

# INTERNATIONAL TROPICAL TIMBER ORGANIZATION

## ITTO

### PROJECT DOCUMENT

TITLE	ENHANCING THE CAPACITY OF THE WOOD PROCESSING SECTOR TO IMPROVE EFFICIENCY AND ADD VALUE IN GUYANA
SERIAL NUMBER	PD 513/08 Rev.1 (I)
COMMITTEE	FOREST INDUSTRY
SUBMITTED BY	GOVERNMENT OF GUYANA
ORIGINAL LANGUAGE	ENGLISH

#### SUMMARY

The processing sector's capacity to produce quality products needs urgent enhancement and there is a vital need for increased efficiency and sustainable utilization of forest resources. Enhanced capacity building in the forest sector along the industry value chain will encourage more efficient economic and sustainable utilization of the forest resource, thereby reducing wastage, damage to the environment, whilst maximizing the market potential of Guyana's wood products. In order to tackle the central problem of illegal logging, inefficiency and sub-optimal value-added in the sector a multi-dimensioned approach will be taken to address the specific issues of policy and guidelines and capacity building (particularly in areas of machinery, equipment and skills at the community level).

A coherent and comprehensive policy for the sector will be developed and a Code of Practice will provide a bridge between policy and implementation and will guide the industry in best practice. A second facet of the project will address machinery, equipment and skills requirements within the framework of a strategic plan for the sector. This will be developed in collaboration with stakeholders in the sector and will provide the basis for further inputs during this project and beyond. Targeted training will be given in the key areas identified by the capacity-building exercise. The training will be accompanied by training manuals which will provide opportunities for continued skills development beyond the life of the project.

Finally, in recognition of the importance of best practice in the sector to address issues of appropriate machinery and equipment especially, a community model processing operation will be developed, again in collaboration with stakeholders in the public and private sector, to provide realistic demonstration for increasing value in the sector in particular at the community level.

The net result of the project will be increased revenue for the sector as well as more efficient use of the forest resource which will ultimately benefit the local and global environment. Increased employment will provide livelihoods for urban and rural dwellers which will be especially appreciated in areas where alternative means of earning a living are limited. Other regulatory agencies and interested observers around the world will also benefit from the project which will provide a model for similar initiatives elsewhere.

EXECUTING AGENCY	The Guyana Forestry Commission (GFC)	
COOPERATING GOVERNMENTS	---	
DURATION	12 MONTHS	
APPROXIMATE STARTING DATE	TO BE DETERMINED	
BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$
	ITTO	278,640
	Govt. of Guyana	99,313
	<b>TOTAL</b>	<b>377,953</b>

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## PART I: CONTEXT

### 1. Origin

Guyana, the only English speaking country in South America, is located on the Atlantic seaboard of north-eastern South America. It extends 800 km south from latitude 8° N on the Atlantic coast to latitude 1° N, and some 480 km east to west between longitudes 57° and 61° W. It has an area of about 215,000 km<sup>2</sup> and a population of approximately 800,000. Tropical high forests cover some 16.4 million ha or about 76% of the total land area.

State forests administered by the Guyana Forestry Commission (GFC) account for about 13.6 million ha (63% of the land area). By 2004, 52% of state forest had been allocated for timber harvesting. In addition to state forests, a portion of the national forests are under titled Amerindian lands. Land titles were issued to Amerindians in 1976 onwards and currently approximately 13% of the total land area of the country is under titled Amerindian land (an estimated 1.4m million ha of which is covered by forest).

Access for commercial timber removal on State Forests is controlled by the GFC through the allocation of temporary concessions and permits as follows:

- Timber Sales Agreement (TSA) covers concessions of more than 24,000 hectares and is allocated for a period of more than 20 years.
- Wood Cutting License (WCL) is issued for 3 to 10 years, and covers forests of between 8,000 and 24,000 hectares.
- State Forest Permissions (SFP) are given for two years and cover areas of less than 8,000 hectares. SFPs are generally issued to individual small-scale operators and community-based associations.
- State Forest Exploratory Permits (SFEPs), which are issued for survey and feasibility purposes only and do not include cutting rights.

Since 1991 the number of TSAs has almost doubled from 16 in 1999 to 31 in 2005. During the same period the number of SFPs has declined from 571 to 263.

Guyana's commercial forests are characterised by high species diversity but the main commercial species have a low standing volume per unit area which results in low volume extraction per unit area. It has been estimated that in 2000, the total annual wood production of 400,000m<sup>3</sup> came from a forest area of some 6 million hectares, equating to less than 0.1m<sup>3</sup>/ha overall (though since a significant portion of the allocated area is not active in any given year, actual average increment is probably higher). The reasons for the low productivity can be found in the relatively poor forest soils typical in the country; the highly selective nature of logging (targeting less than 5% of the tree species occurring) and the relatively high occurrence of defective trees (estimated at more than 20% overall).

Log production has shown considerable fluctuations over the past decade, peaking in 1997 at 521,529 m<sup>3</sup> and falling to 288,534 m<sup>3</sup> by 2000. The latest figures (2006) indicate a slight resurgence to 394,000 m<sup>3</sup>. Data for the production of sawn lumber from static (and now including mobile) sawmills are not officially available post-1997. At that time, production was 56,604m<sup>3</sup>/yr. Statistics have been collected for chainsawn lumber since 1994 when annual production was recorded at 29,832 m<sup>3</sup>. Since then production has remained relatively steady and after a slight decline in 1998-1999 is was up to 36,085 m<sup>3</sup> in 2004 and 74,364 m<sup>3</sup> in 2007.

Approximately one half of total timber volume production is currently exported from Guyana; the most common destinations are Asia (in particular for logs), Europe (especially sawnwood to UK), Caribbean and North America. The average annual volume of logs exported between 1995 and 2000 was 42,935m<sup>3</sup> and average sawnwood exports between the same period was 19,716 m<sup>3</sup>. In 2007 export volumes for logs and sawnwood, respectively, were 157,097m<sup>3</sup> and 48,825 m<sup>3</sup>.

The contribution of the primary processing sector of the industry (harvesting and sawmilling excluding manufacturing) to the national economy as measured by the Gross Domestic Product (GDP), has ranged

from 4.93% in 1997 to 3.43% in 2007. The number and range of licensed processors in Guyana are given in Table 1.

**Table 1. Wood Processing Licences in Guyana (end December Comparison - Years 2006 & 2007)**

Activity/ License Type	Period	Division				Total
		Demerara	Essequibo	Berbice	Northwest	
Sawmill	Year 2007	40	41	30	2	113
	Year 2006	39	35	28	1	103
Sawpit	Year 2007	67	46	25	13	151
	Year 2006	73	29	16	9	127
Permit to Erect Sawmill	Year 2007	20	13	13	1	47
	Year 2006	15	7	3	0	25
Timber Dealers	Year 2007	196	42	44	9	291
	Year 2006	165	24	38	8	235
Timber Depot	Year 2007	3	4	0	0	7
	Year 2006	1	3	1	0	5
Timber Path	Year 2007	3	4	0	0	7
	Year 2006	2	4	3		9
Charcoal	Year 2007	17	1	1	0	19
	Year 2006	10	0	0	0	10
Firewood	Year 2007	6	4	3	0	13
	Year 2006	5	4	2	0	11

The total value of exports of all logs, sawnwood, roundwood, splitwood and plywood between 1997 and 2007 was US\$406.3m with an annual average of US\$37m, peaking in 2007 at US\$61.5m. The latest official figures, from 2007, indicate that 27,027 persons are directly employed in the timber and forest products production sector. The most recent published data indicate a contribution of around US\$ ¾ million to the consolidated fund directly from royalties (not including the area-based acreage fees).

The current contribution of the forest sector to GDP averages approximately 4%. The sector's relatively meagre contribution to the nation's GDP grossly underestimates the industry's potential to make a significant contribution to Guyana's socio-economic development. Being a rural-based industry, it is one of the major economic activities for forest-related communities, and in some cases, it is the only source of income for these communities. The sector therefore provides an important economic underpinning to communities in remote areas which is not always taken into account in the computation of its contribution to the nation's GDP.

The potential contribution of the sector to the economy and sustainable development, as identified by several strategic documents, such as the National Competitiveness Strategy (NCS), National Forest Policy Statement and the National Forest Plan, lies in the ability of the forest industry to build strong capacity in each segment of its value chain (i.e. resource development, value adding and enhancing market access nationally and internationally). While these important documents identify critical areas in which capacity building is needed, an overarching strategy for enhancing efficiency in processing is critically missing. The NCS outlines general areas such as, training for sawmillers and forest concessionaires, education at the tertiary levels of forest training and the building of post graduate training in forest education. Further, the NCS identifies in general context, the need for training in areas of business management, forest harvesting, manufacturing and marketing. The National Forest Policy Statement identifies similar areas that capacity building is critically required, and stresses the need for these to be urgently addressed. The Diagnostic report of the International Tropical Timber Organisation from a Mission to Guyana in 2002 identified the need to address the pressing issues of capacity building

at various level of the supply chain to ensure effective and efficient utilisation of the country's forest resources.

The Guyana Forestry Commission has, over the years, made significant strides in building capacity in the sector, notably in hinterland communities and in the processing sector in order to ensure sustainable and economic utilization. Among the more recent initiatives are the training in standards and quality requirements for sawmills, training in participatory forest management and community forestry, and continuously monitoring compliance with the Code of Practice for Harvesting Operations.

**The project is strongly supported by the two main industry bodies in the forest sector of Guyana: the Forest Products Association (which also represents small operators) and the Guyana Manufacturers and Services Association which is the grouping for the forest product manufacturers. As part of the GFC's programme of work, two technical committees have been formed with members of each group. The GFC meets with these committees routinely. One of the common recommendations that have come from these committees is the need to increase value adding activity in the forest sector in an efficient manner. The Committees have made recommendation of some of the activities that require greater efficiency in the sector. These recommendations have largely informed the activity selection in this project and as such, the Project proposal has been so informed with the inputs from these two bodies.**

## 2. Sectoral Policies

The Guyana Forestry Commission (GFC) was created in 1979 out of the pre-existing Forest Department that had its origins in 1925. The GFC is responsible for advising the responsible Minister and making submissions on issues relating to forest policy, forestry laws and regulations. The Commission is also responsible for administration and management of all State forestland. The work of the Commission is guided by a national forest plan that has been developed to address the forest policy. The Commission also develops and monitors standards for forest sector operations, develops and implements forest protection and conservation strategies, oversees forest research, and provides support and guidance to forestry education and training.

The GFC is responsible for the management of an area of 13.6 million ha classified as State Forest. The remainder of the forest is either: State Land; Amerindian Land; or other private property. Forest Concessions are allocated in three categories based on area and contractual length (see above); all operations are strongly encouraged to follow best practice as set out in the Code of Practice for responsible forest operations (though this will not become mandatory until the passage of the new draft Forests Act).

The President of Guyana is the ultimate authority for Forestry (and the Environment and Natural Resources) though the Minister for Agriculture/Fisheries, Crops and Livestock currently has the responsible mandate. There are two statutory bodies responsible for co-ordinating developments in the natural resources sectors:

- Cabinet Sub-Committee on Natural Resources and Environment. This Committee discusses all matters requiring policy decisions before being presented to the full Cabinet.
- Natural Resources and Environment Advisory Committee (NREAC) which includes the Commissioners of Forestry, Geology and Mines, and Lands and Surveys, the Head of the Guyana Natural Resources Agency, the Heads of the Energy Agencies, the Land Use Planning Unit, the Institute of Applied Sciences and Technology, the Hydromet Department and the Director of the Environmental Protection Agency. This committee meets every week and is chaired by the Presidential Adviser on Science, Technology and the Environment

Revised forestry legislation has been drafted to address, inter alia, conservation and protection, sustainable utilisation of the forest estate and Amerindian land rights. The draft is currently with Cabinet for approval.

The Environmental Protection Agency (EPA) was established in 1996 to provide for the management, conservation, protection and improvement of the environment, the prevention or control of pollution, the assessment of the impact of economic development on the environment and the sustainable use of

natural resources. The EPA has entered into a Memorandum of Understanding with the GFC that provides for co-operation in the assessment and monitoring of Environmental Impact Assessment. Before any operation can commence in a forest concession, the company must submit an Environmental Impact Assessment for approval by the EPA and the GFC. The GFC has also established an Environmental Monitoring Unit to monitor all environmental matters pertaining to forestry.

The Forest Producers Association is an NGO formed in 1944 by the forest industry to promote and develop the interests of the forest sector and to collaborate on activities such as training, information, public awareness and institutional development. Membership is open to all individuals or companies engaged in any aspect of the business of forest products and it currently has over 60 members. The Association does not receive a subvention from any source and relies on membership fees to conduct its business. This being so the only paid members of staff it employs are an executive director and a personal secretary. The Association is currently receiving some support from multi-lateral international bodies to conduct sectoral training and to develop a strategic plan. The association is a member of the Public Sector Commission.

The Guyana National Forest Policy Statement of 1997 recognises that sustainable forest management can be attained only if there is the availability of sufficient basic information on which planners and forestry practitioners might draw for the formulation and implementation of policies and strategies. In addition, the Policy highlights the importance of a level of control over all harvesting activities, sufficient to provide adequate protection of biodiversity and to ensure sustainable production; and the creation and maintenance of an efficient database, containing up-to-date information which is freely available to all, without compromising confidentiality, on national forest resources, their productivity, management potential, and their ecology and dynamics; and the development of an environmental management system for the forestry sector which would address the environmental and social impacts of any activity within the forest and build strategies to minimize them. The Policy further outlines the importance of sustainable forest management and management of forest concessions issues to ensure the legality and sustainability of forest activities.

The Guyana Draft National Forest Plan of 2001 refers to the Policy Statement and identifies the importance of forest enforcement and governance in the Forest Resources Management and Forest Industry sub-sections. The main areas dealt with under the Plan are compliance with the forest law enforcement, and management of the State Forest to ensure sustainable forest management. It is envisioned that through this programme, the support will be provided to ensure the success of the proposed initiative.

The Guyana Draft National Development Strategy (1996) has amongst its objectives to monitor the forest resources under its control (State Forest) to ensure that the policies and procedures of the GFC in relation to sustainable forest management and law compliance are adhered to. The Strategy makes a strong case for information to be provided in an efficient and effective way to facilitate this recommendation.

### **3. Programmes and Operational Activities**

International assistance in forestry and related fields is being, or has recently been, received through the following:

- Improving the detection and prevention of illegal logging 2007- . Funded by ITTO 2007-2008. The project addresses is developing an integrated and dynamic GIS that will incorporate satellite image analysis, illegality indicators and a legality database and establishing a bar-code log-tracking system that will feed into a central database linked to a national wide-area network. This will allow for near real-time transfer of data and the availability of tracking information for the regulatory agency and operators in the private sector. The outcome of the project will be an environment where detection of illegal logging and other non-compliant activities will be dramatically improved in the forest, in transit and at point of sale. This scenario will see improved detection of illegal activities acting as an effective deterrent resulting in a marked reduction in the incidence of illegal activities. The beneficial knock-on effects of this will be registered in the national economy, local communities and the forest environment.

- Guianas Sustainable Forest Resources Management Project: 2002. Funded by The World Wildlife Fund, the project aims at maintaining the integrity of the different forest ecosystems of the Guianas so that they may sustain their ecological functions and processes while supporting the region's socio-economic development. The four project components are: sustainable forest management; gold mining pollution abatement; protected areas effective management; regional integration, collaboration and networking.
- Strengthening Participatory Approaches in Forest Management in Guyana: 2002. Funded by the Food & Agriculture Organisation of the United Nations, the purpose is to promote the adoption by Government and other natural resource managers of "best practices" for integrating participation in natural resource management for poverty reduction.
- Training in Reduced Impact Logging in Guyana: 2002- . Funded by ITTO (PD068/01 Rev. 2 [I]), the specific objective of this project is to strengthen the national capacity to deliver training in practical forest operational and managerial skills and knowledge to personnel at all levels of the forest sector by means of establishing an on-site RIL training programme. The project includes the following major activities: the design of the training programme in consultation with stakeholders, the development of demonstration models of good RIL practices, the establishment of the training facility, the training of trainers and other personnel in RIL, and the establishment of a long-term plan to ensure the sustainability of the project.
- A Sustainable Management Model in the Iwokrama Rain Forest: 1999. Funded by ITTO (PD010/97 Rev. 1[F]), the objective of the project is to design, plan and initiate the commercial management of half of the Iwokrama Forest for multiple products and services, and integrate research, training and demonstrations into these operations, in order to improve the practices in Guyana and elsewhere. The project helps Iwokrama produce a state-of-the-art forest management plan for multiple products and services, and feasibility studies for management and harvest based on this plan. It assists in finding an appropriate business partner and negotiating contracts that will assure the adherence of principles of sustainable forest management. Demonstration, research and training in improved practices will be integrated into these model commercial operations.
- The Guyana Forestry Commission Support Project: 1995-2002. Funded by the UK Department for International Development, the purpose of the project was to enable the GFC to effectively fulfil functions in support of sustainable, ecologically sound and socially integrated forest management systems. The goal was to optimise the economic and environmental goods and services from Guyana's forests for the benefit of all communities. Project outputs included a revised national forest policy and law; strengthened GFC structure and functioning; strengthened GFC procedures and capabilities; strengthened forest sector training capacity and improved forest information systems.
- The Natural Resources Management Project: 1998-2005. Funded by the German Government, it is designed to ensure that decision making for natural resources management is based on improved information. The project will develop a database on natural resources, establish land use planning procedures, prepare policy guidelines and legislation for natural resources management and strengthen institutional capacity.
- The Canadian International Development Agency has also provided funding towards the execution of a national forest inventory.
- Development and delivery of a vocational training programme in reduced impact logging and sustainable forest management practices in Guyana: Funded by ITTO (PDD 333/05 (1)), the specific objective is to provide training in reduced impact logging and related matters in order to reduce the level of negative environmental impacts (and promote more environmentally responsible approaches to timber harvesting). The main outputs under this project include: RIL training programme for medium and small scale operators organized and delivered and RIL demonstration forests established; RIL system for small-scale / community forestry operations designed; capacity to provide RIL training programme for small-scale / community forest operations established; RIL training programme for small-scale / community forestry operations organised and delivered; capacity to provide training programme on other aspects of sustainable

forest management established; training courses in other aspects of SFM organised and delivered; long term sustainability of vocational SFM/RIL training in Guyana secured.

- Implementation of the sustainable forest management programme of the Iwokrama international centre. Funded by ITTO (PD 297/04 Rev.1 (F)). The specific objectives are to:
  - manage the area in order to maximize net revenue from sustainable production of forest goods and services, while developing local employment and training opportunities and providing capacity building and technology transfer programmes for the Amerindian communities.
  - to demonstrate, through effective monitoring, how the approach adopted is delivering lasting ecological, economic and social benefits to local, national and international communities.

The main outputs are: Training and technology transfer in the development and implementation of silvicultural programmes provided; fire management plan prepared and training in implementation practices provided; training and technology transfer in operational practices related to forest management provided; forest management and silviculture counterparts trained; Monitoring programmes developed and implemented to evaluate the social and economic impact of the forest management activities on the local Amerindian communities; Additional monitoring programmes developed to evaluate the biological impacts of forest use on wildlife populations.

The proposed National Protected Areas System Project will assist the Government of Guyana with the establishment of a representative system of protected areas, which will also conserve globally important biological diversity. The project will establish an independent Protected Areas Commission and initiate the process of establishing a protected areas system by identifying and supporting the management and development of two pilot areas. The system will contribute to the conservation of ecosystems and biological diversity, watershed protection, and the maintenance of the country's cultural heritage. Project components include the design and identification of a Protected Areas System and selection of protected areas; supporting the management and development of two pilot areas; institutional strengthening and training; legislation and policy development and the identification of long-term sources of financing.

The Tropenbos-Guyana Programme (TGP) is a forest research programme that started in 1989, with core-funding of the Dutch government. The objective of this research programme was to achieve an understanding of the lowland tropical rainforest ecosystems in the area to such a degree that timber harvesting (and possible other non-wood forest products) under a sustainable forest management system can be achieved. At the same time, a satisfactory level of biological diversity should be maintained and an appropriate area of rainforest conserved. The programme included forest management-oriented research and training programmes. Notable contributions included a range of technical publications. The TGP ended in December 2001 though continued accessibility to its assets, knowledge and expertise and continuation of its will be facilitated by the Planning and Research Development Division of the GFC.

The Iwokrama International Centre for Rainforest Conservation and Development is responsible for the management, conservation and sustainable development of 360,000 ha tropical rainforest, which the Government of Guyana dedicated to the international community to demonstrate that tropical forests can provide economic benefits without destroying biological diversity.

The forestry sector has participated in the development of the Amazon Co-operation Treaty (ACT) 'Criteria and Indicators for the Sustainability of the Amazon Forest'. The ACT criteria and indicators, together with those produced by CIFOR and ITTO have been reviewed by the GFC during the preparation of the National Forest Plan. Actions required by the sector have been identified for all appropriate indicators and these have been incorporated into the Plan.

Guyana is also a signatory to the CITES (1973), UN Framework Convention on Climate Change (1992), UN Convention on Biological Diversity (1992), "Forest Principles" (1992), relevant chapters of Agenda 21 (UNCED, 1992) and the ITTA (1994).

The GFC has secured funding from the UNDP to assist the development of national standards for certification. The objective is to develop standards that comply with all criteria and indicators. The process will also seek to involve and develop the interest of potential local certification agencies so that certification services become available at acceptable cost to producers. UNDP funding has also been



made available for a comprehensive study of existing harvesting operations to determine the main obstacles to improved forest management and certification. The results of this study will be used to design further interventions that may be required to assist the introduction of sustainable forest management systems.

The GFC is involved in a number of activities to promote more involvement and participation in the forestry sector. These are:

- Educational outreach programmes to Amerindian and hinterland communities;
- Sponsorship of five Amerindian students annually to pursue a certificate in forestry;
- Outreach programmes to secondary schools, educating students about all aspects of forestry and the environment;
- Support for the University of Guyana to run a Diploma, Degree and Master programme in Forestry.

## **PART II: THE PROJECT**

### **4. Project Objectives**

#### *4.1. Development Objective*

**The Development Objective of the project is to enhance the efficient and sustainable utilization of forest resources in Guyana to foster development at the national and community levels.**

#### *4.2. Specific Objective*

To upgrade the capacity of wood processing industry through development of strategic guidance and human capacity building.

### **5. Justification**

#### *5.1. Problems to be addressed*

##### *5.1.1. The link between capacity building in the supply chain and environmental sustainability*

Sustainable development by definition implies a management and utilisation ethos which aims to utilise a nation's natural resources for socio-economic development without limiting the ability of future generations to similarly benefit from these natural assets. Achieving sustainable development in the forest products sector therefore involves efficient and effective use of the nation's forest resources. The reported average recovery rate in Guyana's sawmills ranges between 30 and 40%. This compares with more than 60% in some tropical timber producing countries such as Malaysia.

Improving recovery rates will require several approaches; a problem tree developed for the whole processing sector identifies several issues and actions taken or proposed. A policy framework must first be in place. Secondly, there is need to build capacity to manage the resource harvested effectively to improve the current productivity of the forests.

The processing sector's capacity to produce quality products needs urgent enhancement. While the majority of Guyana's sawmills have obsolete equipment, old age by itself is not the issue. It is important that sawmillers are trained in machine maintenance and care, particularly in saw doctoring. Training is also required in mill design and layout to improve processing time. Coupled with good equipment maintenance, this has the potential to substantially increase recovery rates as well as the quality of products from these mills.

Enhanced capacity building in the forest sector along the industry value chain will encourage more efficient economic and sustainable utilization of the forest resource, thereby reducing wastage, damage to the environment, whilst maximizing the market potential of Guyana's wood products. The stronger the capacity along the supply chain, the easier it will be to ensure sustainable development and economic progress. This will also assist in reducing the pressure on existing forest resources since more efficient and beneficial utilization would be made of the existing resources.

##### *5.1.2. Specific issues*

Several past studies compiled for the forest sector have addressed, in general terms, the standards required for processing of timber. However, there is now need to bring all these disparate recommendations and standards together in a comprehensive Code of Practice for Processing Operation which will be the guiding tool for processing in the forest sector of Guyana to assist in realising the full potential of the sector's contribution to Guyana's socio-economic development.

The GFC and the industry have come a long way in charting a course for the industry's development. Over the past 10 years, the sector has, by and large, concentrated on primary production, with very little emphasis on downstream value-adding. This has been due, in large measure, to the lack of industry capacity to move down the value adding chain. Capacity building in critical areas such as mill layout and design, saw doctoring, kiln drying, quality production equipment design and maintenance, and marketing of finished products are essential to realise the developmental objectives in the guiding documents for the forest sector.

There is a vital need for increased efficiency and sustainable utilization of forest resources. The building of capacity in the entire value chain of forest resource utilization will increase the ability of the users of the resource to make maximum benefit of the resource's full potential. This will not only ensure sustainable utilization but efficiency, together with the generation of greater economic benefits. Capacity building along the value chain is seen as the key to this objective.

There is a need to create and strengthen the linkages of forest resource utilization in an effort to maximize economic benefits while ensuring sustainable development. The input of the public sector is necessary to ignite the potential of the wood processing sector with a small input, because the industry in Guyana is mainly operated by small capitals and very weak capability to innovate, but once the first small step is assisted, the private sector manages their improvement steps after project completion onwards, therefore it is sustainable and efficient from the national economy point of view.

#### *5.1.3. Links with other related projects*

There is a clear relationship between this project and two related projects (the kiln drying project and the LUS project. The Lesser Used Species Project (PD 344/05 Rev.2(l) ) will contribute to increasing the overall contribution of the forest sector to the national economy by improving the awareness and use of lesser used species. The project focuses on gathering technological information on lesser used species; more promotion of current and potential lesser used species and training in processing techniques of these species.

The Kiln Drying Project (PD 401/06 Rev.2(l) ) will address the problem of the inability to dry wood to the quality standards and specifications required by international markets by trialing commercial kiln drying of wood in three small scale community sawmilling regions as demonstration of the value adding and quality standards expected by international markets. It is expected that through these demonstration projects, the small scale community saw millers will understand and learn the quality requirements for exports to international markets.

The synergies among these projects will provide greater benefits to the national economy and to sustainable forest management in Guyana.

#### *5.2. Intended situation after Project completion*

The wood processing sector will have received targeted skills training to enable it to increase recovery and value from processing. It will also be guided by a coherent policy and Code of Practice to ensure best practices both for production and for health and safety and the environment.

The net result of the project will be increased revenue for the sector as well as more efficient use of the forest resource which will ultimately benefit the local and global environment. Increased employment will provide livelihoods for urban and rural dwellers which will be especially appreciated in areas where alternative means of earning a living are limited.

Other regulatory agencies and interested observers around the world will also benefit from the project which will provide a model for similar initiatives elsewhere.

#### *5.3. Project strategy*

It is proposed that the areas for capacity building in forest resource utilization, with an aim at sustainable utilization, be clearly established and specific activities pinpointed under each tier of the chain. Upstream efforts and the current positive/preferable situation, downstream industry as a sub-optimal contributor to

the country's sustainable development, and lesser used species, kiln drying and policy development forms the key strategy, followed by the future actions, including community processing.

In order to tackle the central problem of inefficiency and sub-optimal value-added in the sector a multi-dimensional approach will be taken to address the specific issues of policy and guidelines, capacity building (particularly in areas of machinery, equipment and skills).

Policy statements intersecting with the wood processing sector can be found in national policy documents such as the Forest Policy and National Forest Plan. However, these are fragmented and this project will collate these statements, updating where appropriate, into a coherent and comprehensive policy for the sector. A Code of Practice will provide a bridge between policy and implementation and will guide the industry in best practice.

A second facet of the project will address machinery, equipment and skills requirements within the framework of a strategic plan for the sector. This will be developed in collaboration with stakeholders in the sector and will provide the basis for further inputs during this project and beyond.

Targeted training will be given in the key areas identified by the capacity-building exercise. The training will be accompanied by training manuals which will provide opportunities for continued skills development beyond the life of the project. Specific high-value products that could be targeted for development in Guyana are exterior/garden furniture, indoor furniture, window frames, etc. **Areas to be included in training session include saw doctoring, mill layout and design, storing/stacking/racking and air drying of timber for onward processing into value added items, preventative treatment and end protection, handling wood defects in processing, optimizing the first cut and re-sawing, equipment handling and maintenance, safety procedures, and minimizing, managing and handling waste. It is estimated that 3 training sessions will be conducted in at strategic locations in the three counties of Guyana: Essequibo, Demerara and Berbice. At least 25 persons will be trained at each session. At least 50 persons will be trained in the community processing model in all areas of operation of equipment purchased including, equipment functioning and use, maintenance, layout of model operation, production of various products using machines purchased, and other areas.**

After the implementation of the general strategy, the areas outlined for capacity building will be examined. This will be approached by a step-by-step method to building the capacity of each level of the value chain of resource utilization. At this stage, areas such as mill design and equipment maintenance will be addressed. The activities in the implementation stage will draw from the resources of the GFC and other support bodies.

It is expected that as the project will foster the GFC's overall objective of ensuring sustainable forestry by assisting producers and manufacturers at each level of the value chain to increase the benefits that would accrue to the stakeholders, the economy and the environment.

#### 5.4. Target beneficiaries

**Guyana's Economy and Environment** – this proposal is aimed at building the capacity of the forest sector to make more efficient, sustainable utilization of the forest resources that would impact on sustainable economic development. Boosting the capacity of the sector will result in producers/manufacturers being able to more efficiently process forest products to a higher standard and quality.

**Forest Industry (producers and manufacturers)** – the forest industry development strategy will empower the producers to sustainably harvest forest resources and efficiently process and market these products to generate economic benefits. At present the forest resources are sold at relatively low export and domestic prices since predominantly primary products are sold in both markets. Building capacity at each stage of the value chain will assist producers with better utilization of the resource. Increasingly also, environmental concerns have come to the forefront of many market requirements, as such, building the capacity of producers to sustainably harvest and process their forest products will make them more capable to enter into these markets. Specifically, members of the Forest Products Association of Guyana and the Guyana Manufacturers and Service Association will benefit. **The Industry associations will be**

co facilitators to all consultations that will be conducted to seek inputs for the development of the Policy and Code of Practice that will be developed through this project. Additionally, all training to be held and models to be established will be done with key inputs from industry representatives.

Local Communities – forest producers and manufacturers in local communities will benefit from training in more efficient, sustainable utilization of forest resources which will encourage greater development of economic activity in these communities whilst also ensuring environmental sustainability. Specifically, by addressing the issue of underlying causes of illegal activities – especially at the community level - an improvement in quality will cause less pressure on the forest (the philosophy of more output, higher quality, high value and low volume).The representatives of the target community will inform the layout of the model processing operation as well as being integrally involves in the preparation of the site for the model operation. Further, the equipment selection and purchase will be done in collaboration with the chosen community.

Government Officials – the project will result in the value added sub sector of the forestry industry operating in a more structured and efficient manner. As such, the implementation of policy and the targeting of goals for the forest sector will be able to be executed in a more effective way. Government officials will be part of the capacity building and training exercise and as such will be able to continue the activities started under this project in future initiatives of the Government and its Agencies, especially those of the Guyana Forestry Commission. In this way, the sustainability of the project will also be assured whilst at the same time, building capacity in the Government agencies, such as the GFC.

Farmers – local operators and farmers will also benefit from the training exercise and as such capacity will be enhanced at this level. Farmers will benefit from key areas including the establishment of model operations at the community level, and training in efficient added value techniques in forest based manufacturing. Additionally, there will be increased opportunity for encouraging the involvement of farmers in forest activities as many activities can be done at the small to medium scale, whihc will boost rural income and employment.

#### 5.5. Technical and scientific aspects

The project will involve technical aspects in terms of the establishment of a model processing operation for a community and in conducting capacity building in technical areas. The technical aspect of this project will involve the drafting of a Code of Practice for Processing Operations that will outline among the key procedures, areas such as mill layout, processing techniques for a standard timber processing plant, safety and procedures to enhance efficiency and quality of timber. Importantly, these requirements will be informed by the current state of the industry and will be guided by the existing Timber Grading Rules and Procedures for Sawmill and Processing Plants which are currently being monitored by the Guyana Forestry Commission. The development of the Code of Practice will take examples from international and regional best practices as well as lessons learned from the implementation of similar standards in other countries. There will be a training element following the completion of this technical aspect of the Project where operators will be given an opportunity to benefit from practical training on the implementation of the Code in the industry.

The Strategic Plan which will be developed for the processing industry will also involve technical and scientific aspects and will include a technical assessment of the state of the industry. This will serve the key purpose of informing the direction that the industry will be recommended to take to develop further. The Strategic Plan will address skill requirement for primary job responsibilities in a processing operation with an aim of enhancing performance to increase

efficiency. Training manuals will be developed covering technical areas outlined in both the strategic plan and the Code of Practice.

A community model processing operation will be established to include a core set of equipment to be determined by the needs of the community, particularly in terms of species present in the community concession or private community land ownership, potential and current end use application of species, skill level of community and location of community among other factors. This determination of these factors will occur prior to the purchasing of equipment. It is envisaged that the equipment list will include portable mill, saws, lathe, sanding machine, electric drills, planers, moulder and edger, and other identified equipment for specific products, such as furniture or building components. Training in the operation of all parts of the model facility will be conducted under this Project.

#### 5.6. Economic aspects

The project specifically addresses a key problem that the sector is not adding as much value to the raw material as possible with improved skills and equipment. Therefore, the local and national economy would be expected to be enhanced by implementation of his project.

#### 5.7. Environmental aspects

Increasing recovery during processing implies a commensurate reduction in waste. The immediate environmental benefits of this are reduction in greenhouse gases emitted due to burning of waste wood and potential pollution of water courses through leaching of sawdust and other residues. A downstream benefit will also be felt in the forest environment as pressure on the raw material will be reduced by more efficient processing.

#### 5.8. Social aspects

The major social aspect of the project involves the potential for increased employment in a rejuvenated and expanding sector. By its nature, the sector is not primarily urban-based so livelihood benefits will be noticed throughout the country and especially in the particularly vulnerable and economically depressed rural areas.

#### 5.9. Risks

Developmental Objective

**Risk: Decline in demand for Guyana's forest products**

**Mitigation Measures: The Guyana Forestry Commission will continue to work with the key sector agencies to build and facilitate market access for between local producers/manufacturers and buyers. Additionally, the GFC will continue to produce reports on prices, demand, markets and development of species' potential.**

*Assumption 1: International demand for tropical forest products continues*

Over the past few years the demand for tropical forest products has increased with a corresponding strengthening of the world market price. With their unique and valued characteristics, tropical forest products are set to remain in high demand – especially so for wood sourced from legally verified sources

*Assumption 2: National forest policy and strategy continue to support processing sector*

The Government of Guyana and its forest regulatory agency are both committed to continuous improvement in the sector and particularly to the encouragement of legal practices across the board.

#### Specific Objective

#### **Risk: Lack of Political Support for Policy and Code of Practice Developed**

**Mitigation Measures: The Government of Guyana will be involved at the very outset of the project implementation as they have been in the project preparation stages. This will allow for the adequate required involvement in each Output, particularly, Output 1 which has Policy and Procedures implications for the forest sector of Guyana. The Ministry of Agriculture with responsibility for Forestry will be given regular updates on project progress. The relevant Government officials will also be part of all consultation and training exercises. In this way there will be greater ownership of all deliverables on the Government's part which would allow for smooth approval and implementation of policy and procedures coming out of this Project.**

*Assumption 1: Relevant government ministries, agencies, NGOs and the forest sector industry continue to work together to improve processing*

Improving value-added and reducing waste in the sector is in the best interests of all stakeholders and it is envisaged that all players will continue to work in a coordinated manner to improve in these areas.

*Assumption 2. Machinery and equipment is available at reasonable cost*

New and used machinery is generally available, though not readily so within Guyana. However, shipping links worldwide are relatively good and there is an enabling framework in the country for imports.

#### Output 1: Policy and Code of Practice

#### **Risk: Inadequate number of suitably qualified staff for training session**

**Mitigation Measures: The Guyana Forestry Commission will work with sector bodies: Forest Products Association and the Guyana Manufacturers Association in selecting persons from the trainings sessions. Additionally, GFC staff and graduates from the University of Guyana will also be included in this target group for training and capacity building. Indigenous community groups will also be included. With this broad range in target group, the participant complement will be met that is required for training sessions.**

*Assumption 1: Sufficient suitably qualified and/or experienced persons available for training*

There are considered to be sufficient persons within Guyana who have graduated from UG who would have the necessary technical foundation to be able to benefit from training. In addition, there are many practitioners in the sector who would also benefit from practical training.

*Assumption 2. Sector supports development of CoP*

The current Code of Practice for timber harvesting has been in existence for a number of years and is widely accepted in the sector. It is envisaged that, along with appropriate training and awareness building, the CoP for processing will likewise be accepted and provide valuable guidance for the sector.

#### Output 2: Strategic Plan.

**Risk: The Forest Sector does not support the Strategic Plan**

**Mitigation Measures: The Guyana Forestry Commission will include the forest sector agencies at the very outset of the project so that there is greater ownership of all Plans, Policies and Codes developed. Additionally, a structured approach will be facilitated through the Code of Practice and Strategic Plan will lead the way to solving some of the main identified problems in these sector. This has also been one of the areas identified by the sector that needs improving.**

*Assumption 1: Sector supports strategic plan*

The processing sector is quite fragmented and varied and a strategic plan should be welcomed as it will provide a coordinated mechanism and will address especially key issues of skills and machinery/equipment.

**Output 3: Training**

**Risk: Inadequate number of suitably qualified staff for training session**

**Mitigation Measures: The Guyana Forestry Commission will work with sector bodies: Forest Products Association and the Guyana Manufacturers Association in selecting persons from the trainings sessions. Additionally, GFC staff and graduates from the University of Guyana will also be included in this target group for training and capacity building. Indigenous community groups will also be included. With this broad range in target group, the participant complement will be met that is required for training sessions.**

*Assumption 1: Sufficient suitably qualified and/or experienced persons available for training*

There are considered to be sufficient persons within Guyana who have graduated from UG who would have the necessary technical foundation to be able to benefit from training. In addition, there are many practitioners in the sector who would also benefit from practical training.

**Output 4: Model Processing Operation**

**Risk: Inability to Identify a Suitable Community to set up Model Processing Operation**

**Mitigation Measures: The GFC has a community forest programme which is the facility through which forest dependent communities are assisted in identified areas. The identification of a suitable community will draw on information from this programme as well as from inputs from the Forest Products Association and small operators in the forest industry. This approach will enable the GFC to locate a suitable community. Over the years, many communities have expressed interest to the GFC in moving towards more value added activities in the sector, and have shown the capability to move towards this goal once the necessary capacity is enhanced and training is given.**

*Assumption 1: Suitable community can be identified*

In the past Guyana has had a good track record in the sector for the uptake of new innovations and many of these have been based at the community level.

*Assumption 2: Private sector recognize the value of the a community model*

The relevant industry organisations will be required to mobilize support for a community-based model.



## 6. Outputs

Specific Objective: To upgrade the capacity of wood processing industry through development of strategic guidance and human capacity building.

- Output 1: Policy and Code of Practice for Wood Processing
- Output 2: Capacity-building Strategic Plan emphasizing improved equipment and machinery and skills development for the wood processing sector.
- Output 3: Training manuals, workshops and improved skills in the wood processing sector
- Output 4: Model community processing operation.

## 7. Activities<sup>1</sup>

- Output 1 Policy and Code of Practice for Wood Processing.**
  - Activity 1.1 Review existing policy documents and recommendations
  - Activity 1.2 Conduct national consultation
  - Activity 1.3 Formulate policy for processing operations
  - Activity 1.4 Develop Code of Practice for processing operations and provide training
- Output 2 Capacity-building Strategic Plan emphasizing improved equipment and machinery and skills development for the wood processing sector.**
  - Activity 2.1 Recruit technical expert
  - Activity 2.2 Identify key stakeholders for workshop
  - Activity 2.3 Hold inception workshop
  - Activity 2.4 Write Strategic Plan and recommendations
- Output 3: Training manuals, workshops and improved skills in the wood processing sector**
  - Activity 3.1 Identify training experts
  - Activity 3.2 Produce training manuals in key areas for processing (e.g. mill design and layout; saw doctoring; sawing; dressing and moulding)
  - Activity 3.3 Conduct training
  - Activity 3.4 Write report including assessment of training and recommendations
- Output 4: Model community processing operation.**
  - Activity 4.1 Identify and select community to establish model processing operation
  - Activity 4.2 Conduct assessment of appropriate processing unit, layout and structure of model processing unit
  - Activity 4.3 Preparation of sites for model processing operation
  - Activity 4.4 Procure and install identified equipment
  - Activity 4.5 Conduct training in operation of model processing facility

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<sup>1</sup> See also Annex F – work breakdown structure

## 8. Logical Framework

Project Elements	Indicators	Means of Verification	Assumptions
<p><b>DEVELOPMENT OBJECTIVE</b></p> <p><u>The Development Objective of the project is to enhance the efficient and sustainable utilization of forest resources in Guyana to foster development at the national and community levels.</u></p>	<ul style="list-style-type: none"> <li>Increased volume by at least 15% of dressed lumber and added value forest products exported from Guyana in first year following project implementation.</li> </ul>	<ul style="list-style-type: none"> <li>Guyana Forestry Commission – Forest Sector Information Report.</li> </ul>	<ul style="list-style-type: none"> <li>International demand for tropical forest products continues</li> <li>National forest policy and strategy continue to support processing sector</li> </ul>
<p><b>SPECIFIC OBJECTIVE</b></p> <p>To upgrade the capacity of wood processing industry through development of strategic guidance and human capacity building.</p>	<ul style="list-style-type: none"> <li>75+ persons in the sector receive training and /or awareness building by 2009 through 3 training sessions.</li> <li>Mean primary processing recovery through sector reaches at least 50% by 2009</li> </ul>	<ul style="list-style-type: none"> <li>Training reports</li> <li>Code of Practice for Processing Operations.</li> <li>Strategic Plan</li> <li>Policy for Processing operations.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant government ministries, agencies, NGOs and the forest sector industry continue to work together to improve processing</li> <li>Machinery and equipment is available at reasonable cost</li> </ul>
<p><b>OUTPUTS</b></p> <p>1. Policy and Code of Practice for Wood Processing</p>	<ul style="list-style-type: none"> <li>Policy in place and accepted by 2009</li> <li>CoP developed and endorsed by GFC and the sector by 2009</li> </ul>	<ul style="list-style-type: none"> <li>Consultation reports</li> <li>Code of Practice for Processing Operations.</li> <li>Policy for Processing Operations.</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient suitably qualified and/or experienced persons available for training</li> <li>Sector supports development of CoP</li> </ul>
<p>2. Capacity-building Strategic Plan emphasizing improved equipment and machinery and skills development for the wood processing sector.</p>	<ul style="list-style-type: none"> <li>Strategic plan developed by 2009</li> <li>Improved Understanding by Stakeholders of proper equipment and machinery use.</li> </ul>	<ul style="list-style-type: none"> <li>GFC reports</li> <li>Strategic Plan</li> </ul>	<ul style="list-style-type: none"> <li>Sector supports strategic plan</li> </ul>
<p>3. Training manuals, workshops and improved skills in the wood processing sector</p>	<ul style="list-style-type: none"> <li>75+ persons in the sector trained by 2009 in Essequibo, Demerara and Berbice.</li> <li>Training manuals produced.</li> </ul>	<ul style="list-style-type: none"> <li>GFC reports</li> <li>Training reports/Manuals</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient suitably qualified and/or experienced persons available for training</li> </ul>
<p>4. Community model</p>	<ul style="list-style-type: none"> <li>Community model</li> </ul>	<ul style="list-style-type: none"> <li>GFC reports</li> </ul>	<ul style="list-style-type: none"> <li>Suitable community can</li> </ul>

Project Elements	Indicators	Means of Verification	Assumptions
processing facility	operational by 2010 <ul style="list-style-type: none"> <li>50+ persons in the sector attend training at community model</li> </ul>	<ul style="list-style-type: none"> <li>Consultancy reports</li> </ul>	<ul style="list-style-type: none"> <li>be identified</li> <li>Private sector recognize the value of the a community model</li> </ul>

ACTIVITIES	INPUTS
1.1 Review existing policy documents and recommendations	2 MD IWP <sup>2</sup> consultant 2 MD LWP <sup>3</sup> consultant 5 MD secretariat 1 return international flight
1.2 Conduct national consultation	1 MD IWP consultant 1 MD LWP consultant 3 MD secretariat 1 day room rental 50 lunches 50 sets of workshop materials
1.3 Formulate policy for processing operations	10 MD IWP consultant 5 MD LWP consultant
1.4 Elaborate Code of Practice for processing operations and provide training	3 MD IWP consultant 7 MD LWP consultant 2 MD IT <sup>4</sup> consultant 5 MD secretariat 2 days room rental 50 lunches 50 sets of training materials
2.1 Recruit technical experts	5 MD secretariat
2.2 Identify stakeholders	1 MD IWP consultant 1 LWP consultant 3 MD secretariat
2.3 Hold inception workshop	1 MD IWP consultant 1 MD LWP consultant

<sup>2</sup> International Wood Processing consultant

<sup>3</sup> Local Wood Processing consultant

<sup>4</sup> International Training consultant

ACTIVITIES	INPUTS
2.4 Write Strategic Plan and recommendations	5 MD secretariat 1 day room rental 50 lunches 50 sets of workshop materials 5 MD IWP consultant 5 MD LWP consultant 2 MD secretariat
3.1 Identify training expert  3.2 Produce training manuals in key areas for processing  3.3 Conduct training  3.4 Write report including assessment of training and recommendations	3 MD secretariat  5 MD IWP consultant 5 MD LWP consultant 20 MD IT consultant 5 MD secretariat 3 MD IWP consultant 5 MD LWP consultant 3 MD IT consultant 3 MD secretariat 5 MD IT consultant
4.1 Identify and select community to establish model processing operation  4.2 Conduct assessment of appropriate processing unit, layout and structure of model processing unit  4.3 Preparation of sites for model processing operation.  4.4 Procure and install identified equipment.  4.5 Conduct training in operation of model processing facility	5 MD secretariat  2 MD IWP consultant  5 MD IWP consultant  3 MD IWP consultant 5 MD secretariat 2 MD IWP consultant 5 MD secretariat 2 days room rental

ACTIVITIES	INPUTS
	50 lunches 50 sets of training materials

**9. Work Plan**

OUTPUTS/ACTIVITIES		Project Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
<b>Output 1: Policy &amp; Code of Practice</b>														
1.1	Review existing policy and documents													
1.2	Conduct national consultation													
1.3	Formulate policy													
1.4	Elaborate Code of Practice and provide training													
<b>Output 2: Capacity-building Strategic Plan</b>														
2.1	Recruit technical expert													
2.2	Identify key stakeholders for workshop													
2.3	Hold inception workshop													
2.4	Conduct exchange visit													
2.5	Write Strategic Plan													
<b>Output 3: Training manuals and training</b>														
3.1	Identify training experts													
3.2	Produce training manuals													
3.3	Conduct training													
3.4	Write final report													
<b>Output 4: Community model processing operation</b>														
4.1	Identify community													
4.2	Assessment of layout													
4.3	Preparation of site													
4.4	Procure equipment													
4.5	Conduct training													

**10. Budget**

**10.1. Overall budget by activity (breakdown)**

Outputs & Activities	Inputs		No. or days	Unit costs	Quarter	Budget Component	Total Amount
Output 1.							
Activity 1.1	IWP consultant		2	\$400.0	1	16	\$800
	LWP consultant		2	\$225.0		12	\$450
	Daily subsistence (accommodation) allowance		2	\$106.7		31	\$213
	International flights		2	\$3,350.0		32	\$6,700
Activity 1.2	IWP consultant		1	\$400.0	1	16	\$400
	LWP consultant		1	\$225.0		12	\$225
	Daily subsistence (accommodation) allowance		1	\$106.7	1	31	\$107
	Room rental		1	\$300.0		56	\$300
	Lunches		50	\$81.3		56	\$4,063
	Workshop materials		50	\$62.5		55	\$3,125
	Local travel		50	\$80.0		33	\$4,000
Activity 1.3	IWP consultant		10	\$400.0	1	16	\$4,000
	LWP consultant		5	\$225.0		12	\$1,125
	Daily subsistence (accommodation) allowance		10	\$106.7	1	31	\$1,067
Activity 1.4	IWP consultant		3	\$400.0	2	16	\$1,200
	LWP consultant		7	\$225.0		12	\$1,575
	IT consultant		2	\$400.0		16	\$800
	Daily subsistence (accommodation) allowance		5	\$106.7		31	\$533
	Room rental		2	\$300.0		56	\$600
	Lunches		50	\$81.3		56	\$4,063
	Training materials		50	\$62.5		55	\$3,125
	Local travel		50	\$80.0		33	\$4,000
Output 2.							
Activity 2.1	-		-	-	1	-	-
Activity 2.2	IWP consultant		1	\$400.0	1	16	\$400

		LWP consultant	1	\$225.0			12	\$225
	Daily subsistence (accommodation) allowance		1	\$106.7			31	\$107
Activity 2.3		IWP consultant	1	\$400.0	1		16	\$400
		LWP consultant	1	\$225.0			12	\$225
	Daily subsistence (accommodation) allowance		1	\$106.7	2		31	\$107
		Room rental	1	\$300.0			56	\$300
		Lunches	50	\$81.3			56	\$4,063
		Workshop materials	50	\$62.5			55	\$3,125
		Local travel	50	\$80.0			33	\$4,000
Activity 2.4		IWP consultant	5	\$400.0	2		16	\$2,000
		LWP consultant	5	\$225.0			12	\$1,125
	Daily subsistence (accommodation) allowance		5	\$106.7			31	\$533
Output 3.								
Activity 3.1			-	-	1		-	-
Activity 3.2		IWP consultant	5	\$400.0	2/3		16	\$2,000
		LWP consultant	5	\$225.0			12	\$1,125
		IT consultant	20	\$400.0			16	\$8,000
	Daily subsistence (accommodation) allowance		25	\$106.7			31	\$2,667
Activity 3.3		IWP consultant	5	\$400.0	3		16	\$2,000
		LWP consultant	3	\$225.0			12	\$675
		IT consultant	3	\$400.0			16	\$1,200
	Daily subsistence (accommodation) allowance		8	\$106.7			31	\$853
		Room rental	1	\$300.0			56	\$300
		Lunches	50	\$81.3			56	\$4,063
		Training materials	50	\$62.5			55	\$3,125
		Local travel	50	\$80.0			33	\$4,000
Activity 3.4		IT consultant	5	\$400.0	4		16	\$2,000
	Daily subsistence (accommodation) allowance		5	\$106.7			31	\$533
Output 4.								
Activity 4.1			-	-	1		-	-
Activity 4.2		IWP consultant	2	\$400.0	3		16	\$800
	Daily subsistence (accommodation) allowance		2	\$106.7			31	\$213
		International flights	1	\$3,350.0			32	\$3,350



Activity 4.3	IWP consultant	5	\$400.0	3/4	16	\$2,000
	Daily subsistence (accommodation) allowance	5	\$106.7		31	\$533
Activity 4.4	IWP consultant	3	\$400.0	4	16	\$1,200
	Daily subsistence (accommodation) allowance	3	\$106.7		31	\$320
	Local travel	50	\$80.0		33	\$4,000
	Processing equipment	1	\$120,000.0		44	\$120,000
	Raw materials	1	\$40,000.0		51	\$40,000
Activity 4.5	IWP consultant	2	\$400.0	4	16	\$800
	Daily subsistence (accommodation) allowance	2	\$106.7	4	31	\$213
					<b>TOTAL</b>	<b>\$265,050</b>

10.2. Overall budget by activity (summary)

OUTPUTS / ACTIVITIES + Non-Activity Expenses	10. Project Personnel	20. Sub-contracts	30. Duty travel	40. Capital items	50. Consumable items	60. Misc.	TOTAL
Output 1:							
1.1	1,250 (I)	-	6,913 (I)	-	0	-	8,163
1.2	625 (I)	-	4,107 (I/E)	-	7,488	(E)	12,219
1.3	5,125 (I)	-	1,067 (I)	-	0	-	6,192
1.4	3,575 (I)	-	4,533 (I)	-	7,788	(E)	15,896
<b>Subtotal 1</b>	<b>10,575</b>	<b>0</b>	<b>16,620</b>	<b>0</b>	<b>15,275</b>	<b>0</b>	<b>42,470</b>
Output 2:							
2.1	0 (I)	-	0 (I)	-	0	-	0
2.2	625 (I)	-	107 (I)	-	0	-	732
2.3	625 (I)	-	4,107 (I/E)	-	7,488	(E)	12,219
2.5	3,125 (I)	-	533 (I)	-	0	-	3,658
<b>Subtotal 2</b>	<b>4,375</b>	<b>0</b>	<b>4,747</b>	<b>0</b>	<b>7,488</b>	<b>0</b>	<b>16,609</b>
Output 3:							
3.1	0 (I)	-	0 (I)	-	0	-	0
3.2	11,125 (I)	-	2,667 (I/E)	-	0	-	13,792



10.3. *Project Budget by Source*

<b>Budget Components</b>		<b>Total</b>
10	Project Personnel	36,750
20	Sub-contracts	-
30	Duty Travel	18,050
40	Capital Items	120,000
50	Consumable Items	57,200
60	Miscellaneous	-
	<b>Subtotal 1</b>	<b>232,000</b>
80	ITTO Administration, Monitoring & Evaluation	
	81. <b>Monitoring &amp; Review (effective estimation)</b>	<b>11,000</b>
	82. <b>Evaluation Costs (effective estimation)</b>	<b>15,000</b>
	<b>Subtotal 2</b>	<b>258,000</b>
	83. <i>Programme Support Costs (8% of subtotal 2)</i>	<u>20,640</u>
<b>ITTO TOTAL</b>		<b><u>278,640</u></b>
<b>Budget Components</b>		<b>Total</b>
10	Project Personnel	-
20	Sub-contracts	-
30	Duty Travel	20,000
40	Capital Items	-
50	Consumable Items	13,050
60	Miscellaneous	26,505
70	Executing Agency Management Cost (15% of Overall Budget by Activity)	39,758
<b>EXECUTING AGENCY / HOST GOVT. TOTAL</b>		<b>99,313</b>
<b>TOTAL</b>		<b><u>377,953</u></b>

**CAPITAL ITEMS**

<u>List of Equipment</u>	
<u>Equipment Type</u>	<u>US\$</u>
<u>Portable Mill</u>	<u>50,000</u>
<u>Saws (Re Saw, Rip Saw and Cross Cut Saw)</u>	<u>18,000</u>
<u>Saw blade setter, stand and support</u>	<u>4,000</u>
<u>Wood Lathe</u>	<u>3,000</u>
<u>Sanding Machine</u>	<u>1,000</u>
<u>Small Tools (Spoke shaves, chisel, hammers, etc)</u>	<u>4,000</u>
<u>Further processing tools (screw gun, staple gun, compressor, bolts, nuts, etc.)</u>	<u>5,000</u>
<u>Moulder/Planer/Edger</u>	<u>25,000</u>
<u>Generator</u>	<u>10,000</u>
<b>Total</b>	<b>120,000</b>

Consolidated budget by source

	<b>Budget Components</b>	<b>Total cost</b>	<b>ITTO</b>	<b>GFC</b>
<b>10</b>	<b>Project Personnel</b>			
	<i>12. National consultant</i>			
	Wood Processing consultant	6,750	6,750	-
	<i>16. International consultants</i>			
	Wood Processing consultant	18,000	18,000	
	Training consultant	12,000	12,000	
	<b>19. Component Total</b>	<b>36,750</b>	<b>36,750</b>	<b>0</b>
<b>30</b>	<b>Duty Travel</b>			
	<i>31. Daily Subsistence Allowance</i>	8,000	8,000	
	<i>32. International Travel</i>	10,050	10,050	-
	<i>33. Local Travel</i>	20,000	0	20,000
	<b>39. Component Total</b>	<b>38,050</b>	<b>18,050</b>	<b>20,000</b>
<b>40</b>	<b>Capital Items</b>			
	<i>44. Capital Equipment</i>	120,000	120,000	0
		-		
	<b>49. Component Total</b>	<b>120,000</b>	<b>120,000</b>	<b>0</b>
<b>50</b>	<b>Consumable Items</b>			
	<i>51. Raw Materials</i>	40,000	40,000	0
	<i>55. Office Supplies</i>	12,500	8,000	4,500
	<i>56. Other consumables</i>	17,750	9,200	8,550
	<b>59. Component Total</b>	<b>70,250</b>	<b>57,200</b>	<b>13,050</b>
<b>60</b>	<b>Miscellaneous</b>			
	<i>61. Sundries</i>	-	-	-
	<i>63. Contingencies</i>	26,505	-	26,505
	<b>69. Component Total</b>	<b>26,505</b>	<b>0</b>	<b>26,505</b>
	<b>SUBTOTAL 1</b>	<b>291,555</b>	<b>232,000</b>	<b>59,555</b>
<b>70</b>	<b>Executing Agency Management Cost (15% of Overall Budget by Activity)</b>	39,758		39,758
	<b>79. Component Total</b>	<b>39,758</b>	<b>0</b>	<b>39,758</b>
	<b>SUBTOTAL 2</b>	<b>331,313</b>	<b>232,000</b>	<b>99,313</b>
<b>80</b>	<b>ITTO Administration, Monitoring &amp; Evaluation</b>			
	<b><u>82. Monitoring</u></b>	<b><u>11,000</u></b>	<b><u>11,000</u></b>	<b>-</b>
	<b><u>83. Evaluation</u></b>	<b><u>15,000</u></b>	<b><u>15,000</u></b>	<b>-</b>
	<b><u>84. Programme Support Costs</u></b>	<b><u>20,640</u></b>	<b><u>20,640</u></b>	<b>-</b>
	<b>89. Component Total</b>	<b>46,640</b>	<b>46,640</b>	<b>0</b>
<b>100</b>	<b>Grand Total</b>	<b>377,953</b>	<b>278,640</b>	<b>99,313</b>

## **PART III: OPERATIONAL ARRANGEMENTS**

### **11. Management Structures**

The Guyana Forestry Commission will be the sole executing and implementing institution for this project. However, a Project Steering Committee will be established to oversee the project that will include at least the following members:

- Guyana Forestry Commission
- International Tropical Timber Organization
- Forest Products Association
- Ministry of Finance
- Main Donors

**The two key sector agencies: the Forest Products Association, which includes small operators, and the Guyana Manufacturers and Services Association will contribute to the implementation of this project through the Technical Committees which are already set up for inputs, communication and networking with these two key industry bodies. Project results, findings and deliverables will be shared with these bodies and will be involved through meetings and consultation in the drafting of the Policy and Codes of Practice under Output 1 of the Project.**

### **12. Monitoring, Reporting, and Evaluation**

Bi-annual (mid-year and end-of-year) progress reports will be prepared and submitted to ITTO at mutually agreed dates. These financial and operational progress reports will be submitted to GFC for analysis and approval; if approved, GFC will forward them to ITTO.

In addition, market reports, workshop reports, and other similar documents will be printed and made available to ITTO and other interested parties as appropriate. This will facilitate the national monitoring process and increase interactions with stakeholders and assist in developing and maintaining support for the project.

The project completion report will be completed and submitted to ITTO and GFC within 3 months of project completion.

The project will be subject to monitoring by ITTO representatives. The project will also be subject to GFC monitoring on behalf of the Government of Guyana. ITTO will monitor project outputs (reports etc) during the project which, once satisfactory, should remove the need for mid-term review.

### **13. Future Operation and Maintenance**

Following the project all materials, such as reports and training manuals, will be lodged in the GFC library and disseminated to stakeholder groups as appropriate. The GFC will be responsible for on-going monitoring and support of the sector which will include implementation of the Code of Practice. The GFC, among other organisations such as the Forest Producers Association, will also take on the responsibility for implementation of the model operation.

## **PART IV: TROPICAL TIMBER FRAMEWORK**

### **14. Compliance with ITTA 1994 Objectives**

This project is consistent with the following ITTA objectives:

- (c) To contribute to the process of sustainable development;
- (d) To enhance the capacity of members to implement a strategy for achieving exports of tropical timber and timber products from sustainably managed sources by the year 2000;
- (e) To promote the expansion and diversification of international trade in tropical timber from sustainable sources by improving the structural conditions in international markets, by taking into account, on the one hand, a long-term increase in consumption and continuity of supplies, and, on the other, prices which reflect the costs of sustainable forest management and which are remunerative and equitable for members, and the improvement of market access;
- (h) To improve market intelligence with a view to ensuring greater transparency in the international timber market, including the gathering, compilation, and dissemination of trade related data, including data related to species being traded;
- (k) To improve marketing and distribution of tropical timber exports from sustainably managed sources;

### **15. Compliance with ITTO Action Plan**

This project is consistent with the Yokohama Action Plan and is compliant with the following strategies, goals and actions:

#### *1.5 Key Strategies for Implementation*

One of the major focuses of ITTO and its members during the term of this Action Plan is accelerating progress towards the fulfillment of ITTO Objective 2000. This requires (inter alia):

2. Shifting focus from the development of national forest policies and legislation toward implementation on the ground, especially at the forest management unit level. This would include, for example: supporting efforts to strengthen forest law enforcement; more training and capacity building; wider application of reduced impact logging (RIL), and strengthening timber tracking to improve the accuracy and transparency of information on timber products and trade.

#### *Economic Information and Market Intelligence*

Goal 2: Promote tropical timber from sustainably managed sources.

**Action 2.** Provide a forum for discussion on non-discriminatory trade, subsidies for competing products, shortcomings in enforcement of forest law and regulation, and other factors that may affect the marketability and access of tropical timber products.

## ANNEXES

### ANNEX A - Profile of the Executing Agency

#### 16. The Expertise of the Executing Agency

The Guyana Forestry Commission's mission is "To provide excellence in forestry management services to our stakeholders through the application of professional skills to contribute to our nation's development." It is the Government Agency that is responsible for the management of Guyana's forest resources in accordance with the National Forest Policy, which was approved by Cabinet in 1997.

The GFC is mandated by law to:

- Advise the Government on, and implement the National Forest Policy;
- Be responsible for the management and control of the utilization of the forests to ensure an optimum yield of forest produce and the maintenance or improvement of the environment.

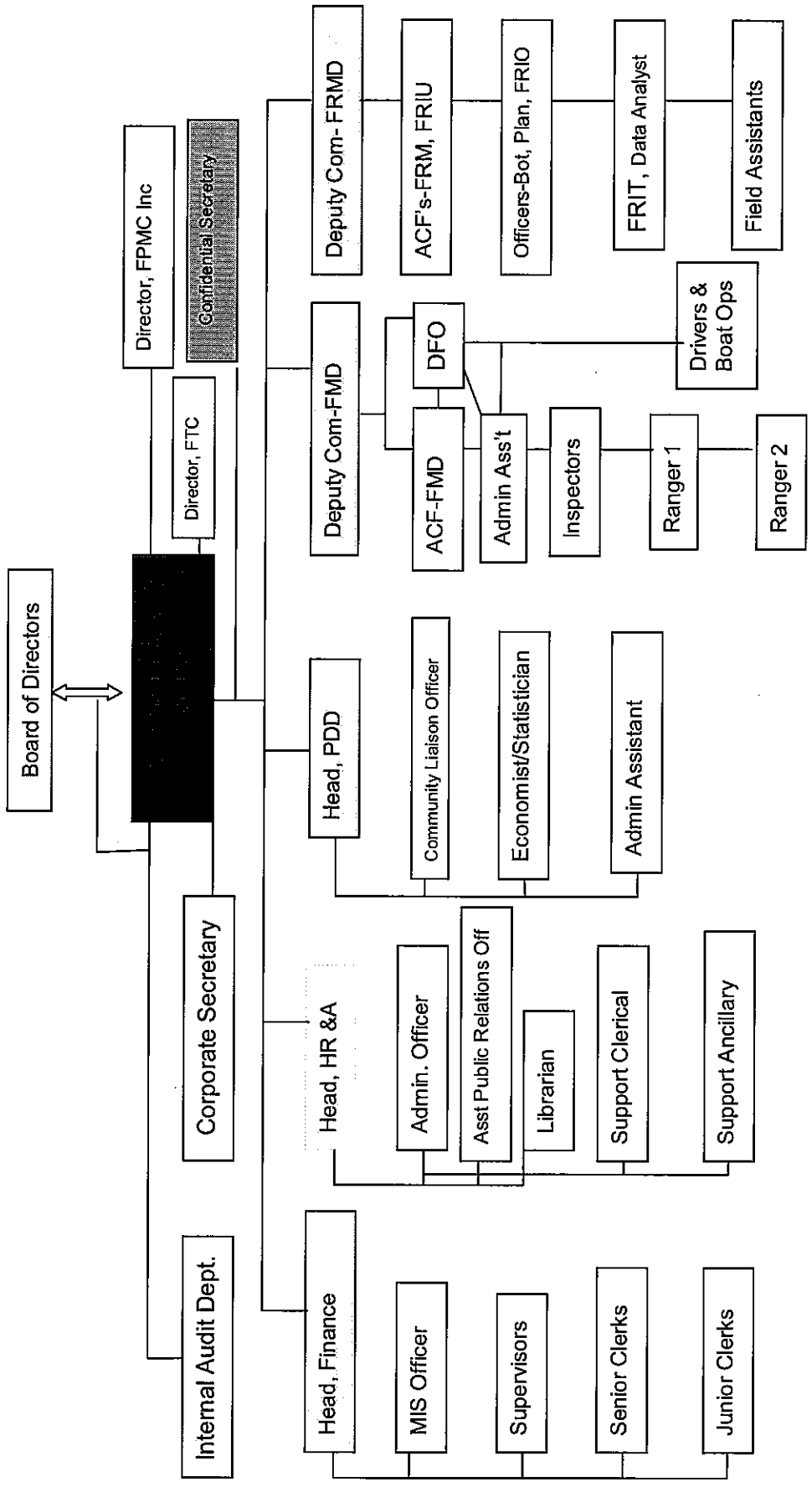
The GFC is governed by a Board of Directors appointed by the President. The Commissioner of Forests is the Chief Executive Officer and an ex-officio member of this Board.

The GFC is structured with the following Divisions to address its policy mandate:

1. **Planning and Development:** responsible for the co-ordination and preparation of forest sector plans and reports and GFC reports and publications, for conducting special studies, for providing a drafting project proposals to donor agencies and for implementing projects.
2. **Forest Resources Management Division:** responsible for, inter alia, data collection on national forest resource, conducting surveys and inventories, researching and making recommendations on forest dynamics and silviculture, planning and recommending the allocation of concession areas.
3. **Forest Monitoring Division:** responsible for the enforcement of Forest Laws and regulations, monitoring and control of environmental and social impacts of operations within the forest estate and collection of revenue.
4. **Human Resources Division:** responsible for staff management and development, production and implementation of Human resources policies and procedures, education, training, including in-service training and liaison with relevant teaching and training institutions.
5. **Finance Division:** responsible for financial and board matters.

The GFC is also equipped with a library, which provides library services to staff at the GFC and to the public.





The main projects and studies that were completed/initiated within the last three years include the following:

- Revision of the National Forest Legislation
- Preparation of a Draft National Forest Plan
- Classification of State Forest by predominant use (in consultation with other land use agencies)
- Preparation of Forest Area management plans
- Initiation of a National Forest Inventory
- Development of procedures for allocation of forest concessions
- Introduction of log tagging systems and improved forest monitoring to combat illegal forest operations
- The development of national standards for forest certification
- FOR EXPO 2000 – A national exhibition to showcase products that originate from Guyana's Forests.
- Promotion of and participation in the University of Guyana's and the Guyana School of Agriculture's training programs (MSc; BSc; Diploma; Certificate).
- The use of GIS as a tool to inform Forest Management planning and processes.
- Preparation of several manuals/documents which include
  - Guidelines for the preparation of forest management plans
  - Code of practice for forest operations (operational standards)
  - Forestry in Guyana (fact sheet)
  - Manual of procedures for forest concession allocation
  - Quarterly market reports
  - Timber grading rules for Guyana

Funding to undertake the activities mentioned above was provided principally by the Government of Guyana and the UK Department of International Development. Some activities were partially funded by the Canadian International Development Agency, UNDP Global Program on Forests, and World Wide Fund for Nature.

Previous projects submitted to ITTO by Guyana are (UPDATE):

FUNDED: A Sustainable Management Model in the Iwokrama Rain Forest {ITTO 10/97 Rev. 1 (F)}

NOT FUNDED: Forest Industry Training Project (1997)

NOT FUNDED: Design and Implementation of an Information System within the GFC (1997)

FUNDED: Training in Reduced Impact Logging in Guyana. (PD068/01 Rev. 2 [I]),

FUNDED: Development and delivery of a vocational training programme in reduced impact logging and sustainable forest management practices in Guyana: Funded by ITTO (PDD 333/05 (1))

NOT FUNDED To strengthen the capacity to effectively market the exports of forest product from Guyana.

FUNDED: Implementation of the sustainable forest management programme of the Iwokrama International Centre. (PD 297/04 Rev.1 (F)).

FUNDED: Utilization of Lesser Used Wood Species in Guyana. (PD 344/05 Rev.2 (I) )

FUNDED: Improving the Detection and Prevention of Illegal Logging and Illegality in Shipment and Trade of Wood Products in Guyana. (PD 440/07 Rev.1 (M) )

Funded: Vale Adding and Kiln Drying of Commercial Timbers by Small Scale Community saw millers in Guyana. (PD 401/06 Rev.2 (I) )

## 17. The Infrastructure of the Executing Agency

The GFC has a main headquarters building in Demerara, with Divisional offices in Berbice and Essequibo. In addition to these central Division offices, 15 field stations are distributed throughout the country. All stations are equipped with radio/telephone communication equipment for easy exchange of information across the entire country. The Divisional offices are all computerized, and there is access to key databases via this medium. The head office has accommodation for consultants working on projects. These facilities are strategically located for training, but the infrastructure needs to be renovated. The GFC has a fleet of road and field vehicles.

## 18. Budget

*Budget (US\$)*

**Table 2**

<b>Budget Component</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Personnel	650,000	702,000	715,000	720,000
Subsistence	160,000	190,000	195,000	200,000
Capital Items	175,000	205,000	215,000	220,000
Consumables	500,000	560,000	570,000	575,000
Other	150,000	175,000	180,000	185,000
<b>Total</b>	<b>1,635,000</b>	<b>1,832,000</b>	<b>1,875,000</b>	<b>1,900,000</b>

*(1US\$=G\$200)*

## 19. Personnel

- a) Experts with post-graduate degrees: 6
- b) Experts with Bachelors degrees: 20
- c) Middle-level technicians: 35
- d) Administrative personnel: 30
- e) Total number of personnel in forestry-related fields: 162

## **ANNEX B – Key Project Staff**

The executing agency will provide support and project oversight staff only. Key project implementation staff will all be external.

### **20. CVs for key Executing Agency project staff:**

**JAMES SINGH**

Name	James Nirmal Singh
Date of birth	September 6, 1962
Country of birth	Guyana
Nationality	Guyanese

#### **EDUCATION**

<b>Degree</b>	<b>Name / Specialization</b>	<b>Institution</b>	<b>Year</b>
BSc	Biology (Chemistry Minor)	University of Guyana	1986
MSc	Forest Products Technology	University of Andes, Venezuela	1991
MBA	General Management	University of West Indies	2004

#### **EMPLOYMENT RECORD**

<b>1999-present</b>	Commissioner of Forest, Guyana Forestry Commission
<b>1998-1999</b>	Deputy Commissioner of Forests, Guyana Forestry Commission (GFC)
<b>1997-1998</b>	Manager, Center for Biological Diversity, University of Guyana (UG)
<b>1996-1997</b>	Forester, Iwokrama International Centre, Guyana
<b>1991-1996</b>	Head, Forestry Unit, UG
<b>1991-1993</b>	Lecturer I, Forestry Unit, UG
<b>1986-1991</b>	Assistant Lecturer, UG

#### **RELEVANT WORK OVER THE PAST THREE YEARS**

- Overall management of the Guyana Forestry Commission to promote the achievement of yearly work plans and greater cooperation and collaboration with the forestry sector/industry. Overall coordination of all Forestry donor funded projects.
- Assisting in the formulation of appropriate policies to encourage development and growth in the forestry sector of Guyana. This involves participation in several Governmental Boards and sub-committees.
- Attendance at overseas meetings/seminars/conferences on behalf of the GFC and the Government of Guyana (Forestry and Natural Resource issues).
- Providing support to the Guyana Forestry educational and training facilities (Forestry Training Centre; University of Guyana; Guyana School of Agriculture)

## PRADEEPA BHOLANATH

Name Pradeepa Bholanath (Ms)  
Date of birth August 31, 1982  
Country of birth Guyana  
Nationality Guyanese

### EDUCATION

Degree	Name / Specialization	Institution	Year
MSc	Environmental Economics	University of York, U.K.	2003
BSc	Accountancy	University of Guyana	2002

### EMPLOYMENT RECORD

**2005 to present** Head, Planning and Development Division, GFC  
**2004 – 2005** Special Projects Coordinator, (GFC)  
**2002-2003** Economist, (GFC)  
**2002-2003** Management Trainee , (GFC)

### RELEVANT WORK OVER THE PAST THREE YEARS

1. Formulate Project Proposals on relevant areas on social, economic and technical aspects of forestry and explore potential opportunities for funding.
2. Compile research papers on relevant areas in forestry and forest economics.
3. Coordinate projects under special/external funding agencies – for example, FAO, WWF, ITTO, etc.
4. Perform Project Review and Analysis of the sector research papers and other relevant documentation.
5. Liaise with Consultants working with the GFC and supply information requirements as these become necessary.
6. Conduct economic analysis on issues affecting the forest sector.

**TASREEF KHAN**

Name                                    Tasreef Khan (Mr)  
Date of birth                            May 28, 1974  
Country of birth                        Guyana  
Nationality                             Guyanese

**EDUCATION**

<b>Degree</b>	<b>Name / Specialization</b>	<b>Institution</b>	<b>Year</b>
Certificate	Professional Development	University of the West Indies, St Augustine	2001
BSc	Forestry	University of Guyana	2000
Diploma	Forestry	University of Guyana	1998

**EMPLOYMENT RECORD**

**2004 – present** Deputy Commissioner of Forests, Guyana Forestry Commission (GFC)  
**2003-2004** Deputy Commissioner of Forests (Acting), GFC  
**2002-2004** Assistant Commissioner of Forests , GFC  
**2001-2002** Assistant Commissioner of Forests (Acting) , GFC  
**2001** Forest Resources Planning Officer, GFC  
**2000-2001** Inventory Officer

**RELEVANT WORK OVER THE PAST THREE YEARS**

- Preparing workplans and budgets for the Forest Resources Management Division and monitoring implementation
- Overseeing the preparation of standards for all forest operations and procedures for monitoring compliance with the standards
- Overseeing the development and maintenance of a forest resource information system
- Developing plans for forest resource classification and allocation
- Supporting and monitoring the preparation of forest management plans and operational plans for permit areas
- Ensuring that social issues are addressed in resource allocation, management planning and preparation of operational standards
- Providing advice and making recommendations on forest research strategies and procedures

## 21. Terms of Reference for Key Staff positions

**Function:** Consultant

**Title:** *International Wood Processing Expert*

**Education:** **B.Sc. Degree in Forestry, Wood Technology, Wood Engineering, or related field.**

**Experience:** The specialist will have a minimum of 10 years experience in the wood processing sector with a first degree in an environmental, natural resource-based subject or engineering and a higher degree in an appropriate field. All-round knowledge of the sector including machinery and equipment, saw-milling techniques, kiln-drying, health & safety etc. must be demonstrated. S/he will have been closely involved in similar exercises in the wood processing sector, preferably in tropical situations. S/he will ideally have experience with ITTO projects and have lived and worked in one or more developing countries.

### Duties

1. **Conduct consultations with the forest processing sector including visits to processing facilities**
2. **Identify baseline operational activities in processing for inclusion in the Code of Practice**
3. **Design the Code of Practice for Processing Operations**
4. **Develop Policy for forest processing operations in Guyana**
5. **Conduct assessment workshop on capacity building needs of the forest producing sector including visits to processing facilities.**
6. **Assist in drafting a Capacity-Building Strategic Plan for the wood processing sub sector**
7. **Conduct workshops with forestry stakeholders to sensitize operators on the Code of Practice for Processing Operation and Strategic Plan**
8. Lead the delivery of training for the sector on the Code of Practice for Processing operation
9. **Determine the layout , including preparation of site of the community model processing operation**
10. **Advise on the equipment for the model community processing operation**
11. **Assist in the procuring of equipment for the community model processing operation**
12. **Draft final report on Code of Practice, Policy, workshops and site visits and contribution to Strategic Plan.**

### Expected Outputs:

1. **Final report containing workshops and site visits summary**
2. **Code of Practice for Processing Operations**
3. **Policy for Processing Operations**
4. **Design layout of Community Model Processing Operation**

**Function:** Consultant

**Title:** *International Capacity-Building and Training Expert*

**Education:** **B.Sc. degree in Forestry, Wood Technology, Wood Engineering, Environmental Management, or related field.**

**Experience:** The specialist will have a minimum of 10 years experience in capacity building and training in the forestry sector, with a first degree in an environmental or natural resource-based subject and a higher degree in forestry. S/he will have been closely involved in similar exercises of advising training, preferably in tropical situations. S/he will ideally have experience with ITTO projects and have had spent extensive periods working in the forest sector in Guyana.

### Duties

1. **Conduct** an analysis of skills gaps in the sector
2. **Lead the process of consultation with stakeholders on the development and implementation of the Strategic Plan including site visits**
3. **Develop a Capacity Building Strategic Plan for the Forest Processing Sector**
4. Lead the development of the training manuals **on identified training areas and conduct training sessions.**
5. **Conduct training on the Capacity Building Strategic Plan with stakeholders**
6. **Assist in the development of a Policy and Code of Practice for processing operations**
7. Assist in conducting training sessions in Code of Practice for Processing operations
8. **Conduct skills assessment of member of community model processing operation**
9. **Conduct training session to members of community operation**
10. **Draft Final Report on Strategic Plan, Manuals, workshops and site visits, and contribution to the Code of Practice and Policy for Processing operations.**

**Expected Outputs:**

1. **Capacity Building Strategic Plan**
2. **Training Manuals**
3. **Final Report containing training sessions summary**

**Function:** Consultant

**Title:** National Wood Processing Expert

**Education:** **B.Sc. in Forestry, Wood Technology, Wood Engineering, Environmental Management, or related field.**

**Experience:** The specialist will have a minimum of 7 years experience in the wood processing sector in Guyana preferably with an appropriate first degree and experience of development projects in the wood processing sector. S/he will ideally have experience with ITTO projects.

**Duties**

1. Assist in the development of the Code of Practice
2. Assist in the development of the strategic plan
3. Assist in the delivery of training
4. Assist in the procurement, installation and operation of model processing facility
5. **Collaborate with the Guyana Forestry Commission in coordinating the exchange visit**
6. **Assist international consultants in executing workshop and training sessions.**
7. **Complete report on training sessions held, site visits made and workshops conducted**

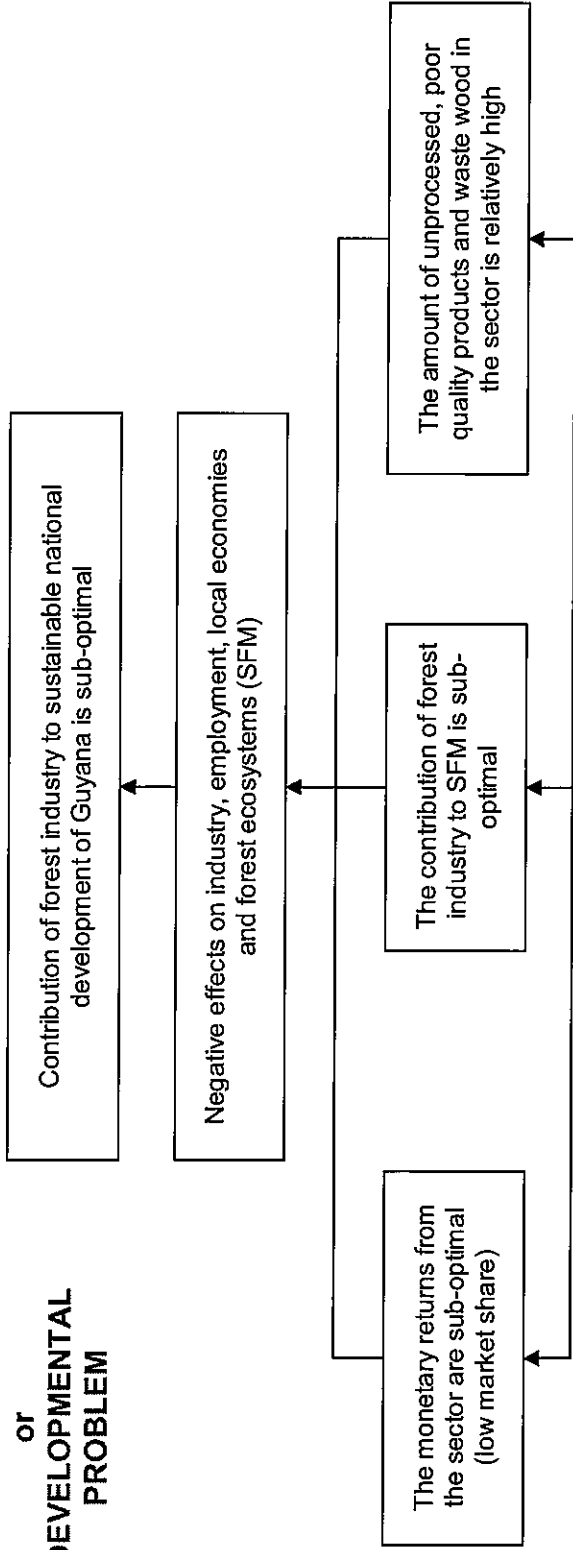
**Expected Outputs:**

1. **Training and Workshop Reports**
2. **Report on Exchange Visit Conducted**



**ANNEX C – Problem Tree**

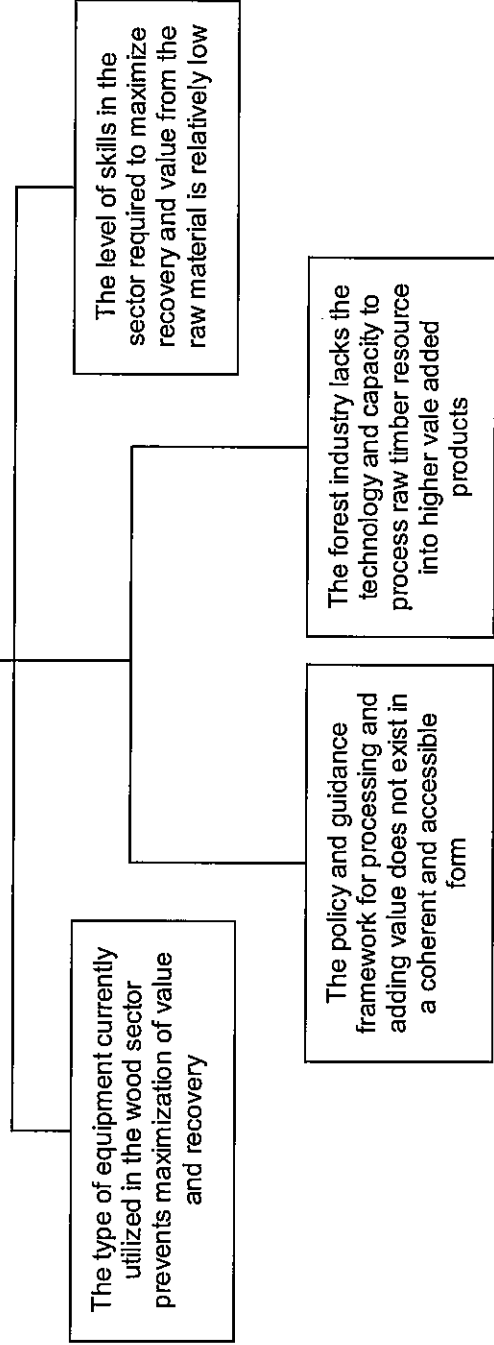
**CONSEQUENCE  
or  
DEVELOPMENTAL  
PROBLEM**



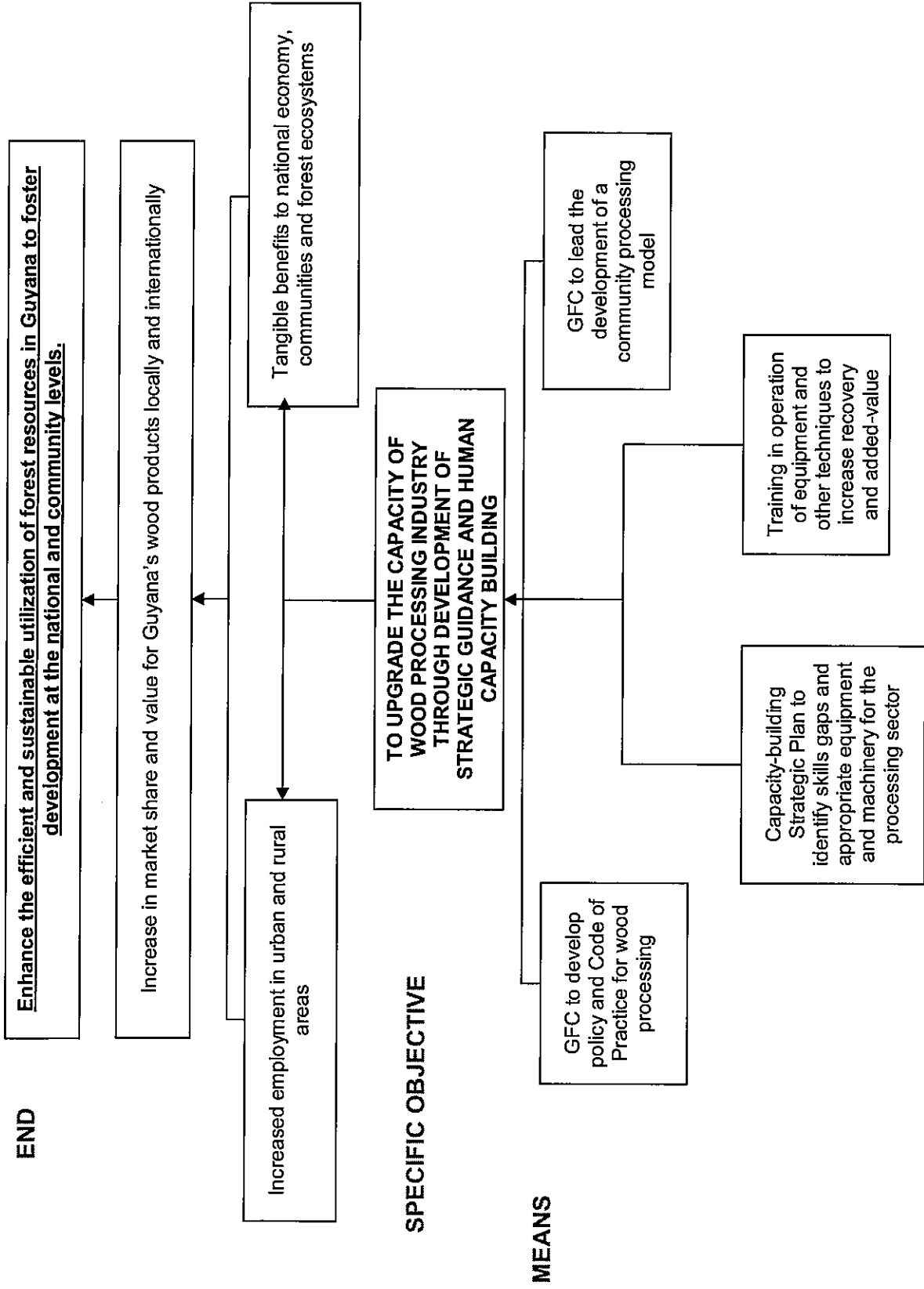
**Sector-Level KEY  
PROBLEM**

**THE AMOUNT OF VALUE ADDED TO GUYANA'S RAW TIMBER RESOURCE AND THE LEVEL OF RECOVERY IN PROCESSING ARE SUB-OPTIMAL**

**CAUSES**



## **ANNEX D – Objectives Tree**



**ANNEX E – Work Breakdown Structure**

**SPECIFIC OBJECTIVE**

**TO INCREASE THE AMOUNT AND QUALITY OF EFFICIENTLY AND SUSTAINABLY-PRODUCED FOREST PRODUCTS IN GUYANA**

**OUTPUTS**

**1. Coherent policy and Code of Practice for wood processing**

1.1 Review existing policy documents and recommendations

1.2 Conduct national consultation

1.3 Formulate policy for processing operations

1.4 Elaborate Code of Practice for processing operations and provide training

**2. Capacity-Building Strategic Plan for the sector**

2.1 Recruit technical expert

2.2 Identify key stakeholders for workshop

2.3 Hold inception workshop

2.4 Write Strategic Plan

**3. Training manuals, workshops and improved skills in the sector**

3.1 Identify training expert

3.2 Produce manuals in keys area for processing

3.3 Conduct training

3.4 Write final report including assessment of training and recommendations

**4. Community model processing operation**

4.1 Identify community

4.2 Make plans for processing operation

4.3 Prepare site for processing operation

4.4 Procure equipment for operation

4.5 Provide training

**ACTIVITIES**

**ANNEX F**

TABLE SHOWING HOW EXPERT PANEL'S COMMENTS AND RECOMMENDATIONS OF THE 36<sup>TH</sup> EXPERT PANEL, HAVE BEEN ADDRESSED.

<b>COMMENTS/RECOMMENDATION</b>	<b>PAGE NO. IN PROPOSAL</b>
<b>OVERALL ASSESSMENT</b>	
The Panel considered the Development Objective of the proposal needs to be revised in a more concise wording	<b>Pages 10, 44</b>
The Panel further observed that prompt measures to deal with potential political issues encountered in the implementation phase of the project should be formulated	<b>Pages 15, 30</b>
The Panel further considered not to include an ex-post evaluation.	<b>Page 30</b>
Stakeholders role in project implementation.	<b>Page 30</b>
<b>SPECIFIC RECOMMENDATIONS</b>	
Provide more information on the involvement of forest industry association and the representatives of local communities in project proposal formulation	<b>Page 5</b>
Provide greater role to the industry association and the representative of the target community	<b>Pages 12-13</b>
Elaborate the subjects of trainings and quantitative information e.g. number of participants, number of times	<b>Page 12</b>
Identify potential risks and necessary mitigation measures for the same	<b>Pages 14-16</b>
Improve technical and scientific aspects with necessary details	<b>Pages 13-14</b>
Expand target beneficiaries to government officials and farmers	<b>Pages 12-13</b>
Strengthen the Logical Framework of the proposal, especially the indicators should be re-assed and refined	<b>Page 18</b>
Elaborate the capital items	<b>Page 28</b>
Enhance TORs for key staff and consultants in detail. Specified information on background education and working experiences, jobs description and expected outputs;	<b>Page 39-40</b>
Re-calculate the Programme Support Cost as 8% of the budget sub-total, plus monitoring and review cost plus evaluation cost	<b>Page 1, 26-27, 29</b>