



COMPLETION REPORT OF ITTO PROJECT - PD333/05 REV. 2(I):

*“Development and Delivery of a Vocational Training Programme
in Reduced Impact Logging and
Sustainable Forest Management Practices in Guyana”.*



Host Government: Government of Guyana

Executing Agency: Forestry Training Centre Incorporated



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ACRONYMS

BNTF	Basic Needs Trust Fund
CDB	Caribbean Development Bank
CI	Conservation International
CIDA	Canadian International Development Agency
DFID	Department for International Development, UK
ECIAF	Eastern Caribbean Institute of Agriculture & Forestry, Trinidad & Tobago
EPA	Environmental Protection Agency
EU	European Union
FORENET	Forestry Research Network for Africa, Caribbean and Pacific Countries
FTCI	Forestry Training Centre Incorporated
GFC	Guyana Forestry Commission
GMPP	Guyana Micro-Projects Programme
GNIFC	Guyana National Initiative for Forest Certification
GoG	Government of Guyana
GSA	Guyana School of Agriculture
IPF	Inter-Governmental Panel on Forests
Iwokrama	Iwokrama International Centre for Rain Forest Conservation and Development
JSOOC	Jans Starke Vocational Forestry Centre, Suriname
LEAP	Linden Economic Advancement Project
LCDS	Low Carbon Development Strategy
NGO	Non-Governmental Organization
OHS	Occupational Safety & Health
PRS	Poverty Reduction Strategy
RIL	Reduced Impact Logging
SME	Small & Medium Scale Enterprise
TBI	Tropenbos International
UG	University of Guyana
WWF	World Wildlife Fund for Nature (Guyana)

Executive Summary

Project PD 333/05 Rev.2 (I) developed from the outputs of ITTO project PD 68/01Rev.2 (I) which provided Guyana with a vocational training capability in the forestry sector via the Forestry Training Centre Incorporated (FTCI). PD 68/01Rev.2(I) focused on alleviating the environmental problems encountered in the local forestry sector through the establishment of a vocational training centre and the provision of hands on vocational training in reduced impact logging practices. While the outputs of Project PD 68/01 Rev.2 (I) were achieved; the RIL technologies developed and taught were more appropriate for large scale commercial logging enterprises. Project PD 333/05 Rev.2 (I) in essence sought to develop and apply RIL technologies for small and medium scale enterprises (SMEs), including community based forest enterprises (CBFEs).

In attempting to develop RIL technologies for SMEs and CBFEs, FTCI confronted two emerging challenges. Firstly, more than 90% of the SMEs moved away from conventional logging and turned to *chainsaw milling technology*, producing lumber at stump, using primarily manual labour or small agriculture type tractors to transport lumber. Policy makers supported chainsaw milling activities; the technology is ideally suited to rural communities that have very little start-up capital for forestry enterprise and CBFEs were potentially capable of employing many women. Secondly, rural forest based communities began to organise themselves into loggers' associations to achieve more bargaining power in negotiating access to State forest resources and in sourcing technical and financial assistance from a large body of donors, including WWF-Guyana the GFC, LEAP, and EU/GMPP.

Prior to initiating consultations with SMEs/CBFEs as prescribed by the project PD333/05 Rev.2(I), FTCI learned that Tropenbos International (TBI)¹, with *funding from the EU*² and as part of their interest in sustainable forest management, had an interest in studying the chain milling scenarios in Guyana, where the practice was *legal*, and in Ghana where chainsaw milling is *illegal* (but where the practice is in fact rampant). As a consequence, FTCI aligned itself with TBI and Iwokrama to carry out consultations on *chainsaw milling in Guyana*, including sourcing the data and information required for developing RIL based training modules for SMEs.

Initially, FTCI focused its training on those issues that could have been addressed immediately, for example planning timber harvests- which is applicable to any scale or kind of logging operations; directional felling of trees, and OHS. Some of the donors (for example WWF (Guyana) and LEAP sponsoring RIL training for communities asked FTCI to broaden the scope of its training to include introduction to wood technology and forest management; such requests were compatible with the outputs for ITTO Project PD 333/05 Rev.2(I).

Meanwhile training in RIL for large scale enterprises continued unabated for the academic community (UG & GSA), for large scale logging enterprises, particularly those in Guyana and in Suriname seeking FSC certification for their forest management systems. GFC's increased capability and rigour in its concession administration and monitoring procedures as well as more punitive measures for companies not complying with national guidelines were also major drivers in companies seeking out FTCI's training course in RIL.

As recently as 2006-2007, in spite of criticism in many sectorised studies about the poor performance of local forest operatives, many enterprises were either reluctant to, or could not

¹ <http://www.tropenbos.nl/index.php/EU-Chainsaw-Milling/eu-chainsaw-milling-in-ghana-and-guyana/menu-id-115.html>

² Project ENV/2007/133-003: 'Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana'; Budget: EC: €2.2 M; TBI & partners: €0.6 M; Implementation period: 2007 - 2012

afford to invest in the training of their forest operatives. On the other hand, while SMEs were delighted with training opportunities, they could not pay for the (subsidized) training offered by FTCl. By mid 2008, however, the situation changed dramatically, to the extent that FTCl was literally swamped with the demand for vocational training and requests and extension services³.

The GFC itself has been sending its forest monitoring staff to FTCl's field camp for training in RIL practices and these staffs are now more knowledgeable and confident in their routine tasks. GFC's monitoring intensity and zero tolerance approach regarding adherence to agreed prescriptions have forced loggers to employ persons who can interpret and apply correctly the agreed prescriptions in forest management plans and annual plans of operations. Further, as more loggers develop concessions in the south of Guyana, and as communities in the more remote areas in Guyana engage in logging, the value of skilled workers are becoming critical: the haul distance between stump and customer becomes longer, and therefore planning timber harvests is essential if they were to be cost effective.

FTCl's RIL Foundation course is now an integral part of the curricula at UG and at GSA, and employers of their graduates now appreciate the level of practical training graduating students have. Most logging companies now have at least one professional forester among their senior staff. Arguments for trained staff to carry out responsible forest management practices are therefore more easily assimilated at the level of logging companies and such graduates in senior positions have been able to push the need for training for forest operatives.

FTCl now serves as the catalyst for environmental NGOs such as WWF and Iwokrama to provide training to communities. FTCl also affords various donors opportunities to provide training to communities: this has been the case with LEAP (EU), WWF, UNDP, GMPP (EU), and BNTF (CDB, CIDA and GoG). FAO's Caribbean Office has also been utilizing the services of FTCl for regional training in RIL.

FTCl has been engaged in training the forest services and logging enterprises in Grenada, in Suriname and in Belize. FTCl has hosted training for ECIAF, Trinidad & Tobago (now incorporated into the University of Trinidad & Tobago) and the Jans Starke Vocational Forestry Centre, Suriname.

The rapid surge in the volume of work (consultations with communities, extension work, training, writing reports for various donors) took its toll on FTCl and ideally FTCl should have re-organised itself to handle the scope of work, separating project administration from the operational events emerging from the increased demand for training. FTCl therefore recommends that for future projects involving SMEs that ITTO projects carry two phases: phase one should focus exclusively on consultations, the development of training modules and the establishment of the training facility. The actual administration of RIL courses should either be done either as a second phase or by another party.

A major deficiency in FTCl's work is that it has not been able to go to loggers, that is, to visit their concessions, identify poor practices, and point out the training opportunities available to operatives and field supervisors to address poor practices.

³ During extension services, a FTCl staffer spends a couple of days on a forest concession advising on specific issues, for example, *tree marking*, *preventive maintenance of heavy-duty machines* or the *construction of culverts*.

1. Project Identification

1.1 Context

Guyana has an area of 21.5 million hectares and a population of about 750,000 persons. Forests cover some 16.5 million hectares (76% of the total land area) and forests allocated for timber production cover 13.6 million hectares (63% of the total land area). Forestry activities employ about 26,000 persons and contribute some 4.5% of GDP. Generally, local policy makers are of the view that the forest based industries could make a more significant contribution to national development.

The GFC develops and monitors standards for forest sector operations, develops and implements forest protection and conservation strategies, oversees forest research, and provides support and guidance for forest education and training. The GFC directly manages 13.6 million hectares of State forests. Three categories of forest concessions⁴ may be issued as follows:

- a) State Forest Permissions (SFP): areas under 8,000 hectares of State forests granted for periods of 1-2 years; there is the option for its renewal;
- b) Wood Cutting Lease (WCL): areas between 8,000 and 24,000 hectares granted for periods of 3-10 years; a forest management plan is required, and there is the option for the renewal of the concession;
- c) Timber Sales Agreement (TSA): areas exceeding 24,000 hectares issued for periods of twenty-five or thirty years; a forest management plan is required, and there is the option for renewal of the concession.

Prior to the issue of any *forest* concession for areas exceeding 24,000 hectares, the GFC may require an applicant to acquire an Exploratory Permit, that allows for general reconnaissance of the area of interest for periods of up to three years may be issued to the entrepreneur. At the end of the 'exploratory period', the entrepreneur will be required to submit an investment proposal, a business plan, and a forest management plan before being considered for the concession.

The EPA was established in 1996 to provide for the management, conservation, protection and improvement of the environment, the assessment of the impact of economic activities on the environment and the sustainable use of natural resources. The EPA and the GFC cooperates in the assessment and monitoring of environmental impact assessments (EIAs) for forestry projects. In 1998, the GFC published guidelines for the preparation of EIAs for forestry projects.

The Guyana National Initiative for Forest Certification, started under PROFOR I (UNDP and subsequently with funding from WWF) was engaged in the development of national (FSC Endorsed) forest certification standards. The standards were expected to be finalized by August 2005, but remain incomplete today.

Iwokrama is responsible for the management of about 360,000 hectares of tropical forests. Iwokrama addresses key IPF recommendations including:

- Encouraging countries to utilize policies that use holistic inter-sectoral approaches based on ecosystem concepts to integrate the conservation of biodiversity and the sustainable use of biological resources.
- Urging countries to include capacity building as an objective with a focus on training, extension services, technology transfer and financial assistance and taking due account of local, traditional knowledge.

⁴ The New Forests Act, 2004 lumps the three types of concessions simply as *Forest Concession Agreements*.

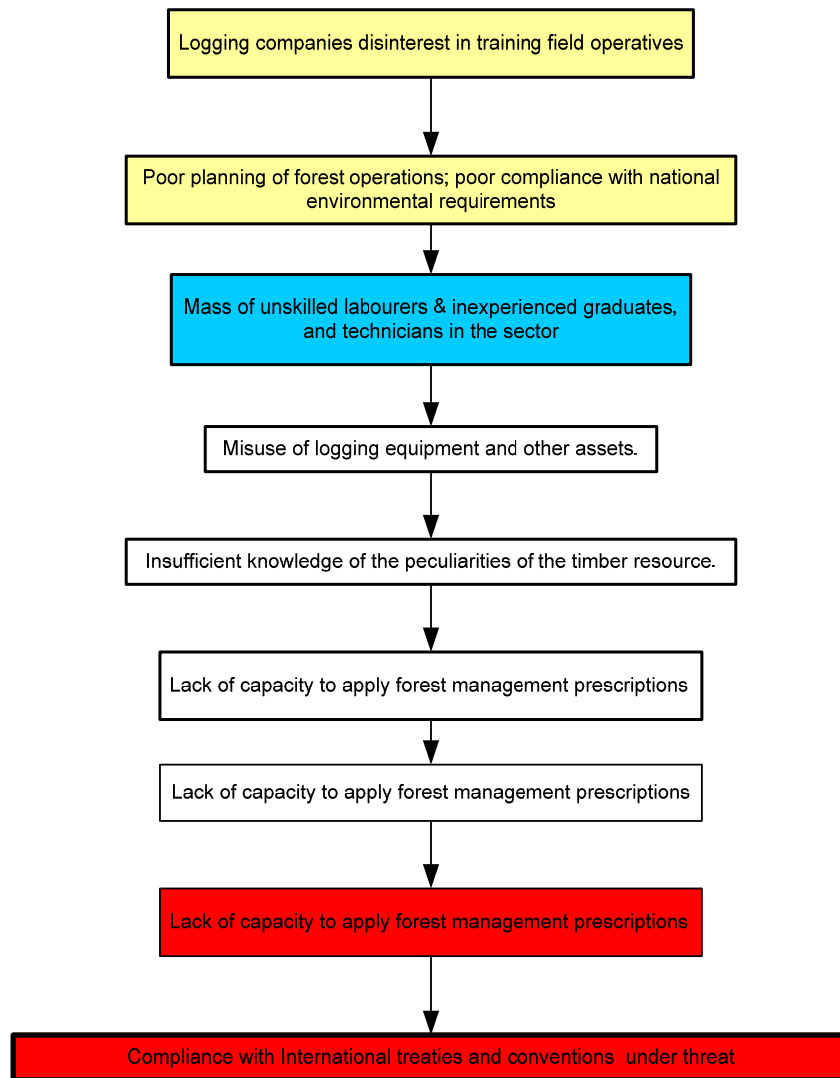
1.2 Origin and Problem

In the face of growing global concerns about deforestation in the tropics and its impacts, there have been concerns at the global level about the capability of Guyanese to manage Guyana’s substantial forest resources in a responsible manner. Local policy makers also were of the view that the local forest resources should be contributing more revenue for national development.

One recurring theme in all recent sectoral studies by various authors has been the identification of the need for skilled technicians at all operational levels to improve the quality of forest practices, help enterprises implement forest management prescriptions and foster the viability of forest enterprises. According to Ramprich & Associates (2002)⁵ ‘poor skills levels not only affects productivity but also results in additional costs when equipment is poorly used and maintained’.

FTCI summarized the capacity, training issues and problems in Figure 1.

Figure 1: Chart summarizing training related issues in the forestry sector



⁵ Vijay Ramprich & Associates. 2002: Analysis of the Forest Industry in Guyana. FPA-CPEC. 50 pp

In the face of the aforementioned concerns (Figure 1), the local policy makers responded by implementing a number of measures. The University of Guyana established a B Sc programme as well as a two year *Forest Technology (Diploma) Course* in Forestry while the Guyana School of Agriculture in collaboration with the GFC developed a one year basic *Certificate Course in Forestry*. The GFC developed a *Code of Practice for Timber Harvesting* and *Guidelines for Forest Management Plans and Annual Plans of Operation* respectively⁶. The GFC, FPA and environmental NGOs (WWF, CI) conducted occasional training courses primarily for staff of the GFC, forest operatives and students. More importantly, GFC commissioned a study on training needs in the forestry sector (Welch, 2002)⁷. However, surveys and consultations by FTCl revealed that many of the short term requirements of forest enterprises –including the capability to comply with national forest management guidelines - were not addressed directly by the academic programmes offered due primarily to an insufficient practical component. Forest enterprises were therefore reluctant to hire recent graduates of the University. Further, isolated instances of vocational training by the GFC, the FPA and environmental NGOs, though useful, did not offer the intensity or breadth of training to ensure that the short term requirements of forest enterprises, in the face of national requirements and international certification of their forest management systems, were addressed.

In 1999, twelve persons from the public, private and non-Governmental agencies participated in a two-week field tour of the Fundação Floresta Tropical vocational training camp in the State of Para, Brazil and were impressed with the hands-on, RIL based forest practices taught at that facility.

In September 2000, a local stakeholder consultation meeting on vocational training concluded that the development of an on-site RIL training programme would address many of the perceived capacity related issues in the forestry sector (see Figure 1). In November 2001, ITTO approved the project PD 68/01 Rev 2 (I) "Training in reduced impact logging in Guyana" and work on the project activities commenced in May 2002. The outputs of the project, including a minimum of 200 persons trained were achieved. FTCl also carried out training in Suriname and Grenada.

Vocational training under the first ITTO project targeted the large scale operations which were engaged in major interventions in the forest resources through the use of a variety of heavy equipment (excavators, compactors, bulldozers, skidders and heavy logging trucks). The training however did not address the emerging requirements of some 300 forest operatives from SMEs who were using simpler technologies (including chainsaw milling) to harvest timber. Policy makers believed that a training programme based on RIL principles and tailored to the specific needs of SMEs -comprising various configurations of community based enterprises, Loggers' Associations and small operators- was required. In April 2007, FTCl commenced Project PD 333/05 Rev.2 (I) "Development and Delivery of a Vocational Training Programme in Reduced Impact and Sustainable Forest Management Practices in Guyana". Project PD333/05 Rev.2 (I) achieved its outputs.

⁶ <http://www.forestry.gov.gy>

⁷ Welch, 1.1996: Technical and vocational training for the Forest industry. GFC/GFCSP.

2. Project Objectives and Implementation Strategy

2.1 Project Rationale

In pursuit of the development of the forestry sector, the Government of Guyana, via the forestry authority-the GFC, in partnership with a number of stakeholders including ITTO, DFID, WWF-Guyana and FAO Caribbean, set out to re-engineer the local forestry sector through:

- a) The development of a National Forest Policy Statement, 1997;
- b) The development of new forestry legislation, based on extensive consultation with stakeholders;
- c) Revised curricula for undergraduate and Diploma programmes at the University of Guyana as well as for the Certificate programme at the Guyana School of Agriculture;
- d) Reorganization of the Guyana Forestry Commission that included business training for senior staff;
- e) The development of social programmes in forestry targeting especially community based forest enterprises and wider rural livelihood goals;
- f) The development of guidelines for the preparation of Environmental and Social Impact Assessments for forestry projects;
- g) A Code of Practice for Timber Harvesting.

Unfortunately however, even in the face of the developments cited above, most harvesting operations were still characterized by an unacceptably high level of negative environmental impacts (see Figure 1). The deficiency in trained forest operatives at all levels constituted a significant obstacle to the adoption of sustainable forest management practices in Guyana, because forest operatives were unable to comply effectively with national guidelines, agreed forest management prescriptions and customer driven demands at the international stage.

A recurring theme in all major sectoral studies (Sizer, 1995⁸; GoG. 2000⁹) has been the need for vocational training, covering all phases of timber harvesting, and wood utilization. It was apparent that the best way to achieve a satisfactory quality of logging practices in the short term was through the recruitment of trained field operatives; generally however there were a large number of *unskilled* workers available for recruitment. Many operatives who had formal training in forestry from the academic institutions, appeared to lack sufficient experience to create meaningful changes in the quality of forest practices, in the short term. ITTO Project PD68/01 Rev.2 (I) addressed that lack: FTCL, on the basis of new consultations, and using training models already developed by TFF¹⁰, offered vocational training opportunities, based on RIL principles via short, intensive, hands-on courses, very well suited to the requirements of logging enterprises and forest operatives themselves.

⁸ Sizer, N.: 1996: Profit without Plunder: Reaping revenues from Guyana's tropical forests without destroying them. World Resources Institute.70pp s

⁹ GoG.2001. National Development Strategy for Guyana-Chapter 30 Forest management.

¹⁰ Fundação Floresta Tropical training camp, Cauaxi, Para, Brazil.

While initial training efforts focused on the large logging enterprises that created the most drastic interventions in the forest resources, an entire sub-sector comprising small and medium scale enterprises were omitted from the training because they used much simpler technology. While large loggers operated at specific locations for a period of time agreed with the GFC, some 300 forest operatives on State forests and private lands were spread out all over an extensive area (the allocated areas not occupied by large concessionaires) and the cumulative environmental impacts of their operations were also of concern to stakeholders. ITTO Project PD333/05 Rev. 2(I) in essence sought to address training needs for operatives associated with SMEs.

To guide the implementation of Project PD333/05 Rev.2 (I) a developmental objective and a specific objective were developed.

Development Objective: To improve the forest sector's contribution to national development through promoting the use of sustainable forest management practices by timber producers.

Specific Objective: 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).

2.2 Project Implementation Strategy

The overall strategy was to foster an understanding of RIL concepts and practices so that all stakeholders and especially forest operatives accept and share responsibility for improved environmentally responsible logging practices.

Through the thirty eight (38) courses that FTCI planned to offer over two years, the project expected to help develop a critical mass of trained people who can implement RIL practices. Because trained workers were needed at all levels and in all sectors (industry, government, communities, etc.), the project contemplated **onsite** and **off-site** RIL based courses tailored to the specific requirements of participants and logging enterprises.

The project anticipated broadening the scope of FTCI's training programme to address the growing numbers of small scale and community based loggers, the capacity to assess forest operations based on criteria indicators and complementary forest management skills including tree identification, forest surveying and mapping and the preparation of forest management plans.

FTCI planned to develop systems of records that help loggers keep track on the use and maintenance of machines where required. Such systems will be passed on to logging enterprises as these are developed. Once loggers developed the practice of keeping detailed records then FTCI will move to the next step-the review of software such as RILSIM 'Financial analysis software for reduced impact logging.' and help loggers use the software or similar ones in their operations. Similarly, where practical FTCI planned to work with the GFC to help loggers use software such as Excel and Arc View to help them process their data and plan their operations.

FTCI planned to work with the GFC and other partners to develop DVDs based on RIL practices with the aim of using these during courses, on extension visits to concessions, on sponsored television programmes and at academic institutions. FTCI planned to produce newsletters and brochures through which certain elements of RIL will be highlighted. FTCI also planned to continue to working with regional stakeholders, including forestry administrations and NGOs such as WWF Guyana to promote the use of RIL practices in CARICOM Countries.

Target beneficiaries

The main beneficiaries of this project were:

- a) **Forestry operatives** (communities / company forest workers, chainsaw operators, machine operators, technicians, foresters, supervisors, and managers) who will benefit from professional development (improved ability to implement required practices), potential economic benefits derived from the more efficient timber extraction and enhanced conservation of the resource on which they depend.
- b) **Students:** the University of Guyana and the Guyana School of Agriculture are among the primary beneficiaries. Many of the current requirements of forest enterprises are not addressed directly by the academic programmes offered due to insufficient practical work. A recent study¹¹ addressed this issue directly.
- c) **Staff or representatives of Governmental and non-governmental institutions** by increasing their knowledge of RIL and eventually their capability to implement and audit regulations and forest management prescriptions.
- d) **The global community** by contributing to a reduction in logging damage resulting in greater efficiency in the utilization of forests throughout the Guiana Shield;

The project intended to draw upon local and regional training experience with RIL and RIL training programmes worldwide. There is a rich history of RIL in Guyana: for instance, the workshop hosted by the Iwokrama International Centre for Rainforests Conservation and Development (IICRCD) in partnership with the Tropenbos-Guyana Programme and the Guyana Forestry Commission¹¹ (see International Forest Review, Vol. 2 (1), March 2000).

Assumptions and Risks

At the level of the *Developmental Objective*, several risks related to the project were not under the control of the management of the project. Sustainable forest management depended not only on RIL but on other aspects of forest management (e.g. harvesting intensities, post-harvest silvicultural treatments, a system of incentives, etc.). The implementation of RIL depends largely on the timber industry's willingness to adopt new planning practices and to invest in the necessary assets (trained operatives and technology) to make the planning effective. If the costs of implementing RIL (net of financial benefits) are at a level acceptable to industry and traditional views become more amenable to emerging developments- for example forest certification, legal verification systems, or declining market access- then RIL will be widely adopted.

At the level of the specific objective, the programme needs to remain competitive and attractive to forest sector clients. This was addressed by ensuring that the programmes offered met stakeholder needs, that the centre delivered value for money -i.e. efficiency, and by maintaining close liaison with other regional institutions¹² offering vocational training in forestry (ECIAF, Trinidad & Tobago and the JSOOC, Suriname) and with other RIL centres around the world¹³.

¹¹ GFC, 2004: Scoping Study; Participation in Forestry Education, Guyana. Strengthening Participatory approaches to Forest Management in Ghana, Guyana and Uganda. GFC/FAO. (FAO; GCPIINT/808/UK).

¹² The English speaking Caribbean nations generally referred to as the Caribbean Community (CARICOM).

¹³ There are vocational training facilities based on RIL in Brazil, Indonesia and in Africa (the Congo Basin). These all operate under the umbrella of the Tropical Forest Foundation and they have all received funding for RIL training from ITTO

3. Project Performance

3.1 *Specific Objective: 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).*

3.2 Outputs and related activities.

Output 1: RIL training programme for medium /large scale operators organized and delivered and RIL demonstration forests established in three regions in Guyana (continuation of previous project) (see Figure 2).

A major achievement here is that the academic institutions have now integrated FTCl's RIL Foundation Course into their academic calendar and all forestry graduates of UG and GSA do FTCl's RIL Foundation Course (comprising two weeks at FTCl's field camp). With the recent establishment of another 'campus' of the Guyana School of Agriculture, FTCl must allocate six weeks in the first quarter of every year for training three batches of students, one from the University and two batches from the GSA. 155 persons or 22.4% of the persons trained between January 2007 and September 2009 were students (please see Table 1).

The large concessions continued to opt for concession based training rather than sending their operatives to FTCl's field camp. About 80% of all supervisors of large forest concessions have benefited from RIL training. Most large companies now employ forestry graduates and ex-GFC senior staff as senior supervisors and as such the large companies have become much more amenable to training initiatives. Of course, the GFC has been asking companies to produce forest management plans and annual plans of operations and the implementation of agreed prescriptions require appropriate skills sets. 170 persons or 24.6% of the persons trained between January 2007 and September 2009 were from logging enterprises (or forest industry).

FTCl also witnessed an increase in forestry extension type activities, where instructors worked for short periods with employees of concessionaires at their respective field locations (mainly in the areas of forest inventory, tree marking and directional felling technology).

Not much progress was made with the third satellite site on the Corentyne River. This was under-developed due to major logistical problems in setting up the site, including the costs of moving training assets to the site and accommodating participants at the site chosen. In other words the cost to participants would have been prohibitive. In addition, with the current high demand for training, FTCl needed to keep its more experienced instructors at the main facility. Instead, FTCl will engage in extension type activities on forest concessions in that region.

Output 2: RIL system for small-scale / community forestry operations designed

This output was accomplished. The timber harvest planning component is essentially the same for small scale operators; for example the forest inventory practices are the same. FTCl however put more emphasis in forest mensuration and surveying practices and map reading and interpretation. Relatively more detailed work was done with the GPS, Clinometers and Compass because in the main these were new to small scale operators. Another area for special attention was occupational health and safety practices.

However the major difference between the large and small scale operators is the extensive use of chainsaw milling technology by small scale operators. FTCl was able to respond to the challenge by modules and demonstrations on the use of safety gear, chainsaw use and maintenance, cross-cutting practices, the use of special *ripping* chains developed by STIHL, and the use of board mills (please see figure 3), which yielded better grades of boards and planks and is relatively safer to use than the manual methods of ripping logs.

Table 1: Summary of persons trained January 2007 to September 2009

(2007-266 persons; 2008 - 174persons; January-September, 2009 - 252 persons)

#	Category / Course	DCM 1	RIL Fdn 2	THP 3	FT 4	CM 5	Tree Id 6	ST 7	RIL Spc 8	Sur & Map 9	For Inv 10	FR 11	FM 12	IWU 13	Total	%
1	Academic Institutions	17	115	0	0	0	0	0	23	0	0	0	0	0	155	22.4
2	Forestry Administrations	1	23	0	0	0	0	0	30	0	0	0	0	0	54	7.8
3	Iwokrama	4	0	10	16	0	0	14	0	0	0	33	0	0	77	11.1
4	Forest Industry	29	0	31	31	0	0	36	0	1	19	23	0	0	170	24.6
5	Communities	2	24	61	11	9	3	0	35	6	0	0	32	46	229	33.1
6	Others (Miners)	0	0	0	7	0	0	0	0	0	0	0	0	0	7	1.0
	Total	53	162	102	65	9	3	50	88	7	19	56	32	46	692	100.0
	%	7.7	23.4	14.7	9.4	1.3	0.4	7.2	12.7	1.0	2.7	8.1	4.6	6.6	100.0	

1 DCM - Decision Makers' Course

2 RIL Fdn - RIL Foundation Course

3 THP - Timber Harvest Planning Course

4 FT - Felling Technology

5 CM - Chainsaw Milling

6 T ID - Tree Identification

7 ST - Skidding Technology

8 RIL Spc - RIL Special Course

9 Sur & Map - Surveying & Mapping

10 For Inv - Forest Inventory

11 FR - Forest Roads

12 FM - Forest Management

13 IWU - Introduction to Wood Utilization

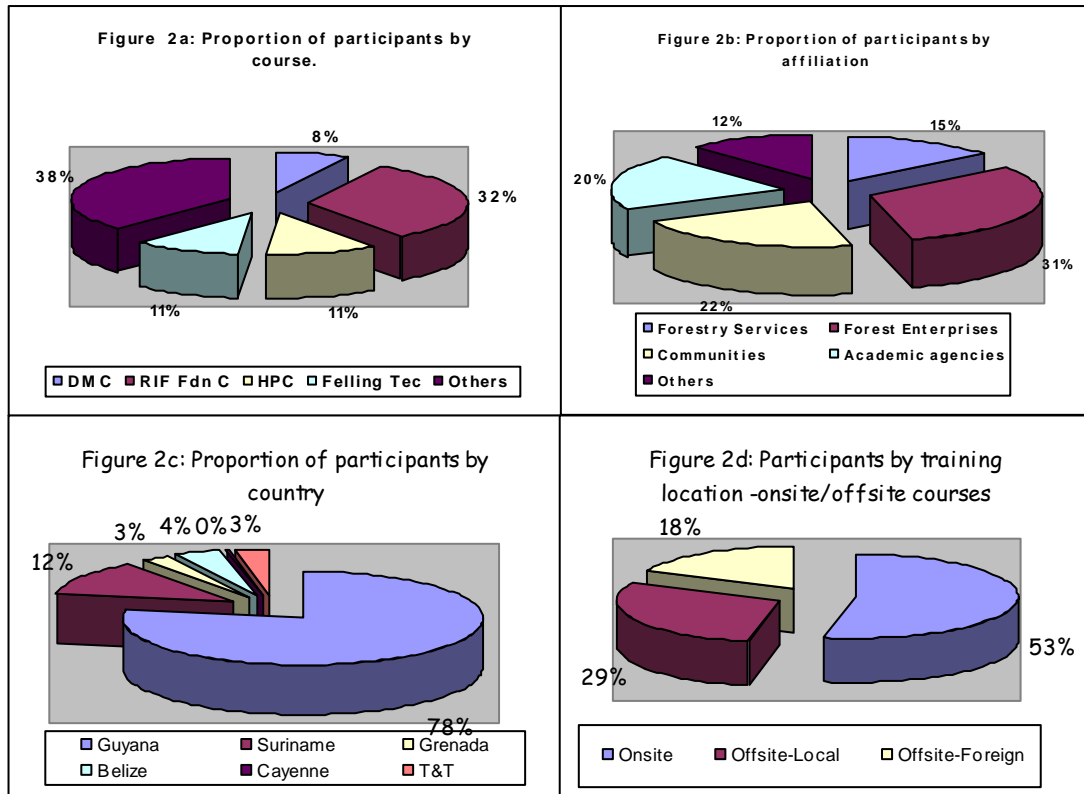
No specific manual on chainsaw milling was developed; FTCI made use of DFID's online manual¹⁴, published in March 2006, whenever necessary.

FTCI also developed a training module on 'Introduction to Wood Utilization' to help loggers manage their sawn timber and appreciate the value of GFC's timber grading standards.

Some small scale operators actually moved on to *portable* sawmills such as the LUCAS Mills and the Wood Mizer Mills; these require at least agriculture type tractors with winches to haul the logs to the saw mills; for such operations, FTCI's existing modules on skid trail planning and skidding techniques were adequate.

FTCI acquired training materials on the Wood Mizer and even explored the option of placing a portable mill¹⁵ at the field camp; however the partner concessionaire was using a LUCAS portable mill at the time and FTCI opted to use that.

Figure 2: Some indicative parameters on RIL training: PD333/05 Rev.2 (I)



¹⁴ DFID & FRP, 2006: *Turning Trees to Timber, A Chainsaw Milling Manual*. HDRA Publishing. Emerson Press, Kenilworth, UK. 41p.

¹⁵ Farfan & Mendes, the local agent for Wood Mizer offered to donate a Wood Mizer to FTCI for teaching purposes. On the basis of a new offer by the company, the mill will now be installed in 2010 .

Output 3: Capacity to provide RIL training programme for small-scale / community forest operations established.

This output was accomplished. 90% of small and medium scale enterprises in State forests and on private lands **engaged in chainsaw milling practices**, extracting lumber from stump rather than conventional logging and FTCl adapted its training modules to match the chainsaw milling technology. FTCl used its Chainsaw Instructors to teach the course; however some minor consultancy inputs¹⁶ were required to teach timber grading practices during the course on 'Introduction to Wood Utilization'. The practical aspects of chainsaw milling technology were included as a natural extension to FTCl's courses on Felling Technology.

Output 4: RIL training programme for small-scale / community forestry operations organized and delivered

This output was accomplished (see Figures 2, 3 and Table 1).

Figure 3: Illustration of the use of a Board Mill



Output 5: Capacity to provide training programme on other aspects of sustainable forest management established.

This output was accomplished. FTCl developed modules on Introduction to Forest Management, Introduction to Forest Roads and Introduction to Wood Technology. FTCl has been able to arrange special courses in Forest Mensuration, Surveying and Mapping, Use of a GPS Handset, and Introductory Botany (dendrology).

Output 6: Training courses in other aspects of SFM organized and delivered

This output has been accomplished. A major challenge here was to find the right language for participants. FTCl opted to make these courses as practical and as illustrative as possible. One peculiarity with communities is that they may send people for training who are quite experienced but want to avoid classroom type situations, or they may send very young people who do not

¹⁶ The Consultancy inputs were already available to FTCl via the Chainsaw Milling Project.

have field experience. Every batch requires a different approach to course delivery. Table 2 shows the range of courses offered by FTCl.

Output 7: Long term sustainability of vocational SFM/ RIL training in Guyana secured

The Long term sustainability of SFM/RIL training in Guyana is secured. A draft strategic plan has been prepared setting out the conditions under which FTCl can secure financial stability. More importantly, FTCl enjoys the support of the policy makers and is seen as an integral part of the thrust toward sustainable forestry practices and initiatives to educate the public on climate change, including the achievement of targets set out under the LCDS.

FTCl's schedule of courses (see Table 2) guarantees that it can meet the needs of several different categories of stakeholders.

FTCl's RIL Foundation Course is now a standard component of the academic curricula for the Faculty of Agriculture & Forestry, UG and the Guyana School of Agriculture¹⁷.

FTCl already has training commitments with BNTF¹⁸ to provide training targeting 250 persons from ten communities. FTCl expects several training opportunities for the chainsaw milling sub-sector. FTCl expects to sign a contract with FORENET¹⁹ to undertake several initiatives with training components within the forestry sector. Emerging issues within the Low Carbon Development Strategy will create training opportunities for FTCl.

FTCl expects to sign a Letter of Agreement with FAO, Caribbean Office-based in Barbados and collaborate with GFC regarding training opportunities for rural communities in Guyana under FAO's *National Forest Programme Facility*.

FTCl will work with vendors of forestry equipment, especially portable sawmills, to support their training component. FTCl has already undertaken initiatives to acquire a Wood Mizer LT70 portable sawmill.

Finally, FTCl will develop its capability to undertake consultancies in the area of forest management plans, annual plans of operations, and forest based community development plans.

FTCl has made a huge impact on the forestry sector and there is every indication that stakeholders want to maintain it as a key player in the strategic development of the forestry sector.

¹⁷ The Guyana School of Agriculture now has two campuses, increasing the number of forestry certificate students to about 32 per year

¹⁸ Basic Needs Trust Fund utilizes funds from the Government of Guyana, CIDA and the Caribbean Development Bank to develop relevant skills sets at the community level, which will in turn lead to improve rural livelihoods.

¹⁹ FORENET is a partnership between the ACP countries, CIFOR and the EU.

3.3 Schedules

The start date for the project was April 1, 2007 while the end date was March 31, 2009

3.4 Inputs applied.

Inputs were much less than projected due to the project piggy-backing on other initiatives that involved consultations with the same target group, avoiding stakeholder *fatigue*. In addition, FTCl was unable to submit its audited reports on time, leading to shortfall in some donor funds. On the other hand, FTCl was able to raise a substantial part of its requirements from revenues from training courses and consultancies.

Provisional (unaudited) data show that FTCl spent some US\$785,826.00 in cash and in kind during the period, representing some 71% of the total project budget (see Annex 1, Table 1). The data also show that FTCl utilised just US\$120,000.00 or 38% of the ITTO budget (see Annex I, Table 1).

Annex II, Table 7 shows that FTCl utilised some US\$425,511 in cash (ITTO 28%, GFC 46% and FTCl 36%)

All project outputs were achieved.

4. Project Outcome, Target beneficiaries Involvement

4.1 General Outcomes

The impact of the training to date has been difficult to measure because either very few persons stay long enough with the same logging enterprise to make a difference or insufficient numbers of people at the level of the enterprises have been trained to make a short-term difference to the quality of forest operations. However, it is apparent that:

- a) there is more widespread employment of forestry graduates and forest technicians, at the GFC, within forest enterprises, and environmental NGOs;
- b) a larger number of forest management plans and annual plans of operations meet the requirements of the GFC;
- c) more enterprises have been developing a formal system of records;
- d) there is an increase in the sourcing of thematic maps from the GFC and their use for planning and implementing field work;
- e) there is more widespread use of forest mensuration and forest surveying devices such as the compass, clinometer and GPS Receiver ; and
- f) there is more widespread use of safety gear on logging concessions and safety committees exist within several enterprises.

4.2 Specific Outcomes

4.2.1 Operatives in State forests

FTCI has managed to make an impact on loggers and forest operatives at all levels. At the community level in particular, FTCI found a strong thirst for knowledge. It appears that most rural peoples and loggers in particular intuitively feel that forest operatives should be more responsible in the utilization of forest resources and that the quality of their lives is strongly linked to the quality of the environment, especially fresh water and rather erratic weather patterns in many areas.

Most local loggers have never received formal training in any aspect of forestry, to the extent that they earn a certificate. Prior to the development of FTCI, there was no way to evaluate certain categories of forest operatives such as tree spotters, chainsaw operators and heavy-duty machine operators. Many chainsaw operators have never received training in the use of chainsaws; many machine operators did not even own the standard drivers' licence for a car, van or lorry (truck). Most operatives after a little bit of hesitation about going 'back to school' were delighted with the opportunity to acquire knowledge.

4.2.2 (Indigenous) communities with private (communal) forests

Many indigenous communities were waiting for a long time for the type of vocational training offered by FTCl. They too intuitively felt the need to better manage their resources to conserve their unique lifestyles for the benefit future generations.

These communities have benefitted from extension work by public agencies and NGOs but nothing as fundamental to their well being as the training offered by FTCl ever occurred before.

Those communities that have benefitted from RIL training have learned to use fundamental tools for forest management, including the use of maps, GPS Receivers, compass, and clinometers. More importantly, recent public consultations on the LCDS, forest policy, and REDD+ have demonstrated that communities that have benefitted from FTCl's training have been able to contribute positively to those discussions.

A major outcome for the project is the opportunities revealed for women in the communities. FTCl demonstrated that women can be engaged easily in forest inventory, mapping, chainsaw maintenance and tree identification. Further women, using their familiarity with cell phones, have excelled at the use of GPS devices, compass and clinometers. Of course they also have strong views about the use of forest resources and the conservation of non timber forest products.

4.2.3 Donors

The work of FTCl is closely aligned with the goals of many donors, particularly as these relate to matters of improved livelihoods and capacity building at the community level. The alignment of these donors, the communities and FTCl has been positive for all parties.

5. Assessment and Analysis

FTCI has been a major achievement of the agencies (GFC, TFF and Forest Industry) that sponsored it, and the donors that funded most of the activities.

With the aid of a large body of donors who have an interest in sustainable forest management practices at all levels, the GFC with its steadily increasing capacity for managing local forests, and the interest of the global community at large, FTCI has been able to make a huge difference in the performance of the local forestry sector generally, and loggers in particular.

The impact of the FTCI could have been more significant if the large scale loggers had embraced the work of FTCI with more alacrity. They have in fact relied on the academic community for trained persons and the more formal academic institutions (UG and GSA) have taken care to integrate courses offered by FTCI in their schedules for practical training.

The capability of FTCI to garner revenue has been a significant accomplishment and has allowed the institution to survive lean periods when it could not access donor funds due to tardiness in providing the reports required. In addition, one partner, the Forest Industry, has had major challenges in providing agreed contributions; FTCI's revenue helped to offset that lack.

For the future, with the current interest for training, locally and regionally, and opportunities to expand the scope of training, for example in the area of wood utilization, FTCI's future appears secure.

FTCI has developed a strategic plan to guide its actions over the next five years.

There is no doubt however, that opinions expressed in various sector studies about the quality of environmental behaviour by forest operatives and measures to address them have been accurate. The development of FTCI has been both timely and effective.

6. Lessons Learned

Cash flow issues

The establishment of a vocational training centre immediately attracts a number of fixed costs that must be met on a monthly basis, whether or not current project outputs are being realised. The shortfall of funds experienced (and in this case the blame rests *solely* with FTCI) leads to undue focus on the agencies revenue base rather than project outputs. For this reason, FTCI has been hesitant to recruit staff even though it was apparent that higher staff levels would have led to the more effective achievement of project outputs. Fortunately, FTCI's revenue base kept getting stronger, causing the agency to rely less on donor support.

Training demand

A major deficiency in FTCI's work has been the inability to carry out extension work, since the initial set of consultations. In other words, it would have been useful for FTCI staff to visit employees at their place of work (in the field), and point out areas where the training provided by FTCI could improve their work.

Partnerships

Perhaps the greatest lesson learned is the need for partnerships. FTCI has been very successful in building and sustaining partnerships with a large number of agencies and institutions, including vendors of forestry equipment and forestry consultants.

7. Conclusions and Recommendations

7.1 Key project recommendations

Identification: Project identification was adequate

Design: Project design was adequate

Implementation: Implementation was adequate; there were no institutional impediments to FTCl's work.

Organization: Organization of the Project was adequate

Management: Donor funds should not be the only source of income where a training facility with regular overhead costs is involved.

Vocational training Institutions should go after trainees by visiting them at their place of work rather than merely advertising training courses

7.2 Recommendation for other centres.

Vocational training centres should be set up within an existing institution which could take care of key overhead costs, then the centre should strive to become more financially independent. It is important however that vocational training centres such as FTCl enjoy the flexibility to form partnerships as it sees fit, whether or not it is housed within an existing institution.

Responsible for the Report:



Name: Godfrey Marshall

Position held: Director

Date: May 28, 2010

Annex I: Note on Chainsaw Milling in Guyana

The emergence of chainsaw milling technology (CMT) in Guyana in the 1970s, combined with a good local market for assorted grades of sawn timber, resulted in large numbers of traditional small loggers and community based forest enterprises (CBFEs) producing and selling *lumber* rather than *logs*. In addition, ex-miners and various entrepreneurs seized the business and livelihood opportunities afforded by the simplicity of CMT and drastically increasing the number and gender of people who engaged in or became dependent on CMT. The simplicity of CMT also facilitated illegal logging operations.

It appears that the adoption of CMT or the transition to *wood processing* was done without any recognised training in CMT or in *wood technology* leading to under-utilization or misuse of the timber resources. In addition, CBFEs generally lacked the capacity for managing small scale integrated *-timber harvesting and wood processing-* enterprises. (The same situation exists with those who wish to upgrade to portable sawmills -access to the appropriate training is virtually non-existent). These problems led to conflict between stakeholders, and between stakeholders and the GFC. Policy responses focused initially on basic directional tree felling technology, chainsaw milling technology, and OSH. Not sufficient attention has been paid to the application of the technology for realising the best economic value from timber stocks.

The issue of the designation of 'small logger' needs review: the emergence of chainsaw milling technology has placed many loggers and loggers associations in the category of medium scale (enterprises). The terms forest concession agreement and community forestry management agreement should allow loggers to negotiate tenure arrangements with the GFC based on the stocking or allowable cut assigned to the area of interest.

The matrix of local institutions and local legislation impacting on CMT have given tacit support to the practice primarily because of the positive benefits of CMT and its alignment with other national goals on rural livelihoods and economic empowerment of local communities. But there isn't sufficient evidence that support for CBFEs for example have been tempered with the understanding that CMT is vulnerable to more overarching national developments such as a land-use plan or the LCDS. There is therefore likely to be considerable conflict if restrictions were to be put in place.

It appears too that the notion still persists among loggers that local forest stocks are inexhaustible, leading Individuals and businesses, perhaps desperate for jobs, to purchase chainsaws without any proper assessment of the timber stocks available for chainsaw milling operations. This situation-the acquisition of chainsaws without (legal) access to substantial forest resources-led stakeholders to put pressure on the GFC to make available (new) forest resources and also resulted in some operatives pursuing illegal chainsaw milling activities.

It's apparent that there will have to be a massive restriction on CMP in the short term, for the simple reason that there are not sufficient resources to sustain the large number of people in the business over time. Research elsewhere has shown that banning CMT is never effective, it will still occur, especially in a country with a low population density as Guyana. Therefore urgent measures need to be developed to mitigate any potential conflict.

Research elsewhere has demonstrated that the resolution of conflicts involving large numbers of stakeholders is easier if stakeholders are engaged properly and the proper information and assessments presented to them for discussion. Many of the recommendations may be tailored to address the needs of local stakeholders involved in CMT. Several case studies have been described to provide a guide to the appropriate methodologies for achieving effective solutions.

At the end of the day, the positive benefits of CMT will only be enjoyed if there is a shared understanding of its scope and limitations. The Chainsaw Milling Project should assist in sensitising stakeholders and in catalyzing and harnessing their response for a more manageable situation.

Annex II-

Table 1						
Project Financial Statements: All sources: Cash and In-kind: \$US						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec2007	Expenditure 2008	Expenditure Jan-Feb09	Expenditure to date	Unexpended Amount
	(a)	(b)	(c)	(d)	(e)	(f)
FUNDS MANAGED BY FTCI						
10. Project Personnel						
11. National Experts						
11.1 Project Director	48,000	14,625	16,476	2,746	33,847	14,153
11.2 Operations Mngr	24,000	0	2,790	0	2,790	21,210
11.3 -11.6 Foresters/Instructors/Botanist	133,200	53,348	69,737	8,816	131,901	1,299
12. Other Labour						
12.1 Administrative Manager	19,200	8,441	10,340	1,660	20,441	-1,241
12.2 Course Coordinator	19,200	0	0	880	880	18,320
12.3 -12.4 Sr. Forest Technician/Technicians	58,800	26,402	38,635	4,831	69,868	-11,068
12.5 Labourers	14,880	0	0	0	0	14,880
12.6-12.7 Support Staff	48,000	14,061	28,525	2,844	45,431	2,569
13. International Experts	50,000	20,000	0	0	20,000	30,000
14. International Consultants						
14.1 RIL Expert	14,000	0	0	0	0	14,000
14.2 C&I Auditing Expert	10,500	0	0	0	0	10,500
19. Component Total	439,780	136,877	166,503	21,777	325,158	114,622
20. Sub-Contracts						
21. Printers	18,400	0	0	0	0	18,400
22. Accountant	6,400	0	0	0	0	6,400
23. Legal counsel	1,400	375	375	0	750	650
24. Consultancies	0	0	1,998	0	1,998	0
24.1 Local consultancies	0	6,575	330	0	6,905	0
29. Component total	26,200	6,950	2,703	0	9,653	25,450
30. Duty Travel						
31. Daily Subsistence Allowance						
31.1 DSA Consultants	7,200	0	0	0	0	7,200
31.2 DSA TFF BOD meeting	3,000	2,162	0	0	2,162	838
31.3 Local travel	4,200	13,188	21,630	3,004	37,822	-33,622
31.4 Off site activities	0	4,079	2,045	0	6,124	
32. International Travel						
32.1 Flight consultants	7,500	0	0	0	0	7,500
32.2 Flights-TFF BOD	4,000	949	671	0	1,620	2,380
32.3 Other Flights	0	1,104	0	0	1,104	
33. Transport Costs						
33.1 Transport-workshop	10,000	0	0	0	0	10,000
33.2 Transport-workers, participants	14,800	0	0	0	0	14,800
33.3 Conveyance of equipment-local	10,500	0	0	0	0	10,500
33.4 Conveyance of equipment-other countries	0	0	0	0	0	
39. Component Total	61,200	21,482	24,347	3,004	48,833	19,595

40. Capital Items						
41. Vehicles						
41.1 Five ton lorry (army surplus)	12,000	0	0	0	0	12,000
41.2 Depreciation -Land rusiers	18,000	0	0	0	0	18,000
42. Depreciation-Office equipment	6,000	0	0	0	0	6,000
43. Depreciation-Training Equipment	8,400	0	0	0	0	8,400
44. Tools	0	0	0	0	0	
45. Camp	0	4,569	0	0	4,569	
46. Heavy equipment	0	21,520	0	0	21,520	
47. Training equipment	0	4,758	4,034	227	9,019	
48. Office equipment	0	1,575	0	0	1,575	
49. Component Total	44,400	32,422	4,034	227	36,683	44,400
50. Consumables						
51. Heavy equipment						
51.1 Heavy equipment-TFF	135,000	45,000	0	0	45,000	90,000
51.2 Heavy equipment-partners	40,950	0	0	0	0	40,950
52. Heavy equipment running costs	31,480	1,394	1,353	34	2,781	28,699
53. Vehicles running costs	14,075	3,384	2,727	667	6,779	7,296
54. Chainsaw operating costs	2,200	42	1,795	42	1,879	321
55. Camp supplies	45,000	15,788	28,459	6,021	50,268	-5,268
56. Training Materials	21,890	1,020	1,034	1,018	3,072	18,818
57. Office rent	36,000	11,250	13,750	2,500	27,500	8,500
58. Utilities	36,000	12,219	16,027	3,122	31,368	4,632
59. Office Supplies	12,000	3,189	2,402	764	6,355	5,645
599. Component Total	374,595	93,286	67,546	14,169	175,001	199,594
60. Miscellaneous						
61. PSC & TAC Meetings	3,500	152	0	0	152	3,348
61.1 TFF Meetings (FTCI BOD), local	0	1,530	0	0	1,530	0
62. Workshops	3,200	0	0	0	0	3,200
63. Sundry Items	10,000	6,339	1,885	678	8,902	1,098
65. Bank charges	0	568	96	0	664	0
66. Insurance, medicals, etc.	0	0	1,388	340	1,727	0
69. Component Total	16,700	8,589	3,369	1,018	12,975	7,646
70. GFC Mangt Cost						
GFC: 15% of Total Budget by activity	144,431	50,400	67,200	11,200	131,769	12,662
TFF	0	45,756	0	0	45,756	0
79. Component Total	144,431	96,156	0	11,200	177,525	-33,094
SUB-TOTAL	1,107,306	395,763	268,500	51,395	785,826	378,215
80. ITTO Mtrg, Evltn and Admin						
81. Monitoring, Review & Evaluation Costs	20,500					
83. Programme Support Costs	26,807					
89. Component Total	47,307					
100. GRAND TOTAL	1,154,613					

Table 2						
Project Financial Statements: ITTO: US\$						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec 2007	Expenditure 2008	Expenditure Jan-Mar09	Expenditure to date	Unexpended Amounts
	(a)	(b)			(c)	(d)
FUNDS MANAGED BY FTCI						
10. Project Personnel						
11. National Experts						
11.2 Operations Mngr	24,000	0	2,790	0	2,790	21,210
12. Other Labour						
12.1 Administrative Manager	19,200	8,441	10,340	1,312	20,093	-893
12.2 Course Coordinator	19,200	0	0	880	880	18,320
12.3 Sr. Forest Technician/Forest Technicians	58,800	26,387	38,859	4,187	69,433	-10,633
12.6 Drivers	24,000	0	0	1,032	1,032	22,968
13. International Experts	50,000	20,000	0	0	20,000	30,000
14. International Consultants						
14.1 RIL Expert	14,000	0	0	0	0	14,000
14.2 C&I Auditing Expert	10,500	0	0	0	0	10,500
19. Component Total	219,700	54,828	51,989	7,410	114,227	105,473
20. Sub-Contracts						
21. Printers	18,400	0	0	0	0	18,400
29. Component total	18,400	0	0	0	0	18,400
30. Duty Travel						
31. Daily Subsistence Allowance					0	0
31.1 DSA Consultants	7,200	0	0	0	0	7,200
31.2 DSA TFF BOD meeting	3,000	1,491	-818	0	673	2,327
31.3 DSA FTCI Staff-FTCI Activities	4,200	7,488	15,969	2,181	25,637	-21,437
32. International Travel						0
32.1 Flight consultants	7,500	0	0	0	0	7,500
32.2 Flights-TFF BOD	4,000	949	665	0	1,614	2,386
39. Component Total	25,900	9,328	15,816	2,181	27,324	-2,024
40. Capital Items						
41. Vehicles						
41.15 Five ton lorry (army surplus)	12,000	0	0	0	0	12,000
49. Component Total	12,000	0	0	0	0	12,000
50. Consumables						
51.2 Maintenance & Repairs	0	0	100	0	100	0
56. Training Materials	21,890	269	6	0	275	21,615
59. Component Total	21,890	269	106	0	375	21,515
60. Miscellaneous						
61. PSC & TAC Meetings	3,500	27	0	0	27	3,473
62. Workshops	3,200	0	0	0	0	3,200
63. Sundry Items	10,000	952	615	572	2,140	7,860
69. Component Total	16,700	979	615	572	2,166	14,534
SUB-TOTAL	314,590	66,003	68,526	10,163	144,693	169,897
FUNDS MANAGED BY ITTO						
80 ITTO Monitoring, Evaluation and Administration						
81. Monitoring & Review Costs	20,500					
83. Programme Support Costs	26,807					
89. Component Total	47,307					
100. GRAND TOTAL	361,897					

Table 3						
Project Financial Statements: GFC: Cash and In-kind: US\$						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to Mar 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec 2007	Expenditure 2008	Expenditure Jan-Mar 2009	Expenditure to date	Unexpended Amounts
	(a)	(b)			(c)	(d)
10. Project Personnel						
11. National Experts						
11.1 Project Director	48,000	14,625	16,476	2,746	33,847	14,153
11.3 Foresters/Instructors	57,600	53,348	32,190	0	85,538	-27,938
11.4 -11.5 Sr. Instructor-Op/Instructor-Op/Botanist	75,600	14,061	33,245	0	47,306	28,294
12. Other Labour						
12.6-12.7 Support Staff	24,000	13,894	28,525	2,528	44,947	-20,947
19. Component Total	205,200	95,928	110,435	5,274	211,638	-6,438
20. Sub-Contracts					0	
22. Accountant	6,400	0	0	0	0	6,400
23. Legal counsel	1,400	369	0	0	369	1,031
29. Component total	7,800	369	0	0	369	7,431
30. Outg Travel						
31.5 DSA FTCH-foreign		34	909	0	909	
39. Component Total	0	34	909	0	943	34
40. Capital Items					0	
46. Heavy equipment	0	21,735	0	0	21,735	0
47. Training equipment	0	0	4,034	0	4,034	0
49. Component Total	0	21,735	4,034	0	25,769	0
50. Consumables						
57. Office rent	36,000	11,250	13,750	2,500	27,500	8,500
58. Utilities	36,000	11,296	15,504	2,485	29,285	6,715
59. Office Supplies	12,000	2,099	1,769	492	4,360	7,640
599. Component Total	84,000	24,645	31,023	5,476	61,144	22,856
60. Miscellaneous						
63. Sundries	0	109	105	0	214	0
69. Component Total	0	236	105	0	341	0
70. GFC Management Costs						
15% of Overall Project Budget by Activity	144,431	50,400	67,200	11,200	128,800	15,631
79. Component Total	144,431	50,400	67,200	11,200	128,800	15,631
100. GRAND TOTAL	441,431	193,111	213,601	21,951	428,663	39,514

Table 4						
Project Financial Statements: FTCI: Cash and In-kind						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec 2007	Expenditure 2008	Expenditure Jan-Feb2009	Expenditure to date	Unexpended Amounts
	(a)	(b)	(c)		(d)	(e)
10. Project Personnel						
19. Component Total	0	0	0	0	0	0
20. Sub-Contracts						
22.2 Local consultants	0	6,575	330	0	6,905	0
23. Legal Counsel	0	375	375	0	750	0
24. Consultants			1,997	0	1,997	0
29. Component total	0	6,950	2,702	0	9,652	0
30. Duty Travel						
31.3 DSA-FTCI Activities	0	4,435	5,661	123	10,219	0
31.5 DSA-Offsite activities	0	5,531	1,954	0	7,485	0
32.3 Other flights	0	1,104	0	0	1,104	0
39. Component Total	0	11,070	7,615	123	18,808	0
40. Capital Items					0	
41. Vehicles					0	
41.2 Depreciation -Land rusiers	18,000	0	0	0	0	18,000
42. Depreciation-Office equipment	6,000	0	0	0	0	6,000
43. Depreciation-Training Equipment	8,400	0	0	0	0	8,400
44. Tools	0	0	0	0	0	0
47. Training Equipment	0	4,758	0	227	4,986	
48. Camp	0	4,569	0	0	4,569	
48.1 Office Supplies	0	1,575	0	0	1,575	
49. Component Total	32,400	10,902	0	227	11,130	21,270
50. Consumables					0	
51. Heavy equipment	135,000	45,000	0	0	45,000	90,000
52. Heavy equipment running costs						
52.1/52.2 Heavy equipment running costs	25,380	803	0	34	837	24,543
52.2 Heavy equipment maintenance	6,100	576	0	0	576	5,524
53. Vehicles running costs						
53.1 Vehicle Fuel	6,400	0	0	0	0	6,400
53.2 Vehicle maintenance	7,675	3,384	2,600	667	6,651	1,024
54. Chainsaw operating costs						
54.1 Chainsaw Fuel/Oil	1,200	0	765	16	781	419
54.2 Chainsaw maintenance	1,000	42	1,030	26	1,098	-98
55. Camp Supplies	0	13,015	18,303	1,988	33,306	0
56. Training materials	0	751	1,028	1,018	2,797	0
58. Utilities	0	923	523	637	2,083	0
59. Office Supplies	0	1,090	1,846	273	3,208	0
599. Component Total	182,755	65,584	26,095	4,660	96,338	127,812
60. Miscellaneous						
63. Sundry Items	0	3,586	748	106	4,440	0
65. Bank Charges	0	117	96	0	213	0
66. Insurance, Medicals, etc	0	644	1,730	340	2,713	0
67. FTCI-TFF Meetings	0	1,530	0	0	1,530	0
68. ITTO PSC Meetings	0	125	0	0	125	0
69. Component Total	0	6,002	2,574	446	9,022	0
100. GRAND TOTAL	215,155	100,508	38,986	5,456	144,949	149,083

Table 5						
Project Financial Statements: FI: Cash and In-kind						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec 2007	Expenditure 2008	Expenditure Jan-Mar09	Expenditure to date	Unexpended Amounts
	(a)	(b)			(c)	(d)
10. Project Personnel						
12. Other Labour						
12.5 Labourers	14,880	0	0	0	0	14,880
19. Component Total	14,880	0	0	0	0	14,880
20. Sub-Contracts						
29. Component total	0	0	0	0	0	0
30. Duty Travel						
39. Component Total	0	0	0	0	0	0
40. Capital Items						
49. Component Total	0	0	0	0	0	0
50. Consumables						
51. Heavy equipment						
51.2 Heavy equipment rental	40,950	0	0	0	0	40,950
55. Camp supplies	45,000	1,985	0	0	1,985	43,015
599. Component Total	85,950	1,985	0	0	1,985	83,965
60. Miscellaneous						
69. Component Total	0	0	0	0	0	0
GRAND TOTAL	100,830	1,985	0	0	1,985	98,845

Table 6						
Project Financial Statements: TFF In-kind						
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009						
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'						
COMPONENTS	Approved	Expenditure Apr-Dec 2007	Expenditure 2008	Expenditure Jan-Mar09	Expenditure to date	Unexpended Amounts
	(a)	(b)			(c)	(d)
<u>10. Project Personnel</u>						
19. Component Total	0	45,756	0	0	45,756	0
<u>20. Sub-Contracts</u>						
29. Component total	0	0	0	0	0	0
<u>30. Duty Travel</u>						
39. Component Total	0	0	0	0	0	0
<u>40. Capital Items</u>						
49. Component Total	0	0	0	0	0	0
<u>50. Consumables</u>						
59. Component Total	0	0	0	0	0	0
<u>60. Miscellaneous</u>						
69. Component Total	0	0	0	0	0	0
<u>70. TFF Mangt Cost</u>						
79. Component total	0	45,756	0	0	45,756	0
GRAND TOTAL		45,756			45,756	

Table 7			
Project Cash Flow Statements: All sources: US\$, GYD			
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009			
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'			
COMPONENTS	Amount (US\$)	Local Currency (G\$)	
1. Funds Received from Donors			
ITTO	\$ 120,000	GYD	-
GFC	\$ -	GYD	39,148,708
FI	\$ -	GYD	-
Sub-Total: Total contributions by donor	\$ 120,000	GYD	39,148,708
Converted to GYD			
Sub-Total: Total contributions by donor	\$ 120,000	GYD	39,148,708
Revenue earned by FTCI			
Consultancies	\$ -	GYD	2,202,000
Contracts	\$ 5,502	GYD	9,850,509
Training fees	\$ 2,902	GYD	6,828,344
Other Income	\$ -	GYD	1,392,000
Sub total-FTCI Revenue	\$ 8,404	GYD	20,272,853
Total Funds Available	\$ 128,404	GYD	59,421,561
2. Expenditure by FTCI			
10. Project Personnel			
11. National Experts			
11.2 Operations officer	\$ -	GYD	558,042
11.3 Foresters	\$ -	GYD	12,506,731
11.4 Sr. Instructor/Op; Instructor; Botanist	\$ -	GYD	13,064,580
160.. Course Coordinator		GYD	176,033
12. Other Labour			
12.1Administrative Manager	\$ -	GYD	4,088,180
12.3/12.4 Sr. Forest Technician; Technicians	\$ -	GYD	13,973,657
12.5-12.7Support staff	\$ -	GYD	9,022,945
13. International Experts	\$ 30,000	GYD	-
14. International Consultants			
14.1 RIL Expert	\$ -	GYD	-
14.2 C&I Auditing Expert	\$ -	GYD	-
19. Component Total	\$ 30,000	GYD	53,390,168
20. Sub-Contracts			
21.1 Local consultants	\$ 2,018	GYD	1,381,000
23. Legal counsel	\$ -	GYD	150,000
29. Component total	\$ 2,018	GYD	1,531,000
30. Duty Travel			
31. Daily subsistence allowance			
31.1 DSA Consultants	\$ -	GYD	-
31.2 DSA TFF BOD	\$ 2,161	GYD	(172,872)
31.3 Local travel	\$ -	GYD	7,564,425
31.4Off site activities	\$ 3,764	GYD	1,007,828
32. International Travel			
32.1 Flight consultants		GYD	-
32.2 Flights-TFF BOD	\$ -	GYD	191,786
32.3 Other Flights	\$ -	GYD	-
39. Component Total	\$ 5,925	GYD	8,591,167
40. Capital Items			
41.15 ton Ex-Army Truck			
42. Depreciation-Office equipment	\$ -	GYD	-
43. Depreciation-Training Equipment	\$ -	GYD	-
44. Tools	\$ -	GYD	-
45. Camp	\$ -	GYD	913,791
46. Heavy equipment	\$ -	GYD	54,260,346
47. Trainig equipment	\$ -	GYD	1,803,939
48. Office equipment	\$ -	GYD	314,970
49. Component Total	\$ -	GYD	57,293,646
50. Consumables			
51 Heavy equipment maintenance	\$ -	GYD	285,628
53. Vehicle maintenance/running costs	\$ -	GYD	1,350,429
54 Chainsaw operating costs	\$ -	GYD	375,729
55. Camp supplies	\$ -	GYD	9,803,693
56. Training/Extension Materials	\$ -	GYD	614,438
58. Utilities	\$ -	GYD	516,574
59. Office Supplies	\$ -	GYD	1,261,154
599. Component Total	\$ -	GYD	14,207,645
60. Miscellaneous			
61. PSC & TAC Meetings			
61.1 TFF/FTCI Meetings-Local	\$ -	GYD	306,000
63. Sundry Items	\$ 50	GYD	2,225,433
69. Component Total	\$ 50	GYD	2,561,774
TOTAL EXPENDITURE TO DATE	\$ 37,993	GYD	137,575,399
REMAINING BALANCE OF FUNDS	\$ 90,410	GYD	(78,153,838)

Table 8		
Project Cash Flow Statement:Source ITTO		
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009		
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'		
COMPONENTS	Amount (US\$)	Local Currency (G\$)
I. Funds Received from ITTO		
ITTO: May 30, 2005	\$ 120,000	GYD -
Converted to GYD	\$ (99,327)	GYD 19,865,400
Total funds available	\$ 20,673	GYD 19,865,400
II. Expenditure by ETCI		
10. Project Personnel		
11. National Experts		
Operations Officer	\$ -	GYD 558,042
Course Coordinator		GYD 176,033
12.1 Administrative Manager	\$ -	GYD 4,018,513
12.3/12.4 (Sr.) Forest Technician	\$ -	GYD 13,886,757
12.6 Support Staff	\$ -	GYD 206,579
13. International Experts	\$ 20,000	GYD -
19. Component Total	\$ 20,000	GYD 18,845,924
20. Sub-Contracts		
29. Component total	\$ -	GYD -
30. Duty Travel		
31.1 DSA Consultants	\$ -	GYD -
31.2 DSA TFF BOD	\$ 673	GYD -
31.3 Local travel	\$ -	GYD 5,127,400
31.4 Offsite activities	\$ -	GYD -
32. International Travel		
32.1 Flight consultants	\$ -	GYD -
32.2 Flights-TFF BOD	\$ -	GYD 322,800
32.3 Other Flights	\$ -	GYD -
39. Component total	\$ 673	GYD 5,450,200
40. Capital Items		
49. Component Total	\$ -	GYD -
50. Consumable Items		
56. Training Materials	\$ -	GYD 54,989
59. Component Total	\$ -	GYD 54,989
60. Miscellaneous		
61. PSC & TAC Meetings	\$ -	GYD 5,341
62. Workshops	\$ -	GYD -
63. Sundry Items	\$ -	GYD 427,396
69. Component Total	\$ -	GYD 432,737
99. Total expenditure	\$ 20,673	GYD 24,783,850
Balance of Funds	\$ -	GYD (4,918,450)

Table 9		
Project Financial Statements: GFC: Cash		
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009		
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Gugana'		
COMPONENTS	Amount (US\$)	Local Currency (G\$)
Funds Received from GFC:		
25-Apr-07	\$ -	GYD 1,623,959
25-May-07	\$ -	GYD 1,598,948
26-Nov-07	\$ -	GYD 1,170,000
20-Feb-08	\$ -	GYD 3,000,000
25-Mar-08	\$ -	GYD 1,981,317
10-Apr-08	\$ -	GYD 50,000
23-Apr-08	\$ -	GYD 3,000,000
23-May-08	\$ -	GYD 1,849,839
27-May-08	\$ -	GYD 225,000
26-Jun-08	\$ -	GYD 1,000,000
30-Jun-08	\$ -	GYD 1,000,000
Total Funds	\$ -	GYD 16,499,063
<u>B. Expenditure by FTCI</u>		
<u>10. Project Personnel</u>		
11. National Experts		
11.3 Foresters	\$ -	GYD 7,111,713
11.4, 11.5 (Sr.) Instructor/Op	\$ -	GYD 7,369,240
12. Other Labour		
12.5 through 12.7 Support Staff	\$ -	GYD 4,299,921
19. Component Total	\$ -	GYD 18,780,874
<u>20. Sub-Contracts</u>		
29. Component total	\$ -	GYD -
<u>30. Duty Travel</u>		
31. Daily Subsistence Allowance		
31.3 DSA FTCI Staff-FTCI Activities	\$ -	GYD -
39. Component Total	\$ -	GYD -
<u>40. Capital Items</u>		
46. Heavy equipment	\$ -	GYD 4,347,126
49. Component Total	\$ -	GYD 4,347,126
<u>50. Consumables</u>		
59. Office Supplies	\$ -	GYD 483,610
599. Component Total	\$ -	GYD 483,610
<u>60. Miscellaneous</u>		
61. PSC & TAC Meetings	\$ -	GYD -
62. Workshops	\$ -	GYD -
63. Sundry Items	\$ -	GYD 28,216
69. Component Total	\$ -	GYD 28,216
100. Total	\$ -	GYD 23,639,826
BALANCE	\$ -	GYD (7,140,763)

Table 10			
Project Cash Flow Statement: FTCl: Cash			
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009			
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'			
COMPONENTS	Amount (US\$)	Local Currency (G\$)	
Funds generated by FTCl			
Consultancies:	\$ -	GYD	1,812,000
Contracts	\$ 2,259.50	GYD	10,190,000
Training fees	\$ -	GYD	4,502,344
Total Revenue earned by FTCl	\$ 2,259.50	GYD	16,504,344
B. Expenditure by FTCl			
10. Project Personnel			
19. Component Total	\$ -	GYD	-
20. Sub-Contracts			
22.2 Local consultants	\$ -	GYD	1,351,000
23. Legal Counsel	\$ -	GYD	150,000
29. Component total	\$ -	GYD	1,501,000
30. Duty Travel			
31. Daily Subsistence Allowance			
31.3 Local Travel	\$ -	GYD	1,755,357
31.5 DSA FTCl Offsite activities	\$ 3,039.00	GYD	733,702
32.3 Other Flights	\$ -	GYD	222,938
39. Component Total	\$ 3,039.00	GYD	2,711,997
40. Capital Items			
41. Camp		GYD	913,791
43. Office Equipment		GYD	314,970
47. Training equipment		GYD	987,694
49. Component Total	\$ -	GYD	2,216,455
50. Consumables			
51. Heavy equipment	\$ -	GYD	278,860
53. Vehicle Mntce Costs	\$ -	GYD	761,463
54. Chainsaw Op Costs	\$ -	GYD	83,364
55. Camp supplies	\$ -	GYD	3,786,169
56. Training Materials	\$ -	GYD	286,920
58. Utilities	\$ -	GYD	234,580
59. Office Supplies	\$ -	GYD	389,314
599. Component Total	\$ -	GYD	5,820,670
60. Miscellaneous			
61.1 TFF/FTCl Meetings-Local	\$ -	GYD	331,000
63. Sundry Items	\$ -	GYD	1,331,498
69. Component Total	\$ -	GYD	1,662,498
TOTAL EXPENDITURE	\$ 3,039.00	GYD	13,912,620
BALANCE	\$ (779.50)	GYD	2,591,724

Table 11		
Project Financial Statements: FI: Cash		
Project PD 333/05 Rev.2(I) Period April 1, 2007 to March 31, 2009		
Project Title: 'Development and Delivery of a Vocational Training Programme in Reduced Impact Logging and Sustainable Forest Management Practices in Guyana'		
COMPONENTS	Amount (US\$)	Local Currency (G\$)
I. Funds Received from FI	\$ -	GYD -
Total contributions by donor	\$ -	GYD -
II. Expenditure by FI		
10. Project Personnel		
19. Component Total	\$ -	GYD -
20. Sub-Contracts		
29. Component total	\$ -	GYD -
30. Duty Travel		
39. Component Total	\$ -	GYD -
40. Capital Items		
49. Component Total	\$ -	GYD -
50. Consumables		
55. Camp supplies	\$ -	GYD 1,022,494.00
599. Component Total	\$ -	GYD 1,022,494.00
60. Miscellaneous		
69. Component Total	\$ -	GYD -
Total Expenditure by FI	\$ -	\$ (1,022,494.00)