

**Guyana Forestry Commission
Forestry Training Centre Incorporated
Final Technical Report**

**PD 68/01 Rev.2 (I)
'Training in Reduced Impact Logging in Guyana'**

**Georgetown,
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Abstract

Recent sector studies indicate that the paucity of skilled field operatives in the forestry sector remain a major constraint in realising the potential of the sector and in ensuring that forest enterprises comply with national guidelines on timber harvesting practices .

To resolve the problem, the Guyana Forestry Commission, the Forest Products Association of Guyana and the Tropical Forest Foundation (Virginia, USA) organised a vocational training centre –the Forestry Training Centre Incorporated - with funding from the International Tropical Timber Organization and the Department for International Development (UK). FTCl's immediate objectives were to implement the project '*Training in Reduced Impact Logging in Guyana*', with a target of 120 field operatives trained at the end of the project.

FTCl set up a model logging operation which, combined with a number of training assets, provided field operatives with hands-on experience in reduced impact logging practices at a cost not exceeding US\$125.00 per operative. Twenty courses involving 199 were conducted over period May 1, 2002 to July 1, 2005.

The demand for RIL courses was however below expectations; local forest enterprises did not take full advantage of the facility as one would have expected. Disloyalty, egotistic or other disagreeable behaviour on the part of those operatives that received training, disinterest on the part of some logging enterprises, and a preference for training at the company level (*offsite*) training were some of the reasons cited for the poor demand.

While local forest enterprises appeared disinterested in the training courses provided by FTCl, the GFC, the academic institutions, companies run by expatriates (Malaysians) and environmental NGOs showed considerable interest in the courses and these agencies were responsible for the large number of people trained to date. On the positive side, many forest enterprises utilized FTCl for other non core services.

A relatively large number *offsite* courses were conducted and while these contributed to the general number of people trained in RIL, *offsite* courses led to under utilization of the assets at the primary centre.

Many agencies including UNDP, FAO and WWF-Guianas seem prepared to support FTCl in the future because RIL training is integral to sustainable forest practices and is closely aligned with their own developmental and specific objectives in Guyana and the Guianan region. The University of Guyana perceives FTCl's RIL training programme as a major boost to improving the practical component of the forestry and environmental science courses respectively offered by UG.

It is apparent that a number of (policy) initiatives would be necessary to encourage loggers to make better uses of the services of the FTCl.

Experience to date indicates that FTCl in its current configuration will not be able to sustain itself only on training fees based on RIL courses. For FTCl to become a major sustained presence in the forestry sector, it needs to align itself more strongly with several core stakeholders (including the University of Guyana), include a few more courses in its armament and engage in consultancy services.

Acronyms

BCL	Barama Company Limited
CARICOM	Caribbean Community
CAT	Caterpillar Company
CoP	Code of Practice for Timber Harvesting
Dbh	Diameter at breast height
DFID	Department for International Development
FAO	Food & Agriculture Organisation of the United Nations
FPA	Forest Products Association of Guyana
FRP	Forestry Research Programme (DFID, UK)
FSC	Forestry Stewardship Council
FTCI	Forestry Training Centre Incorporated
GFC	Guyana Forestry Commission
GoG	Government of Guyana
GSA	Guyana School of Agriculture
ITTO	International Tropical Timber Organization
IWOKRAMA	Iwokrama Centre for Rain Forest Conservation and Development
MACORP	Machinery Corporation of Guyana
NDS	National Development Strategy
PSC	Project Steering Committee
RIL	Reduced Impact Logging
TFF	Tropical Forest Foundation
TPL	Toolsie Persaud Limited
UG	University of Guyana
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

1. Introduction

Guyana has a land area of 214,980 km², a population of about 765,000 persons and an area of 168,790 km² under forest cover (FAO, 2005). Forests allocated for timber production cover about 136,000 km² (63% of the total land area). Timber harvesting operations employ around 7,500 persons, while sawmills, lumber dealers and the only plywood mill together employ approximately 6,000 persons.

Stakeholders believe that the forestry sector should be making a more significant contribution to national development. One recurring thread in all recent sector studies (for example GoG, 2000; ITTO, 2003) is the need for skilled workers to improve the quality of forest practices to ensure compliance with the prescription of the CoP, to improve the viability of forest enterprises through better management of operational costs, and to enable forest management systems to be certified by FSC or another party.

Welch (1996), GoG (1997), Van der Hout (1999), and Bram (2003) all identified the challenges of the dearth of appropriate skills sets in the forestry sector and suggested the need for some kind of vocational training facility. In September 2000, a stakeholder consultation meeting on vocational training in Guyana concluded that the development of an on-site RIL training programme would address many of the perceived weaknesses in the industry. (The idea of a model logging operation, where trainees receive hands-on training, has a precedent in TFF's RIL Centre in Para, Brazil: in 1999, twelve Guyanese from the public, private and non-Governmental agencies (sponsored by TFF and USAID) visited the TFF Centre and were impressed with the forest practices taught at that facility. The *Instituto Floresta Tropical/Fundação Floresta Tropical* is a Brazilian nongovernmental organization that promotes sustainable management of Amazonian forests through a unique program that integrates training, specialization and applied research.). Based on the consultation, GFC, FPA and TFF prepared a project proposal which was to ITTO for consideration.

In November 2001, ITTO approved the project "Training in reduced impact logging in Guyana" {PD 68/01 Rev 2 (I)}. Work on the project activities commenced in May 2002. The specific objective of PD 68/01 Rev.2 (I) was "Capability established to deliver training in RIL". FTCL achieved that objective. A few project outputs were subsumed by a second project - PD 335/05 Rev.1 (I) (See summary of project in Annex I) however 95% of the project outputs were achieved.

To run a model logging operation, FTCL needed to align itself with several partners. One key partner was Caterpillar Company which, through the auspices of TFF, loaned three machines – a Cat 545 Skidder, a Cat 950G Series II Front End Loader and a Cat D6N XL Bulldozer. Further, with *cash* from ITTO, GFC, and DFID, and *in-kind* contribution from GFC, DFID, TFF and Forest Industry, FTCL sourced a wide range of assets, including a camp (with running water and generator) and a training area.

FTCL delivered twenty courses (including one in Suriname and one in Grenada) by July 1, 2005. One hundred and ninety-nine persons participated in these courses. Major beneficiaries of FTCL's training include BCL, GFC, UG, GSA and Iwokrama. The courses were well received and led to a growing acceptance and awareness of RIL and a demand for training in RIL Guyana and in the region.

Most of the training done to date was based on donor support because locally based forest enterprises appear unable to pay the full costs of training. Essentially, FTCL set fees that loggers were *willing to pay* rather than a more realistic fee for the various training courses. It emerged that training fees alone cannot sustain FTCL, and that FTCL needs to engage in other services to earn revenue. Fortunately, the corporate status of FTCL allows it to engage in consultancies and in fact, FTCL has earned substantial revenues from consultancies and special contracts.

FTCL has embarked on the preparation of a Strategic Plan to guide its future endeavours and allow it to establish and maintain its own niche in the forestry sector.

2. RIL Training In Guyana

2.1 The training environment

2.1.1 Vocational training in forestry

Prior to the establishment of FTCl, there were no facilities in the forestry sector that offered vocational training (although such facilities have existed in the mining and agriculture sector for decades). While no such specific vocational forestry facilities existed in the forestry sector, there were several courses relevant to the sector (mechanical engineering, carpentry, and wood work) at a few technical institutes run by the Ministry of Education.

Over the past fifteen years, UG has been offering post-graduate, undergraduate and diploma courses respectively in forestry while GSA offers a certificate course in forestry; however there has been considerable concern about the quality of practical work carried out by students of those institutions. The academic institutions simply cannot afford or source the assets required for sustained high quality practical work for its students. Occasionally, the GFC conducts occasional vocational courses in Timber Grading and in Dendrology, based on the demand from the sector. In addition, the FPA runs an occasional course for the timber sector, but these were frequently in the areas of management. The vendor of Stihl chainsaws runs an occasional course on the use of Stihl chainsaws, chainsaw preventive maintenance, and the use of Stihl safety-gear. Environmental NGOs (including Conservation International and WWF) occasionally run a few courses but these are targeted either for schools or for the public at large. The Tropenbos-Guyana Programme *by default* provided a large number of field operatives with basic surveying, forest mensuration and forest botany skills when such field operatives worked along with their Researchers. Iwokrama has been providing training for forest operatives through their Ranger training programme, but such training is biased towards ecotourism.

In summary then, there has never been any institution targeting *ordinary* forest operatives and the broad gamut of skills necessary for practical forestry, specifically planning and implementing timber harvesting practices, even where such practices are prescribed, as in the CoP, or in forest concession agreements. FTCl with its core responsibility to provide training in RIL therefore represented a very unique effort on the part of the GFC, TFF, FPA, ITTO and DFID. Further, FTCl, on the basis of extensive consultations organised courses specifically to meet the expectations of forest (based community) enterprises -*short, very practical and focused* courses, supported by well illustrated manuals and wholly tailored for ordinary operatives. In addition, FTCl's courses to date have served to complement and support the academic work at UG and GSA and therefore both institutions benefited from FTCl.

2.1.2 Profile of Guyanese forest operatives

Forest operatives in Guyana, prior to FTCl had no formal training or the opportunity for such training; everyone learnt their skills on the job. Chainsaw and skidder operators, like most of their colleagues in the tropics, had not received any formal training, but usually had risen through the ranks from assistant (*choker-man* or *oil man*) to operator (Van der Hout, 1999). This situation also applied to most supervisory staff, heavy duty truck drivers, tree spotters, fellers and forest surveyors. Roads and skid trails were built by intuition rather than surveying principles. It is not that operatives do not know better because there has always been good advice. The working life of every machine will depend to a great extent on its operators and the constant proper maintenance of the machines (Vieira, 1980).

Forest operatives in Guyana as a rule have no loyalty to anyone. The decision to stay at a particular location depends on familial ties or the current remuneration package. The more *skilled* the operative, the more they tend to migrate from one company to another seeking a better remuneration package. Even worse, is that heavy-duty machine operators, chainsaw operators and surveyors are also in demand in the local (gold and diamond) mining sector, and the mining sector pays much better than the forestry sector (though sustained employment with gold and diamond mining enterprises is never

guaranteed). Essentially then, forest operatives are not aggressive about formal training because they do not normally have a problem finding employment.

Some experienced but untrained operatives even have very egoistical behaviour that effectively closes their minds to training of any nature.

It should be noted that due to the scarcity of skilled or rather formally trained forest operatives, some companies have opted to bring in employees from Malaysia and the Philippines.

At the level of rural and/or indigenous communities however, the situation is slightly different. There is a real yearning for training but these communities cannot afford training (neither cash nor training assets) and rely *completely* on donor support.

2.1.3 Local forest enterprises

Local enterprises appeared disinterested in highly trained operatives because it appears that they make profits with ordinary workers. GoG (2000) argues that the 'low level of efficiency in the utilization of equipment, facilities, personnel and timber harvesting is common' and 'royalties and logging costs that remained low while timber was accessible, have allowed many firms to thrive with low levels of efficiency and level low production'. The real issue here is that very few local companies keep proper records and therefore cannot properly track their performance or incremental benefits arising from using trained personnel.

Beyond the fact that loggers must now harvest logs from farther inland, the industrial environment has been imposing new behaviour on the part of logging enterprises. The GFC has developed a CoP, along with pre-harvest inventory procedures and forest management plan guidelines which loggers are expected to follow. There is more competition for skilled workers, whether such skilled workers are trained or not. Forest machines such as skidders and front-end loaders are very expensive and more sophisticated, and since all parts are imported, it is vital that operatives carry out preventative maintenance. The timber markets are also putting more restrictions on loggers before purchasing their timber and this is perhaps the major force driving loggers to improve forestry practices.

To offset challenges with the local labour force, some of the companies managed by expatriates have either invested heavily in training and/or brought in workers from Malaysia or the Philippines.

2.1.4 Training policies

At the national level, there are no specific measures in place to prescribe training for forest based employment. The training of forest operatives is entirely at the discretion of the logger. Holders of forest concessions routinely indicate in their forest management plans that they will provide training for forest operatives but the activities specified were not always carried out. Prior to the establishment of FTCl, loggers relied on consultants or on the occasional courses by GFC or the FPA.

Similarly, there are no national criteria or procedures for the recruitment of skidder operators, chainsaw operators, or inventory crews and loggers recruit anyone who can do or appear to do the work. There have been instances where operators are not even licensed for the class of vehicle they operate on the forest concessions. Employment practices in some cases were both illegal and unremedied (ITTO, 2003). The police authorities only check on operator certification if there were an accident.

The establishment of the *Forestry Training Centre Incorporated* in May 2002 was the first deliberate and concerted attempt by local policy makers to ensure that ordinary field operators could be trained specifically for the tasks they perform. FTCl is the result of a partnership between the GFC, FPA and TFF and the agency came on stream at a time when GFC was promoting the use its Code of Practice for Timber Harvesting (CoP) to the sector.

2.2 The Forestry Training Centre Incorporated

2.2.1 Training assets and training methodology

The core function of FTCI is to provide training in reduced impact logging for forest operatives, students, representatives of communities and NGOs, and public officers. Several options to provide such training were considered but a special facility where a cadre of trainers, supported by training and logging assets could all be in one place appeared to be the best option.

To facilitate the teaching of RIL, the Forestry Training Centre Inc. prepared a training manual consisting of 17 modules that takes the student through the process of RIL step-by-step.

In general, three types of courses are offered:

- a) Decision makers' courses of 2-3 days, showing all the basics of RIL over a short period with many opportunities for discussions, evaluations, etc. This course costs US\$75.00 per participant.
- b) Introductory courses (a RIL Foundation Course and a Timber Harvest Planning Course) that include all the basic components of RIL in a logical, chronological sequence. This course targets logging supervisors, block inspectors, inventory team leaders, etc. and lasts for 12 days. These course costs US\$125.00 per participant.
- c) Operators' courses teaching either harvest planning, felling, skidding, or other heavy equipment operations. Courses briefly touch on other aspects of RIL either preceding or following the particular activity. These courses cost US\$75.00
- d) Special courses: these were based on specific requests by a client, for example, one client wanted a course on map reading, surveying and forest inventory. The cost of a special course depends on their duration, and the extent to which FTCI may have had to produce new manual or acquire new teaching aids.

The fees covered all costs-meals, tuition, manuals, basic stationery and transportation. A certificate of participation is given to each participant.

The training was conducted either at FTCI's primary training facility (*on-site courses*) or on forest concessions or in another country (*off-site courses*). At the primary site, FTCI had all assets required for a model logging operation and for teaching RIL. For offsite courses, the concessionaire or organizer must provide similar assets to guarantee the quality of RIL training.

The fees cited above, heavily subsidized, refer only to onsite courses; for off-site courses, there was full cost recovery.

2.2.2 RIL training: May 1, 2002 to July 1, 2005

20 courses targeting 199 field operatives were conducted during the period. Table 1 provides details of the number of persons trained per course by July 1, 2005 while Table 2 provides number of persons trained by affiliation.

Table 1: Number of persons trained per course at July 1, 2005

#	Name of Course	Participants Trained			
		Onsite Courses	Offsite Courses	Total	%
1	Decision makers' Course	11	4	15	7.5
2	RIL Foundation Course	50	51	101	50.8
3	Timber Harvest Planning Course	9	19	28	14.1
4	Felling Course	4	0	4	2.0
5	Skidding Course	3	0	3	1.5
6	Special Courses	10	38	48	24.1
Total		87	112	199	
%		43.7	56.3		100.0

Table 2: Number of persons trained by affiliation at July 1, 2005

#	Affiliation	Number of Persons Trained			
		Onsite	Offsite	Total	%
1	Forest enterprises	33	55	88	44.2
2	Forestry Administrations	10	49	59	29.6
3	Academic Institutions	30	0	30	15.1
4	Amerindian Communities	4	8	12	6.0
5	NGOs	10	0	10	5.0
		87	112	199	99.9

3. Discussion

During consultations with the twelve largest concessionaires and the educational institutions in Guyana in June 2004, it became clear that the demand for training is far from satisfied. Companies indicated a solid demand of 200 persons to be trained at various skill-levels, while the educational institutions indicated 35 students for training on an *annual* basis. The twelve largest companies employ approximately 1,000 field operatives and operate approximately 400 pieces of logging equipment. Once a number of company staffs have been involved in RIL training, the demand may increase by a factor two or more.

3.1 Post training behaviour of field operatives

However, despite the consultations, many companies have not moved to address their training requirements. One reason relates to the behaviour of those operatives who already received training. Armed with a Certificate (probably for the very first time) and with *energised egos*, many either made unreasonable demands for a better remuneration package or promptly sought employment with other enterprises. In one case, all three persons trained by an enterprise left their substantive jobs for new jobs with a mining company; naturally, since that episode, the company concerned has not sent anyone else for training

3.2 Corporate behaviour

One factor that emerged *after* the setting up of the forestry training centre, but did not appear during previous consultations, is the fact that many companies find it more convenient to host the training for their employees on their own concessions, even though that is more expensive. There are a couple of reasons for this. It appears that some companies do not want their workers mixing with field operatives from different enterprises and discussing remuneration packages, welfare systems or production systems. Another reason is that some companies employ Malaysians and they generally do not have sufficient command of the English Language. FTCI believes that the crux of the matter is that local companies do not make provisions for serious worker training in their annual budgets and that they focus more on total remuneration package if skilled persons were employed. There is no evidence to hand that any company conducts cost-benefit analysis of training programmes.

Of course, there is no formal policy position anywhere that forces forestry enterprises to maintain formally trained persons in certain key positions. For example, in the bauxite mining sector, operators must be trained (given the cost of mining equipment) and must have considerable experience before undertaking certain tasks, in the same way that a mechanic in the aviation sector cannot sit in the cockpit of an aircraft, unless he has had several hours experience around the aircraft. But there is no such policy in the forestry sector. A person who washes a skidder at weekends could become a skidder operator in a matter of weeks, not having even the prescribed 'Tractor Licence'.

3.3 Offsite courses

Both Tables 1 and 2 indicate that more persons are trained in offsite courses than onsite courses. Offsite courses are often well attended and full training costs are recovered so from an operational perspective, FTCI had only one problem with offsite training. It was important that suitable conditions be in place for offsite training; for example, frequently, machines are not available in a timely manner, or they are not in proper functional state (poor tyre condition or no effective brakes for example), or there isn't enough fuel or lubricants, or some other irritant. Whenever training occurred on a forest concession, frequently management called away one of the participants to address a 'problem' elsewhere; in other words, management did not really release key personnel for training, they were, in fact 'on call'.

FTCI had another concern with offsite training. It does not allow for the full utilisation of the assets of the centre, especially as this relates to the tractors leased from Caterpillar.

3.4 FTCI's Cadre of Trainers

One perennial concern of FTCI is to maintain its cadre of trainers. Forest managers frequently try to recruit FTCI's staff. In fact during a training course in Suriname, FTCI's skidder operator was recruited by a Surinamese enterprise. FTCI has invested heavily in its instructors but it does not have the flexibility to adjust remuneration packages at short notice.

3.5 Tracking the performance of RIL trained persons

At the start of FTCI's RIL training programmes, project management anticipated that there would have been such a rush for training that some selection criteria, including interviews would have been necessary and therefore FTCI could have set up mechanisms for tracking the post training performance of field operatives. Instead, the demand has been below expectations and only on very few occasions were all the places on the course taken up.

FTCI has never turned anyone away because that person did not meet our expectations. There have been a few bad experiences where computer operators who have never used a chainsaw before turned up to do directional felling courses that has a duration of one week, even though FTCI would insist in its advertisements that persons for that course should be practising tree fellers/chainsaw operators.

But the real issue is that FTCl has not yet begun to track what its trainees have been doing. Only the GFC, Barama Company Limited and Iwokrama trained sufficient people to transform their enterprises. Other companies have just had one or two persons trained.

3.6 Cost models

FTCl has frequently been asked about the cost of production, using RIL practices. FTCl however operates in training mode and spends a great deal more time in preparatory tasks than a typical forest enterprise would. For this reason, FTCl has aligned itself with Iwokrama which plans to log segments of its area using RIL practices at a commercial intensity. FTCl will work with Iwokrama to record and analyse cost data.

3.7 Other issues

3.7.1 The training area

After consideration of offers by nine forest concessionaires, FTCl chose the concession held by Toolsie Persaud Limited, to set up the main training camp. The criteria for the selection of the area included: its accessibility; its representativeness in terms of topography, species composition and forest types, and its natural virgin state. In summary, TPL allocated 6,500 hectares of natural forests to FTCl under very generous conditions. GFC granted TPL an incentive by not collecting acreage fees for that area. Figure 1 shows the location of the training area within the concession while Figure 2 shows details of the training area itself. Two other satellite sites to address variations in topography and species composition across Guyana were also chosen. Annex II shows the location of the primary and the two secondary or satellite sites.

Figure 1: Map showing the location of FTCl's primary training area

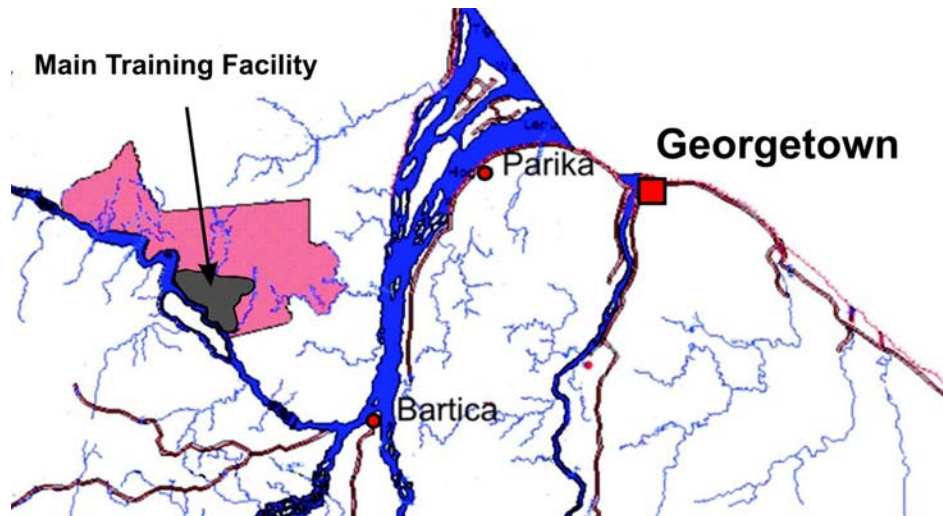


Figure 2: Map of primary training area.

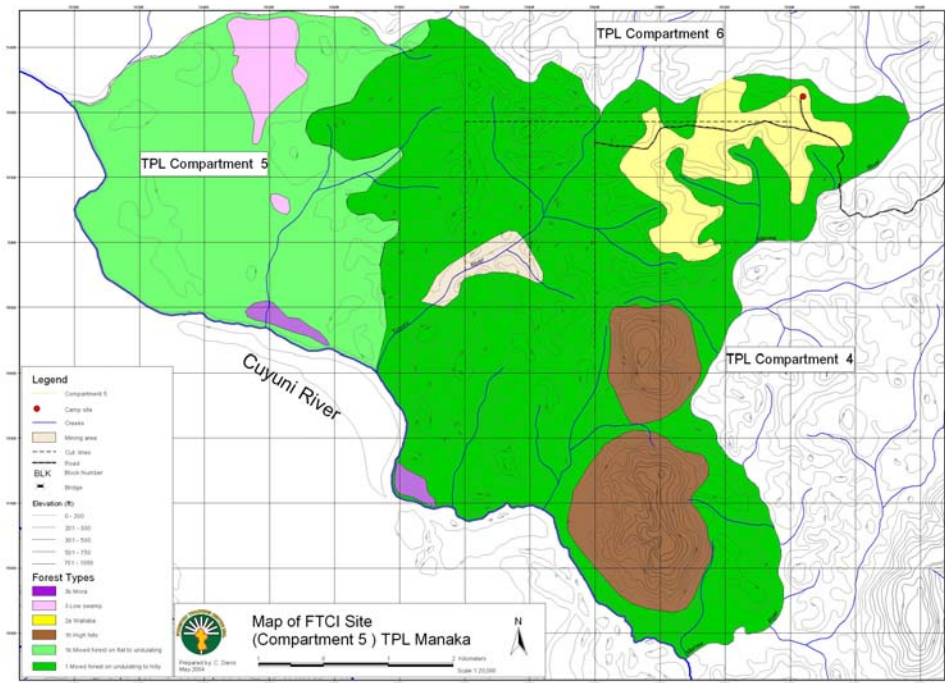


Figure 3: Photograph showing section of field camp



FTCI and the partner concessionaire agreed on a price of US\$10/m³ for logs sold by FTCI to the company.

The partner concessionaire asked FTCI to provide a specific volume of timber per month but that was not possible, given that trees are only felled during courses. For offsite courses, FTCI's instructors travel to other locations.

FTCI offered to sell a regular volume of logs to Toolsie Persaud Limited provided that the company provided two chainsaw operators who would focus on log production (not training) under FTCI supervision. The chainsaw operators would have been paid by TPL but FTCI would have provided accommodation and meals. The company indicated that it was unable to provide chainsaw operators.

At July 1, 2006 only two blocks were fully logged over, leaving theoretically at least another forty-five blocks to be exploited after selecting areas for research or more than During the second phase (see Annex I), FTCI will engage two professional chainsaw operators to log the concession area more thoroughly and earn income to offset the cost of fuel and lubricants for the machines.

3.7.2 The Code of Practice for Timber Harvesting

The widespread use of the CoP within the logging community is the major instrument employed by the GFC to manage forests responsibly. In promoting RIL, FTCI has had the opportunity to use the CoP and to validate or assess its prescriptions.

For example, a preliminary assessment of pre-harvest (100%) inventory data from *Training Block C (100 hectares)* indicates that of the 137 *sound* trees ≥ 40 cm dbh of *good form* enumerated, a total of 31 trees or 23% would not be felled: 18 trees will not be felled because they all occur within 10m of another commercial tree (according to the CoP, only one of every two trees within 10m of each other may be felled); an *additional* 13 Greenheart trees will not be felled because they occur within buffer zones (either too near to a stream or ravine). The implication here is that the use of the CoP allows for a reasonable amount of residual (commercial) trees that continue to contribute to the conservation or maintenance of genetic material and basic forest functions. Annex III illustrates the basic protection measures for water courses.

FTCI confirms then that RIL practices associated with the CoP conserves forests by restricting the number of trees felled, managing the size of gaps and restricting logging activities near water courses and steep terrain. Once the data from several blocks are available, FTCI will conduct a financial analysis as well. FTCI will therefore continue to research the feasibility of the prescriptions of the CoP.

3.7.3 FTCI's Administrative Structure

Annex IV indicates the broad organisational framework followed by FTCI. The core partners ITTO, GFC, TFF, FPA, & FTCI comprise the Project Steering Committee, although in practice, other stakeholders were invited occasionally to attend meetings of the PSC. Since FTCI is a corporate entity, then GFC, TFF, FPA & FTCI also form the FTCI Board.

A technical advisory committee advised on issues in the training environment and priorities for FTCI. A reputable accounting firm and attorney-at-law provided special services to FTCI to ensure the best use of the resources of the project.

Finally the GFC addressed all institutional requirements of FTCI including cash flow problems while TFF provided guidance on the standards for RIL training.

This structure would continue for the next project phase (and for as long as appropriate after that).

4. Conclusion and Recommendations

It is apparent, that FTCl is only in the initial stages of its potential for training and promoting the transformation of local forest practices. It is apparent too that the capacity established to provide training is underutilised. For this reason FTCl needs to invest more heavily in course promotion activities, in Guyana and across the CARICOM region. At the same time FTCl needs to broaden the current RIL technologies used in order to address the requirements of small operators, who collectively probably create as much or more forest impacts than the larger enterprises.

FTCl needs to align itself more with the academic institutions, in Guyana and the CARICOM region. FTCl is poised not only to provide all the practical training required for courses in forestry and the environmental sciences respectively, but also to offer opportunities for forest based research projects.

During the period under review, FTCl was invited to undertake several consultancies with significant revenue gains and the company should continue to avail itself of such opportunities to reduce the need for donor support.

UNDP (Guyana), FAO-Caribbean, WWF-Guianas, and GMTCS, have all shown considerable interest in the work of FTCl, especially in relation to its potential for training residents of indigenous and other rural communities. This has enormous strategic implications for FTCl; however FTCl would have to build on its current strengths and acquire new competencies in wood technology, business administration and social work.

Finally in the absence of the ideal situation where loggers take it upon themselves to provide training for their employees, the GFC may need to put measures in place (including incentives) to persuade enterprises to set up training budgets and to provide RIL training of their employees.

5. Responsible for the Report



Name: Godfrey Marshall

Position held: Project Director

Date: September, 2006

Annex I: Summary: PROJECT PDD 335/05 (1)

INTERNATIONAL TROPICAL TIMBER ORGANIZATION (ITTO)

Submitted by the Government of Guyana

PROJECT ABSTRACT

Title: Development and delivery of a vocational training programme in reduced impact logging and sustainable forest management practices in Guyana.

Summary: This project proposes to continue and expand vocational training in sustainable forest management and reduced-impact logging practices in Guyana and Suriname. The project will build on the experience, successes, partnerships, and assets base of the Forestry Training Centre Incorporated, which was established through ITTO Project PD 68/01 Rev 2 (I).

The single most critical requirement for the adoption of sustainable forest management remains the availability of skilled personnel at all levels. Unskilled workforces, poor supervisory capacity, and an insufficient understanding of the basics of forest management in general and reduced impact logging in particular remain key issues impeding the adoption of good forest management practices in Guyana and other countries. After the completion of ITTO Project PD 68/01 Rev 2 (I), 120 persons will have participated in workshops and courses in RIL. In view of a further demand for SFM/RIL training and the existing capacity in terms of human resources and facilities to deliver such training, a continuation and broadening of this programme is proposed.

This project will develop the human resources in the forest sector in Guyana (and in Suriname) with a three-part strategy. Part one of the strategy is to continue the RIL training programme consisting of 27 practical training courses targeting 234 forestry professionals at all levels. The second component of the strategy aims to develop a RIL system and special training programme tailored to the needs of small-scale and community **based** forest **enterprises**. 36 persons are expected to benefit from this programme. The third part of the project strategy is to broaden the vocational sustainable forest management training programme beyond RIL practices by developing four additional training courses: forest management planning and code of practice standards, forest surveying and mapping, tree species identification, and auditing practices for (ITTO's) Criteria and Indicators, from which courses 96 persons are expected to benefit.

Field: Forest Industry

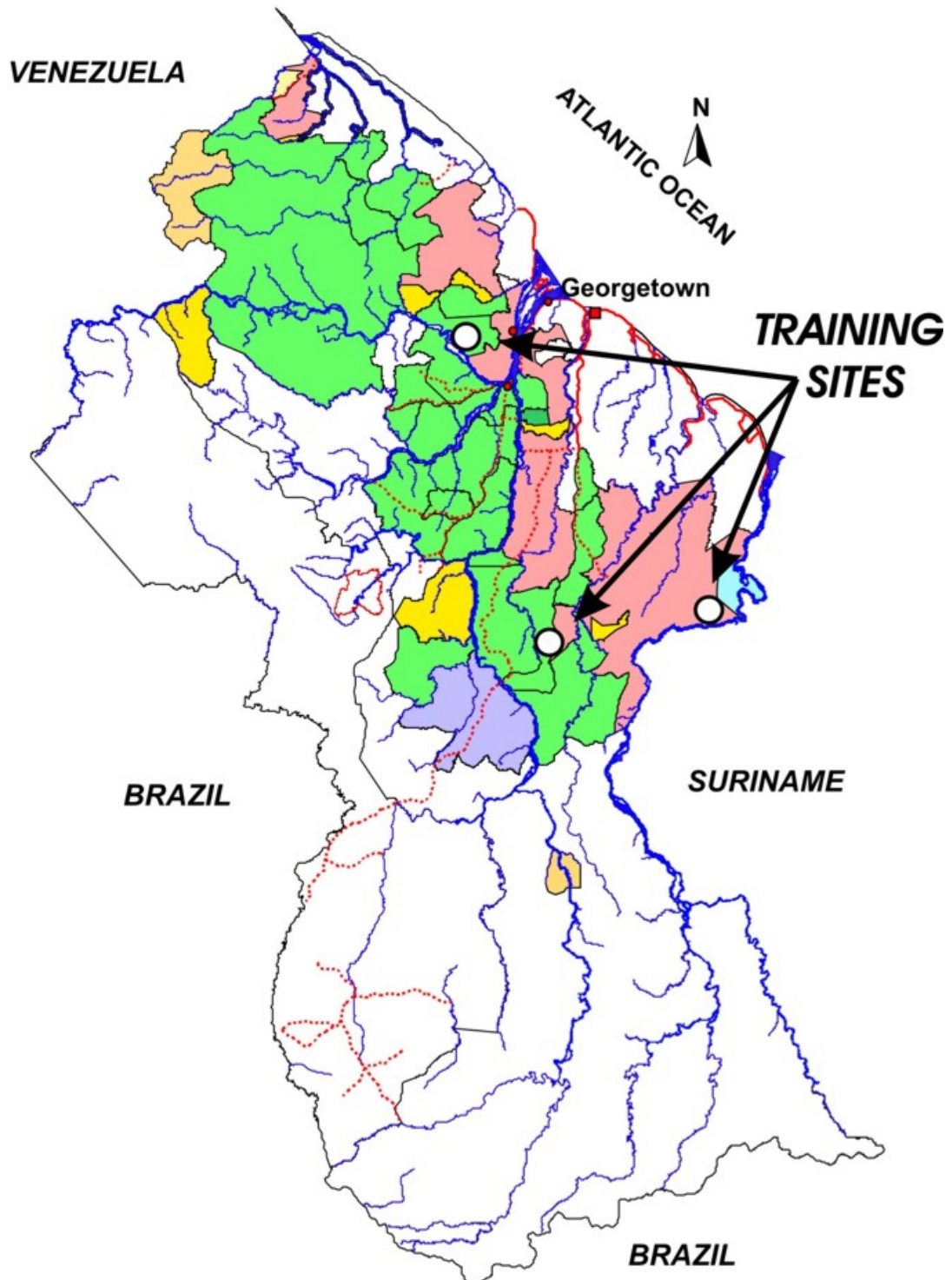
Implementing Agency: Forestry Training Centre Incorporated
C/o Guyana Forestry Commission
Lot 1 Water Street, Kingston, Georgetown, GUYANA
Tel: (592) 223 5061-2 Fax: (592) 223 5061:
E-mail: ftrc@networksgy.com

Duration: 24 Months

Budget:

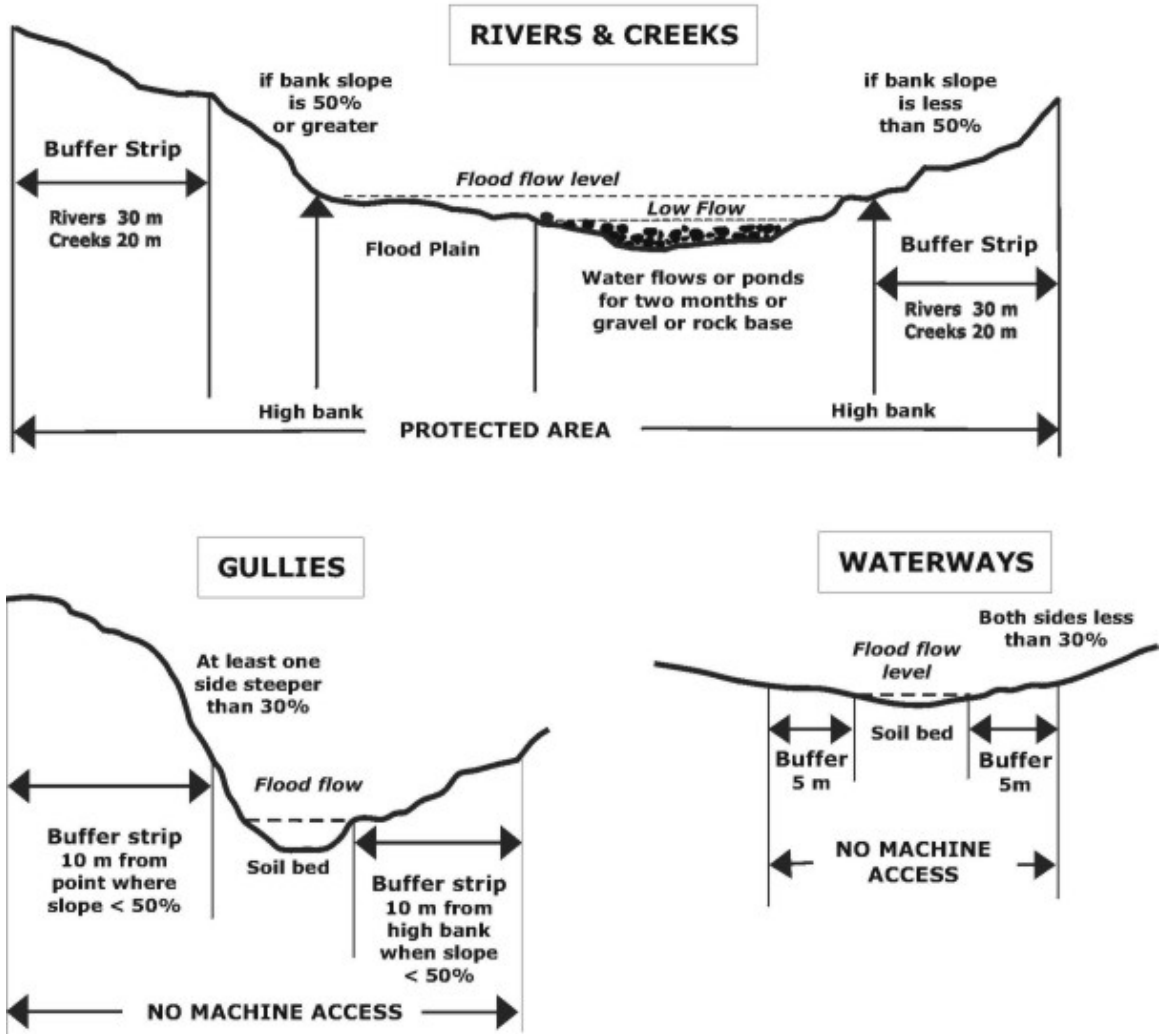
Source	Contribution	in US \$	in Guyana \$
ITTO		374,473	
Host Government:	- Guyana Forestry Commission	441,431	88,286,200
Other:	- Forestry Training Centre Inc.	80,155	16,031,000
	- Forest Enterprises	136,130	27,226,000
	- Tropical Forest Foundation / Caterpillar Inc.	135,000	
TOTAL		1,167,189	

Annex II-Map showing the location of the sites selected for RIL Training

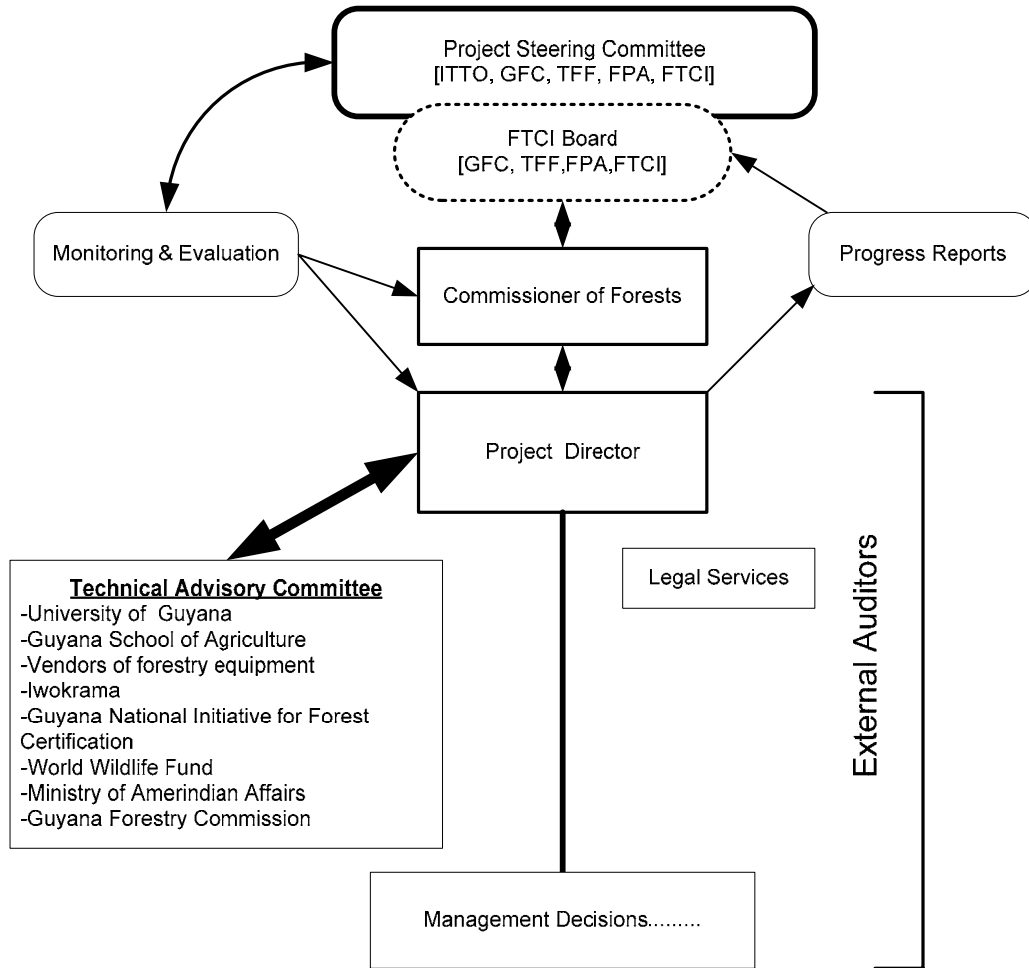


Annex III: Illustration of water course protection measures
(Extracted from GFC's CoP, page

WATERCOURSES AND BUFFER STRIPS



Annex IV: Structure of FTCl



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- 1) Bram, Caroline. *Reduced Impact logging in Guyana: Training Needs*. Tropenbos-Guyana Programme.2003
- 2) FAO. *State of the World's Forests*. 2005.
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