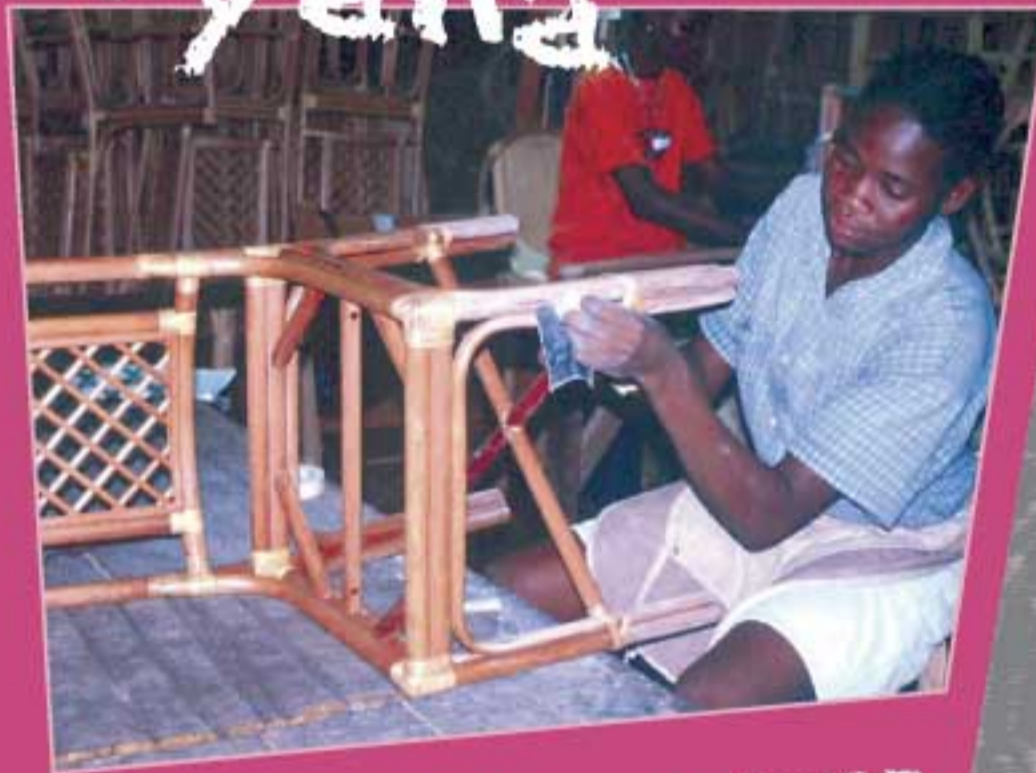


Small and medium forest enterprise

Guyana



A discussion paper

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Discussion paper

Small and Medium Forest Enterprise in Guyana

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Small-medium forestry enterprises for poverty reduction and sustainability

This study is part of a cross-country initiative coordinated by the International Institute for Environment and Development (IIED) with the above title.

Most international attention in forestry has been given to improving the conditions for large-scale or micro-scale forestry, and much less to the 'messy middle' - which produces a high proportion of forest product and involves huge numbers of people. Ways need to be found by which small and medium-scale forestry enterprises can better contribute to reducing poverty and improving the prospects for sustainability.

IIED, with partners in Uganda, South Africa, India, Brazil, Guyana and China have been investigating these issues. Country diagnostics show that the small and medium forestry enterprise "sector" is of major significance for livelihoods in these countries – the net effect of myriad small players represents a substantial part of local economies. Yet, these are largely "invisible" economies, and the SMFE sector is almost completely ignored in most policy and programme developments. Raising the sector's visibility such that its impacts can be better assessed, and then going on to explore how the positive links to sustainability, livelihoods and poverty-reduction can be enhanced, is a major challenge to which this initiative seeks to raise.

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Executive Summary

Guyana is one of the poorest countries in South America and the Caribbean with an average per capita GDP of only US\$ 2.2/day. With almost 75% of its land area covered in forest, the forest industry is important for Guyana's national development and poverty eradication.

This report assesses the opportunities and constraints facing the Small and Medium Forest Enterprises (SMFEs) in Guyana. Precise definition of what constitutes an SMFE in the forest sector is difficult because of the many different types of enterprise and the lack of data surrounding them. Recent estimates suggest that there are approximately 750 formal SMFEs working in the wood-based sector including forest extraction companies (less than 24,282 Ha), sawmills (less than 16,000 m³/yr) charcoal licences, firewood producers, furniture manufacturers, timber dealers and sawpit dealers. There are many more enterprises and community groups involved in the production of other small wood products and Non-Timber Forest Products (NTFPs).

Almost all (90%) of SMFEs are owned by Guyanese individuals or family firms. Similarly, most (but not quite all) are directed towards the domestic and not the export market. Some are subcontracted by larger firms to make up logs for export orders. There are also some small or medium furniture manufacturers who export to other CARICOM countries and elsewhere.

The contribution of SMFEs to total production in the sector is significant. For example in the forestry sub-sector, 257 of the 276 forest enterprises with concessions are classified as Small and Medium Forest Enterprises (SMFEs). While covering only 31% of the productive forest estate (1.8 of 5.7 million hectares) these SMFEs employ 75% of the employees in that sub-sector and account for 50% of the revenues collected by government.

The government policy towards SMFEs faces the conundrum that they are important for rural income generation, but less desirable in terms of enforceable sustainability. At the present time the reduced legislative requirements for forestry operations (in State Forest Permissions) favours SMFEs - a concession to the widespread lack of managerial and administrative ability. A new Area Management Plan initiative for forestry operations will attempt to regulate this sub-sector, but will not increase management prescriptions to the levels currently expected of larger operations. Outside the forestry sub-sector the unit costs of compliance with government regulations are higher than for larger enterprises. Fees continue to be paid for the long defunct Guyana Timber Export Board, but the marketing and price guarantee services which might have benefited SMFEs have ceased to be operational since 1982 and have not yet been widely replaced by the new marketing unit within the GFC Forest Monitoring Division.

There are significant financial barriers for forest SMFEs in Guyana where profit margins are small owing to the low commercial value of the Guiana Shield Forests. Difficulties are prominent in accessing credit, either from domestic or foreign sources (which in forestry operations is often due to the short tenure of small concessions and in other operations due to low confidence in business administrative capacity). Low credit ratings reduce the opportunities to invest in technology which would improve enterprise efficiency. The seasonality of harvesting operations generates cash flow problems that are particularly acute for smaller scale operations.

Apart from some dedicated private micro-credit schemes there are few specific incentives for SMFEs, and the scale of operation and lack of capital often excludes such operators from

initiatives which might improve sustainability (such as membership of representative bodies, training courses and certification schemes).

In order to overcome some of these disadvantages of size, there has been some examples of newly formed associations, particularly in the forestry sub-sector. The few examples which exist suggest that the prime motivation has been to capture credit, official assistance and market opportunities by collective action and combined production volumes. Much more needs to be done to understand how to make such association more successful – particularly in the development of new markets.

Labour conditions within SMFEs are largely unregulated and health and safety problems in SMFEs are reported to be high in comparison with larger companies. The informality and seasonality of employment in the sector is a particular issue for employment prospects.

Concluding arguments suggest that there is a need for a concerted programme of work in Guyana to address the various obstacles to economic, social and environmental sustainability faced by SMFEs. The central issues to be addressed revolve around the development of niche markets for Guyana's products and how to overcome the additional transaction costs faced by government and SMFEs due to the dispersed and disorganised nature of this segment of the industry. A balance needs to be found between the provision of government incentives to overcome some of the difficulties of for sustainable management in SMFEs (e.g. longer tenure, training and market support) – and a corresponding effort on the part of SMFEs to organise into associations which make the provision of such incentive more practicable. The strengthening of associations might also improve access to private sector support such as business partnerships, credit provision. Action learning will be required to assess what types of association are functioning well and why, such that new approaches build on what is already working. Wide ownership of this process and clear objectives shared between effective industry associations, government and NGO support networks will require a substantial participative process.

Acronyms

Caricom	Caribbean Community and Common Market
CBI	Caribbean Basin Initiative
COTED	Council for Trade and Economic Development
CPEC	Caribbean Programme for Economic Competitiveness
CSME	Caricom Single Market Economy
DFID	Department for International Development
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
GAWU	Guyana Agricultural and General Workers Union
GFC	Guyana Forestry Commission
GMA	Guyana Manufacturers Association
FAO	Food and Agriculture Organisation of the United Nations
FDI	Foreign Direct Investment
FPA	Forest Products Association
FRAC	Forest Resource Allocation Committee
FSC	Forest Stewardship Council
IIED	International Institute for Environment and Development
ILO	International Labour Organisation
ITTO	International Tropical Timber Organisation
Iwokrama	Iwokrama International Centre for Rainforest Conservation and Development
LEAP	Linden Economic Advancement Programme
NDS	National Development Strategy
NTFPs	Non timber forest products
PRSP	Poverty Reduction Strategy Programme
SDP	Social Development Programme
SFEP	State Forest Exploratory Permit
SFP	State Forest Permission
SMFE	Small and medium forest enterprises
TSA	Timber Sales Agreement
TUC	Trade Union Congress
VAT	Value Added Tax
WCL	Wood Cutting Lease
WWF	World Wildlife Fund for Nature

Glossary of terms

Dressed Lumber	Wood sawn lengthways from logs, further processed by planing, etc.
Firewood	Includes parts of trees made up into bundles or loads, or cut in a manner in which it is usual to cut wood for burning, and all refuse wood generally, but does not include straight logs or poles of any kind.
Fuelwood	Wood in the rough, from trunks and branches of trees, to be used as fuel for purposes such as cooking, heating and power production. Categorises fuelwood converted to charcoal.
Non-Timber Forest Products	All biological material, other than industrial roundwood, that may be extracted from natural ecosystems, either for commercial purposes, for use within the household or for social, cultural or religious purposes. Also known as non-wood forest products.
Piles	Long straight logs usually destined to be driven into the ground by impact.
Poles	Straight pieces of 5m or more in length taken from tree trunks. They are used principally to support telephone, telegraph and electrical transmission lines.
Posts	Round, hewn, squared or split wood, usually less than 3m in length, but possibly up to 5m, used for fencing, guard rails and the like.
Round logs	Bole or a large branch of a felled tree.
Roundwood	Wood in its natural state as felled or otherwise harvested, with or without bark, round, split, roughly squared or in other forms. Roundwood includes spars, posts, poles (wallaba) and piles (greenheart, kakaralli and mora).
Sawnwood	Categorises dressed lumber, undressed lumber, sleepers and pallets.
Shingles	Squares or wooden tiles usually of Wallaba (<i>Eperua falcata</i>) wood used to construct roofs and for panelling purposes.
Splitwood	Comprises paling and vat staves and shingles.
Timber	Defined in the Forest Act as a tree or any ligneous part of a tree whether standing, fallen or felled, and all wood, whether or not sawn, split, hewn or otherwise cut up or fashioned.
Undressed Lumbar	Wood in the rough sawn lengthways from logs and not processed any further.
Wattles	Saplings less than 8 cm in diameter.

1. Introduction

1.1 Purpose of this review

This study was initiated to review and identify ways by which small and medium-scale forestry enterprises (SMFEs) can better contribute to reducing poverty and improving the prospects for sustainability in Guyana. Most international attention in forestry has been given to improving the conditions for large-scale or micro-scale forestry, and much less to the 'messy middle' - which produces a high proportion of forest product and represents a substantial part of local economies. Yet, these are largely "invisible" economies, and the SMFE sector is almost completely ignored in most policy and programme developments. Raising the sector's visibility such that its impacts can be better assessed, and then going on to explore how the positive links to sustainability, livelihoods and poverty-reduction can be enhanced, is a major challenge to which this review seeks to address

A recent report (Rambrich 2002) lamented that the Forestry Sector in Guyana is currently facing an economic crisis and that many operators have been forced to close their businesses while others are struggling to keep afloat. Small and medium scale businesses are more susceptible than large ones since profit margins may not be sufficient to tide them over the crises periods along with many other difficulties faced. However, large operators argue the reverse, that the small operators do not have the heavy capital investment, nor do they have to do significant infrastructural work that is required for forest management (J. Singh, *pers. comm.*).

No specific work has been done on SMFEs in Guyana. Recent analyses of the forestry sector (Hunter 2001, Macqueen, 2001 and Rambrich 2002) have focused on the sector as a whole including large enterprises, though with less emphasis on the furniture producers.

This review will focus mainly on the SMFEs that come under the domain of the Guyana Forestry Commission, since other information is sparse. It includes loggers, sawmillers, timber dealers and secondary processors such as the charcoal and firewood producers. Some information is provided on the furniture producers, but the non-timber forest producers have been excluded due lack of information. These NTFP producers merit further more detailed research.

1.2 Forest resource base

Guyana is situated on the northern coast of South America and is an integral part of the Guiana Shield. With a total area of 21.6 million hectares, approximately 75% ((16 million hectares) is forested. The forested area is a blend of dry evergreen, marsh or seasonal, montane, mangrove and rainforests (GFC 2001).

The forest resources of Guyana are used for multiple purposes including harvesting of timber and non-timber forest produce, agriculture, research, ecotourism and conservation.

Guyana has in excess of 1000 tree species of which about 35 are being logged commercially. However, the more intensively harvested species including Greenheart (*Chlorocardium rodiei*), Baromalli (*Catostemma commune*), Purpleheart (*Peltogyne spp*), Crabwood (*Carapa guianensis*), Kabukalli (*Goupia glabra*), Wamara (*Swartzia leiocalycina*), Locust (*Hymenaea courbaril*), Taurniro (*Humiria balsamifera var balsamifera*), Soft wallaba (*Eperua falcata*), Korokororo (*Ormosia coutinhoi*), Dalli (*Virola spp*), Shibadan (*Aspidosperma spp*).

The growth rates and commercial stocking of Guyana's forests are low. Landell-Mills (1997) conducted case studies on eight companies to show that stumpage values were negative for six out of eight companies using a 20% profit margin. In search of sustainable harvesting guidelines, there have subsequently been proposed downward revisions to the already low permissible harvesting levels (Bird, 2000).

Despite low commercial stocking, the Guyanese timber resource is enormous on account of the large areas involved. The State Forest Estate is approximately 13.58 million hectares (83% of the forested area) and the Guyana Forestry Commission (GFC) is the semi-autonomous regulatory agency responsible for the management of these forest resources. The State forest includes areas for logging (concessions), reserves and other non-allocated areas but excludes indigenous, private and unforested State lands, the latter which comes under the authority of the Guyana Lands and Surveys Commission.

1.3 Human resource base

Population pressure in Guyana is very low (approximately 750,000 inhabitants) with about 90% of the people occupying the rich fertile coastal belt. Guyana is one of the poorest countries in South America and the Caribbean with a GDP/capita of USD785/annum in 1999. It was estimated in 1988 that 75% of the population fell below the poverty line. A survey in 1999 (Living Conditions Survey) showed 35% people below the poverty line with 21 percent living under extreme circumstances (see Hunter 2001). Some of the more recent strategic programmes in Guyana to deal with the poverty reduction are the National Development Strategy (NDS), Poverty Reduction Strategy Programme (PRSP) and the Linden Economic Advancement Programme (LEAP).

Much of the hinterland population, predominantly belonging to nine distinct indigenous Amerindian peoples, is considered "poor" in monetary terms - almost three times "poorer" than coastal areas in Guyana (Arnold *et al.* 2002). These communities are not only dependent on forested land, their very historical and future identity is defined by it, and their distinct cultures and values are based on it (Mangal, 2003). Though they constitute only about 9 % of the country's population, they represent the group where the impacts of forest based activities are most keenly felt. The traditional forestry sector is an important employer in the hinterland areas (either directly or through sub-contracts) where there are few opportunities for alternative employment. The Indigenous people and more recent colonists have also long been involved in using the forest resources to produce non-timber forest products.

1.4 Sector performance

Currently, the forest sector contribution to the Gross Domestic Product (GDP) is relatively low (Table 1). The contribution of the forestry sector to GDP should ideally be extended to the furniture manufacturing sub-sector. However, this data cannot be accurately estimated due to lack of information. GDP contribution of furniture producers is included in the manufacturing sector, though in the true sense they are affiliated to the forestry sector. It is difficult to ascertain the direct contribution of the furniture industry to GDP as it is lumped together with the beverages, food, textiles and other sub- sectors. However it probably falls between the range of an additional 1-3 percent taking the contribution of the forest sector to between 4 and 7 percent of total GDP.

Table 1: Contribution of Forestry Sector to GDP 1991-2001 (Bank of Guyana 2002)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
G\$m	327	703	1,046	1,936	2,473	2,597	3,103	2,107	2,569	2,232	2,433
%GDP	2.05	2.32	2.85	4.42	4.88	4.54	4.93	3.8	4.17	3.53	3.56

Note: Forestry figures in nominal G\$ but GDP % based on factor cost, at constant 1988 prices. GDP% only reflects primary production.

The Government of Guyana would like to encourage forest industry development to improve the sector's contribution to the GDP. A number of conditions that are increasingly advocated for investors to improve sector performance and poverty reduction are:

- Value added down stream production
- Multiple use of forested areas by different users
- Promotion of income earning from use of non-timber forest products including eco-tourism
- A focus on niche markets - i.e. quality rather than quantity since Guyana's forests are essentially low production

Small and medium scale businesses (SMFEs) are poised to take advantage of such conditions but face many difficulties including lack of adequate financing mechanisms, training and skills, adequate technologies, market access to name a few.

1.5 Definition and role of SMFEs in the Guyana economy

Providing a definition of SMFEs is complicated by the diversity of enterprises working with or trading in timber and non-timber forest products. We adopt in this review a pragmatic approach, using predefined categories which the government department employ to categorise different industries types. So, for example, forest extraction enterprises are "small" if their activities are restricted to the smallest of three types of national forest concession and medium if they operate in the middle size-category of concession (see Section 2.1). Sawmilling operations are small to medium if they produce between 5,000-16,000m³ / year.

Certain types of operation are all classed as SMFEs on account of their territorial control and numbers of employees in comparison with the former categories (e.g. portable sawmills, dealers, charcoal licensees and firewood producers). There is little data for furniture manufacturers, but the scale of production in Guyana does not typically exceed 100 employees, and while there are some notable export firms, we are not dealing with mass-production and we have chosen to include these enterprises in our calculations.

Notwithstanding these pragmatic considerations, we note that SMFEs are defined by a suite of characteristics which are mutually reinforcing. There are exceptions to these rules, but the general case can be made that SMFEs tend to display:

- Local ownership and management without access to a larger body of corporate protocols, expertise and advice (*social isolation*)
- Heavy reliance on immediate financial resources of owners, usually without substantial financial reserves (*financial vulnerability*)
- Little influence over the market (due to low market share) and little influence over those who govern the market (*political marginalisation*)
- Expediency - driven by immediate needs without the reserves or scale efficiencies to implement long-term sustainability (*corporate expediency*)

The majority of forestry related enterprises in Guyana display many of these traits and might be classified as small or medium enterprises. It therefore follows that these SMFEs are of significant importance to the economy. They can provide opportunities for poverty reduction through direct employment, partnerships and agreements amongst themselves or with large companies, middlemen and so forth.

Though direct revenue information is limited, a recent analysis (GFC 2003b) has shown that for the logging sub-sector the small and medium enterprises contributed a significant share of the revenue of the GFC in 2001 and 2002 (Figure 1) though they have significantly less forest resources allocated to them (Figure 2). This is of course linked to the system of allocation, tenure period for logging rights and the number of enterprises.

Figure 1. Revenue earned from large versus small concessions (% of total revenue earned)

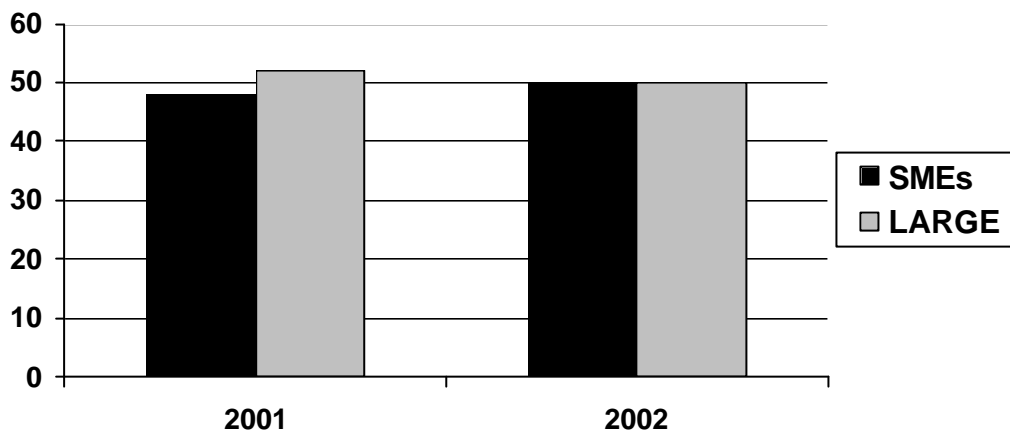
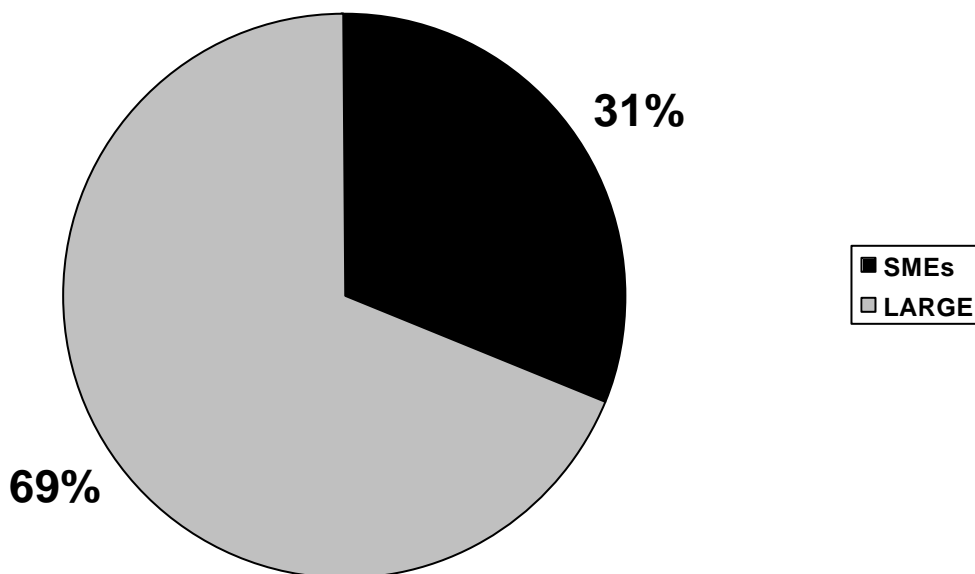


Figure 2. Forest allocation of State Forests by SMFEs and Large concessions (SMFE = State Forest Permissions and Wood Cutting Leases / LARGE = Timber Sales Agreements)



Note that the two main components of revenue earning are the payments of acreage fees and royalties (GFC 2003b)

From the figures seen, the temptation would be to suggest that the Guyanese revenue base would be significantly increased by allocation of all of the forest area to small and medium sized concessionaires. The Guyana Forestry Commission would be very cautious with this approach, however, as the large concessionaires are each significant contributors to the Guyanese economy and have much more potential to implement the environmental sustainability practices endorsed by the GFC.

1.6 Key message

It is apparent in the light of the above that there are fundamental issues regarding SMFEs. On the one hand SMFEs are critical to government revenues and to the maintenance of social stability and equity in the country. On the other hand, the very nature of SMFEs makes them less likely to have the capacity to implement social and environmental standards for sustainability - unless subsidised by significant support programmes. Finding a solution to this dilemma is fundamental to the future of the Guyanese forest sector.

2. Current status of SMFEs

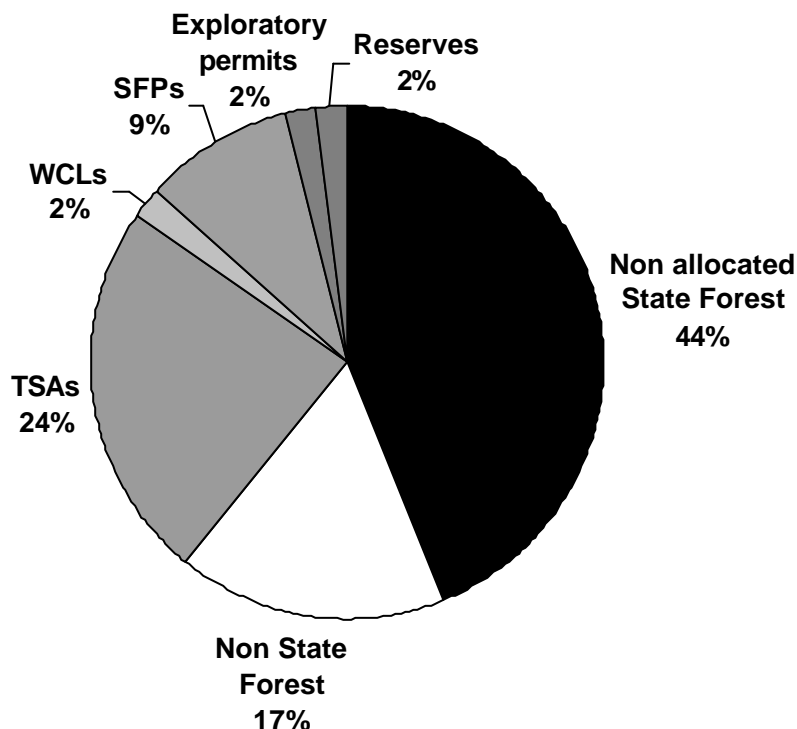
2.1 Types of SMFEs

Forest utilisation, which is under the domain of the Guyana Forestry Commission is granted via 3 types of permission

- *Timber Sales Agreement (TSA)*: issued for area greater than 24,282 hectares (60,000 acres) for periods of 10-30 years with an option for renewal
- *Wood Cutting Lease (WCL)*: issued for areas between 8,094 to 24,282 hectares (20,000 to 60,000 acres) for period ranging from 5-15 years with an optional for renewal.
- *State Forest Permission (SFP)*: issued for area under 8,094 hectares (20,000 acres) for one year (to be changed to two years as of 2004). The grantee does not have exclusive rights to an area.

There is also the State Forest Exploratory Permit which is issued for areas greater than 8,094 hectares (20,000 acres) to accommodate new investment on exploratory basis for 3 years, during which the grantee has to prepare and submit for approval, a satisfactory completion of the prerequisites from which the grantee may be awarded either a TSA or WCL.

Figure 3: Percentage forest allocation of total forest in Guyana (16 mill ha)



Rambrich and Associates (2002) classified the forestry industry in Guyana into 2 main groups: (1) Logging, sawmilling, plywood production; (2) Secondary processing including furniture, shingles, charcoal etc production. Although this study principally deals with the logging aspects it will address at some level the other producers.

For the purpose of this study some of the groups that will be addressed include

- Logging (in areas smaller than 24,282 ha) – State Forest Permissions (SFPs), Wood Cutting Leases (WCLs)
- Processing (production of less than 16,000m³ / year) – Sawmillers (stationary and portable), sawpit holders (these persons are licensed to use chainsaws for the conversion of logs to lumber)
- Secondary processing – Charcoal and firewood producers, Wallaba shingles producers furniture (timber) manufacturers.
- Other – timber dealers (involved in buying and selling forest produce other than those classified under other groups – the term ‘timber dealer’ is used interchangeably with lumber yards, where the timber is actually sold from). Some sawmill producers have lumber yards but do not need to acquire a timber deal license unless the lumber yard is off site from the saw mill.

Of the groups noted, the Guyana Forestry Commission is not directly linked to the furniture manufacturers Table 2 describes the number of SMFEs in Guyana.

Unfortunately, the limited amount of available data on non-timber forest producers and time constraints on this review have meant that this study will not include NTFPs. It is worth noting, however, that there is information describing twenty-two enterprises exporting Nibbi and Kufa (NTFPs) products in 2001 (Hall *et al* 2001). More work is needed for this sub-sector as it also has an important link with livelihoods of hinterland and other rural communities of Guyana.

Table 2: Small and medium forest enterprises in Guyana

Enterprise	2002	2003
State Forest Permission –logging concession (small) (approximately 40 SFP holders have sawmills)	250	289
Wood Cutting Lease –logging concession (medium)	2 (6 inactive)	2 (6 inactive)
Furniture producers (157 small, 47 medium)	206	Not assessed
Charcoal licenses (small)	11	6
Firewood producers (small)	12	8
Sawmills (capacity 5,000-16,000 m ³ production) (estimate of 1% medium scale)	69	64
Portable Sawmills (small)	Not assessed	29 (16 producers)
Sawpit dealers (small)	122	59
Timber dealers (small and medium)	198	155
Shingles producers – (medium)	2	2

Note: For the portable sawmills – eight belong to one producer, while six producers have two each and the remainder operating one each. Source: (GFC statistics up to August 2003)

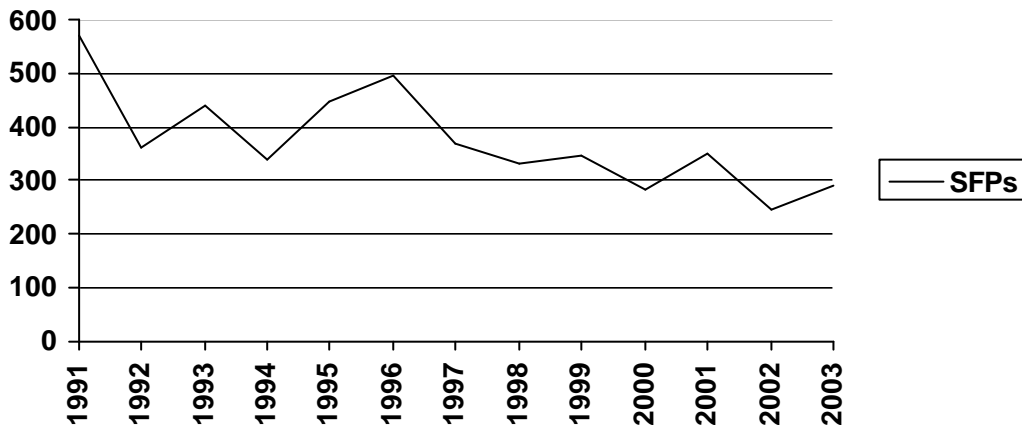
The number of SMFEs in Guyana exceeds the large forest enterprises by a significant margin. For example, in comparison with the 257 small and medium concessions, there are only 19 active large logging concessions (TSAs) in Guyana for 2003 (and one of these TSAs is the producer of a non-timber forest product, heart of palm (manicole palm)). Similarly, the study conducted on furniture producers identified only 24 large enterprises (Ramsaroop 2002). Only two of the sawmills in Guyana could be considered large - i.e. exceeding annual production capacity of 25,000m³

2.2 Trends in SMFEs within Guyana

Over recent years there has been a noticeable decreasing trend of the issuance of SFP licenses (Figure 4) and this is due to a number of reasons including:

- A number of SFP areas being closed to further extraction as rapid assessments indicated that they were no longer productive
- The allocation process became more rigid and transparent in that the Committee set up to deal with this process implemented a scoring system based on specific criteria making the selections more objective. The revenue collection system was also made more stringent. These combined factors made some producers ineligible to apply for SFPs.
- Some of the SFPs were merged to accommodate small associations of loggers such as the Region 10 Forest Producers Association and the Ituni Small Loggers Association (see Section 5.2).

Figure 4. Evolution of granting annual SFP concessions (1991-2003)



Source: Guyana Forestry Commission

Six of the eight WCLs are inactive. This is due mainly to financial difficulties not only with payment to the Guyana Forestry Commission, but also for operational aspects.

A number of sawmills have also closed in recent years. One reason cited is the competition from the log export market (which pays higher prices for logs than sawmillers can afford to pay when supplying the local market - see Macqueen, 2001). Other operators cite the increasing reliance of the domestic market on cheaper chainsaw lumber production. A third reason is said to be the increasing substitutions of traditional timber (and primarily Greenheart) houses with concrete - although the extent to which this is happening is debatable (see Table 5).

One of the Shingles factories has been in operation since mid to late eighties and this has scaled down its operations in recent years. The other factory was established in mid-2002.

2.3 Locations of SMFEs in Guyana (2003)

The Guyana Forestry Commission has forest stations across the country and monitors forest operations and collects revenue. Guyana has three counties: Essequibo (Northwest), Demerara (Central) and Berbice (South East). Table 3 gives a breakdown of the location of the producers for 2003 and the majority of SMEs fall within the county of Demerara (52%).

The SFP holders, furniture and timber dealers mainly account for this. This is most likely the case because there is market advantage due to population size, access to roads, access to other infrastructure and to more information. The data for furniture manufacturers is based on a study done in 2002 (Ramsaroop 2002).

Table 3: Location of SMFEs by county in Guyana in 2003

Location	Essequibo	Demerara	Berbice
State Forest Permission	80	123	86
Wood Cutting Lease	2	-	-
Charcoal	5	Nil	2
Firewood	5	1	2
Sawmills	11	21	32
Sawpit dealers	16	35	8
Timber Dealers	11	110	34
Shingles producers	1	1	-
Furniture Manufacturers (2002)	49	125	32
Total	180	416	196

Source: GFC statistics up to June 2003

2.4 Types of ownership

At present SMFEs are operating mainly on the basis of self-financing and most are family owned and managed. To our knowledge, only one SMFE operator is foreign owned, ie the individual who owns eight portable sawmills. The overwhelming majority of foreign owned businesses fall in the category of large enterprises. Seven TSAs are foreign owned, though one company has two concessions. Included here is Conservation International which has a conservation concession and pays GFC acreage fees and assessed minimum royalties on the standing commercial timber.

Guyanese business men and women have traditionally used their own financial resources to get started in business ventures. About 90% of SFPs are owned by individuals (family based) and GFC has a rule that persons must be domicile in Guyana for 6-9 months before being eligible to apply for an SFP.

Many small operators including SFP holders have reported that they joined the industry as a result of unemployment. A number of SFP holders were previously involved in the mining industry. However, with the collapse of particularly the bauxite industry, forestry has become an alternative solution for many of these people. WCLs are owned by Guyanese families. Revenues are reinvested and all expansions are financed with own private capital, commercial banks and supplier's lines of credit.

2.5 Raw material consumption and sources

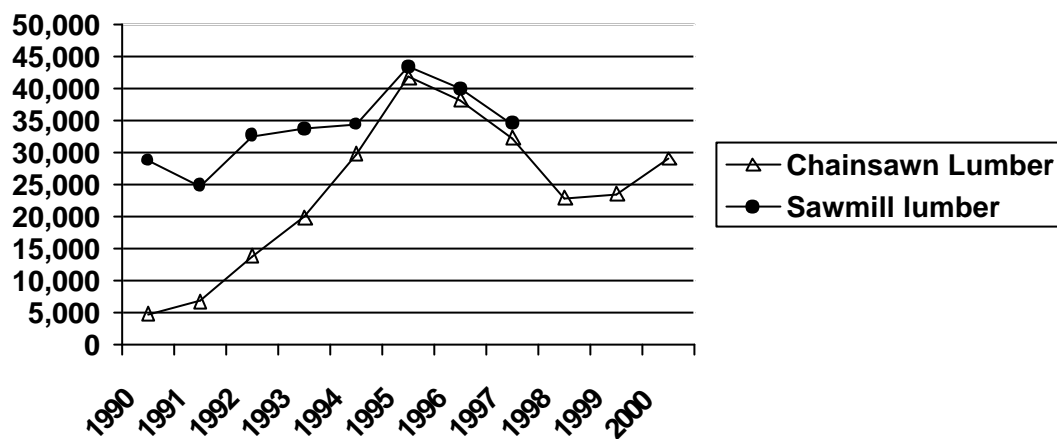
The WCL concessionaires mainly declare production in the form of logs but they practice downstream processing at varying levels. The SFP concessionaires declare production mainly in the form of lumber and other products such as poles, post, charcoal, firewood, spars and wattles.

In the past, static saw mills used to be the primary source of sawn lumber but with the proliferation of chainsaw operators and the increase in mobile saw mills this situation no longer holds. A number of sawmills have closed in recent years due to the competition from the influx of the alternative methods of producing sawn timber along with inefficiency and

high costs of retooling. It is estimated that more than half of all sawn timber is produced by chainsaw operators (but see Figure 5). Raw material for producing sawn timber is obtained from the concessions or through contractors (Hunter 2001).

Domestic consumption of lumber (sawmill and chainsaw) is strongly influenced by the furniture manufacturing and housing construction sub-sectors and the production figures reflect the buoyancy of those markets (see Figure 4). Chainsaw lumber was traditionally preferred for furniture manufacturing, boat building, maintenance work, paling, fencing, shuttering and so forth. The growing preference for chainsawn lumber by these latter sub-sectors is linked to the fact that the price for such lumber is lower.

Figure 4: Domestic consumption of sawmill and chainsaw lumber



(m³)

Source: GFC 2003d

2.6 Major products/services and markets

Some of the major timber forest products include unprocessed logs, sawn lumber (sawmill and chain sawn), piles, transmission (Wallaba) poles, paling posts and staves, spars, wattles, shingles, fire wood, and charcoal. See Appendix 2 for production data 1999-2002 (this information includes large concessions).

Wood is still a favoured construction material in Guyana although it has been subject to competition from other substitute materials. Millers have cited substitution materials as a cause for drops in sales for lumber but the statistical data does not yet reveal such effects (Hunter 2001). The 1999 figures from the Household and Expenditure Survey show wood being utilized by 80% of the households and wood and concrete by 10% for construction of house walls but these are static figures and does not inform us about trends (Table 4). Hunter's (2001) report also hints that there is a growing market for home improvements and therefore SMFEs could take advantage of the market for such lumber.

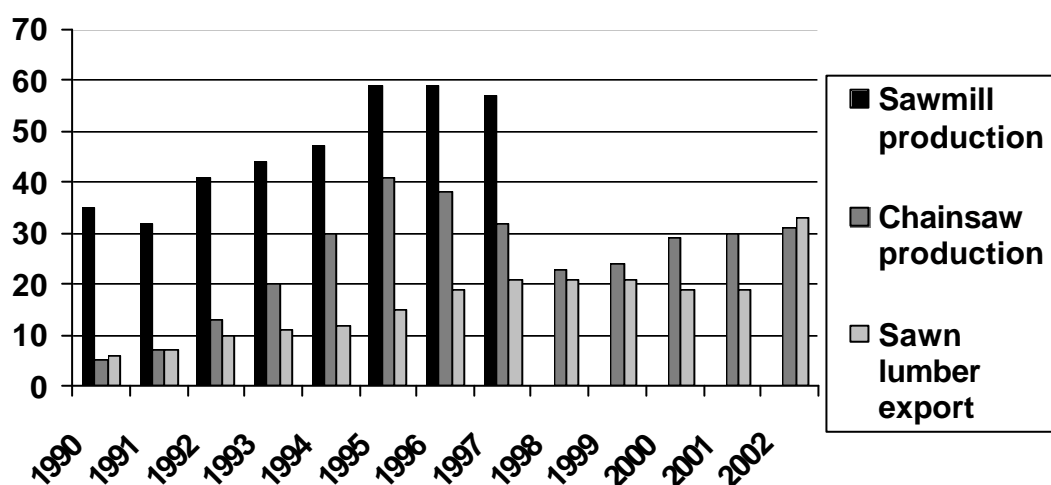
Table 4: Household numbers using various materials for house-walls 1999 (Hunter 2001)

Prod. Income Group	Wood	Concrete	Wood and Concrete	Stone, Brick, Adobe	Other	Total
<G\$4,999	9,611	491	1,286	352	495	12,235
G\$5000-29,999	98,427	5,037	10,127	2,029	3,055	118,675
G\$30,000 to 44,999	15,048	1,379	2,110	20	119	18,676
>G\$50,000	12,063	1,852	2,989	96	547	17,547
Total	135,149	8,759	16,512	2,497	4,216	167,133

Source: Bureau of Statistics, Household Income and Expenditure Survey

Between 1972-1992, the majority of lumber produced was sold on the local market primarily for construction. However, since 1995 timber production increased largely due to the proliferation of chainsaw loggers and foreign investment (large enterprises) which resulted in increased exports (see GFC 2003c, Figure 5).

Figure 5: Production of sawmill and chainsaw lumber and export of sawmill lumber 1990-2002 in '000 cubic metres (GFC statistics)



It is estimated that more than half of the sawn timber in Guyana is produced by chainsawyers. This may well be the case but it is difficult to substantiate this due to the lack of sawmill lumber production data from 1998-2002 (Figure 5).

Export markets for Guyana's timber can be found traditionally in Europe, North America and, more recently, in the Far East and the Caribbean. Approximately eight percent of Guyana's merchandise exports consist of unprocessed forest products (GFC 2003c).

Exports to the Caribbean have been encouraging for the first quarter of 2003 with plywood, sawnwood, Wallaba poles and posts, shingles and dressed lumber capturing a significant share of the market (GFC 2002c). It is hoped that this trend will continue. Traditionally, the Caribbean has not been a major market for Guyana's timber products, but increasingly it

should be seen as target for SMFEs since there are proximity and trade benefits (Caricom- See Section 3.7) coupled with the fact that the Caribbean market does not yet demand certified products.

2.7 Links between various forest enterprises

The timber supply chain supports a number of different actors (extracted from GFC, 2003d):

Primary manufacturer In Guyana, chainsaw operators (saw pit license holders) and sawmillers are involved in the manufacturing of lumber. At this stage the raw materials (logs) are extracted or purchased from logging companies and processed into finished or semi-finished products (lumber).

Added-value processors. Added-value processors normally purchase lumber for manufacturing into doors, windows, frames cabinets, furniture and swings etc. These added-value processors are independent companies, who sell on the export market as well as directly to consumers and on the retail market locally for redistribution.

Retailer and wholesaler. Are generally the most important link in the distribution system. They buy directly from mills and chainsaw operators and sell for value added manufacturing and consumers. Their importance lies in the fact that they aid in getting the product closer to the customers. In Guyana lumberyards (timber dealers) are involved in retailing and wholesaling of lumber.

Consumers. These include individuals or companies engaged in home or building construction, boat building, furniture manufacturing, retailing, wholesaling etc. In most cases they are the users of the product

One of the WCL concessionaires is directly involved in the export of logs and sawn lumber. The other has a formal agreement with a large concessionaire to supply unprocessed logs which the concessionaire then processes for export.

The majority of SFP holders and sawpit dealers are chainsaw owners and approximately 75-90% of the chainsaw lumber is channelled through lumber yards of different types (either added-value processors or retailers and wholesalers). The chainsaw operators largely supply the domestic market. Larger sawmills and other added-value processors such as contractors, furniture makers, boat builders and so forth take care of the remainder (GFC 2003d, Hunter 2001). Grisley (1998) reported cases of chainsaw operators having formal agreements with larger forest concession holders to purchase logs for chainsaw lumber production.

Outputs from sawmills are sold on both the export and local markets usually targeting the building and construction sector. They also sell to the different types of lumber yard and in some cases entertain wholesaling lumber to lumber yards.

The lumber yards which are in the retail business, find the majority of their customers from the construction sub-sector, with a few small furniture makers and customers engaged in home improvements work (Hunter 2001).

The vast majority of the small-medium timber furniture makers cater to the domestic market. Export of furniture is the domain of the large furniture companies. It should be noted that some furniture made from non-timber raw materials are exported, mainly to the Caribbean (e.g. in the case of Liana Cane which exports Nibbi and Kufa wicker furniture to CARICOM countries).

Firewood and charcoal dealers cater to the local market though on occasion small quantities of charcoal are exported to the Caribbean.

The concessionaires (loggers) have an integral, though not always direct, link to the non-timber forest producers. Although the persons gathering raw NTFP materials require no special license to do so, there are cases where agreements are made with the logging company to safeguard such collections. For example, one gatherer of Kufa (*Clusia spp.*) regularly collects the raw product in one of the large concessions. Another example is the collection of Crabwood seeds which is used for the production of Crabwood oil, which is oil that has a multitude of uses. Recent studies on Craboil production by Iwokrama have not recognised any disputes arising from the collection of seeds from concessionaires (S. Ousman *pers. comm*). However, the Crabwood tree (*Carapa guianensis*) is also a valuable timber species and future conflicts could arise if exploitation of this tree leaves a dearth of seeds for the Crabwood Oil producers. The livelihood implications could be serious and therefore this is an issue that needs to be addressed at a policy level.

Generally, there have not been disputes about the gathering of NTFPs within concessions by outsiders or communities and it should be noted that the concessionaires have timber rights, though they can engage gathering of NTFPs if they choose to as there is currently no proper licensing structure in place.

Other links include those between portable sawmills and logging enterprises. For example the individual who owns eight portable sawmills has a formal agreement with one of the SFP holders to supply logs. Another owner of two portable sawmills had an agreement with one large concessionaire to supply reject logs. In both of these cases the mills were based at the concession sites.

2.8 Employment statistics

The latest data on employment in the forestry sector is lacking but is estimated to be around 15,000 persons (based on projections from Table 5). What percentage of this is due to SMFEs is difficult to estimate. The latest statistics of the entire forestry sector shown in Table 6 includes large enterprises and exclude the sawpit license holders and timber dealers. Guyana Forestry Commission is presently conducting a study on employment in the forestry sector (See Table 6). The preliminary information shows that less than one percent of employees for the SMFEs assessed are females (Table 6). An assessment is yet to be done on employment within the furniture industry.

Table 5: Employment in the Forestry Sector include large enterprises (see Hunter 2001)

	1994	1995	1996	1997
Logging (all enterprises)	6,690	7,344	7,450	7,144
Sawmills (all enterprises)	4,983	5,004	5,100	4,855
Ply mills (large enterprise only)	1,725	1,900	1,750	1,000
Charcoal (small enterprises)	245	225	165	180
Manicole Palm (large enterprise only)	700	725	800	800
Others (small enterprises)	85	10	10	0
Total	14,428	15,208	15,275	13,979

Table 6: Preliminary information on Employment for 2003 for 35 forestry enterprises (includes logging and sawmill operations)

	Male	Female	Total
TSA (large concessions) 5 concessions	890	42	932
WCL – 1 concession	151	6	157
SFP – 26 concessions	2 596	16	2612
Total	3637	66	3701

Source: Planning and Development Division, Guyana Forestry Commission)

Small operators are faced with high turnover rates in the industry. Information is very limited but this is one of the factors that makes operators reluctant to invest in training and upgrading of skills in the industry.

It should be noted that employment figures are not static. In discussions with one SFP holder, he indicated that his employment could fluctuate from 10-50 persons annually depending orders received. In addition to the logging component, he also would employ on a needs basis, persons to produce Wallaba poles and hand made shingles, both which are quite labour intensive work. Ramsaroop's study (2002) found that a large number of furniture employees are part-time. This 'seasonal' component of employment cannot be ignored.

2.9 Key message

The SMFE sector clearly makes an important contribution to the Guyanese economy through its revenue and employment generation. The decreases in revenue and employment from this sector can be attributed to the past pressure which has been put on the natural resource base. This is now being addressed, either through government measures aimed at improving sustainability, or by the actual depletion of the resources themselves. Of equal concern is the fierce competition based on cost which local SMFEs are facing due to the development of international trade and the substitution of wood by other construction materials. Finding the right strategy to allow the SMFEs to flourish without destroying the resource on which they are based must continue to be a preoccupation of all interested parties.

3. Governance Issues

3.1 Forest policies and institutions

The key institutions that have an influence on forest policies aside from the Guyana Forestry Commission are the Lands and Surveys Commission, Environmental Protection Agency, Ministry of Amerindian Affairs, Guyana Geology and Mines Commission and Ministry of Health and Labour.

There are hierarchical land use priorities and this has implications for forestry. For example, mining has user rights above forestry (for sub-surface only) and this can generate user rights conflicts. The Government has recognised the need for a land use policy and there is a draft document that is under consideration by the Natural Resources and Environment Advisory committee (NREAC).

The National Forest Policy was approved by the Government in 1997 and the overall objective of the policy is 'the conservation, protection, management and utilisation of the nation's forest resources, while ensuring that the productive capacity of the forest for both goods and services is maintained or enhanced'. The policy supports the principle for a land use policy. It also recognises the rights of indigenous peoples including respect for their rights, assistance in management of their lands and forests, training and consultation in matters that affect them. The policy also addresses forest management, forest industries, research and information, forestry and education and forest administration and governance policies.

Since the adoption of a National Forest Policy statement in 1997, the GFC has been working on new legislation. The old legislation was devised since 1953. The consultation processes have been tedious. However, the final set of concerns by the mining sector has been addressed and the Cabinet Sub-committee on Natural Resources approved of the modifications made to the draft Forest Bill. The Bill is now due to go before the full Cabinet for approval.

The Guyana Forestry Commission has in place a fair and transparent framework for allocation, revocation, renewal and re-negotiations for forest concessions (For example see Appendix 1, Guidelines for SFP selection process and Section 4.2).

WCL Operators are required to prepare and submit to forest management and annual plans to the GFC for review and evaluation. Documented guidelines are given to all operators, and GFC offers extension services to the concessionaires to assist with the preparation of plans. The plans set out the order and extent of all activities to be conducted on a forest concession. The Management Plan covers discussions on company policy towards national development, location and legal status, natural environment, area management history, silviculture, forest inventory, production operations, yield regulation, annual allowable cut, harvesting operations, environmental considerations, biodiversity reserves, monitoring and research, markets and utilisation and social issues.

The GFC has developed a Code for timber harvesting which applies to all TSA (large) and WCL operations. The Code advises concessionaires of the benefits in profitability to be gained from strategic planning and control of operations (Hunter, 2001). Standards that governs road building, corduroys over swamps, skid trails, log markets, bridges and culverts chemical use, biodiversity, occupational health and safety are discussed in the Code. The GFC is also developing codes of practices for Non-Timber Products harvesting - Kufa (*Clusia spp*) and Nibbi (*Heteropsis spp*) and Manicole Palm (*Euterpe spp*). The Mangrove Code of

Practice is still in the preliminary stages. Social issues are an integral part of the Codes. The Codes have all been developed using participatory consultations involving operators, communities and other stakeholders.

A log tagging system was brought into operation by the GFC in March 1999 with the aim to minimize the incidence of illegal logging practices. The number of tags issued to concessions is based on the area and volume to be removed per year. The tag accompanies the log/lumber and the other remains on the stump. The replicated number of the tag enables any log to be traced back to its source.

SFP operators do not require management plans and a quota system regulated by the GFC is in place which is determined by the size of the concession and the assumption of 80 percent productivity of the area. The number of tags issued to the SFP holder is determined by the quota.

Box 1 Local Perceptions of depletion rates

In Ituni, logging activities mainly take place from a 2 to 30 miles radius around the town. The Vice President of the Ituni Small Loggers Association (ISLA) estimated that at the present rates of extraction, forest reserves in the locality would be exhausted within 10 years. There are concerns about the rapid depletion of Greenheart and Purpleheart species. The stated intention of the ISLA is to gradually remove away from chainsaw production due to the problem of wastage (extracted from *Arnold et al.* 2003)

The administrative system for the State Forest Permissions (SFPs) has been recently reviewed and revised by the GFC. Several SFPs will come under a phased introduction of the area management plans. The Area Management Plan initiative sets out to provide a strategic planning framework for the SFP areas. The GFC is currently conducting rapid appraisals (RAPs) for SFP concessionaires. The objective of the rapid assessments is to determine whether individual SFPs are sufficiently well stocked to support current timber harvesting. A secondary objective is to provide a strategic overview of the forest condition throughout the management plan area. The results of the rapid appraisal are fed into an Area Management Plan which set a framework and standards for small operators to work. Currently, one Area Management Plan Unit has been completed, and another has started. The framework is needed since there have been concerns over the sustainability of SMFE operations (see Box 1)

The most recent felling cycle instituted in the forest management plan guidelines is 60 years with a maximum harvesting rate of 20 m³ (about 10 trees) per hectare. In the past, a 25 year cycle was the rule. Concessionaires rarely attain the harvesting limit and average about 8-12 m³ per hectare. This is mainly due to the industry's dependence on a few selected species and the low production nature of Guyana's forests. Diameter limits for felling is currently 35 cm and trees should not to be cut within a 10 metre distance from each other.

The GFC has resident forest officers at approximately 20 forest stations country wide. The officers monitor the forest concessions, sawmills and lumber yards to an extent. Compartments and blocks are inspected by the concessionaire's Forest Manager, and GFC carries out random sample checks on activities as cited in the Code of Practice, and the companies' approved management and annual plans. However, only the large concessions and WCLs are monitored for occupational health and safety, sanitation and national insurance and income tax compliance by forest officers.

3.2 Land tenure and use rules

In Guyana, operators exploit forestry resources via temporary concessions, with the state retaining ownership of the forest. SFP holders have an annual logging permit while WCL holder can log for a period ranging from 5-15 years. The issue with this arrangement is one of property rights. Leases are not bankable (except for WCLs) and so they cannot be used as collateral to secure financing from local banks. One of the reasons suggested for market failure is the lack of tenure security as operators are reluctant to invest in for long term which has a spin off effect on the long term productivity of the forests and in some ways may encourage the practice of unsustainable logging (see Rambrich, 2002)

3.3 Log export policy

The GFC has imposed restrictions since 2000 on the export of logs of species *Carapa guianensis* (Crabwood) and *Hymenaea courbaril* (Locust). The two species are critical to the local furniture industry. This decision was taken after a successful lobby to the Government by furniture manufacturers. Another species, Purpleheart (*Peltogyne spp*) has been identified by manufactures for such restriction. This request is currently being debated.

It is the opinion of some that a ban on log exports will force the domestic industry to move more towards the value added production. This would possibly provide more opportunities for SMFEs. However, serious economic evaluations are needed before further log export bans can be seriously considered.

3.4 Environmental policies

The Environmental Protection Act 1996 requires environmental impact assessments (EIAs) to be prepared for projects that may significantly affect the environment. All concessionaires over 20,000 acres have to go through the SFEP process which necessitates that an EIA (including an Social Impact Assessment) be done. GFC is currently liasing with EPA to look at the possibility of doing a sector EIA for Forestry and therefore reduce the cost of the SFEP-EIA process. EIAs are also required for new sawmilling enterprises. To date SFP operators do not require such assessments. The Environmental Protection Agency (EPA) now requests voluntary registration of sawmills at its head office.

3.5 Industrial polices

With regards to forest industry investment the Guyana Forestry Commission has established a Planning and Development Unit (now the Forest Planning and Research Development Division) which collects and disseminates information on forest related matters including marketing.

Timber grading rules have been revised and training on the revised rules have commenced.

3.6 Trade policies

The most serious policy likely to affect forest enterprises in Guyana would be forest certification. The certification process in Guyana began in 2000 with technical support of UNDP-Programme for Forests (PROFOR) - PROFOR Phase I. An Interim Working Group (IWG) comprising a balanced representation of stakeholders from social, environmental, economic and institutional interests was formed with one of the main tasks being to choose a certification option for Guyana. Later in 2001 the IWG voted to start the development of a national standard based on the FSC Principles and Criteria. It was also agreed that the possibility of other international endorsements of the standard at a later stage should be an option (Forest Certification 2001). To date the second draft standard has been developed

and an active working group, the Guyana National Initiative on Forest Certification, which will take the process forward, is now a legally recognised body under the Friendly Societies Act.

Many forest operators have expressed difficulty with forest certification as it is an expensive process. Currently two large companies are pursuing FSC certification though one is pursuing certification for the size of an area of about 50, 000 hectares. These companies have markets in North America and Europe and therefore see benefits since those countries are increasingly demanding certified products. Since SFPs have annual licenses and cater mainly to the local market, there is no benefit in pursuing forest certification.

One of the most important trade incentives for Guyana is her membership in the Caribbean Community and Common Market (Caricom) (Hunter 2001). The genesis of Caricom began with the 1958 establishment of the British West Indies Federation which focussed on regional integration and involved 10 member countries. The Federation ended in 1962 and the concept of Caricom was first discussed in 1963 but it was in 1973, through the Treaty of Chaguaramas, that it was firmly established. Caricom has 15 member countries with Suriname and Haiti being the latest additions (www.caricom.org).

One of Caricom's objectives is the expansion of trade and economic relations of Caricom countries. The Council for Trade and Economic Development (COTED) is responsible for the promotion of trade and development of the Community. Guyana like most Caricom countries benefits from the removal of export duties on goods. Suriname is the only Caricom country that applies a tax on lumber of Caricom origin (www.caricom.org).

Caricom has in focus the development of a caricom single market and economy (CSME) and Guyana is a signatory to Protocol IV-Trade Policy which commits her to the CSME process. With the CSME there will be free movements of goods, services and capital and free movement of labour and rights of access to land. Some opportunities for business include -possibilities for production integration, increased scale economies and associated efficiency gains, enhanced competitiveness, access to a market of approximately 5.5 million people (12 million with the inclusion of Haiti) and preferential markets in Venezuela, Colombia and Dominican Republic (www.goinvest.gov.gy)

Another initiative which SMFEs can benefit from is the Caribbean Basin Initiative (CBI) which allows duty free entry to the United States of a wide range of products grown and manufactured in CBI countries. Wood products, including furniture and building material are eligible under this agreement (www.goinvest.gov.gy)

3.7 Mechanisms by which SMFEs are consulted about development of new policies

Historically, the processes of consultations on new policies in Guyana have been weak. However, this trend is changing and within recent years and the Guyana Forestry Commission has used consultative processes in the development of new policies. For instance, extensive consultations for the 1997 Forest Policy began in 1994/95. Likewise the code of practice for forest operations was extensively consulted on. The new draft code Nibbi and Kufa harvesting was prepared based on meetings held with communities involved in the use and production of these NTFPs.

The GFC under the Social Development Programme (SDP) also conducts outreach activities to various communities on issues relating to forestry. The GFC staff provide extension services which include assistance with forest inventories and advice on management plans formulation and key issues relating to policy. This SDP has recently benefitted from Food and Agriculture Organisation (FAO) support which aims to develop the participatory skills of the GFC staff and will also target some staff from associated ministries such as the Ministry of Amerindian Affairs and Ministry of Health and Labour, which have limitations in their outreach

programmes. A key element of this project is to empower local communities in the management of forest resources.

3.8 Key message

Legislation and enforcement for SMFEs create proportionately greater transaction costs per unit production than for larger enterprises. To date, this has partially been accommodated by less onerous legislation and enforcement for SMFEs than for larger enterprises (e.g. SFP requirements and EIA assessments). But as the sustainability of smaller operations is increasingly called into question it will be necessary to find alternative ways of subsidising the additional programme of support to overcome transaction costs which will be required to ensure that SMFEs can compete on a level playing field with larger enterprise.

4. Finance and Market Issues

4.1 Area-based and volume-based fees

The royalties paid for the use of forest resources should ideally be sufficiently high to promote efficiency of timber use without eroding a standard profit margin for the enterprises involved. These margins will inevitably differ depending on the size of the enterprise in question and the technological and management efficiencies in place. In Guyana, the area based fee levied is G\$14.80/acre (US8 cents at rate G\$ 185) for SFPs and G\$18.50/acre (US10 cents/acre) for WCLs. TSAs (large concessions) less than 300,000 acres G\$22.20 (US 12 cents) per acre and those over 300,000 acres pay G\$27.75 (US 15 cents)/acre. The impact of the rate of that fee on SFPs and WCLs has not been investigated. However, it is clear that the real value is declining annually given that the rate was last fixed in 1996 and is not inflation-indexed

As shown in Table 7 and Figure 1-2, small operators have a significant impact on the government revenues collected by the GFC in Guyana. The scale of revenue could justify a more proactive strategy towards the SMFE sector, which would address some of the disadvantages they face in comparison with larger industries - focusing also on sustainability issues where SMFEs are weak.

Table 7: Guyana Forestry Commission Revenue comparison of large versus small and medium concessions

Concession size	2001 (% revenue)	2002 (% revenue)
SFPs (small)	46	48
WCLs (medium)	2	2
TSAs (large)	52	50

Table 8 gives the volume based royalty rates collected by the GFC for associated forest products. The GFC also collects royalties for such non-timber forest products such as mangrove bark^{1[1]}, balata^{2[2]} and manicole palm^{3[3]} (heart of palm).

^{1[1]} Mangrove bark is used for tanning of leather. Since the mangroves are crucial for the prevention of shore erosion and play a vital role for wildlife, the GFC in collaboration with other governmental and non-governmental agencies has prepared a draft National Mangrove Management Plan.

^{2[2]} Batata is a latex that is extracted from the Bulletwood tree (*Manilkara bidentata*) and is used to the manufacture of figurines and ornaments

^{3[3]} The apical part of the Manicole palm (*Euterpe spp*) stem is used to produce this delicacy. It is harvested by a large concessionaire.

Table 8 : Royalty rates for forest products (collected by the Guyana Forestry Commission)

Forest product	Royalty rate (Guyana \$)
<i>Logs</i>	
Special Category	\$494.41 per cubic metre
Class 1	\$282.52 per cubic metre
Class 2	\$176.57 per cubic metre
Class 3	\$105.94 per cubic metre
<i>Sawn lumber</i>	
Special Category	\$2,476.69 per cubic metre
Class 1	\$1416.46 per cubic metre
Class 2	\$886.35 per cubic metre
Class 3	\$530.11 per cubic metre
<i>Other</i>	
Shingles	\$0.50 per piece
Paling staves	\$1.00 per piece
Vat staves	\$1.00 per piece
Wallaba posts (3.05 metres and under)	\$3.28 per metre
Wallaba poles (over 3.05 metres)	\$3.94 per metre
Wallaba poles (15.24 metres and under)	\$21.33 per metre
Wallaba poles (over 15.24 metres)	\$26.25 per metre
Spars	\$3.28 per metre
Wattles	\$3.00 per piece
Charcoal	\$1.32 per kg
Firewood	30.35 per cubic metre
Greenheart piles (16.76 metres and under)	\$65.62 per metre
Greenheart piles (over 16.76 metres)	\$114.83 per metre
Kakaralli piles	\$21.33 per metre
Mangrove bark	\$1.10 per kg
Balata rubber and gums	\$8.80 per kg
Manicole palms	\$1.00 per stem

The market value of the products in Table 8 varies depending on the producer as there is no regulatory body that controls local or export prices (see Section 4.9).

However, average export prices for logs increased by 23% in 2002 compared with 2001 (Table 9). At the same time tropical logs were trading on the international market for USD145-USD160 (see GFC Market Report 2003). Average export prices for sawn wood fell in 2002.

Table 9: Average export prices US\$ / m3, 2000-2002 (GFC Market Report 2002)

Product	Unit	2000	2001	2002
Logs	m ³	65	77	95
Sawn lumber	m ³	345	391	327
Dressed lumber	m ³	*	*	367
Undressed lumber	m ³	*	*	304
Plywood (large company only)	m ³	*	*	262
Piles	m ³	*	*	165
Poles	m ³	*	*	184
Posts	m ³	*	*	208
Shingles	m ³	*	*	515

- data not available

Forest products were on the domestic market at depressed prices in 2002 though trading prices for logs and sawn wood have maintained some stability within recent years (Table 10)

Table 10: Average domestic prices US\$ / m3, 2000-2002 (GFC Market Report 2002)

Product	Unit	2000	2001	2002
Logs	m ³	65	67	67
Sawn lumber	m ³	256	3911	257
Piles	Piece	*	*	2
Posts (wallaba)	Piece	*	*	3
Shingles	Bundle	*	*	8

* data not available

4.2 Investment rules in concession allocation

The GFC uses a competitive process of awarding SMFE investors the right to use State forests for the purpose of felling. GFC advertises state forest areas, giving the Public one month's notice. The process of selecting among competing applicants takes on average one month and must obtain input on three levels: GFC's Forest Resources Allocation Committee (composed of GFC technical staff and gives recommendations), the Commissioner of Forests (recommends approval), and ⁴GFC's Board of Directors (final approval).

Timber dealers, sawmill, sawpit, charcoal and firewood producers are all required by law to obtain licenses from the Guyana Forestry Commission before any operation can start.

⁴ The GFC is governed by a Board of Directors appointed by the Minister with responsibility for the forestry sector. The daily operation of the Commission is the responsibility of the Commissioner of Forests, who is an ex-officio member of the Board

The GFC does not require investment proposals at the level of SMFEs (SFPs especially) and uses specific guidelines in its selection process (see Appendix 1).

4.3 Tax System

SMFEs in the forestry sector are given no privileges in Guyana's tax system. Additionally, companies may be liable to property and capital gains tax. Under the tax system companies are classified as commercial and non-commercial. Commercial companies refer to those companies that derive 75% of its gross profits trading in commodities which it does not manufacture. Under this rule, many of the forestry companies would be classified as non-commercial and are thus subjected to a 35% tax rate on their chargeable profits (commercial companies pay 45% tax) (www.goinvest.gov.gy).

A consumption tax (C-tax) is applied for goods imported into or manufactured in Guyana. The furniture industry is faced with a C-tax of 30%, which is added to the ex-factory price of all furniture made of wood, metal, Kufa or Nibbi for sale on the local market. The tax is not applied on furniture for export, which is thought to be aimed at encouraging furniture exports (GMA 2003).

However, the Sector does benefit from a waiver on consumption tax and duties on a selection of machinery and equipment. Guyana does not use the Value Added Tax (VAT) system.

4.4 Access to credit, small scale financing

SMFE's in the forestry sector rely on both the formal and informal mechanisms to meet their financing needs. There are a few formal micro-finance institutions in Guyana. However, none is specific to the forestry sector (Salmi and Craig 2001)

a. The Institute of Private Enterprise Development (IPED)

IPED is a privately-owned non-profit organization established in 1986 to provide credit (to micro, small and medium-scaled enterprises) and technical and managerial support services to its loan beneficiaries. Its micro-enterprise programme was launched in 1993.

The maximum size of the first micro loan is G\$15,000 per group member. After successful repayment of the first loan, successive loans can have maximum thresholds of G\$45, 000 per group member at G\$100,000 per group. The interest rate is 0.9% per week or 46.8% per year (in 2001), with no collateral but with a group guarantee.

The forestry sector is a beneficiary of loans from IPED. Between 1986 and 1999, IPED provided 73 loans or 0.4% of its loan portfolio to logging, sawmilling and charcoal producing groups/individuals, and 11 loans for the production of toys (wooden). However, it has been noted that there is a reduction in borrowing from this institution by logging and sawmilling companies.

b. Scotia Enterprise

Scotia Enterprise distributes loans to groups and individuals that are members of solidarity groups. No formal training or technical assistance is offered to clients. The maximum amount of the first loan to any solidarity group member is G\$15,000. Upon repayment, the loan amount may increase to a maximum of G\$500,000.00. Overdue payments result in the charging of a fine, and all funds are removed from the group's saving account. The annual rate of interest is 44% (in 2001). Duration of the loan can be 4, 6, 9 or 12 months. Repayments are made fortnightly.

c. Commonwealth Youth Credit Initiative

This initiative targets persons between the ages of 18 and 30. Credits are provided without collateral, and it includes also a savings scheme, training in personal development and small business management, monitoring and support for management. Individuals are eligible to access the initiative when they would have completed the training programme and presented a business plan. The standard size of the credit is G\$140,000.00

4.5 Insurance

Companies are required to pay part-contribution (7.2% of gross salary) to national insurance (NIS) for employees. Employees contribution amounts to 4.8% of salary. The GFC sends a list of concession holders to the NIS office which is responsible for ensuring compliance.

4.6 Export Credit Guarantees

No export credit guarantee schemes are in place in Guyana.

4.7 Foreign Direct Investment

There is limited scope, if any at all, for transnational companies investing in SFPs in venture capital arrangements for at least three good reasons: first sustainability of SFPs is not guaranteed – that is, the right to operate an SFP goes through an annual process of application, selection. Secondly, SFPs in GFC's view are intended to provide a means of livelihood to their holders (alternative to the cash crop system etc). Thirdly, the capital base of most SFPs is very small (some only own just one chainsaw and contract out the operation).

There is some scope for the transfer of FDI to WCLs and medium to large scale manufacturers (furniture and joinery especially). Investment in this category requires more capital than in the previously-mentioned group. WCLs are at present leases for between 3 to 10 years.

4.8 Business support programmes

Business support schemes are few in Guyana. Apart from specific advice available for some microfinance organisations (as indicated previously), the principal other source of SMFE support is occasional advice from GFC. The GFC since last year has assisted SMFE groups with inventory requirements and provided advice for the formation of 'Co-operatives'.

There is some scope for support through national associations such as the Forest Products Association (FPA) and the Guyana Manufacturers Association (GMA) in addition to voluntary association of small producers – see Chapter 5. For example, the GMA has benefited from a CIDA funded CPEC project which has a credit line of C\$5 million for approved investments (Hunter 2001).

One CPEC sub-project, 'Guyana Furniture Training Project' is geared towards strengthening the institutional capacity for the GMA in delivery of service to its members and provide necessary training to furniture manufacturers (GMA 2003).

The GMA is also the lead partner in a three year UNDP funded EMPRETEC project, which commenced in March 2003 and will see the training of primarily SMFE entrepreneurs in business skills and other support services (GMA 2003).

A collaborative project between Guyana Forestry Commission, Tropical Forest Foundation, Forest Producers Association and the International Tropical Timber Organisation (ITTO) has seen the emergence of a Forestry Training Centre. The Centre is expected to provide key skills training in Reduced Impact Logging and include dendrology, forest mensuration and surveying, chainsaw operations and directional tree felling, and cartographic skills. SMFEs can certainly benefit from vocational training that will be offered by the Centre.

CPEC is also part funding a project 'Forest sector training project' with the GFC to strengthen the capacity of the forestry sector. The project builds on a current CPEC sub-project with the FPA and will create a training programme which will deal with skills development in areas of tree and timber identification, timber grading, forest management plans and code of practice, practical forest mapping, and cost accounting for forest operations. The project will also target Amerindians and other hinterland communities who have limited access to training opportunities. The CPEC-FPA sub-project on 'Forest industry training and institutional capacity building for the FPA' is addressing training in areas of forest management, sawmilling, equipment maintenance and management and administration of operations.

4.9 Marketing support programmes

At present no marketing council exists and prices are not controlled. In the past the Guyana Timber Export Board (1974-1982) used to play the role of marketing Guyana's timber. This was an independent body but was disbanded when individual producers felt that they wanted to take charge of their own marketing. The body was funded through a 2% export commission which remains in force today and is not without controversy. This commission is due to be abolished with in the new legislation.

A recent World Wildlife Fund-funded project with the FPA (and hopefully ITTO funding) could see the establishment of a new timber marketing council within a few years. This council is expected to lead to more a more structured marketing approach to Guyana's timber products, which in turn could promote the viability of forest enterprises.

As a result of this institutional vacuum, there are no defined, documented market strategies to guide the operation of SMFEs. Most SMFEs aim to satisfy the wood material needs of the local (Guyana) population and very few are aiming to penetrate the world market. The GFC has a marketing unit within the Forest Monitoring Division which monitors prices and quality of exports, provides assistance to persons interested in exporting timber and also plays a promotional role for some timber species and products. Additionally, the GFC for the first time in 2000 established a market information section within its Planning and Development Division, with the aim of providing that needed service to all forest operatives. A consultancy done in 2000 provided advice on capacity building within the Division to deliver quality product/market information service. However, many constraints have lead to a somewhat lethargic progress.

With limited representation on the FPA, it is likely that limited market/product information is at the disposal of SMFEs. This should be corrected through the strengthening of the GFC's market information section and though capacity building of the FPA under the fore-mentioned WWF-funded project.

4.10 Key message

Apart from relaxed investment criteria for SFP selection and marginally smaller area based fees, there are few direct financial incentives, support programmes or market information systems for SMFEs. The result is that SMFEs are increasingly pressured to form associations in order to reach scales of production at which they can compete. While this may be government policy, there is a need for greater transparency about the end towards

which policy is driving and more explicit financial differentiation between different scales of operation to bring that about.

5. Enterprise Links and Associations

5.1 Institutions with which SMFEs need good relations

There is general display of a paucity of business management skills among SMFEs. This is problematic because the management of a complex forestry operation requires not only good technical management skills, but also the ability to negotiate deals with a host of other institutions (customers, credit agencies, enforcement agencies etc.)

For the successful operation of a SMFE, good relations need to be maintained with a number of institutions

- Lending agencies – these are crucial for the providing capital for establishment or improvement of businesses
- Hire purchase entities – many SMFEs may not have enough capital to purchase equipment wholesale therefore some companies provide the option of hire purchase.
- Buyers – without this group, markets cannot be sustained
- Guyana Forestry Commission – as the agency responsible for management of State forests which includes issuing of concessions, licences, monitoring of concessions and so forth.
- Environmental Protection Agency – Environmental Impact Assessments are now required for potential WCLs during the exploratory phase
- Forest Producers Association – could assist with advice, information dissemination and training for forest producers
- Guyana Manufacturers Association – providing support through info dissemination and training targeted to the furniture producers
- The Private Sector Commission – this is the umbrella representative body of the formal private sector in Guyana and the dialogue partner of Government concerning private sector developmental issues
- Guyana National Bureau of Standards – this entity ensures compliance with standards, for example, there is a draft standard for the manufacture of furniture.
- Ministry of Foreign Trade and International Economic Cooperation, Ministry of Tourism, Industry and Commerce
- Ministry of Health and Labour – Occupational health and safety and labour issues must be considerations of SMFEs
- Ministry of Amerindian Affairs – this Ministry is concerned with the affairs of Indigenous people including land and social issues.
- Ministry of Housing and Planning – Establishment of sawmills require plans to be submitted to this Ministry
- Hinterland communities - The Indigenous and other hinterland people account for a considerable percentage of the logging sub-sector and non-timber forest products manufacturing.

5.2 Voluntary associations and their purposes

A number of associations of small producers have coalesced in recent years with support from the GFC – for example the Ituni Small Loggers and Chainsaw Association, the Region 10 Forest Producers Association and the Upper Berbice Forest Producers Association. The main reasons for the formation of these groups have been the desire to secure resources and/or markets and to reduce transaction costs (see Box 2)

Box 2. Ituni Small Loggers Association

The Ituni Small Logger and Chainsaw Association was established in 2000 from the voluntary combination of 11 small SFPs into a combined area of 65,000 acres. The combined acreage is now sufficient to qualify for WCL status with increased security of tenure. The association has approximately 40 members who have participated in the venture in part also to gain more stable markets by being able to meet volumetric requirements of buyers. The formation of an association also reduces transaction costs with the Guyana Forestry Commission. The original concession holders have rights to harvesting but employ other members of the association in order to achieve the desired extraction targets. Individual members are jointly responsible for finding markets and winning orders. But once an order is received the management is approached for permission to move the lumber. The transportation permits from the GFC are allocated to this management group, and cover a quota of 200,000 board feet per month. If the person to whom the order is given cannot meet it himself, the work is offered to other members of the association. Trees are located, felled and ripped into planking in the forest before transport to truck loading areas. Most orders are received from Georgetown.

Source: Macqueen (2001)

The market chains between different forest businesses are poorly documented in Guyana – although some observations of the interactions have been recorded (Macqueen 2001). There are various business partnerships primarily geared around meeting extraction quotas – both between different concessionaires, between concessionaires and SFPs or Amerindian territories and between sawmillers and concessionaires, SFPs and Amerindian territories.

In terms of more formal organised and government supported initiatives to improve the prospects for SMFEs there is some representation at the Forest Producers Association (FPA), which is an organisation of forest product producers and has the mandate to contribute to the developmental needs of members by providing advice, disseminating information (market and other technical information) and training. However, at present there is an under-representation of SMFEs in the FPA.

In addition, the Guyana Manufacturers' Association includes about 15 forest product manufacturers and has similar roles to the FPA but for the manufacturing sector.

A recent report noted that, despite the presence of two major associations, the real extent of cooperation within the Guyanese forest industry was limited. High costs, low profit margins and increasing imposition of sustainable management requirements have created considerable competitive tension within the country (GFC and ITTO 2003)

5.3 Key message

The development of SMFE associations presents an opportunity to better direct programmes of support at a number of different levels (credit programmes, technical training, marketing information etc.). Further work is needed to find concrete means of providing incentives for such associations vis-à-vis isolated individual SMFEs.

6. Labour Issues

6.1 Forest work conditions

There is no law which specifically addresses forest work conditions, but the Ministry of Health and Labour is in the process of formulating forest regulations (for logging) in collaboration with the International Labour Organisation (ILO). Some of the issues under consideration include – noise and vibration, fire prevention, camp hygiene and transportation of workers.

Knowledge of industrial relations in SFP and WCLs is limited. All SFPs and WCL are to follow national regulations for labour, factory and occupational health and safety, but many companies are not prepared to invest in the welfare and safety of their workers. The Code of Practice also refers to the International Labour Organisation Convention 182.

With regard to the employment and working conditions which apply in SFPs and WCLs and how these differ from those in larger companies, it is not easy to provide an overall picture, given that they differ quite substantially. The differences between SFPs and WCLs affect not only the quantity of employment but also working conditions.

Health and safety is a significant problem area. Accidents at work occur more frequently in SFPs than in the larger concessions (M. Chan, *pers. comm.*)

6.2 Contracting and outsourcing

This is done by producers at all levels mainly for economic and supply purposes. In some instances the orders are too large to be supplied by one producer so it is contracted out; or the species required may be found in other areas. In other areas, companies realise that by contracting out on a piece work basis, they are able to increase timber volumes per salary and avoid paying the costs associated with permanent labour.

Contracting out is particularly prominent in Amerindian reserves where the autonomy and lack of extraction restrictions has generated a peculiar set of problems (see Box 3)

Producers of non-timber products usually outsource as these products are mainly found in or near to Amerindian communities. Contract workers do not have the same rights as full time employees (Mona Bynoe, *pers. comm.*) For example, in Guyana contract workers typically are:

- Not protected against immediate employment termination
- Usually subjected to delays in payment compared to permanent employees
- Not paid if ill or injured or during machinery break-downs
- Paid on a piece-work basis with no extra pay commensurate on hours worked
- Forced to compete against many other workers with no job security
- Not entitled to any other company benefits (housing, water, education, transport, social facilities etc.)
- Not provided with any incentives to optimise the sustainability of forest management.

Box 3 - Contracting out to Amerindian communities - the case of Moraikobai

Moraikobai is an community of Arawak Amerindians on a tributary of Mahaicony River in region 5. The community was founded in 1932 by the protestant church under the name of the St-Francois mission (Boisvert, 1995).The community consists of 1036 people in a reserve area of 52,000 acres. Like all other Amerindian communities, the community itself can determine the extent of harvesting within its community boundaries with special logging tags issued by the GFC. Almost all of the community men are involved in logging. Community members regarded this source of income as an absolute lifeline, and the reserve had several areas of commercially exploitable timber (unlike some of the neighbouring communities). Any timber extraction deals are arranged privately, but are subject to the council to the extent that the Captain distributes chainsaw logging permits, GFC 'Amerindian' logging tags (for which there are no extraction limits) and government transportation permits. The community owns a total of some 172 chainsaws. There is no restriction on where the timber is extracted from. The prospecting team locates suitable trees to meet a current order, and felling operates on a first comes first served basis. While community members still speak of abundant volumes of timber within the reserve, it is readily acknowledged that extraction distances are increasing and that timber is harder to find. The main problem is the sporadic and unpredictable nature of the market which renders long term planning difficult and the lack of internal cooperation resulting in almost no forest management in the strict sense in Moraikobai. Moreover, the community is not in a strong bargaining position with timber purchasers. Without transport or advanced processing facilities they are forced to accept the terms and conditions of neighbouring concessionaires and processing facilities. The current impact of the existing system on the environment in the Moraikobai is likely to be severe. Increased restrictions on regulated timber production elsewhere might exacerbate this situation. Internal adoption of self-regulation of harvesting might ameliorate the environmental situation, but may prove socially unacceptable in the short term.

Source: Macqueen (2001)

6.3 Unionisation

There are no specific forest unions in Guyana but various sectors have the option of aligning themselves with the following Unions:

- Guyana Agricultural and General Workers Union (GAWU)
- Trade Union Congress (TUC)
- Agriculture and Allied Workers Union
- Guyana Labour Union
- Guyana Public Service Union
- Guyana Sugar Workers Union
- Guyana Bauxite and General Workers Union
- Clerical and Commercial Workers Union

Unions are linked to specific companies rather than being industry wide. For example, the Guyana Sugar Workers Union does not cater to the majority of sugar workers. Unions in Guyana generally fight for better salaries and conditions of employment and settlements of disputes and this is also applicable to the forest sector. Yet there are some examples of tokenism is where Unions are heavily controlled by industry (Macqueen 2001).

SMFEs employees in Guyana are not unionised since there is a rule that the workforce has to be at least 100 strong with at least 45% membership for recognition of a Union. However, it should be noted that two large concessionaires have employees that are affiliated to the TUC and The GAWU. The Guyana Forestry Commission is itself attached to the GAWU.

6.4 Key message

There is little attention to the quality, health and safety of employment in the forest sector as a whole. Anecdotal evidence suggests that the employment conditions in SMFEs may be harsh compared with larger enterprises, although we have no data to back up such assertions. What is clear is that the tendency to contract out on short terms (rather than offer permanent employment) is detrimental to labour rights and potentially to the sustainability of resource use. Unionisation is one possible response to these trends, but there is need for greater commitment for adequate labour standards at a national level.

7. Defining characteristics, threats and opportunities for SMFEs in Guyana

The brief overview of the forest sector in Guyana with a particular focus on SMFEs allows the identification of a number of defining characteristics of the SMFE sector. It is not so much that these features are unique to the sector, but that the combination of them marks out SMFEs from larger industry or smaller community micro-enterprises. We list these characteristics below:

- Lack of credit/finance/capital - the cost of capital is often prohibitive, and in times of economic uncertainty, lenders tend to be very risk averse.
- Access to technology - improving access to technological networks of international standard is also very expensive.
- Training/human resource development - this covers both on-the-job training and the broader education system. There is a strong need to improve skill bases in a range of areas.
- Funding for research and development - SMFEs lack assistance both for developing new ideas and turning these ideas into commercial products.
- Extent of government regulation/compliance costs - this can range from taxation and reporting requirements to laws to promote occupational health and safety or to end discrimination in hiring practices. The cost of complying with national and international standards (e.g. ISO) can also be very expensive for SMFEs. Government policy should be directed at increasing and promoting transparency across all areas of the government sector.
- Weaknesses in transportation and infrastructure - this can affect access to markets and business revenue (telecommunications, ports, airports, road networks).
- Limited information on possible markets and clients - many SMFE owner/operators have little experience in exporting into foreign markets. What should the government's role be in trade facilitation and trade promotion?
- Broader economic situation - SMFEs are often the most vulnerable in times of economic recession. Lack of insurance and subsequent business failures can often make the economic situation worse. (M. Bynoe, *pers. comm.*)

Analysis of these defining characteristics allows the identification of a number of key threats and opportunities for the SMFE sector. Some of these threats and opportunities are beyond the scope of any immediate support programme, but some form the basis of a follow-on programme which is presented in the conclusions. Threats and opportunities are listed in turn:

Key threats

- Low production forests – Guyana's forest are low production by nature due to diverse array of species thus making it difficult to focus on high volume production utilizing any one species. It is now clear that the industry's dependence on a few species is increasingly causing depletion in availability, at least in the accessible areas.

- Lack of management capability and other skills in the sector –since many SMFEs are family based, much emphasis is not placed on developing formal management and other skills. In addition, the ‘brain drain effect’ has impacted all the sectors of Guyana’s economy.
- Low level of processing efficiency - The industry has a poor grasp of conversion technology and value added processing (GFC and ITTO 2003). Timber waste is very high ranging from 20-30% in chainsaw milling to 45-52% in static sawmilling and 55-65% in portable board milling (see Hunter 2001). This is largely linked to lack of investment in upgrading technology and skills training in processing techniques.
- Limited information on market access and trends – small operators have not kept in tune with changing market conditions and find it difficult to not only market traditional products but also engage in emerging markets. The limited knowledge and use of computer technology including access to internet and emailing facilities exacerbates this problem.
- Accessibility to capital – with few financial mechanisms available and unaffordable interest rates charged by commercial banks, small operators consider this a major threat. Shipping costs are also high.
- Competition – Poor infrastructure in forested areas calls for loggers to invest in providing such facilities. The spin off effects on production cost is substantial which makes low cost competition difficult.
- Quality and reliability of supplies – there have been frequent complaints, especially locally, about the quality and reliability of supplies timber products, especially lumber. Dimensional uniformity and kiln drying some of the key areas that SMFEs have to address.
- Un-sustainable logging practices – An explosion of chainsaw logging following the collapse of the bauxite industry led to increased cases of illegal logging. Though a challenge the GFC, through its Forest Monitoring Division have put systems in place to mitigate this problem. Unsustainable practices could have impacts on those markets that demand certified products in addition to adverse affecting the forest environment.
- Contracting out leading to poor social and environmental standards – Contract workers are at a disadvantage as they are in many cases cheated of most of the benefits that regular employees enjoy. The contractor is responsible for health and other insurance but in many cases they do not provide such.

Key opportunities

- Focus on quality versus quantity- due to the low production nature of our forest it may be in the best interest of Guyana to focus on niche markets with value added products being a sensible option. However, consideration of operational and market requirements must be given for this to be successful (see GFC and ITTO 2003 and Rambrich *et al.* 2002).
- Promoting of lesser used species – The GFC has embarked on a project to promote the lesser used species. In the initial stage, six species have been selected. Though the marketing aspect of this project is now in the embryonic stages, there is an

opportunity in the future for the SMF enterprises to broaden their scope in terms of the selection of species they harvest.

- Training – SMFEs need to take advantage of training opportunities available such as the Forestry Training School, Epretec, CPEC supported training sessions and so forth. Operators should also make use of training available in the use of the computer, internet and emailing systems.
- Revive market support for SMFEs – revival of a marketing structure is very necessary. As recommended by the ITTO Diagnostic Mission ‘the size, complexity and uniqueness of Guyana’s forest resources require marketing assistance beyond any of the largest players in the game in Guyana’ (GFC and ITTO 2003). Such a structure is imminent as funding is being acquired to establish a Marketing Council. It is hoped that with the establishment of a Marketing Council more SMFEs would be encouraged to tap into the export market. This of course is contingent in the company’ ability to provide a consistent supply of a quality product.
- Grant longer security of tenure and financial support – it is difficult, if not impossible to access loans without security of tenure.
- Foster associations - The high transaction costs of engaging with the SMFE sector can be greatly reduced through the promotion of functioning associations. This will require cooperation between GFC and the industry with support from civil society. Specific incentives may be needed to catalyse the formation of such associations (e.g. access to land, credit lines, tax breaks) but the end result will be of benefit to both government and the industry itself.
- Target sustainability black spots - Harmonisation of the legislation governing timber extraction between SFPs and Amerindian groups will help to ensure sustainability. Working towards a voluntary sustainability code with Amerindian Groups might achieve the same end.
- Develop labour legislation and standards for contracting out- stricter controls are necessary for contractors who take advantage of workers rights. Certainly standards for contracting out needs to be developed.

8. Conclusions

1. *SMFEs have a peculiar set of characteristics, threats and opportunities within Guyana* – given the extent of SMFE contribution to the total forestry revenues within Guyana and the distinctive set of circumstances which hamper their productivity and sustainability a dedicated support programme is justified.

2. *There are major information gaps regarding SMFEs* – The analysis presented above uses the best information available to date, yet there are significant gaps relating to, for example, non timber forest products, value added processing (e.g. furniture production), labour patterns, employment conditions under different contractual arrangements, associations and market linkages and the economic viability of different business options. Any dedicated SMFE programme might start by addressing some of the information gaps within the sector and building institutional mechanisms to improve reporting of such data.

3. *There are important entry points to improve the situation for SMFEs* – The critical issue for SMFEs in Guyana appear to revolve around the development of niche markets for produce and ways to overcome the transaction costs that are incurred both by the government forestry authority and by the industries themselves due to the dispersed and disorganised nature of the SMFE sector. Several local associations have either spontaneously arisen or been catalysed through the intervention of the GFC. Formal industry-wide associations have also begun to capture resources and implement valuable training programmes including computer literacy. At the level of market development there is still a large gap. More needs to be done to understand the driving forces behind associations of different forms, what ensure their operational success, what could catalyse their creation and improved functioning. There are new types of association that need to be explored, particularly in the area of research and marketing – developing the niche market potential of Guyana’s unusual complement of commercial species. Channelling support through associations will have many potential benefits:

- Increased efficiency of support programme delivery
- Increased information exchange between industries
- Reduced administrative costs for participating industries
- Increasing ‘voice’ to lobby for secure tenure and extension support
- More attractive to financing agencies
- Increased capability to deliver large orders
- More market power to improve terms of trade
- Increase in resources for investment and R&D

4. *There are local actors capable of driving the process forward* – the increasingly responsive nature of the GFC has coincided with gradual improvements to the delivery of practical support by major industrial associations such as the FPA and GMA. Local NGOs have also considerable experience in the development of markets for products where transport costs are high and domestic demand small. What is needed is for a concerted programme of action learning to build on the foundations of what is already working and capitalise on the potential of Guyana’s SMFE sector.

References

- Arnold, C., Bynoe, M., Gomes, P.I., Holden, S. and Soloman J. (2002). An analysis of livelihoods in the Hinterlands of Guyana: Implications for the PRSP and the Guyana Forestry Commission. A study prepared for the GFC commissioned by the NR International for the DFID/GOG Guyana Forestry Commission Support Project
- Bank of Guyana (2002) Statistical Bulletin. Research Department. Bank of Guyana.
- Bird (2000) The implications of a sixty year felling cycle: the broader picture. Guyana Forestry commission, Georgetown, Guyana.
- Forest Certification 2001. News from the National Certification Process in Guyana. (Issue 1-Feb 2001 and Issue 7 – August 2001)
- GFC (1997) National Forestry Policy Statement. Guyana Forestry Commission, Georgetown, Guyana
- GFC (2001) Forestry in Guyana. Fact Sheet. Guyana Forestry Commission, Georgetown, Guyana
- GFC (2003a). Incentives for the development of Guyana's Forestry Sector. Discussion Document. Planning and Development Division, Guyana Forestry Commission, Georgetown, Guyana.
- GFC (2003b). Analysis of revenue earned from Timber Sales Agreements and Wood Cutting Leases as against the State Forest Permissions, Planning and Development Division, Guyana Forestry Commission
- GFC (2003c). Timber markets and Guyana. Working Paper. Planning and Development Division, Guyana Forestry Commission.
- GFC (2003d). The changing roles of lumberyards. Planning and Development Division. Guyana Forestry Commission
- GFC and ITTO (2003). Report on Diagnostic Mission to Guyana.
- Goinvest website. www.goinvest.gov.gy
- GMA (2003). Annual Report 2002. Guyana Manufacturers Association, Georgetown, Guyana
- Grisley, W (1998). Chainsaw limber production in Guyana: a preliminary analysis. Int, Journal of Sustainable Dev. World Ecol. Vol 5:238-248
- Hall, L; Adrian, R and Williams, S (2001). Ecology and use of Nibbi (*Heteropsis flexuosa* – Araceae) and Kufa (*Clusia grandiflora* and *Clusia palmicida* – Clusaiaceae) in Guyana. A study commissioned under the Guyana Forestry Commission Support project, DFID.
- Hunter, L (2001). The Forestry Sector in Guyana. A study commissioned by the Natural Resources International under the Guyana Forestry Commission Support Project, DFID.

ITTO (2003) Report of the Diagnostic Mission to Guyana. Government of Guyana and International Tropical Timber Organisation.

Landell-Mills, N. (1997) Stumpage value appraisal for log extraction in Guyana: report based on eight case studies. Guyana Forestry Commission, Georgetown, Guyana. 77pp.

Macqueen, D.J. (2001) Evidence based policies for good governance - The applicability of growth and yield modelling in the Guyana forest sector. IIED, London, UK. 110pp.

Mangal, S. (2003) Approaches to priority setting in sustainable development: Is participatory monitoring and evaluation allowing marginalised peoples to direct their development? Discussion paper prepared for the International Institute for Environment and Development. FORUM, Georgetown, Guyana. 70pp.

Rambrich, V and Associates (2002). Analysis of the Forest Industry in Guyana. Produced for the Forest Producers Association of Guyana (funded by CPEC).

Ramcharran, G. (2001) Lesser known timber species of Guyana and their market potential. MSc Thesis, School of Agricultural and Forest sciences, University of Wales, Bangor

Ramsaroop, D. (2002) A survey of furniture manufacturers utilizing two wood species: Crabwood (*Carapa guianensis*) and locust (*Hymenaea courbaril*) within Guyana. Final year thesis. Department of Forestry, University of Guyana.

Salmi, J and Craig, K. (2001) Study on the forest sector financing in Guyana. UNDP, Guyana Forestry Commission, PROFOR Guyana. Georgetown, Guyana.

Appendix 1 Guidelines used in SFP selection process

1. Section 1 and 2 of the appropriate application form must be completed
2. When 2 or more applicants apply for areas less than 8000 ha, where one applicant is a corporate body other than a sawmill, the FRAC will give preference to individuals
3. Community groups/organisations and co-operatives will be given preference in the allocation of areas for commercial logging
4. Applicants that live near the forested land available for allocation will be given preference
5. Holders of provisional and full agricultural leases over any State forests will be given preference in the allocation of areas for commercial logging
6. Applicants with semi-portable mills will be given preference over applicants with portable mills (chainsaws)
7. Preference will be given to applicants with the most appropriate indicative assets (that is in terms of financial or other resources cited by the logger)
8. Applications will only be accepted from individuals ranging from 18 – 60 years
9. If a permittee dies while SFP is valid, the area is automatically declared vacant and may be advertised in the public media if it will be re-allocated
10. Family member of permittees are not considered as permittees
11. SFPs will only be awarded to Guyanese ordinarily domiciled in Guyana
12. Preference will be given to applicants who personally manage the SFPs that they apply for
13. Where the applicant is the only applicant for the area advertised, the applicant will be favourably considered
14. Where two or more persons apply for the same area, the parties will be interviewed at regional meeting of the Forest Resource Allocation Committee - FRAC (provided that the applicants meet other criteria)
15. Applicants who have bad illegal activities/records will not be given preference if they are competing with another applicant in the area
16. Preference will be given to applicants who will harvest approved non-timber forest products
17. Preference will be given to applicants who have no other SFPs,
18. Power of attorneys will not be allowed for new applications
19. Only owners of sawmills or processing facilities may be considered for areas exceeding 8000ha for up to two blocks; all other applicants will only be permitted one area
20. Applicants for new SFPs who area already a part of any logging enterprise will not be considered
21. Preference will be given to persons who have demonstrated the capacity to pay fees required by the GFC
22. Successful applicants who do not uplift their SFPs or pay the required fees within 30 days from the date of allocation will forfeit the areas and the FRAC can consider the next best applicant
23. Incomplete applications including those not fully paid for will not be considered by the FRAC
24. Failure to submit an application through a Forest station may result in application not being considered
25. SFPs will not be issued in respect of any application containing false or misleading information
26. Applications will only be accepted on GFC's approved application form
27. The FRAC reserves the right not to recommend the issue of any area(s) to any applicant
28. The FRAC will be guided by the logging history of any area recent Assessments of the commercial potential of any area
29. The FRAC will consider appeals on the issues of boundaries if the Commissioner passes these on to it.

Appendix 2: Production of Forest Products 1999-2002 (includes large concessions)

Products	Units	1999	2000	2001	2002 forecast	2002 actual	% Change 2001- 2002
TIMBER PRODUCTS							
Logs							
Special Class	m ³	111,770	79,511	103,971		133,325	28
Class 1	m ³	104,436	68,664	56,420		53,508	(5)
Class 2	m ³	182,140	99,905	123,384		92,895	24)
Class 3	m ³	37,020	40,454	28,184		17,819	(37)
Total Logs	m³	435,365	288,534	311,959	396,000	297,547	(5)
Chainsawn Lumber (CL)							
Special Class	m ³	4,954	5,676	6,505		6778	4
Class 1	m ³	13,641	15,082	15,915		17900	12
Class 2	m ³	3,814	2,720	4,572		4384	(4)
Class 3	m ³	2,668	5,296	2,515		1937	(23)
Total CL	m³	25,078	28,774	29,507	30,000	30,999	5
Roundwood (RW)							
Greenheart Piles	m ³	9,515	7,262	5,767		9,087	58
Kakaralli Piles	m ³	418	810	935		480	(49)
Mora Piles	m ³	55	88	121		78	(35)
Purpleheart Piles	m ³	18	41	0		0	
Wallaba Poles	m ³	5,693	8,002	3,207		3158	(2)
Posts	m ³	9,694	10,693	9,228		1757	(81)
Spars	m ³	2,044	4,180	39		8	(79)
Total RW	m³	27,437	31,076	19,297	14,776	14,568	(25)
Splitwood (SW)							
Paling Staves	m ³	1,085	1,010	1,013		1154	14
Vat Staves	m ³	4	0	0		0	0
Shingles	m ³	94	27	58		77	33
Total SW	m³	1,183	1,037	1,071	1,269	1,231	15
Fuelwood							
Charcoal	kg	165,465	472,122	521,903		914,951	75
Firewood	cord	3,757	5,886	3,103		13,402	332
Plywood							
Plywood	m ³	86599	91,864	69,137		51,280	(26)

NON-TIMBER FOREST PRODUCT							
Wattles	piece	4,885	35,438	62,246		82,372	32
Mangrove Bark	kg	65,648	30,091	21,090		4,354	(79)
Manicole Palm	stem	5,148,301	3,571,161	3,929,136	3,000,000	7,366,533	87
Processed Manicole Palm (Heart of Palm)	cartons	34,729	97,288	132,974		...	

Source: Guyana Forestry Commission Market Report for 2002, Bureau of Statistics

Notes: data for sawmilled lumber is currently unavailable

Appendix 3: Summary of key opportunities and threats to the forest sector identified in Rambrich and Associates 2002 (includes large enterprises)

Strengths	Weaknesses
Long tradition of the country in the forest and wood sector	Lack of management capabilities in the sector
Relatively well functioning forest administration	Inaccessibility of capital for re-investments
Availability of concessions to local mills	Low level of efficiency in saw milling industry (little attention paid to upgrading of processing equipment and investment in training)
Some successful companies in the manufacturing sector demonstrate capabilities	Lack of skills in processing
Many species with commercial potential	Poor information on markets and trends worldwide
No significant environmental degradation resulting from the use of forestry resources.	Lack of Sufficient guidance or assistance by the Guyana Forest Commission
Pristine forests with high conservation and ecological value.	Underdeveloped infrastructure
	Inability to properly assess cost/benefit or opportunity costs of investments in this sector.
	No solid inventory data to allow for a true analysis of the value of concessions, thus, unknown resource endowments.
	Use of dated and in some cases inappropriate technology.
Opportunities	Threats
Commercialisation of lesser known species	Non-tariff trade barriers
Effective rationalisation of the industry in light of the existing crisis.	The ban on the importation of tropical hardwoods by some groups e.g. in New York
Increased production of Kiln dried lumber	Increased incidence of un-sustainable logging practices, e.g. chainsaw loggers.
Value added processing	The present state of most of the loans at commercial banks and the policy of dealing with these loans.
Use of bio diversity resources for medical purposes.	No clear investment code for the sector. it differs with negotiations

Guyana is one of the poorest countries in South America and the Caribbean with an average per capita GDP of only US\$ 2.2/day. With almost 75% of its land area covered in forest, the forest industry is important for Guyanese national development and poverty eradication. This study assesses the opportunities and constraints facing the Small and Medium Forest Enterprises (SMFEs) in Guyana. Almost all (90%) of SMFEs are owned by Guyanese individuals or family firms. Similarly, most (but not quite all) are directed towards the domestic and not the export market. The government policy towards SMFEs faces the conundrum that they are important for rural income generation, but less desirable in terms of enforceable sustainability. There is a clear need for a concerted programme of work in Guyana to address the various obstacles to economic, social and environmental sustainability faced by SMFEs. This study maps out how wide ownership of such a process could lead to significant gains for sustainable development.

This study was commissioned as part of a cross-country initiative coordinated by the International Institute for Environment and Development (IIED) on Small and Medium Forest Enterprise. Most international attention in forestry has been given to improving the conditions for large-scale or micro-scale forestry, and much less to the 'messy middle' – which produces a high proportion of forest product and involves huge numbers of people. The aim of these studies is to raise the visibility of SMFEs and assess ways by which they can better contribute to reducing poverty and improving the prospects for sustainability.

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