types of forests and decided to: “develop specific proposals for the development of a voluntary global finance mechanism/portfolio approach/forest financing framework” to support sustainable forest management and to enhance the contribution of forests to human well-being.

#### **6.1.2 International Conventions and Institutions**

Forests and SFM are cross-sectoral issues and are addressed in a wide range of internationally agreed Conventions and instruments. Furthermore, forests are high priority on the international political agenda and are addressed by many multilateral organisations. Frequent presentations on this topic include activities of the UNFF, UNFCCC-REDD, UNCBD, UNCCD, ITTO, FAO, Amazon Cooperation Treaty Organization (ACTO), World Bank, initiatives related to Forest Law Enforcement and Governance, and certification of sustainably managed forests.

#### **6.1.3 Financial instruments**

Official Development Assistance (ODA) specifically targeted at forests, has been declining during the past decade.

Accordingly, it may be desirable to structure the SCS that responds to the internationally agreed current political priorities, i.e. to enhance the contribution of forests (through SFM) to human well-being.

Of interest to Suriname are amongst others the following financial instruments, of which some are new and currently in discussion:

##### **Sustainable Climate Change Initiative (SECCI)**

A Fund of the Interamerican Development Bank (IDB) which includes the possibility of financing technical assistance for forest related activities in the context of climate change (up to US\$ 1 million per technical assistance). In addition, IDB has a wide array of trust funds which will consider forestry financing, if demanded.

### **Forest Investment Fund / Program (FIF)**

The World Bank and the IDB cooperate on the design of this Fund, and eventually of its implementation as well. The World Bank acts as a trustee in this initiative.

This Fund will be established by the end of 2008 and is aimed at reduction of deforestation and degradation and promotion of improved SFM, leading to emission reductions and the protection of carbon sinks. The development process of FIF will take into account country-led priorities for the containment of deforestation and degradation and build upon complementarities between existing forest initiatives.

### **Forest Carbon Partnership Facility (FCPF): US\$ 300 million available.**

This Fund is a World Bank initiative and was launched in Bali 2007. It consists of two funds:

1. Readiness Mechanism, created for capacity building on a local level
2. Carbon Finance Mechanism, created for payments for emission reduction, for compensation for not destroying the forests in order to ensure carbon storage.

### **Global Forest Partnership (GFP)**

On behalf of the World Bank, an independent institute (IIED) has launched an international consultation on the new GFP. The consultation process is independent and the opinions of all forestry-relevant stakeholders will be solicited, both from within and outside the Bank. The consultation is scheduled to last until the end of November 2008. Stakeholders and other interested parties are encouraged to provide constructive input to the process, voicing opinions on how such a Partnership can best suit the objectives of their institutions, specific regions or countries.

Suriname has been a member of the World Bank group since 1977, shortly after independence. However, the country never borrowed from the World Bank or the International Monetary Fund (IMF), and never entered in any arrangement for program financing.

Suriname is also not a member of the International Financial Corporation (IFC), the private sector window of the World Bank group.

There are several reasons for this exceptional position:

- After independence in 1975 Suriname had substantial grant funding available from the special Treaty with the Netherlands, in the amount of US\$ 1,386 million (Nf 2,100 million) for a period of 15 years. Most of those funds have been used for public investments. A portion was also soft loan channeled to the private sector through the National Development Bank and through agricultural development projects, low cost housing schemes, etc. This source of external financing has been reduced from 9% of GDP (1975-1982) to 2% of GDP (2000-2007).

Suriname has been working on additional external financing from the Islamic Development Bank (IsDB), China, India, USA, Brazil and Venezuela.

Suriname has had additional soft funding (soft loans and grants) from the European Union (European Development Fund EDF), Belgium (grants) and the IDB (soft loans without conditionality).

However, Suriname has not used financing facilities from the Interamerican Investment Corporation (IIC, the private sector window of the IDB).

- There has been substantial external financing through direct foreign investment in bauxite and gold mining.
- Suriname never entered into any structural adjustment program with the IMF and/or the World Bank, mainly because of the attached strings of conditionality (macro-economic performance and related control). However, Suriname is under the general Article IV consultation by IMF, while some technical assistance is provided by the IMF.
- Suriname did not qualify for low interest loans of the World Bank (the International Development Association IDA) since its GDP per capita was considered too high.

This also explains the relatively low level of the country's foreign debt (16% of GDP).

## **6.2 Regional Context**

Regional documentation on forest financing in Latin America shows common problems, among others:

- Investment constraints due to 'investment risks' and 'restricted financial values for forest products and services'.
- Payment constraints consist of lack of market prices for related forest goods and services, dependency on international cooperation and restricted local funding from Governments. Furthermore, payments for environmental services (PES) schemes are currently only implemented at pilot scales as these PES services need highly efficient and low cost management structures to be effectively implemented.
- Weak institutional capacities to act pro-active in utilizing existing and developing (emerging) financial mechanisms.
- Restricted enabling environment. Especially legal and institutional constraints, complexity and ambiguity of laws and statutory acts, instable patterns of ownership, underdeveloped policy and institutional frameworks and the not so easy accessible international economic and financial environment.

With regard to the development of an independent regional financing mechanism ACTO is exploring possibilities to initiate a new pilot project in the field of the portfolio approach. There has been an effort for establishing a regional fund, but there is no agreement of Suriname and the other members yet.



## **7 The forest finance mechanisms in Suriname**

### **7.1 Investment mechanisms**

#### **7.1.1 Investment instruments**

In this paragraph the investment instruments commonly used in Suriname are described.

##### **Industry license**

In order to operate a company, investors mostly need to obtain an industry license. In order to carry out forest related activities such as sustainable logging, a wood cutting right is necessary. For ecotourism activities a tour license is needed, while for commercial collection of NTFP a NTFP collection license is needed (except for privately owned land). For hunting and commercial fishing a permit is needed by non-residents of forest communities. The Government decides on granting such licenses on a case-by-case basis. There are no special requirements on percentage of local content or equity. Investors are also not required to use specific employment agencies, nor to transfer technology or use local sources of finance.

In order for any investor to receive permission to hire a foreign national, the investor needs to prove to the Ministry of ATM that it has made every attempt possible to hire a national first. Furthermore excess labour can only be fired with permission of the Ministry of ATM.

##### **Investment Law**

The Investment Law authorizes the Minister of Finance to grant both tax and non-tax incentives for new investments and for the expansion of existing investments. However, in 2007 the special facilities expired and no new draft legislation has yet been brought to Parliament. The draft law is currently under evaluation by a committee made up of business and government officials.

It is common understanding that a new Investment Law needs to be adapted to the new requirements of the business community. New legislation must also be drafted on the basis of the various regional and international collaborations in which Suriname participate. The IFC/World Bank FIAS study in 2003 recommends reforming the law by shifting its focus from the heavy reliance on tax incentives to removing the regulatory obstacles to investment, and promotion of a predictable and sound legal climate for investment.

##### **Credits**

Credit is allocated on market terms and at market rates. In order to obtain credit on the local market, foreign investors must first establish their companies as a local entity/subsidiary. Credit is then granted to the local entity/subsidiary with a guarantee of payment from the parent company.

### **Tariff barriers**

Tariff barriers include consent and statistical fees charged in addition to the regulatory import duties. Imports from countries outside the CARICOM are subject to import duties due to the Common External Tariff (CET) adopted by CARICOM members. Imports are additionally subject to a turnover tax (10% on CIF costs plus import duties) as stipulated under the 1997 Law on Turnover Tax. Imports and exports are subject to consent and statistical fees (2% of CIF or FOB costs).

A statistical fee of 0.5% and an additional 1.5% for consent rights is applied to the export of timber (except to CARICOM countries). For roundwood and semi-processed wood an export tax (US\$ 22 - 24/m<sup>3</sup> roundwood) is applicable (except for export to the CARICOM countries), to discourage export of raw material.

For the import of timber products an import tax is applied. Within the EPA negotiations it is envisaged that this import tax will be gradually abolished within two decades.

### **Extra-budgetary specific support**

The Government can also allocate extra-budgetary specific support for special groups and/or regions. In the past the Government had specific tax break facilities but these expired in 2007. These were not specifically for SFM but all registered investments in the forest were eligible. To our knowledge there are no specific subsidies provided for SFM activities, except for Bruynzeel Suriname Houtmaatschappij (BSH).

### **BOX 4 Bruynzeel Suriname Houtmaatschappij**

The owner of the largest and best timber concessions in Suriname was the state-owned timber enterprise Bruynzeel Suriname Houtmaatschappij (BSH). In the past BSH has successfully established a plywood and saw mill. In 1947, an 'Extraordinary Concession Ordinance' allowed the issue of a 25-year concession with a total area of 500,000 ha to Bruynzeel. These concessions were renewed in 1973 by State Ordinance but expired by the end of November of 1998. To allow Bruynzeel to continue working, a new 150,000 ha concession (the maximum size possible according to the Forest Management Act) of former BSH concessions was reissued. In addition to this a further area of 129,320 ha would have been granted by an Act of the National Assembly. Although this was never enacted, BSH was allowed to continue to work on these concessions. This new area comprised both unexploited areas and former BSH concessions, which gave BSH a total concession holding of 279,320 ha.

Data from the early 1980s show annual production of 100.000 m<sup>3</sup> roundwood and profitable operations. During the period of the insurgence in the interior, 1986 – 1992, production dropped to an average of 36.000 m<sup>3</sup>. In the early 1990s BSH got into financial difficulties due to the insurgency in the interior and poor reservation and debit management, particularly not reinvesting in new equipment, and poor management.

From 1996 BSH started to run at a loss and became dependent on financial support from the government to pay salaries. In 2005 it was decided to privatize the company. This process of privatization is still going on.

## 7.1.2 Investment sources and operators

The majority of domestic commercial investments in forest exploitation are financed outside of the potential formal banking channels (such as loans from commercial banks, loans from the National Development Bank (NOB), loans from MFI, formal bilateral grants and soft loans, multilateral ODA, registered Direct Foreign Investments (DFI). The other sources are equity financing (own savings) and informal sources such as family loans, remittances from abroad, non-registered money lenders. The formal sources are limited and have considerable restrictions and safeguards.

The sources of forest investments in the forest can be grouped in five categories:

1. Public sector
2. International entities
3. Commercial private sector
4. Forest communities and NGO's
5. International private sector, mostly FDI

### 1. Investments by the public sector

#### *Government*

The Government is traditionally the major source for public forest financing. Public expenditures are funded from tax and non-tax public revenues, royalties or fines. However, funds for capital investments in infrastructure (roads, bridges) are funded by loans, and are limited and restricted to necessary improvement, maintenance and repair.

Small amounts are also invested in research, training and awareness and in some specific SFM projects. Due to budgetary constraints and low forest sector earnings, the Government can barely continue to fund the control towards SFM, let alone its expansion towards further improvement, or financing technical assistance and provision of services to the private sector as needed. It is therefore important that Suriname expands its forest revenue base and additionally works towards clear commitments and allocations of soft funding to promote SFM in Suriname.

#### *National Development Bank*

During 1992 – 2007 a total amount of € 400,000 was invested in the interior from the Fund Technical Assistance Private Sector (FTBP) in 28 projects. This included soft financing for 18 feasibility studies in timber processing, tourism, agriculture, medicinal plants, water and mining. Furthermore, two pilot studies in timber processing and agriculture were financed and five cases of short term management support in tourism and one branch study on export of living animals.

The loans of the Government-owned National Development Bank (NOB) to the forest sector and eco-tourism show a decreasing trend. However, during 2006 - 2007 the NOB (with Dutch development funding) financed 13 projects in the interior for the total amount of € 918,000.

These were predominantly small investments in tourism, agriculture, fisheries and construction. NOB could realize this through a special window for concessional credit at a fixed interest of 6% annually and a grace period of 4 years maximum under a “government guarantee” for businesses affected by the flooding in 2006. This Facility ‘Stichting Garantiefonds’ (Guarantee Fund Foundation) was closed in July 2007. The NOB is planning to re-activate the ‘Stichting Garantiefonds’ and to open it for all businesses in all sectors and in all regions in order to stimulate regional development and to facilitate the financing of interesting investment opportunities with a low collateral.

## **2. Investments by international entities**

### *Bi-lateral donors*

International sources, both bi- and multilateral, are becoming increasingly interested in funding SFM. Especially the Dutch invested in SFM, both from the regular Treaty Funds and their own Environment Fund.

Unfortunately the Non-Urban part of the environment (NUES), earmarked to be one of the (sub) sectors for bi-lateral cooperation, never resulted in the establishment of a NUES Sector Fund.

The Dutch Government is funding the PSOM (Programma Samenwerking Opkomende Markten), an investment stimulating mechanism, which was made available to Suriname in 2004. Two logging companies were financed:

1. N.V. Ansoe: for the production of roundwood in accordance with the Forest Stewardship Council (FSC)
2. Caribbean Parquet Flooring: for the production of FSC wood and garden wood products.

The PSOM projects have partnership with Dutch private companies, which will take care of the sales in the international market. The projects are in the stage of preparation for FSC certification. Experiences with the ‘market’ are yet unknown.

### *Multilateral Agencies*

UNDP Small Grants Program supported investments (Annual Country Program Report 2007 UNDP/SGP). Several NGOs participate in SFM activities and are funded by multilateral agencies, e.g. Amazon Conservation Team (The ACT Annual report 2006), Community Development Fund Suriname (funded by IDB), Guiana Shield Initiative, Pater Albrinck Stichting (PAS) which financed a podosiri (*Euterpe oleracea*) project. The total investments are an estimated US\$ 500,000 yearly.

### *International NGO's*

World Wildlife Fund (WWF) Guianas with its head office in Suriname invested in several studies and projects in Suriname, among others conservation and awareness building.

During their program 2007 – 2011 a total amount of US\$ 3.2 million will be available for financing of activities, with a focus on the following components:

protected areas management, gold mining pollution abatement, SFM, freshwater conservation, species conservation and management, environmental education.

Conservation International (CI) Suriname and IDB, together with the Japanese Government, financed the bulk of the investments in the Iwana Samu Rainforest Lodge in Kwamalasamutu.

### **3. Investments by the commercial private sector**

#### Households

Households savings and own labor are invested in several small scale agricultural and agroforestry activities in the hinterlands.

#### Commercial Bank loans

Suriname has a mixed private and state owned banking system, with strict controls of the Central Bank. According to IMF reporting, the non-performing loan ratio increased from 13.3% at years-end in 2002 to 15.3% in 2004. Part of this deterioration is attributable to the tightening of regulatory guidelines in 2003.

Commercial bank loans have not played a major role in financing forestry projects in Suriname. This also goes for the predominantly government-owned NOB and the Agriculture Bank (Landbouwbank, 100% government-owned).

The private commercial banks are the Surinaamsche Bank (DSB-Bank), the RBTT Bank and the Finabank. The Hakrinbank is 51% government-owned.

There are also two smaller government-owned banks VCB and SPSB and two private Savings- and Credit cooperatives acting as banks: 'Godo' and 'De Schakel'.

The private RBTT-Bank, DSB-Bank and predominantly government-owned Hakrinbank provide more than 75% of total credit to the private sector.

The total credit provided by the banks to the forestry sector shows pretty modest figures, but with an upward trend in absolute figures, see table 2. However, compared to the total loans provided by the banks, it is more or less stable, around 0.2% of the total bank credits. This figure is very low compared with the situation in Guyana where loans to the forestry sector represented roughly 5% of the total bank loan portfolio.

The majority of the loans (between 4 and 10 per annum) to the forest sector in Suriname are for timber production. There are no specific strategies or criteria utilized by the banks in providing loans to the forestry sector, since normal banking criteria are applied.

**Table 2 Commercial credit to the forestry sector in Suriname 2003-2007**

Year	SRD-loans (mln SRD)	ForEx loans (mln SRD)	Total loans To forestry sector [I] (mln SRD)	Total (SRD+ForEx) loans banking system [II] (mln SRD)	[I]/[II] (%)
2003	2.0	0.3	2.3	686,3	0.3%
2004	0.8	0.5	1.3	937,4	0.1%
2005	1.2	0.8	2.0	1,164,2	0.2%
2006	1.0	1.2	2.2	1,450,1	0.2%
2007	1.5	3.0	4.5	1,817,8 (US\$ 649 million)	0.2%

An average of 0.2% of bank loans to the forest sector is striking together with the 4% contribution of forest-related activities to GDP, while considering its higher potential contribution to GDP.

The banks however, are prepared to provide loans to existing clients or to new clients who have sound, bankable projects and adequate collateral.

Discussions with one of the commercial banks revealed that they will be thoroughly scrutinizing forest sector loan applications. The banks are not encouraged by the overall investment climate to provide loans particularly to new clients in what they consider risky geographical areas as the forest (in the interior).

It is a fact that activities in the forest can not be easily monitored. Local banks prefer to lend to trade, rather than forest operations, as this offers a high rate of return over a short period of time and at much lower risks.

#### *Families and friends (in the Diaspora)*

According to a recent Dutch study (Unger 2008) the volume of the informal financial market is believed to be substantial. It involves lending and saving schemes among family, friends and outsiders, and remittances from relatives and friends abroad.

Very little of the remittances end up financing SFM production activities since these income transfers (non-savings) are used consumptively by the poorest that receive such aid.

With 85% of remittances received from the Netherlands, it is the most important transferring country, 5.5% comes from the USA and 4.5% from the Netherlands Antilles.

The total amount of remittances received in Suriname is estimated at around US\$ 185 million per annum.

Focussing on workers' remittances, excluding pension transfers and business and investment flows, the size of remittance flows is estimated between US\$ 50 million (not in-kind remittances) and US\$ 160 million and shows an increasing trend. Of this amount 20 - 30% could be for investments, i.e. US\$ 21 – 31.5 million spread over all sectors on an annual basis.

The portion which finds its way to sustainable forest management is difficult to assess, but could not be more than 5%, i.e. US\$ 1.05 – 1.575 million, more or less equal to the formal local credit arrangements of US\$ 1.6 million from the commercial banks.

#### Community

Community businesses (formal and informal) in the interior are stimulated by the issuance of Communal Wood Cutting Licenses (HKVs) to the forest-based communities. These licenses are provided to the village captain, as the captain is the traditional authority of the village. However, not always do the proceedings benefit the communities. In many cases the communities (the village captain) enters into a private sector-community partnership for logging their HKVs with insufficient monitoring of the activities by the village its traditional authority.

Projects regarding community development, including sustainable communal forest management, are financed mostly by NGOs such as WWF, Suriname Conservation Foundation (SCF), ACT and Forum NGO.

#### Semi-informal and informal micro-financing institutes

The two credit unions GODO and De Schakel have played an important role in mobilizing (micro-) savings and providing (micro-) credit to their members.

Unfortunately their role in the interior has been limited and subsequently their contribution to forest financing is less than 5%. In cases where they funded considerable amounts (eco-tourism) this was mostly encouraged/ backed by a donor organization.

One of the (semi-) informal financing schemes is the ‘Kasmoni’ system where persons form a group, one of the members is assigned to treasurer and group members can borrow money in a sequential system. However, the amounts available for investments are limited by the amount of saving.

#### Machinery and Equipment Suppliers

Incidentally there are a few equipment dealers who supply their trusted clients with large and small equipment. In most cases this is done in coordination with one of the financing institutions.

### **4. Investments by forest communities and NGO's**

#### Forest Communities

Activities in which the Indigenous and Maroon communities are involved are mainly self-supporting. Where they receive outside funding by local and international donors and/or service clubs they bring in their labor and locally available inputs as their own contribution in projects.

### NGOs

There are some social- and environmental NGOs/CBOs active in small community projects in the interior. Several NGOs such as ACT, Pater Albrink Foundation (PAS) and Forum NGO participate in SFM activities and are funded by multilateral agencies, as mentioned earlier. One of the most active NGO is the National Women Movement (NVB), predominantly with donor financing, who is involved in several agricultural, agroforestry and education projects.

### Charities (national and international)

There are several faith based organizations that provide funding for forest activities e.g. the PAS, the Moravian Church Foundation (EBGS). There are also secular organizations like service clubs as Lions, Rotary, etc. Rotary is funding a biofuel project in the interior. Apart from their own special fundraising activities and raffles they manage to attract substantial international co-financing.

## **5. Investments by international private sector**

### Foreign Investors /Multinationals

FDI flow into Suriname's forest sector is negligible. Unfortunately due to poor statistics it is not possible to determine which part of the FDI is channeled to the forest.

With BSH as a clear exception, foreign investors have not been successful in investing in the forest in the past. In the nineties of the 20<sup>th</sup> century several Asian logging companies approached Suriname to invest in large scale timber production (concessions of approximately 1 million ha). The Asian forest logging companies are more risk taking.

However, risk and return are related and the higher the forest and the country risks the greater the expected return. Apart from the country risk there is a specific risk associated with forestry investments. It includes market and project risks and in general the risk premium tends to be in the 4 - 6% range. Restricted by the Forest Management Act, the Government had to make special laws. Finally these draft laws never made it to Parliament. Since then several smaller concessions (with a maximum of 150,000 ha) were issued to predominantly Asian logging and processing companies (China, Malaysia). These companies also work on concessions of other operators or lease concessions directly from other concession holders. These companies have their own financing schemes, presumably at low interest rates, outside the local official banking sector. However, detailed information is not available.

### Multilateral Financing Agencies and International NGO's

Multilateral agencies and international NGO's also show interest in funding private sustainable forest activities. WWF Guianas entered into a partnership with the logging company Ansoe NV and Suma Lumber to certify their logging operations. Suma Lumber received a grant from WWF Guianas to finance the initial costs of certification. Suma Lumber obtained FSC certification for roundwood production in June 2008. Experiences with the market are not yet known but prices for certified timber can be 30 - 40 % higher than general roundwood prices.

Suma Lumber has 60,000 ha forests certified, with initial costs between US\$ 20.000 – US\$ 30.000 to upgrade their forest management. The major costs are on changing their forest management from conventional logging to planned logging (inventories and Reduced Impact Logging RIL).

The IDB co-financed, under concessional conditions, a loan for the private investment by Kersten & Co. in the Bergendal Eco- and Cultural river resort. IDB, CI Suriname, and Japan Development Fund (JDF) financed Iwana Samu Rainforest Lodge (in Kwamalasamutu).

### **7.1.3 Potentials and opportunities of investment mechanisms**

It is important to raise the level of foreign direct investments. The need for an enabling investment law that protects foreign investors is a key requirement to attract bonafide foreign investment.

In order to attract more foreign investment SBF will, among other things:

- encourage foreign direct investment with optimum links to the Surinamese economy by, among other things, promoting the qualities of the local Surinamese business community;
- encourage foreign direct investment that would stimulate the local Surinamese business community.

#### Portfolio Investors

Since there are no forest companies listed on the local stock exchange (only 12 listings of companies in other branches) there is no room for portfolio investors to become active in funding the Surinamese forest. However, companies like Suma Lumber would be a likely candidate to participate.

## **7.2 Payment mechanisms for forest goods in Suriname**

The forest industry and trade is dominated by timber and timber products (roundwood, sawn timber, hewn timber poles). NTFPs such as wildlife, edible fruits, nuts, palm hearts, ornamental plants, medicinal plants, woody plant parts are of less importance, despite market potential. The timber sector and the trade in wildlife are commercially more developed than the other goods provided by Suriname its forest.

The timber sector and the NTFP sector are presented in separate paragraphs considering:

- Substantial differences in payment mechanisms and control mechanisms between timber and NTFP;
- The relatively underdeveloped status of NTFP in Suriname, including data, and research;
- Mostly lower risks and impact of forest use by NTFP;

- Although income from timber logging is higher, there are greater opportunities for poverty reduction in the development of NTFP, with linkages to cultural heritage, community forest development and nature based tourism;
- Greater opportunities for women in the development of NTFP.

## 7.2.1 Timber

### 7.2.1.1 Operators

The timber sector in Suriname is dominated by private entities like local logging and sawmill operators, timber cutting rights holders and manufacturers of timber products. Logging is done by small and medium sized companies.

#### **Production and concession data.**

Between 1960 and 1980 timber production was an average 220,000 m<sup>3</sup> roundwood per year. By the early 1980s, it began to decline and recorded roundwood production has been erratic ever since. Incidental peaks in the production in 1996 and 2000 are likely related to the arrival of foreign companies such as MUSA in 1996, or Finestyle in 2000.

The reasons for low productivity in the timber production were:

- producers did not reinvest sufficiently in new equipment and technologies;
- emigration of skilled staff;
- generally poor management;
- the insurgence in the interior, infrastructure damage and equipment losses by the companies as a result of the insurgence, followed by a period of national economic depression;
- the drop from 1997 to 1999 could be linked to the economic situation in Southeast Asia at the time, which was a source of investment in the forest sector and a market for Surinamese timber at the time.

During 2002 - 2005 around 89% of total logged output was generated by the continuously logging operators and 11% from incidental logging (table A, **annex D**). Concessions occupied more than 60% land available for logging but produced only 35% of the annual roundwood production, followed by the expired concessions, wood cutting licenses (HKVs) and Communal Forest as permanent logging operators. Based on roundwood logged per hectare Communal Forest reached the highest utilization rate (0.70 m<sup>3</sup>/ha). With only 60.5% of area actively used, the table shows that many concessions are idle.

After more recently (2007) examining the annual production for the areas in use for logging, it appeared that Communal Forest, HKVs and concessions differ in the intensity of logging respectively at 1.02 m<sup>3</sup>/ha, 0.1 m<sup>3</sup>/ha and 0.09 m<sup>3</sup>/ha. These intensities are close to those of the period 2002 - 2005.

In conclusion, areas issued by the government for logging purposes are not utilized sufficiently.

### 7.2.1.2 Payment instruments

During 1982 - 2007 average roundwood production in Suriname was 157,643 m<sup>3</sup> per year, i.e. 0.09 m<sup>3</sup>/ha per year (157,643/1.7 million ha suitable net concession area), table B, **annex D**.

The current annual cut appears to have stabilized at around 160,000 m<sup>3</sup>/year. This timber production represents an annual value of US\$ 30 million (based on an average calculated value of US\$ 185/m<sup>3</sup>).

In table 3 the current levels of forest charges are shown.

**Table 3 Current levels of forest charges in Suriname**

Concession size	<5,000 ha	50,000 – 150,000 ha	≥150,000 ha
Annual area fee per ha	SRD 0.025	SRD 0.050	SRD 0.100
Royalty (retribution)	Grade A	Grade B	
	US\$/m <sup>3</sup> 6.00	US\$/m <sup>3</sup> 5.50	
Exploration Fee	SRD/ha 0.01		
Grading Fee	SRD/m <sup>3</sup> 0.20 – 0.30		
Export fee on roundwood and semi-processed wood <sup>2</sup>	<sup>3</sup> US\$ 22 - 24/m <sup>3</sup>		

Revenues for GoS are an average US\$ 866,000 per annum (from retribution, concession rights, exploration rights and inspection fee) and an additional average of US\$ 290,000 per annum from export taxes, as shown in table 4.

**Table 4 Public revenues from timber in US\$**

	2004	2005	2006
Retribution US\$ 5.50/m <sup>3</sup> or US\$ 6.00/m <sup>3</sup>	679,218	882,429	930,006
Concession right	34,966	20,564	46,202
Grading fee	938	1,368	2,149
Export taxes US\$ 22 - 24/m <sup>3</sup> roundwood and semi processed wood	149,000	251,000	468,000
<b>Total</b>	<b>864,122</b>	<b>1,155,361</b>	<b>1,446,357</b>

**Source: SBB**

<sup>2</sup> For processed wood no export tax is applicable

<sup>3</sup> Tax to discourage export of raw material

Export production has been steadily increasing between 1991 and 1996, remained more or less stable until 2001, but declined in 2002 to its lowest level in 10 years. It has remained at that level since then (table C, **annex D**).

### **7.2.1.3 Payment sources**

Payments are mostly from local private sources, as most of the timber production is destined for the local market. PHS received funding from Centre for Development of Enterprises (CDE) and other donors to perform trainings on RIL. ITTO financed some SFM activities. Tropenbos International operates in Suriname since 2003. During 2006 – 2011 an amount of € 250,000 is annually available for financing forest activities with a focus on research and capacity building.

WWF Guianas has reserved US\$ 457,000 for SFM during 2007 - 2011, particularly with regard to activities on improved governance, training and wood certification.

### **7.2.1.4 Potentials and opportunities in the timber sector**

Considering the existing low productivity rates (forest concessions utilization) and favorable export prices for timber, the revenue potential from timber logging and timber processing could increase substantially per annum. Some of the possibilities to increase these revenues are:

#### *1. Increased utilization of production forest*

Documentation shows that concession potential is not being utilized properly. It appears that 40% of the total concession area has been lying idle since 2001 and 64% of the expired concessions (mainly BSH). Current harvesting practices in Suriname are concentrated among easily accessible forest areas, are inefficient, with generally low productivity. The logging companies are generally working with unskilled workers, outdated fragile equipment, causing frequent breakdowns.

Most of the skidders are old and in need of expensive repairs. Based on moderate approaches the annual cut can be intensified and with a proper concession policy the productivity of the concessions can be increased. The National Forest Policy document assumes a potentially annual allowable cut of more or less 1.0 million m<sup>3</sup>, whereby it is specifically mentioned that the utilization of lesser used species should increase. This amount is far greater than the current annual cut of 160,000 m<sup>3</sup>.

#### *2. Planned forest conversion*

Forest conversion and subsequent salvage logging, may indirectly but strongly determine growth of timber logging and sawmill operations in the medium and long term.

Salvage logging from conversion of forests to oil palm plantations (project of China Zhong Heng Tai: 40,000 ha over a period of twelve years, i.e. 3,330 ha per year), and to a lesser extent from gold mining (at least 500 ha per year) and from bauxite mining (340 ha, i.e. 34 ha per year), will lead to substantial increases in salvage timber logs output, estimated at an average 173,000 m<sup>3</sup>/year from 3,454 ha clear-cut per year.

The amount of roundwood from salvage logging would thus be roughly 120% of present production being processed (145,000 m<sup>3</sup>/year out of the 160,000 m<sup>3</sup>/year logged). These developments could have the following optional consequences:

- the domestic sawmilling industry could be financed for expansion, since it presently does not have the capacity to process large volumes of timber from salvage logging;
- companies involved in salvage logging may alternatively be forced into processing or under water storage of surplus roundwood from salvage logging;
- export of surplus roundwood from salvage logging could alternatively be allowed, in the absence of sufficient processing capacity, including an export tax.

Salvage logging will be much larger (30,000 ha/year or 1,260,000 m<sup>3</sup> roundwood/year) in the case of salvage logging from hydropower development (1500 km<sup>2</sup> area over 5 years).

However, underwater storage would offer the possibility to spread the amount of timber to be processed over an extended period of e.g. 25 years, i.e. 50,400 m<sup>3</sup> roundwood per year.

Clearly, any major investment with substantial forest conversion will affect the timber logging industry and will need careful measures in order to achieve the highest revenues possible.

### *3. Increased cost efficiency and value added from certification*

Demand for certified timber is increasing rapidly in Europe due to increased public awareness of SFM and the negative impact of illegal timber products. Certification is expected to increase the price of timber and to improve operational costs efficiency.

The FSC effort to develop a market for sustainably produced wood and wood products has had little effect in Suriname. There are a few initiatives on certifying logging operations.

Certification increases management costs initially, on the other hand it increases productivity, it leads to operational cost savings and sale prices of certificated logs are higher than standard logs.

To stimulate certification processes, it appears necessary to subsidize or to make soft financing available for initial (inventory) costs.

## **7.2.2 Non timber forest products**

### **7.2.2.1 Operators**

Another activity of renewed importance in the forest sector is the collection of NTFPs, mostly for subsistence needs, but increasingly also for sale. Although not statistically recorded, NTFPs are essential for the sustainable livelihood of Indigenous and Maroon groups, are of great relevance for local incomes. Niche markets for NTFPs have emerged as a result of people from the interior migrating to Paramaribo and to the Netherlands.

The main operators for NTFPs are:

- Extractors/collectors from the wild, mostly Indigenous and Maroon people
- Local craftsmen
- Unregulated producers (typically small family enterprises based in rural or urban areas where NTFPs are processed and packed)
- Stall and market operators who sell directly to the local consumers

#### 7.2.2.2 Payment instruments

Policy on NTFPs is poorly developed in Suriname. Legally, the Forest Management Act is the one applicable for NTFPs, but the current forest management authority SBB has no clear guidelines on how to deal with the extraction and trade of NTFPs. For the collection of NTFPs a concession license for NTFP is needed. Still, the policy is not clear and does not induce the development of NTFPs. For instance, a palm heart factory that requested a permit to harvest trees from the podosiri palm (*Euterpe oleraceae*) was granted a *timber* concession in an old plantation instead of giving it a permit to harvest these trees along the river banks.

Local and non commercial use of NTFPs is not linked with permits from SBB but for the export of NTFPs permits are mandatory. Export of NTFPs is covered by the Forest Management Act which covers only plant products and excludes wildlife. The regulations related to CITES are applied regarding the export of endangered plants and animals.

Permit requests for export of wildlife are common and there are also occasional requests from researchers who export plant specimens for identification purposes. In the past, permits have been extended for bioprospecting, which is also regarded as a kind of NTFP trade.

#### **BOX 5 Suriname involved in an international bioprospecting initiative**

In the nineties Suriname has been engaged in a bioprospecting initiative under the International Cooperative Biodiversity Group (ICBG) umbrella, in a consortium between the Government owned BGVS (Company for the Provision of Medicines in Suriname), Conservation International (CI) Suriname and a number of foreign partners, including a State and a private medical research facility in the USA. As a result of this initiative, Suriname, or at least some of the participating and associated local institutes, may at some time receive considerable royalties, provided that an effective and commercially applicable medicinal compound is found in the extracts. Plants have been collected and identified, extracts have been collected and sent to the USA for extensive testing. In some cases, plants were obtained and extracts prepared with the help of traditional healers. The communities to which these healers belong also become entitled to benefits in case of a commercial application. There are however no guarantees that an effective, commercially applicable compound is found, and it may take 10 - 15 years for a commercial application to materialize, after rigorous testing.

The existing and possible physical and financial contribution of NTFPs to the national economy is yet to be determined. The feasibility and volume of trade, the number of traders etc. are difficult to map. Virtually all of the NTFP trade in Suriname occurs in an informal market, and is thus essentially invisible in the statistics, except for wildlife.

**Table 5 Export values in US\$ of some important NTFPs, both collected and cultivated in Suriname**

<b>Product</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008 Jan-Jun</b>
Bulbs, rootstocks	n.a.	16,605	123,011	120,806
Plants	n.a.	39,548	132,369	82,944
Flowers as Heliconia's, orchids	n.a.	65,789	18,037	10,903
Foliage, leafs, twines, branches and other parts of plants without flowers or blossoms	n.a.	17,731	35,679	26,348
Wildlife FOB value	1,040,438	465,190	404,221	n.a.
<b>Total</b>	<b>&gt; 1,040,438</b>	<b>604,863</b>	<b>713,317</b>	<b>&gt; 241,001</b>

**Sources: Ministry of Trade and Industry 2008 and Nature Conservation Division**

n.a. = not available

### **Wildlife**

Suriname is one of the few countries in South America legally exporting considerable quantities of wildlife, generating a significant income.

The Nature Conservation Division of the Ministry of ROGB collects data on trade in wild animal species, according to national legislation and CITES trade rules.

This department issues permits for trade in wild animals and collection of plants. These regulations are necessary to prevent certain wild animal species from becoming endangered due to the capture. The Suriname Forest Service together with the Nature Conservation Commission has established export quota for both CITES-listed and non-CITES animals. However, the actual export is much lower than the export quota.

Revenues of wildlife export declined from around US\$ 1 million per year (before 2005) to US\$ 404,000 in 2007, as shown in table 5.

The decline in wildlife trade revenues was caused by the outbreak of Avian Influenza and the resulting EU measures to ban imports of wild birds. Birds form the bulk of the trade in terms of value; a reduction of the export of these birds has resulted in a decline of revenues.

Still, there is a foreign market for Surinamese birds. At the moment Nature Conservation Division is looking into ways to remove obstacles for continuation of sustainable wildlife export.

However, revenues could decline even further in the near future due to international changing attitudes towards wild animals held in captivity, new regulations and captive breeding in importing countries.

## **Medicinal plants**

The herbal medicine market has an informal character. Surinamese people involved in this business are self-employed, unrecognized in official statistics, have little access to capital and earn money from labor-intensive enterprises.

A lack of official figures on these activities does not imply a limited contribution to the country's economy. The trade in herbal medicines offers employment to several hundreds of households. The annual value of the domestic and the export market is estimated to be worth over US\$ 1.5 million. This figure is higher than the registered wildlife export revenues. However, the export (trade) of medicinal plants and/or medicinal plant extractions is becoming more difficult because of existing and increased non tariff trade barriers. This hampers the further development of trade in medicinal plants and creates unhealthy competition and exclusions. In addition the production of fake medicines (chemically copied) causes improper competition.

The mean price per kg plant product is US\$ 8.30 (Van Andel et al, 2007). Prices in Suriname are determined by resource scarcity, distance to harvesting sites, processing costs, and local demand. Well-sorted market stands report average daily sales of US\$ 30.

An inventory of all Paramaribo markets together showed a sale of almost 136,000 kg plant material in 2006, with a total estimated value of US\$ 1.1 million.

Medicinal plants commonly used are among others: andoya (*Campomanesia aromatica*), kwasibita (*Quassia amara*), sibiwiwiri (*Scoparia dulcis*), krapa (*Carapa guianensis*), sangrafu (*Costus scaber*), kowru ati (*Begonia glabra*), karu (*Zea mays*), noni (*Morinda citrifolia*).

Suriname exports substantial volumes of fresh, dried, and frozen medicinal plants to the Netherlands, where they seem to play a role in the health care of Surinamese immigrants. In 2006 the export of medicinal plants to the Netherlands was estimated to be 55,000 kg, with an estimated value of US\$ 453,180 (based on US\$ 8.30 per kg) (Van Andel et al, 2007).

The estimated average price per kg plant material in the Netherlands is € 34. Prices in the Netherlands are based on shipping costs, wages for harvesters in Suriname, transport and storage costs, and personal profits in Suriname and the Netherlands.

### **7.2.2.3 Payment sources**

Various types of sources are available and being utilized for NTFPs, including household savings, micro-credit, loans and grants from WWF and UNDP Small Grants Program, other NGOs and CBOs for community development (such as NVB, STEPS, ACT) mostly funded by multilaterals, as mentioned in paragraph 7.1.2. There are no statistics available on the exact amount of money utilized for the production of NTFPs.

### **7.2.2.4 Potentials and opportunities in the NTFP sector**

The potential of the NTFP trade is not yet utilized by Suriname. This may be due to a lack of information and awareness of the value and economic potential of NTFPs.

There is a foreign market for Surinamese birds and other wildlife species. Despite restrictions of the EU, Suriname should look for alternatives for exporting wild animals or use means to increase values of the species traded e.g. low export quota, while increasing export prices, but this should be done in collaboration with Guyana. Guyana is also legally exporting wildlife. Differences in export quota and FOB prices between Suriname and Guyana may lead to the illegal transfer of wild animals between the two countries.

Suriname harbors many native plants with a great ornamental and health potential. It is expected that the scale of medicinal plant trade will expand, especially due to increasing foreign demand and the market for health products. Some enterprises have already established e-commerce sales whereby products (medicinal plants and health products of Suriname) are sold on the internet<sup>4</sup>.

Foreign markets should be explored to identify NTFPs for which a market exists that is not yet saturated, not only towards Europe and the US, but also to the CARICOM countries.

In order to increase revenues, production of semi-manufactured products should be stimulated above sales of raw material. The availability of subsidies or soft financing appears necessary.

In table 5 the export values of some important NTFPs are shown for the last two years. A growing export of some NTFPs is already recognizable.

### **7.3 Payment mechanisms for environmental services in Suriname**

The basic principle of PES is that those who manage areas which provide environmental services should be compensated for the costs of doing so, whether these are direct costs of specific land use practices or more indirect opportunity costs of avoiding certain activities or types of land use. Payments may be monetary or in-kind, may involve private sector or government financing, and can be made at local, national, and global levels.

At this moment Suriname does not have an official policy on the trade in environmental services. There is no established local practise of PES in Suriname.

It is foreseen that PES may become a feasible source of income for SFM, given Suriname's vast forest and freshwater reserves.

Given the fact that almost 97% of all forest land is owned by the Government, it is in Suriname's interest to pursue global payments. The forest' capacity to keep carbon sequestered, keep freshwater circulating and maintain biodiversity has a global value.

---

<sup>4</sup> A few of these initiatives are: Odany Jewa ([www.odany-jewa.com](http://www.odany-jewa.com)), Fytotheek Pakosie ([www.rainforest-pakosie-healthcare.com](http://www.rainforest-pakosie-healthcare.com)), Tropilab Inc ([www.tropilab.com](http://www.tropilab.com))

Suriname should carry out studies on economic valuation of areas and explore financial benefits. Recently a study has been carried out for the Bigi Pan MUMA (WWF/SCF/FTeW/Celos 2007). The methodology should be refined so that similar calculations can be carried out for other areas. The information obtained will provide data on which choices for land use can be made.

**BOX 6 An example of economic valuation in Suriname**

The contribution of the Bigi Pan area to the national economy was investigated by CELOS and the Anton de Kom University of Suriname, financed by WWF Guianas and SCF. The Bigi Pan area is granted a Multiple Use Management Area (MUMA). The economic value was calculated as follows:

		<b>Wetland service or product</b>	
		US\$/ha/yr	Total value of the wetland
Marginal value (US\$/ha/yr)			
Area contributed to the services			
<b>Utilization</b>	<b>Area (ha)</b>		
Agriculture	3,250	172.00	1,664,000.00
Fish production	8,125	16.83	136,743.75
Wildlife production	6,500	0.81	5,265.00
Livestock grazing	500		
Flora	61,000		
Tourism	1,000	74.00	74,000.00
Biodiversity			
<b>Total</b>			<b>1,880,008.75</b>

**Source: WWF Guianas 2008**

Additional work should be carried out in studying the feasibility of some of the PES options. The most promising ecosystem services for Suriname include:

- Regulation of water flow and water catchments
- Partial climatic stabilization through carbon stock protection or sequestration
- Maintenance of biodiversity
- Scenic appeal

In this paragraph operators and initiatives of payments for these ecosystem services will be discussed.

### **7.3.1 Operators**

Operators in the environmental market are the Suriname Water supply Company (SWM), water bottling companies such as Para Springs and Redusa, mining companies such as Suralco, BHP Billiton, IAMGOLD, Grassalco and Staatsolie, private enterprises, tourism related enterprises, research institutes, Indigenous and Maroon communities and foreign investors.

### **7.3.2 Payment instruments**

The four promising environmental services will be discussed separately.

#### 1. Regulation of water flow and water catchments

Forests are credited with protecting water quality, regulating water flows, preventing floods, controlling soil salinity, and maintaining aquatic habitats.

Watershed services generally benefit downstream activities. In foreign countries, improved understanding of the benefits provided by watersheds and the growing threats that they are facing have increased beneficiaries' willingness to pay for watershed conservation. Payments can be made on water quality, flood prevention and water quantity.

Suriname is one of the few countries in the world with large freshwater reservoirs. It is expected that the water quality and water quantity market will become more important than the carbon market. The international demand for water is increasing rapidly and investment in watershed management is cheaper than treatment or obtaining new water supplies.

#### 2. Partial climatic stabilization through carbon stock protection or sequestration

Forests can sequester and store carbon, thereby playing an important role in regulating global climate. There are two main approaches to increasing the amount of carbon sequestered by forests: the planting of trees (afforestation, reforestation and agroforestry), and the avoidance of emissions by retaining trees (through actions such as conservation or improved management practices that prevent or reduce deforestation, forest fires, and conversion of forest to other land uses).

The carbon market is an emerging market, with many ongoing developments but carbon trade does not yet exist in Suriname. Suriname with its high forest cover and low deforestation rate does not get any financial compensation for its carbon stock. Current mechanisms as Clean Development Mechanism (CDM) and Reduced Emissions for Deforestation and forest Degradation (REDD) are complex mechanisms and not favorable to the Surinamese situation. GoS lacks expertise and knowledge on how mechanisms as REDD work, and lacks knowledge of available opportunities. However, the Ministry of ATM is currently implementing a project called 'Capacity Development for CDM (CD4CDM)', assisted by the UNEP/RISO Centre. Its goal is to create institutional and human capacity to initiate CDM projects.

For the moment Suriname has low potential for REDD credits and low potential for reforestation payments under CDM. The only type of forestry likely to become eligible for compensation under CDM is large scale plantation forestry.

With regard to carbon storage or avoided deforestation, the only practical option for Suriname that can be currently considered is the voluntary carbon market. These markets have lower transaction costs but also lower prices.

However, it is foreseen that carbon storage may become a feasible source of income for SFM, particularly when the international community will agree on a compensation mechanism for retaining forests and/or sustainable managed forests. Just recently a group of scientists, economists and public policy experts, called the Terrestrial Carbon Group<sup>5</sup>, presented a new concept on *generating and selling terrestrial carbon credits*. The concept is presented in a paper “How to Include Terrestrial Carbon in Developing Nations in the Overall Climate Change Solution”. The concept seems promising for countries which lose out from the currently proposed REDD mechanism, like Suriname, but needs further investigation, box 7.

#### **BOX 7      Terrestrial carbon trade - mechanism**

The system puts an economic value on terrestrial carbon (including trees, soil and peat) and places a nation's total terrestrial carbon into two categories: terrestrial carbon that is effectively protected from being emitted (by law, or by being inaccessible because of biophysical or economic constraints), and all other terrestrial carbon. Protected terrestrial carbon must be retained. All other terrestrial carbon can be emitted over a fixed period. The system provides short-term and long-term incentives to change that outcome, recognizing that land management decisions are made within nations. Put simply, nations may emit an agreed volume of the original unprotected terrestrial carbon each year with no penalty. If the nation emits less than its annual terrestrial carbon budget in a year, it can sell the difference as terrestrial carbon credits (and must add that volume of terrestrial carbon to its protected category, safeguarding the permanence of the avoided emissions). If the nation emits more than its annual terrestrial carbon budget in a year, it cannot participate in the system until it reverses the excess emissions. The fixed period could be set on a nation-by-nation basis to best reflect national business as usual scenarios. A nation can create credits for any new terrestrial carbon it creates.

### 3. Biodiversity

The services provided by biodiversity range from the maintenance of ecosystem functions to ecotourism values.

An important action which Suriname has undertaken is the consolidation of national protected areas in their function as providers of environmental services. These include, in particular, biodiversity protection, the production of water, facilitation of research and provision of scenic beauty.

---

<sup>5</sup> Website: [www.terrestrialcarbon.org](http://www.terrestrialcarbon.org)

In 1998 Suriname created the Central Suriname Nature Reserve (CSNR), which comprises more than 1.6 million hectares of primary tropical forests. In 2000 UNESCO named the nature reserve a World Heritage Site. It has remained largely pristine because the only people who live there are the ones who manage it. The area protects the watershed of one of Suriname's most important river systems, the Coppename river.

In total, Suriname has 11 nature reserves, 1 Nature Park and four MUMA's, covering approximately 13% of the total land area, with the goal to preserve the biodiversity. Of great importance is therefore the awareness about the value and importance of biodiversity conservation on a national level.

In 2001 Suriname also created SCF with an Endowment Fund for the conservation of biodiversity. Fund assets are held offshore, managed by an Asset Manager who was selected through a process of competitive bidding.

The initial capitalization of US\$ 8 million was made available as follows:

- US\$ 4.5 million from GEF
- US\$ 2 million from CI
- US\$ 1.5 million from UN Foundation (UNF)

Whether these grants can be considered as a payment from the global community for the biodiversity services provided by a part of Suriname's biodiversity or not, they are not proportional to the opportunity costs and far from sufficient to manage the CSNR effectively. In 2004 GEF contributed an additional US\$ 3.4 million and US\$ 3.6 million of the Dutch Treaty Funds were made available for the financing of the operational costs of SCF.

The current value of the Endowment Fund is approximately US\$ 14.7 million (August 2008) and is very sensitive to fluctuations of the financial markets.

GEF also contributed with an amount of approximately US\$ 150,000 for the formulation of Biodiversity Strategy and Action plan and the Climate Change Action Plan.

#### 4. Scenic appeal

The provision of landscape appeal represents a key attribute in the market for nature tourism. Nature tourism is an industry that could contribute to the management and financing of protected areas. However, the contribution of this sector to the forest sector is small compared to the benefits it receives. Nature tourism operations can be promoted as a mechanism for generating finance for conservation of local environments, particularly in areas with high levels of biodiversity. Protection of biodiversity is thus often a positive spin-off from the sale of landscape appeal for nature tourism, if well-managed. Another benefit is improved local water quality due to reduced erosion and sedimentation.

The interior of Suriname is known for its large area of pristine forest. Nature tourism is considered to have large, though underutilized potential in Suriname. Revenues of nature tourism are not known, but the tourism sector in general generated US\$ 43 million income in 1997 and US\$ 72 million in 2003. Thus an annual estimated increase of about 9%.

Creative marketing by community groups (in Kwamalasamutu), with support of international NGOs and donors, has begun to create a niche market for community-based nature tourism. Rather than selling access to landscape beauty via tour operators, the community in Kwamalasamutu have begun to set up their own businesses.

### **7.3.3 Payment sources**

Various types of sources are possible, including:

*Public:*

- Users fees and entry fees directly collected by the SFM project

Stinasu, is actively engaged in nature tourism by providing accommodations in Brownsberg, Galibi and Raleighfalls.

Entrance fees for Brownsberg are US\$ 5.35 per person per day. Stinasu incorporated the entrance fees of Galibi and Raleighvallen in the tour price.

*Bilateral aid, multilateral aid and aid from development agencies:*

- GEF, CI and UNF payments for CSNR
- Tropenbos International, ITTO
- WWF Guianas funds available for the period 2007 - 2011:
  - US\$ 300,000 for the establishment of protected areas
  - US\$ 247,500 for species conservation and management
  - US\$ 400,000 for freshwater conservation and management

*Private:*

- Private investment by local businesses: Bergendal Eco and Cultural river resort, Kabalebo Nature Resort
- Compensatory environmental investment of large developments: tree planting post mining operations
- Philanthropic institutes
- International NGOs

## **8 Discussion and analysis**

### **8.1 Coverage of the study**

#### **8.1.1 SWOT analysis for financing SFM**

The identification of strengths, weaknesses, opportunities and threats (SWOT factors) was done by teamwork, based on assembled information of this report. SWOT factors relate to predominantly internal strengths and weaknesses and external opportunities and threats for SFM financing in Suriname. In table 6 these factors are listed without a specific ranking (potential of successful application) or weighing of importance (significance). But it is obvious that some factors are less important than others. It is also obvious that the different SWOT factors can be combined into strategic options for action.

**Table 6 SWOT analysis for financing SFM in Suriname**

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. 97% of total forest is government-owned which simplifies policy formulation, implementation and control as well as international cooperation.</li> <li>2. Pristine tropical rain forest as a resource potential for environmental services, the production of timber and NTFPs and revenue potential for Forest Financing (FF).</li> <li>3. Traditional knowledge of medicinal plants.</li> <li>4. Low population density in the hinterlands.</li> <li>5. Public policy and concession granting is based on principles of SFM.</li> <li>6. Countrywide level of literacy is high (95%).</li> <li>7. High level of awareness and willingness to participate in the implementation of SFM policies, especially by forest communities.</li> <li>8. An estimated 90% of total land area is covered by forest.</li> <li>9. Very low deforestation rate, on average less than 0.1% per year.</li> <li>10. 13% of the total land area is protected or is categorized as Nature Park or MUMA, with the goal to preserve the biodiversity.</li> </ol>	<ol style="list-style-type: none"> <li>1. GoS is cash strapped due to fiscal deficit of 3% of GDP.</li> <li>2. Weak human resource capacity (lack of negotiation and management capacity, lack of research capacity, lack of experience with innovative finance mechanisms, lack of capacity in the development and implementation of policy and programmes.</li> <li>3. Weak institutional capacity to seize opportunities for soft financing.</li> <li>4. Competing claims between various forest uses and stakeholders.</li> <li>5. People in the hinterland do not have good access to loans.</li> <li>6. The forest sector is perceived as 'risky' by the financial sector.</li> <li>7. Domestic banks poorly providing credit to the forest sector due to a lack of guarantees and land rights as collateral.</li> <li>8. The enabling environment is not stimulating private for profit investments and foreign investments.</li> <li>9. Absence of investment incentives for SFM: no tax breaks or soft financing.</li> <li>10. Low commercial forest sector productivity, causing little generation of public revenues from timber and non-timber production.</li> <li>11. Domestic sawmill industry is inefficient, under-capitalized and under-funded and does not have the capacity to process large volumes of wood and to reach higher yields.</li> </ol>

<p><b>Strengths</b></p>	<p><b>Weaknesses</b></p> <ol style="list-style-type: none"> <li>12. Absence of levies and taxation of forest conversion, forest degradation by mining, hydropower and agriculture.</li> <li>13. Absence of organized and funded maintenance system for roads.</li> <li>14. Absence of land use planning and zoning.</li> <li>15. Progress in tackling collective land rights is slow.</li> <li>16. Lack of comprehensive information on trade of NTFPs (operators, volumes, values, export market) which makes it difficult to understand and to develop the trade of these products.</li> </ol>
<p><b>Opportunities</b></p> <ol style="list-style-type: none"> <li>1. Identification and proactive pursuit of priority issues of strategic interest to Suriname (e.g. compensation for carbon storage, Global PES, biodiversity conservation) and mobilize international support including cooperation and alliances with countries with similar interests. For example: <ul style="list-style-type: none"> <li>- seek compensation for biodiversity loss and degradation caused by mining industry;</li> <li>- monitor international deliberations and champion compensation for carbon storage;</li> <li>- explore potential alliances with Guiana Shield Bioregion countries; some West African countries, CARICOM countries; ACTO countries; and other Latin American countries such as Panama, Costa Rica and Mexico;</li> <li>- explore potentials to mobilize funds from the users and beneficiaries of Suriname's forestland (e.g. 'green contribution' from eco-tourists; water consumers; etc.).</li> </ul> </li> </ol>	<p><b>Threats</b></p> <ol style="list-style-type: none"> <li>1. Impact of gold mining on forests, especially small scale goldmining, causing scattered areas of degraded forests, disrupted ecosystems and negative impact on the environment.</li> <li>2. Inadequate equitable treatment between international enterprises and domestic small- and medium-size enterprises.</li> <li>3. Reluctance of capital markets makes it difficult for firms to borrow money from domestic markets and overseas to invest in the forest sector.</li> <li>4. Influx of non-sustainable forest use, including illegal logging, mining and cattle farms.</li> <li>5. Decrease in soft financing of SFM by multilateral and bilateral partners.</li> <li>6. Limited willingness of mining companies to make voluntary contributions towards soft financing of SFM.</li> </ol>

<p><b>Opportunities</b></p>	<p><b>Threats</b></p>
<ol style="list-style-type: none"> <li>2. Positive contribution of certification on sustainable managed forests through higher cost efficiency, higher sales prices for timber.</li> <li>3. Recognition of multiple values and benefits of forests (commercial, social and spiritual value), leading to changing paradigms concerning forests and their use.</li> <li>4. Opportunities for receiving payments for forest products and services including mining companies that disturb water courses and occupy lands; and water bottling companies for the water extraction.</li> <li>5. Forests are one of the big assets of Suriname's tourism sector especially nature and cultural tourism and this sector has much potential to grow.</li> <li>6. International market for NTFPs (especially medicinal plants, ornamental plants).</li> <li>7. Voluntary philanthropic contributions.</li> <li>8. Bilateral soft financing of SFM.</li> <li>9. Soft financing by international entities (MFI, EU/ACP, UN/FAO, ITTO), including special programs.</li> </ol>	<ol style="list-style-type: none"> <li>7. Lucrative proposals from outside for non-sustainable activities.</li> <li>8. Poor international alliances towards the achievement of payment for international environmental services.</li> <li>9. REDD mechanism encourages countries to protect their forests. As a consequence timber logging efforts will be shifted towards countries for which REDD is not applicable. To prevent leakage it is expected that there will be additional requirements necessary, which could lead to increase in production costs.</li> </ol>

### **8.1.2 Non-financial mechanisms promoting sustainable forest management**

Forests are recognized as an integral part of the landscape and of the livelihood of people. SFM is therefore a cross-sectoral issue and requires an integrated approach. In this regard several non-financial aspects relevant for SFM in Suriname can be distinguished. These are:

- Interagency cooperation and coordination. Many stakeholders and right holders are making use of the forest and its different functions. It is necessary that these stakeholders work more closely together (cooperate and coordinate) in order to manage the forest in a sustainable manner.
- Pro-active governance in order to implement several of the proposed ideas and measures for sustainable resource exploitation. Regarding timber exploitation, many studies and documentation have already been produced in the last decades which just need implementation.
- An enabling environment favorable to (local and foreign) investments, including a formalized Investment Law, simplified procedures for starting a company and clarified tenure regimes.
- Collection of objective data which compare the forest sector with other economic sectors and prioritizing the forest sector accordingly. It is desirable to mainstream forests in the national development strategy and relate the forests to the Millennium Development Goals and to the Poverty Alleviation Strategy.
- Institutional capacity in order to pursue access to existing, new and additional funding and to monitor international developments and opportunities in order to intervene in a proactive and timely manner.
- Land use planning, with allocation of forested areas for mining, hydropower, agriculture and other purposes.

### **8.2 Evaluation of existing forest finance mechanisms in Suriname and their impact on SFM**

The benefits from existing financial mechanisms for the forest sector are limited, as reflected in the low financial contribution of forest-related activities to the economy (roughly 4% of GDP). This contribution is far under the potential of 7% of GDP if 850,000 m<sup>3</sup> roundwood would be produced, and even more if NTFP commercial output would also increase to meet its potential, as well as other innovative mechanisms such as biodiversity, carbon credits and payments for environmental services. In general, existing financial mechanisms for SFM are all underdeveloped, insufficiently available and if available, under unfavourable conditions (at a relative high price, no grace periods, mostly donor driven and often not based on Suriname's needs and priorities) and curtailed by insufficient existing institutional capacity to fully utilize the available financial mechanisms. As a result most actors are focussed on activities with short term benefits/returns, which are, almost always, by definition non-sustainable.

Such activities include gold mining which is initiated and largely controlled by foreign investors and operators from Canada, the USA and Brazil, as well as illegal logging and illegal hunting.

The forest finance mechanisms are evaluated, considering the five categories, mentioned in paragraph 7.1.2:

1. Public sector (Central Government)
2. International entities (multilateral, bilateral)
3. Commercial private sector
4. Forest communities and NGO's
5. International private sector

### **1. Public sector**

The Government is charging forest operators through general and specific taxes, royalties or fines. Currently, the revenues for GoS via retribution, concession rights, grading fee, exploration rights and inspection fee and export taxes are around US\$ 1 million annually regarding timber products. The current levels of forest charges are very low. However, a more realistic adjustment of concession fee is pending.

The revenues are by far not sufficient to finance public sector expenditures towards SFM. External funding is required to finance public sector activities towards SFM, particularly forest conservation and sustainable community forest development.

Considering the low productivity rates and favorable export prices, timber logging and timber processing have much higher revenue potential. The National Forest Policy assumes a potential annual allowable cut of more or less 1.0 million m<sup>3</sup>, whereby it is specifically mentioned that the utilization of lesser used species should increase to make this sustainable. Many concessions, expired concessions and HKVs are idle: 40% of the total concession area and 64% of the expired concessions has been lying idle since 2001. Current harvesting practices in Suriname are quite inefficient and productivity is generally low. The logging companies are generally working with outdated fragile equipment, causing frequent breakdowns. Most skidders are old and/or in need of expensive repairs.

Limited amounts of the public budget are invested in research, training and awareness and also in some specific SFM projects. Capital investments in infrastructure (roads, bridges) in forest areas are very limited and restricted to necessary maintenance and repair. Due to budgetary constraints, the Government can barely continue to fund the already improved control and assistance towards sustainable forest management. As a consequence the required further improvement of production planning, improvement of production control, improvement of law enforcement and financing of technical assistance and provision of services to the private sector as needed is not a priority.

## **2. International entities**

International sources, both bi- and multilateral, are becoming increasingly interested in funding some forest-related activities.

The Dutch Government invested substantial amounts in the forest by implementing the Dutch PSOM investment stimulating mechanism (two logging companies financed in the preparation for FSC certification), regular Treaty Funds and their own Environment Fund for the establishment of SBB as a vehicle towards a full fledged BOSNAS. Still there are substantial funds reserved but not utilized, including for the establishment of BOSNAS.

The multilateral financing agencies and international NGO's also show interest in funding private sustainable forest activities. WWF Guianas, with its head office in Suriname, invested substantial in several studies and projects in Suriname, among others in SFM, protected areas, wildlife and awareness building. WWF also entered into a partnership with Suma Lumber to FSC certify its logging operations.

Due to the expected increased net revenues from certification, the impact of a stimulation/subsidy programme is expected to be substantial.

CI-Suriname, IDB and the Japanese Government financed the bulk of the investments in the Iwana Samu Rainforest Lodge in Kwamalasamutu. UNDP and UNDP-GEF also supported policy formulation, research and small investments. Recently the IDB approved a grant for three studies for the general development of the Interior, including options for SFM. These activities lack coordination, but they all contribute to improving the capacity for SFM in the interior.

International financing for environmental services however, remains very limited and opportunities still have to be explored.

SCF, with its Endowment Fund, received financing from GEF, CI, UNF and the Dutch Treaty Funds, specifically for biodiversity conservation.

Suriname with its high forest cover and low deforestation rate does not get any financial compensation for the preservation of its forest and terrestrial carbon stock. Suriname has low potential for REDD credits and low potential for reforestation payments under CDM, except for probably the reforestation of fallow land from the shifting cultivation, when this activity is transformed into permanent agriculture. With regard to carbon storage or avoided deforestation, the only current potential option is the voluntary carbon market with lower transaction costs but also lower prices. The opportunities still have to be explored and therefore 'proven successful expertise' has to be contracted. A baseline study including the development of an environmental mapping and assessment of amongst others the carbon potential and carbon values of the Surinamese forest could enhance Suriname's negotiation position.

Suriname is one of the few countries in the world with an enormous freshwater reservoir, but does not get financial revenues from it. It is expected that the water markets will be even more important in quality and volume, than the carbon markets in the future. The international demand for water is increasing rapidly and investment in watershed management is relatively cheaper than treatment or obtaining new water supplies.

### **3. Commercial private sector**

Financing by the commercial private sector in the forest sector is very limited and insufficient. If an annual roundwood production target of 500,000 m<sup>3</sup> is to be achieved, substantial additional financing of the timber sector is needed.

With unchanged conditions the local sawmills could absorb no more than 15% of the 300,000 m<sup>3</sup> additional roundwood production. Since the Surinamese market is already saturated and has only very low growth rates, a high percentage of the additional timber production would have to be exported. Not all of the existing sawmills has the equipment to saw quality products for the export markets. Since international markets have by far higher quality requirements than the local market, more capital intensive technologies are needed to comply. New sawmills must be constructed and/or old sawmills must be refurbished to absorb the remaining logs, which requires predominantly commercial credit.

Commercial bank loans however, have not played a major role in financing forestry projects in Suriname. The total credit provided by the formal banking sector to the forestry sector is very low, approximately 0.2% of the total bank loan portfolio. The banks are not encouraged by the overall investment climate to provide loans particularly to new clients in what they consider risky areas as the forest (in the interior). The two credit unions, GODO and De Schakel have played an important role in mobilizing (micro-) savings and providing (micro) credit to its members. However, their contribution to forest financing is limited. In those cases where they financed considerable amounts (eco-tourism) this was mostly encouraged/backed by a donor organization (EU).

The volume of the informal financial market is substantial. It involves lending and saving schemes among family, friends and outsiders (including informal money lenders), and remittances from relatives and friends abroad. The amount of money which finds its way to SFM is estimated to be more or less equal to the formal credit provided by the commercial banks.

Community businesses (formal and informal) in the interior are stimulated by the provision of HKVs to their village captain. However, due to a lack of financing, appropriate equipment, awareness and capacity regarding SFM, the village captain usually rents the HKV out to private sector loggers, who are in a better position to secure financing.

Apart from some grants from for example WWF and UNDP Small Grants Program, household savings and own labour are invested in several small-scale agroforestry activities in the interior of Suriname.

There is an increasing foreign demand in the market for NTFPs including wildlife and medicinal plants. Some enterprises have already introduced e-commerce sales whereby products (medicinal plants and health products of Suriname) are sold on the internet, which tends to decrease the financing needs of this subsector. The impact is considerable since it directly increases employment and income in the communities.

Like Brazil who has an active government policy on subsidizing NTFP extraction and establishing extractive reserves, GoS should provide technical support to community-based NTFP enterprises. Due to its considerable income generation capacity it is feasible to subsidize NTFP extraction or establish soft financing options for communities.

#### **4. Forest communities and NGO's**

Indigenous and Maroon communities have very limited access to formal finance. The economic activities in which the Indigenous and Maroon communities are involved are mainly self-supporting.

The potential of charities (national and international) from faith based organizations and secular organizations like service clubs to provide funding to the forest activities is still underutilized. The contribution of some social- and environmental NGOs/CBOs active in small community projects in the interior is positive, but its impact is still relatively small. The large potential of international co-financing is not fully captured.

Funding for specific projects by national and international donors and/or service clubs are provided in some cases, such as in nature tourism activities. Nature tourism in Suriname is growing. Further development of nature tourism will have a considerable impact on the national economy in general and the Indigenous and Maroon communities in particular. However, still a lot has to be done in terms of general provisions for tourists. Additional financing is needed to improve the quality of the ecotourism facilities, the existing infrastructure, the hospitality services and the marketing abilities. On the national level the enabling environment must be improved such as visa policy and international (flight) connections.

#### **5. International private sector**

The FDI flow into Suriname in general is low, which is also applicable for the forest sector. Risk and required return on investments are related: the higher the forest risks and the country risks, the greater the expected return by investors. It includes market and project risks and in general these risk premiums tends to be in the 4 - 6% range.

Chinese logging companies in Suriname have their own financing schemes, at low interest rates, outside the national banking sector. The system seems to work fine.

Since there are no forest companies listed on the local stock exchange there is no room for portfolio investors to become active in funding the Surinamese forest. However, the enlisting of companies like Suma Lumber on the stock exchange would have a significant impact on attracting forest equity financing.

The IDB financed a US\$ 6 million loan to Kersten & Co for their investment in the Bergendal Eco- and Cultural river resort, under concessional conditions. The resort is still under construction but its impact in terms of employment and income generation is already substantial.

### **8.3 Factors promoting or militating against the effectiveness of identified finance mechanisms in Suriname**

#### **8.3.1 Assessment of the mechanisms in the Surinamese situation**

Enabling factors, promoting/supporting the effectiveness of forest financing are:

- Increasing interest of foreign financing institutes to provide loans;
- Decreasing trend in local commercial interest rates;
- Increased informal financing from the Diaspora.

Disabling factors, militating against the effectiveness of forest financing are:

- Limited public funds made available from the annual budget;
- Risk-avoiding behaviour of the local banks;
- Additional risk for forest investments;
- Poorly developed domestic stock market.
- Decreasing ODA;
- Low level of direct foreign investments in the forest.

#### **8.3.2 The business environment for SFM in Suriname**

Enabling factors, promoting/supporting the effectiveness of forest financing, are:

- The Government forest policy, which is generally supportive to SFM;
- Increasing macro-economic stability and improved country credit/debt ratings;
- Improvement in infrastructure (pavement of access roads/bridges);
- Improved safety and security situation in the interior;
- Gradually increasing public awareness on SFM;
- Increasing demands for timber, NTFP and environmental services
- Existence of an agriculture and forestry research institute, CELOS (although in need of research capacity and equipment).

Disabling factors, militating against the effectiveness of forest financing are:

- Absence of a clear investment policy framework with specific incentives, arrangements, and facilities for the forest sector;
- Absence of formal collective land rights and titling for traditional forest communities;
- Low household income level and as a result a poor willingness to pay for environmental services by local users;
- Absence and/or outdated legislation, among others concession policies for timber and NTFPs;
- Absence of an enabling investment law that protects domestic and foreign investors to attract bona fide investments;
- Limited demonstrated political commitment to SFM in practice;
- Slow policy decision making;
- Insufficient capacity to access and to utilize available funds;
- Increased high conditions and demands to access available funds;
- Lack of international arrangements for HFLD countries like Suriname;
- Limited expertise in government administration service and private sector;
- Existing visa policy restricting nature tourism visits.

## **8.4 Requirements and elements of a possible National Forest Finance Strategy**

In order to define requirements of a forest financing strategy, certain issues have to be considered, such as what needs to be financed, how it can be financed and how much finance is needed.

Forest financing regards expenditures of four categories of operators, each of them having specific financing needs. Current and possible sources/instruments are listed for each of these categories:

### **1. Expenditures by the public sector (Government and parastatals) for:**

- public transport infrastructure: roads, bridges, waterways, jetties, harbors. Infrastructure investments for the next five years are estimated at US\$ 170 million<sup>6</sup>;
- public administrative tasks of planning, zoning, control, safety, research, extension services, training, and other support services to be provided by the Government to the private sector. Expenditures for the next 5 years are estimated at US\$ 90 million.

---

<sup>6</sup> Consultants' estimate

Sources/instruments:

- Increased public revenues from new payments for environmental services and from economic growth in timber and NTFPs, mining industries and tourism;
- Soft loans and grants from ODA, including MFI's.

Increased public revenues, loan financing (preferably soft loans) and grants, are required to finance the public expenditures, while the existing fiscal deficit remains a serious constraint. Public revenues from payments for forest goods and services, should preferably be earmarked to supplementary finance the current expenditures of public institutions with administrative tasks. This is already the case with the financing of SBB and Stinasu and the Jan Starke Training and Recreation Centre.

The three most likely sources for increased public revenues appear to be 1) the new payments for international environmental services, notably towards the mitigation of climate change and the conservation of biodiversity 2) the increased public revenues from timber and NTFP production, and 3) the increased public revenues from the mining and the tourism sector.

More intensive borrowing from multilateral financing institutions (IDB/IIC, World Bank, EDF/EIB, IsDB) and bilateral financing (the Netherlands, China) appear to be the most likely sources for SFM soft loan and grant financing in the next decade.

## **2. Expenditures by the commercial private sector for:**

- commercial timber production, including logging and transport
- certification / legal verification processes
- development of NTFPs and environmental services
- processing activities
- marketing activities
- capacity building activities.

Sources/instruments:

- Re-activation of the Loan Guarantee mechanism to promote bank financing;
- Amendment of the Investment Code;
- Taxes and other incentives for NTFP production;
- Establishment of a special window for SFM development within an Investment Promotion Agency (Investsur);
- Increased private incomes and or profits;
- Improved utilization of existing funds especially for improvement of efficiency and capacity building.

### **3. Expenditures by forest communities and NGO's involved in SFM for:**

- programs and projects to increase awareness and capacity building on SFM;
- community forest investments in projects for sustainable timber and NTFPs and environmental services;
- replanting of commercial trees and fast growing species on abandoned areas after being submitted to shifting cultivation;
- sustainable management, including commercial management of protected areas;
- sustainable management and utilization of biodiversity;
- programs and projects to promote permanent agriculture techniques.

These activities, except the awareness increase program and promotion of permanent agriculture techniques, are of investment type and are private sector demand driven.

Sources/instruments:

- Soft loans and grants;
- Increased revenues from commercial management of protected areas;
- Re-activation of the Loan Guarantee mechanism to promote bank financing;
- Increased revenues from SFM.

### **4. Expenditures by the international private sector, including joint ventures with nationals or Government for:**

- the production, processing and/or marketing of timber, NTFPs and environmental services;
- research to quantify products and environmental services in order to determine opportunity costs for establishing commercial businesses;
- capacity building activities.

Sources/instruments:

- Amendment of the Investment Code with a view to promoting foreign investment in timber and NTFPs production in Suriname, including processing industries;
- Establishment of a special window for SFM development within an Investment Promotion Agency;
- Bi- or multilateral funding;
- Increased revenues from the commercial activities.

In table 7 an overview of these elements for a national forest financing strategy is given.

**Table 7 Overview of elements of a national strategy for financing SFM for different operators**

	<b>Requirements identified</b>	<b>2009-2014 US\$ million Estimated financing needs</b>	<b>Constraints identified</b>	<b>Sources/Instruments Mechanisms available</b>	<b>Observations</b>
Central government	<ul style="list-style-type: none"> <li>- Infrastructure</li> <li>- Administrative support services</li> </ul>	<ul style="list-style-type: none"> <li>\$ 170 M</li> <li>\$ 60 M</li> </ul>	<ul style="list-style-type: none"> <li>- Fiscal deficit</li> <li>- Institutional weakness</li> </ul>	<ul style="list-style-type: none"> <li>- Tax and non-tax revenues (PES etc.)</li> <li>- Loans</li> <li>- Grants</li> </ul>	<ul style="list-style-type: none"> <li>- Legal reform</li> <li>- Institutional strengthening: TA to Min RGB</li> </ul>
Local government	<ul style="list-style-type: none"> <li>- Infrastructure</li> <li>- Administrative support services</li> </ul>	Unknown	<ul style="list-style-type: none"> <li>- Fiscal deficit</li> <li>- Institutional weakness</li> </ul>	<ul style="list-style-type: none"> <li>- Tax and non-tax revenues</li> <li>- Soft loans</li> <li>- Grants</li> </ul>	<ul style="list-style-type: none"> <li>- Underdeveloped</li> <li>- Institutional strengthening: decentralized and local government in and around forest communities</li> </ul>
Parastatals	<ul style="list-style-type: none"> <li>- Infrastructure</li> <li>- Support services</li> </ul>	\$ 30 M	<ul style="list-style-type: none"> <li>- Fiscal deficit</li> <li>- Institutional weakness</li> </ul>	<ul style="list-style-type: none"> <li>- Payments for services</li> <li>- Soft loans</li> <li>- Grants</li> </ul>	<ul style="list-style-type: none"> <li>- Institutional strengthening: BOSNAS, JSOOC, Stinasu</li> </ul>
NGO's	<ul style="list-style-type: none"> <li>- Support services</li> <li>- Poverty eradication</li> <li>- Agriculture techniques</li> <li>- Development of NTFPs and environmental services</li> </ul>	Unknown Demand driven	<ul style="list-style-type: none"> <li>- Poor enabling environment</li> <li>- Land rights</li> </ul>	<ul style="list-style-type: none"> <li>- Private donors incl. private companies</li> <li>- Special trust funds</li> <li>- Soft loans</li> <li>- Grants</li> </ul>	<ul style="list-style-type: none"> <li>- Need to be structured and monitored</li> <li>- Overlapping activities</li> <li>- Not transparent</li> </ul>
Forest Communities	<ul style="list-style-type: none"> <li>- Poverty eradication</li> </ul>	Unknown Demand driven	<ul style="list-style-type: none"> <li>- Land rights</li> <li>- Low income &amp;</li> </ul>	<ul style="list-style-type: none"> <li>- Private donors incl. private companies</li> </ul>	<ul style="list-style-type: none"> <li>- Institutional strengthening:</li> </ul>

	<b>Requirements identified</b>	<b>2009-2014 US\$ million Estimated financing needs</b>	<b>Constraints identified</b>	<b>Sources/Instruments Mechanisms available</b>	<b>Observations</b>
	- Production of timber and NTFP production and development of environmental services		savings - Poor enabling environment	- Private savings - Soft loans - Grants	organization of forest communities, improved extension services & training of community leaders
National private companies	- Production of timber and NTFP and development of environmental services - Marketing - Capacity building	Unknown Demand driven	- Financing guarantees - Poor enabling environment	- Equity capital - Local bank loans incl. NOB - Foreign bank loans incl. MFI windows	Incentives required
Foreign private companies	- Production of timber and NTFP and development of environmental services - Research	Unknown Supply driven	Poor enabling environment	- Equity capital - Foreign bank loans incl. MFI windows	Incentives required
	<b>Requirements identified</b>	<b>2009-2014 US\$ million Estimated financing needs</b>	<b>Constraints identified</b>	<b>Sources/Instruments Mechanisms available</b>	<b>Observations</b>
	<b>environmental services</b> <b>- Research</b>				



## **8.5 Lessons learned and recommendations including follow-up action**

### **8.5.1 Lessons learned**

Suriname has primary responsibility for its own economic and social development. It is in the country's socioeconomic interest to add value to its forest economy, attracting and stimulating investments in SFM which would in turn generate employment and generate income for the population. Historically, Suriname has been very modest in its forest exploitation, using principles of SFM for public policy and concession policy. However, the possession of a vast amount of pristine forest did not create revenues for Suriname. Resource stewardship and forest conservation did not pay off financially and did not contribute to the sustainable development of Suriname to date. This needs to be addressed otherwise unsustainable practices seem to be more profitable than SFM and deforestation will be more tempting than sustainable resource use.

Another lesson learned is that there is a lack of a comprehensive strategy and enabling environment to develop natural resources. The focus to date is attracting investments for bauxite, gold and oil, with seemingly less attention to other forest-related natural resources. There is a growing market for timber, NTFPs and environmental services, with increasing revenue potential (carbon storage, water supply, nature tourism, medicinal plants etc). By proper strategizing, Suriname could diversify and increase income generation.

### **8.5.2 Recommendations and follow-up action**

Recommendations are based on the basic assumption that the forest sector has the potential to be a profitable productive sector, which could be self-financing and in addition contributing to the national income and national economy on a sustainable basis. A financing strategy should therefore concentrate on improving revenue collection and securing SFM funding based on different elements for different operators with different needs. The elements from paragraph 8.4.1 are converted into strategic options for actions, while considering the forest sector policy objectives and priorities, the Interim Strategic Action Plan, and other findings of this report.

The recommendations are:

1. Improve the enabling environment to stimulate private sector involvement in forestry by, amongst others, adjusting the existing relevant laws including government concession policy (including differentiation in timber, NTFPs, biodiversity and carbon concessions), providing financial incentives (such as exemption from turnover tax, tax facilities for new investments in SFM), facilitating transfer of technology, eradicating unnecessary bureaucracy, providing safety, law and order in forest areas, constructing and maintaining roads and water ways. Create an adequately mandated forest regulatory authority. Also, improve the enabling environment for the development of nature tourism, by amongst others adjusting visa policy and expansion of (inter)national transport facilities.
2. Address capacity needs for both private and public sector, leading to improvement of assessing and utilizing of existing and emerging finance mechanisms, improvement of planning, enforcement, management, negotiating and research capacity.
3. Establish a National Forest Fund (NFF) in Suriname, to finance expenditures that need soft financing (such as certification programs for timber and NTFPs, replanting of deforested areas, water transport of timber), by ensuring funding from a share in profit taxes from mining, payments for environmental services, voluntary contributions by the private sector, bilateral and multilateral grants. The National Forest Policy already proposed the establishment of a NFF. There are similar funds in other countries in the region, which can be used as an example for Suriname. NFF is a commonly used instrument to channel and administer financing for specified purposes in the forest sector. Forest funds are commonly designed to set aside specific forest-related revenues and earmarking them for investments in the forest sector.
4. Re-activate the Loan Guarantee Fund, with a special window for SFM investments for the expansion of sustainable production of timber and NTFPs and environmental services.
5. Establish a special window for financing the sustainable development of NTFPs. Specific attention should be given to promoting the development of higher value added production, with special reference to niche market products.
6. Continue and finalize the process of effectively acknowledging collective land rights to Indigenous and Maroon communities. Property rights are an important factor towards sustainable resource use and provide access to capital markets to finance investments.
7. Study the feasibility of charging taxes on mining companies for disturbing forests and their water regulation function. When undertaken without due care, mining can degrade water quality within a region's extensive system of waterways and reservoirs. The multinationals which are operating in Suriname are affiliated to international mining organizations which have regulations on 'Sustainable Mining Principles'.

Make use of the Sustainable Development Framework, developed by the International Council on Mining and Metals (ICMM)<sup>7</sup>, to encourage mining companies to compensate for environmental damage. Alcoa, BHP Billiton and Newmont are members of ICMM. The Framework describes ten principles of which principle six and principle seven are of specific importance, respectively ‘Seek continual improvement of environmental performance’ and ‘Contribute to conservation of biodiversity and integrated approaches to land use planning’. The Mining Association of Canada, of which IAMGOLD is a member, has a similar statement titled ‘Towards Sustainable Mining Guiding Principles. These guiding principles are of particular interest when negotiating with these multinationals. Multinationals are sensitive for corporate social responsibilities. Another possibility is to explore compensation for biodiversity loss by bauxite exploitation, specifically for the Wanecreek Nature Reserve. Suralco has a concession for bauxite exploitation which was granted before the nature reserve was established in 1986. Although formal policy is that concession rights are being respected, GoS should negotiate for compensation.

8. Pursue biodiversity research, contributing to the knowledge and understanding of the biological diversity and the function of the ecosystem of particular forest areas (i.e. genetic resources, pollination of crops, watershed function). Also study the value of the biodiversity of particular forest areas, not only in terms of its existing value but also the eventual value for future use.
9. Pro-actively explore financial mechanisms for carbon credits, including the voluntary market and the concept of selling terrestrial carbon credits, as stated in the paper of the Terrestrial Carbon Group<sup>8</sup> “How to Include Terrestrial Carbon in Developing Nations in the Overall Climate Change Solution”. This concept creates opportunities for countries like Suriname, to cash in on their forest stewardship, earning funds to continue conservation efforts and improving the quality of life of people living in and around forests. Pro-actively support development of financial mechanisms for standing forests and sustainable managed forests. Meanwhile GoS should consider some specific activities to be prepared once the situation changes in favor of standing forests (or carbon storage), in anticipation to the possibility that HFLD countries will be taken into consideration in the development of international financial mechanisms. Mechanisms as REDD require institutional adjustments and management authorities, accounting requirements, monitoring, benefit sharing mechanisms and land use planning. Expertise and know how could be attracted to respond to matters as baseline conditions, ex-post payments but up-front costs and equity concerns and ‘proven successful expertise’ could be hired to market the value of Surinamese forests.

---

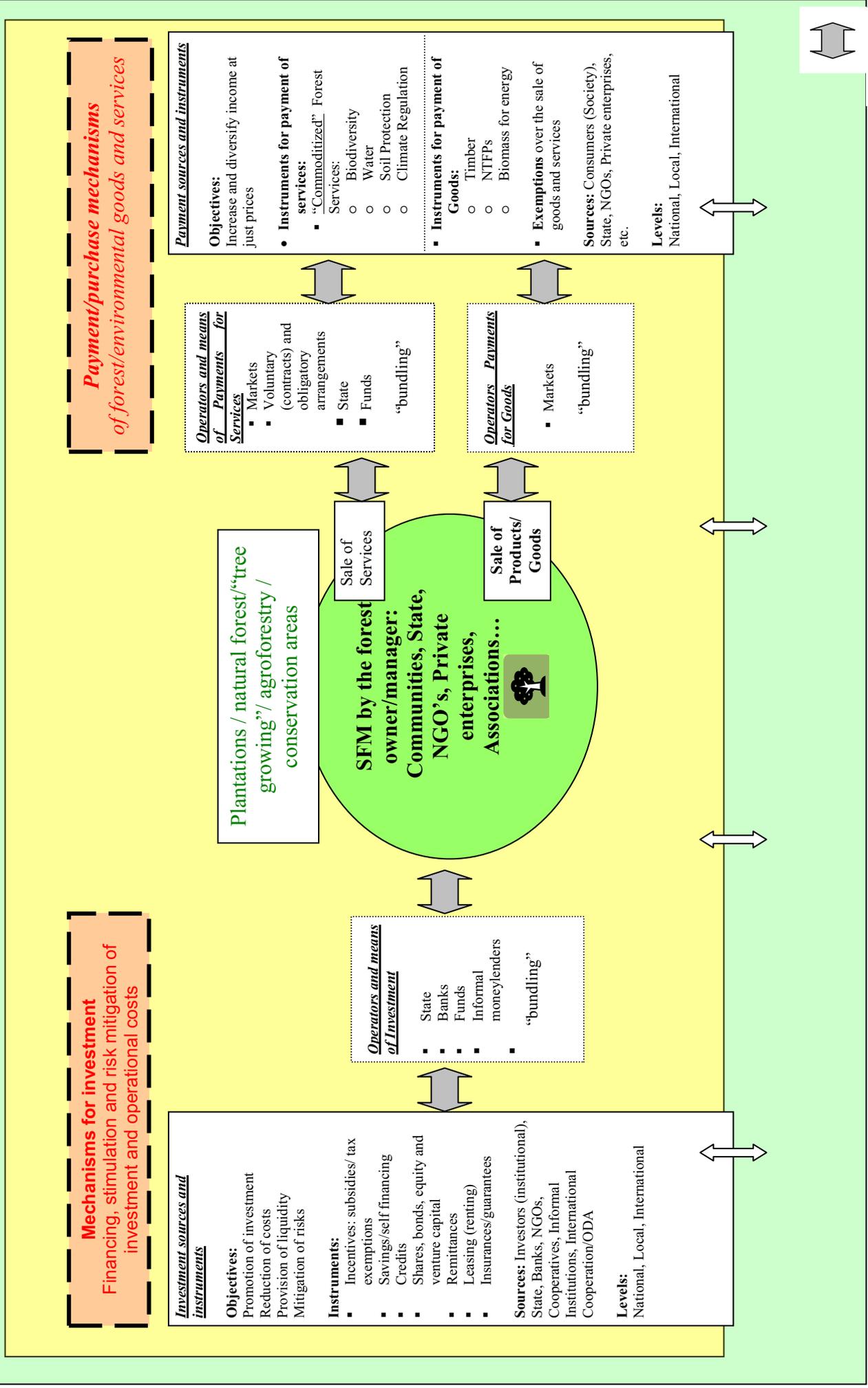
<sup>7</sup> Websites: [www.ICMM.com](http://www.ICMM.com) and [www.mining.ca](http://www.mining.ca)

<sup>8</sup> Website: [www.terrestrialcarbon.org](http://www.terrestrialcarbon.org)

10. Perform an assessment on the amounts of carbon stored in the forest, and changes in carbon stored under different management options. Develop a comprehensive land use plan in order to determine what percentage of the Surinamese forest can be issued for credits.
11. Create alliances with other forest-rich countries such as Guyana, Belize, Peru, Panama, Gabon, Zambia, with similar deforestation rates as Suriname. Liaise with these countries and explore opportunities collectively for the market of SFM, environmental services and standing forests, in order to strengthen Suriname's negotiation position. Increase participation in regional agendas such as the Amazon Cooperation Treaty Organization (ACTO) which comprises all eight Amazon countries.
12. Consider charging tourism fees. This mechanism is basically of a similar type of instrument as watershed charges: the forest owner (GoS) charges a fee from an industry (tourism) which covers part of the estimated costs for maintaining the scenic appeal and biodiversity. Such fees may be national (charged from every tour operator) or local (charged from tour operator or tourists) entering certain areas (such as Brownsberg). The income of the entrance fee could support management of a specific protected area as well as local development projects, like restoration of landscape beauty in abandoned mining areas.

Nationals should pay a reduced entrance fee in comparison with foreigners. Suriname has the opportunity to benefit from best practice examples in the region. The interior of Suriname certainly is very similar to that of other ACTO member countries. At the Bergendal Eco and Cultural river resort for example, in addition to Surinamese experts, expertise from Costa Rica is used to market the resort and to develop the products it will deliver to the visitors.

# ANNEX A: Conceptual Framework for a National Forest Financing Strategy





## **ANNEX B LIST OF PERSONS INTERVIEWED/SPOKEN**

### **Centre for Agricultural Research in Suriname**

- Mss. Maureen Playfair
- Mss. Mayra Esseboom

### **Central Bank of Suriname**

- Mr. Rakesh Adhin

### **Equalance**

- Mr. Salomon Emanuel
- Mss. Dana Paulus

### **Foundation for Forest Control**

- Mr. Renee Somopawiro
- Mr. R.Matai
- Mr. D.Lemen

### **JOMI Cosmetics (producer of JOMI products)**

- Mr. Herman Roberts

### **Ministry of Commerce and Industry**

- Mr. Arun Jadoenath Missier

### **Ministry of Labor, Technological Development and Environment**

- Mss. Shelley Soetosenojo
- Mss. Theresa Elder
- Mss. Priscilla Karijodrono

### **Ministry of Physical Planning, Land and Forest Management**

- Mr. Frans Kasantaroeno
- Mr. John Lenne
- Mr. Glenn Jong
- Mr. Marlon Hoesein
- Mss. Marie Djoetro

### **National Development Bank**

- Mss. W.Boedhoe

### **Nature Conservation Division**

- Mr. Bryan Drakensteijn

**Platform Houtsector**

- Mr. R.Ameerali
- Mr. B. Chin Ten Fung
- Mr. A.Gesser
- Mr. N.Bissumbhar

**Stichting Toerisme Suriname**

- Mr. Martin Panday

**Suma Lumber**

- Mr. E. Boerenveen

**Vereniging van Saramaccaanse Gezagsdragers**

- Mss. Justina Eduards
- Mr. Hugo Jabini (by e-mail)

**Vereniging van Inheemse Dorpshoofden in Suriname**

- Mr. Max Ooft
- Mss. Loreen Jubithana

**World Wildlife Fund Guianas**

- Mss. H. Malone

## **ANNEX C RECOMMENDATIONS FROM THE DRAFT INTERIM STRATEGIC ACTION PLAN**

The draft Interim Strategic Action plan outlines how the forest policy goals will be achieved, in what sequence they will be achieved and who will be responsible for implementation. The outputs and the activities needed for implementation have been identified. For each specific objective, strategic actions have been identified which would lead to the attainment of that objective. The strategies have been stated in such a way as to describe completed results or outputs. Most of these outputs stem from the National Forest Policy or were brought forward during a consultation process.

The aforementioned strategic actions are fundamentally required in order to adequately improve the environment for financing SFM. Most of those strategic actions are detailed in the draft strategic action plan, albeit with little attention for the production of non-timber goods and services, as well the issues related to payment for environmental services, and the financing of a program for SFM.

In a Logical Framework, the 2007 draft Interim Strategic Action Plan presents “Specific Objectives”, and their related “Outputs per Specific Objective” and “Activities per Output”. The time sequence, and who will be responsible for the implementation of the “Activities” are also presented. The outputs and activities are in line with the National Forest Policy or were brought forward during the consultation process. The outputs are listed by order of priority for action.

In the following pages a selection of specific objectives with their respective outputs are summarized and prioritized.

<b>Specific objective 1</b>	Create an enabling environment to implement the national forest policy
-----------------------------	------------------------------------------------------------------------

<p><b>10 Outputs</b></p>	<ol style="list-style-type: none"> <li>1. Consensus achieved on the elaboration and implementation of the strategic action plan</li> <li>2. Strategy developed to address land rights issue based on a dialogue between government, hinterland communities and other stakeholders in the forest sector</li> <li>3. Comprehensive land-use zoning and planning, indicating the potential zones for forestry, mining, tourism and other commercial activities, as well as protected areas and hinterland community lands, completed</li> <li>4. ‘Forest Fund’ established to channel domestic and external funds to support the implementation of SFM within the strategic action plan</li> <li>5. Forest, nature conservation and wildlife management acts reformed</li> <li>6. Effective and efficient national SFM structure established</li> <li>7. Inter-ministerial dialogue to implement cross-sectoral actions continued</li> <li>8. Public-private management system established for the expansion and maintenance of road, bridges and docks in the interior</li> <li>9. Planned action developed to deal with the impact of potential salvage logging due to projected large scale forest conversion projects</li> <li>10. Trained SFM professionals and skilled forest workers increased</li> </ol>
--------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Specific objective 2</b>	To increase the contribution of the commercial forestry and forest industry sector to the national economy, by increasing the sustainable timber production from forest concessions, added value of the timber processing industry and timber exports
<b>8 Outputs</b>	<ol style="list-style-type: none"> <li>1. Structured dialogue between the government and the private sector established - to define a feasible and viable concept for commercial sustainable forest management; to revise the forest management act; the concession policy; the forest revenue system; and forest management and environmental impact mitigation procedures</li> <li>2. PHS's proposal to generate economies of scale by clustering 'small-scale' forest enterprises honored in a form acceptable to the government and widely applicable to all SFM entrepreneurs</li> <li>3. Concession policy revised with the aim to facilitate practically feasible and economically viable sustained yield forest management in forest concessions</li> <li>4. Forest revenue system revised with the aim to reflect the overall objectives of forest policy; to minimize administrative cost; to encourage efficient resource utilization and forest management</li> <li>5. Comprehensive, practical, efficient forest management procedures for forest concessions implemented that facilitate true sustained yield forest management while minimizing environmental impact and administrative costs and burden</li> <li>6. Conditions for investments by private enterprises improved by removing constraints and disincentives and by facilitating access to funds</li> <li>7. Management, efficiency and productivity of forest enterprises (logging, transport and processing) improved</li> <li>8. Export of forest products (logs and processed products) promoted and facilitated</li> </ol>

<b>Specific objective 3</b>	To increase the contribution of multiple-use community forestry, including timber and non-timber forest products to the national economy, by increasing the sustainable subsistence and commercial production of timber and non-timber forest products from communal forests
<b>7 Outputs</b>	<ol style="list-style-type: none"> <li>1. Cooperation, organization and representation of the different indigenous and maroon tribes to define a common agenda for the structured dialogue with the government strengthened</li> <li>2. Governance and democratic processes within and among hinterland communities improved by adapting national and traditional leadership to present day realities</li> <li>3. Structured dialogue between the government and the forest-based communities to define a feasible and viable concept for sustainable multiple-use community forest management established</li> <li>4. Communal land title policy established that facilitates sustainable multiple-use community forest management in communal forests and links communal forest size and location to the needs of the villagers and potential uses,</li> <li>5. Comprehensive, practical, efficient forest management procedures for multiple-use community forest management implemented that facilitate true sustained yield forest management while minimizing environmental impact and administrative costs and burden</li> <li>6. Institutional and individual capacity at the District level strengthened (DC's, BO's etc)</li> <li>7. Institutional capacity of NGO's and CBO's dealing with community forestry strengthened</li> </ol>

<b>Specific objective 4</b>	To increase the contribution of non-timber forest products to the national economy, by promoting tourism and by increasing the commercial supply of sustainably extracted non-timber forest products from concessions and other non-communal forests.
<b>5 Outputs</b>	<ol style="list-style-type: none"> <li>1. Possible physical and financial contribution of non-timber forest products, including bush meat, wildlife trade, plant(part) extraction and bioprospecting to the national economy determined</li> <li>2. Tourism and recreation development plan for the interior prepared and implemented</li> <li>3. Comprehensive, practical, efficient procedures for commercial extraction of bush meat, freshwater fish, wildlife trade, and non-timber plant products (leaves, roots, orchids, etc.) implemented that facilitate sustainable management while minimizing environmental impact and administrative costs and burden</li> <li>4. Impact of commercial logging operations on the availability of non-timber forest products (wildlife, fish, plants) determined and mitigation procedures established</li> <li>5. Protocol for bioprospecting developed to promote this activity and to capture an equitable share of future proceeds</li> </ol>

<b>Specific objective 5</b>	To increase the physical and financial contribution of the ecological functions to the national economy, by realizing the monetary value of ecological functions.
<b>5 Outputs</b>	<ol style="list-style-type: none"> <li>1. Possible physical and financial contribution of the ecological functions to the national economy determined</li> <li>2. International partnerships to provide technical and financial assistance in developing the physical and financial contribution of the ecological functions established</li> <li>3. Importance of physical and financial contribution of ecological functions recognized in land-use zoning and planning and new forest management act</li> <li>4. Tourism and recreation development plan for in the interior prepared and implemented</li> <li>5. Awareness campaign on value of ecological functions and business opportunities related to the ecological functions among private sector and forest-based communities executed</li> </ol>

<b>Specific objective 6</b>	To preserve biodiversity and essential environmental functions by expansion and sustainable management of the protected areas network.
<b>5 Outputs</b>	<ol style="list-style-type: none"> <li>1. Protected area network management system developed</li> <li>2. International partnerships to provide technical and financial assistance in further expansion of protected areas network established</li> <li>3. Lacking data on biological diversity and essential environmental functions acquired</li> <li>4. Conflicts with other potential land uses, such as existing forest concessions and (formal and informal) communal forests resolved</li> <li>5. Procedures to define protected areas within forest concessions and communal forests and management procedures of such areas established and included in Codes of Practice</li> </ol>

## ANNEX D TABLES OF TIMBER PRODUCTION<sup>1</sup>

**Table A Annual average 2002-2005 roundwood production by license type.**

License type	Total concession area (ha)	Used area (ha)	Share of used area	Average annual production 2002-2005 (m <sup>3</sup> .yr <sup>-1</sup> )	Share in total log production	Cubic meters roundwood per ha concession area
Concessions	1,218,526	731,805	60.1%	63,621	35.5%	0.05
Expired concessios	257,213	93,193	36.2%	30,369	16.9%	0.36
Communal Forests	47,395	32,385	68.3%	33,131	18.5%	0.70
HKV's	459,754	343,094	74.6%	32,860	18.3%	0.07
<b>Subtotal</b>	<b>1,982,888</b>	<b>1,200,477</b>	<b>60.5%</b>	<b>159,981</b>	<b>89.2%</b>	<b>0.08</b>
Incidental Cutting Licenses	70,728	4,130	5.8%	26	0.0%	
Property (Eigendom)	18,041	18,041	100.0%	9,109	5.1%	0.50
Hereditary Tenure (Erfpacht)	26,060	26,060	100.0%	2,005	1.1%	
Land Lease (Grondhuur)	15,255	15,255	100.0%	8,246	4.6%	0.54
<b>Total</b>	<b>2,112,972</b>	<b>1,263,963</b>	<b>59.8%</b>	<b>179,367</b>	<b>100.0%</b>	

**Table B Productivity in timber logging during the period 1982 - 2007**

	1982-1991	1992-2001	2001-2007	1982-2007
Roundwood production (m <sup>3</sup> )	1,719,436	1,404,594	974,680	<b>4,098,710</b>
Average annual production (m <sup>3</sup> )	171,944	140,459	162,446	<b>157,643</b>
Area destined for timber logging (ha)	4,000,000	4,000,000	4,000,000	<b>4,000,000</b>
Productivity (m <sup>3</sup> /ha)	0.043	0.035	0.041	<b>0.039</b>
Productivity index	109	89	103	<b>100</b>

<sup>1</sup> Source: SBB

	(high)	(low)	(moderate)	<b>(average)</b>
--	--------	-------	------------	------------------

**Table C Export production in roundwood equivalent by year**

Derived roundwood volume by year in m <sup>3</sup>						
Product	Logs	Hewn Squares	Sawn	Plywood	Total	% of total log production
Assumed Conversion Percentage	100	75	50	30		
1991	-	-	594	3,493	4,087	4%
1992	1,741	2,560	1,028	5,973	11,302	9%
1993	1,216	2,213	1,788	7,720	12,937	13%
1994	6,898	1,427	2,948	12,802	24,075	24%
1995	12,693	1,661	6,262	12,793	33,409	31%
1996	24,000	4,000	6,600	19,000	53,600	25%
1997	29,000	2,667	13,400	16,333	61,400	34%
1998	21,000	1,333	10,800	9,667	42,800	30%
1999	16,000	1,733	8,400	7,333	33,467	36%
2000	9,200	1,200	14,800	2,267	27,467	16%
2001	5,600	3,200	16,400	967	26,167	16%
2002	22,800	4,133	16,800	440	44,173	29%
2003	1,130	2,800	15,400	370	19,700	13%
2004	4,800	1,867	10,000	-	16,667	10%
2005	7,200	3,067	9,400	-	19,667	11%
Avg share 2003 - 2007	23.4%	13.8%	62.1%	0.6%	100%	
Avg export 2003 - 2007	4,377	2,578	11,600	123	18,678	11%

## ANNEX E

### REFERENCES

Achieving the ITTO objective 2000 and sustainable forest management in Suriname (2003).

Andel, Tinde van, Joelaika Behari-Ramdas, Reinout Havinga, Sara Groenendijk. The Medicinal Plant Trade in Suriname (2007). *Ethnobotany Research & Applications* 5:351-373 (2007). [www.ethnobotanyjournal.org/vol5/i1547-3465-05-351.pdf](http://www.ethnobotanyjournal.org/vol5/i1547-3465-05-351.pdf)

Andel, Tinde van, Amy MacKinven, Olaf Bánki. Commercial Non-Timber Forest Products of the Guiana Shield, An inventory of commercial NTFP extraction and possibilities for sustainable harvesting. NC-IUCN/GSI Series (2003).

Annual Country program report UNDP/SGP - SURINAME 2007

Behari-Ramdas, Joelaika. Evaluating Ecological Impact of Commercial Trade on Surinamese Medicinal Plants sold in the Netherlands. Master of Science Thesis (2007).

Centre of Intelligence Agency World Factbook (2008).

“Country Led Initiative” Preparatory Workshop on Financing Sustainable Forest Management. 16 – 19 June 2008. International Developments and Perspectives for Suriname. Tropenbos International Proceedings (2008).

De Surinaamsche Bank. Annual Report 2006 and 2007.

Designing a Forest Financing Mechanism: A Call for Bold Collaborative Innovative Thinking, Working draft (2006).

Dijn, Bart de. Suriname national biotrade assessment report for the ACTO Regional Biotrade Program, supported by UNCTAD. First complete draft (2006)

Gutman, Pablo, editor. From Goodwill to Payments for Environmental Services, A Survey of Financing Options for Sustainable Natural Resource Management in Developing Countries. WWF Macroeconomics Program Office (2003).

Hakrinbank. Annual Report 2006 and 2007.

Hout, Peter van der. Interim Strategic Action Plan for the Forest Sector in Suriname 2008-2012, 4<sup>th</sup> and Final Draft for Discussion (2007).

How to include terrestrial carbon in developing nations in the overall climate change solution. The Terrestrial Carbon Group (2008).

InterAmerican Development Bank. Forest Finance in Latin America: The role of the IDB (2002).

Lakany, Hosny El, Jenkins, Michael and Richards, Michael. Background Paper on Means of Implementation. Contribution by PROFOR to discussions at UNFF-7, April 2007

National Forest Policy of Suriname. Ministry of Natural Resources and SBB (2005).

Parahoe, Minu, et al. Powerpoint presentation. Biodiversiteits- en Economische waardebeoordeling van het Bigi Pan Bijzonder Beheersgebied. WWF/SCF/FTeW/Celos (2007)

Penneux, P. Non-wood forest products in the Republic of Suriname. EC-FAO Partnership program. (1999).

Platform Houtsector Suriname. Voorstellen op te komen tot substantiele productieontwikkeling in de bosbouwsector (2003).

Salmy, J., Craigh, K. Study on Forest Sector Financing in Guyana. Final draft. UNDP/Guyana Forestry Commission (2001).

The Amazon Conservation Team Suriname. Annual Report 2006.

Unger, Brigitte. Informal Transfer Payments: The Netherlands-Suriname Corridor for Workers' Remittances. Utrecht School of Economics (March 2008).

Whiteman, Adrian/FAO. Powerpoint presentation Financing Sustainable Forestry in the Tropics: A Global Overview (2006).

WWF Guianas Program. Guianas Sustainable Natural Resources Management project 2007-2011. Project Document (2007)