EX-POST EVALUATION REPORT

ITTO Project PD 68/01 Rev.2 (I)

Training in Reduced Impact Logging in Guyana (Guyana)

Prepared for the ITTO by

Ms. Erika del Rocío López Rojas

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Acronyms

BCL Barama Company Limited

CoP Code of Practice

FAO Food and Agriculture Organization

FMPG Forest Management Plan Guidelines

FPA Forest Products Association of Guyana

FTCI Forestry Training Center Incorporated

FSC Forest Stewardship Council

GFC Guyana Forestry Commission

GSA Guyana School of Agriculture

IICRCD Iwokrama International Center for Rainforests Conservation

and Development

ITTA International Tropical Timber Agreement

ITTC International Tropical Timber Council

ITTO International Tropical Timber Organization

LFM Logical Framework Matrix

PHIG Pre-harvest Inventory Guidelines

RIL Reduced Impact Logging

TAC Technical Advisory Committee

TFF Tropical Forest Foundation

UG University of Guyana

UNPD United Nations Program for Development

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Executive Summary

At its Thirty- eight Session held in Merida, Yucatan Mexico on 29 May to 2 June 2006, the International Tropical Timber Council endorsed a recommendation by the Committee on Economic Information and Market Intelligence and Committee on Forest Industry (CEIMI-CFI) that an ex-post evaluation of the completed Project: PD 68/01 Rev.2 (I) "Training in Reduced Impact Logging in Guyana" be carried out to establish how well the project served its purpose and to draw up recommendations for future action.

The Project PD 68/01 Rev.2 (I) approved by the Thirty-first Session of the International Tropical Timber Council (ITTC) on November 2001 was aim to develop a curriculum and training program, and to establish a demonstration site that promoted field-based learning opportunities, and the provision of the skills and conceptual knowledge necessary for regional forest sector personnel to advance the economic and environmental returns from the region's tropical forest timber operations.

The evaluation was conducted in such a way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring Review Evaluation, third edition. As part of the evaluation, the consultant Ms. Erika del Rocio Lopez Rojas, Master in Cooperation and International Economic Relations, visited Guyana from 15th to 21st February, 2009. During the visit, she met with Mr. Godfrey Marshall who serves as Project Director and other members of the project team and held meetings with representatives of the forestry industry, non-government organizations (NGOs) and other key stakeholders. A visit to the Forestry Training Center Incorporated was also held for in- depth review.

The original project timeframe was of 24 months and overall cost of US\$ 1'163,510.00 of which ITTO contribution was US\$427,710.00. The project was reported as completed at the 38th Session of the Committee on Forestry Industry in June 2006, with an actual project cost of US\$1,792,351.00, with an approximately 20% higher expenditure and 14 months delay, however no additional funds were required of ITTO.

In terms of achievements of the specific objective, Guyana has developed capacity (manuals, a cadre of trained trainers and a basic functional facility) to deliver practical hands-on training on RIL operation and managerial skills to personnel at all levels.

The contribution of the project towards the Development Objective that is to improve the quality and efficiency of the forest operations by implementing sound forest management and RIL practices is difficult to assess since no formal analysis or monitoring has been done. Nevertheless capacity is the front step to improvement.

In conclusion, the project has made a positive contribution towards the introduction of RIL techniques locally and regionally through on-site and offsite demonstration operations. Gradually the acceptance and implementation of RIL and a demand for training in RIL is growing.

Lessons Learned

- The adoption of RIL has come slowly because of the natural skepticism that exists when any new set of practices is introduced.
- The field operatives, the core target group to be trained in RIL, should have been consulted more in the determination of training requirements and willingness to meet the costs of training. Consultation processes therefore require specific budgets.
- The RIL model used was oriented to large logging enterprises which make the most substantial interventions in the forest resources, in terms of road construction, skid trail construction, and bridge and culvert construction with the use similar equipment as FTCI. Although the medium size and small scale operations and community based forest enterprises are much more numerous, and use simpler technologies that also results in severe environmental impacts as they operate primarily in over logged forest and private lands. These considerations should have been taken in consideration when designing the project.
- FTCI will not be able to sustain itself if only on training fees based on RIL courses due to the small number of potential trainees in a country with a population of just 750,000 people. FTCI needs to expand the nature and scope of its training courses to address emerging training opportunities; although the corporate status of FTCI gave it considerable flexibility in addressing emerging revenue options. Training institutions should therefore acquire corporate status before the donor funds are exhausted.

MAIN TEXT

1. INTRODUCTION

At its Thirty- eight Session held in Merida, Yucatan Mexico on 29 May to 2 June 2006, the International Tropical Timber Council endorsed a recommendation by the Committee on Economic Information and Market Intelligence and Committee on Forest Industry (CEIMI-CFI) that an ex-post evaluation of the completed Project: PD 68/01 Rev.2 (I) "Training in Reduced Impact Logging in Guyana" be carried out to establish how well the project served its purpose and to draw up recommendations for future action. This report has been prepared pursuant of this decision.

The Project PD 68/01 Rev.2 (I) approved by the Thirty-first Session of the International Tropical Timber Council (ITTC) on November 2001 aimed to develop a curriculum and training program, and to establish a demonstration site that promoted field-based learning opportunities, and the provision of the skills and conceptual knowledge necessary for regional forest sector personnel to advance the economic and environmental returns from the region's tropical forest timber operations.

The Government of Guyana, through the Guyana Forestry Commission (GFC) in coordination with the Tropical Forest Foundation (TFF) and the Forest Products Association of Guyana implemented the project initiating on May 2002. The original project timeframe was 24 months and overall cost of US\$ 1'163,510.00.

2. EVALUATION SCOPE, FOCUS AND APPROACH

This ex-post evaluation seeks to look at operational aspects, inputs as well as outputs, activities carried out and tangible products in terms of both efficiency and effectiveness, with emphasis on the impact and effects on the forest situation in Guyana.

The primary purpose for undertaking the evaluation was to provide an in-depth diagnosis of the project so as to point out the successful and unsuccessful outcomes, the reasons for successes and failures, and the contribution of the project towards the achievement of ITTO's Objective 2000, and to draw lessons that can be used to improve similar projects in the future. Concretely, the Terms of Reference of the Expost evaluation include:

- i. Assess the project's design and contribution to the achievement of its respective objectives.
- ii. Assess the achievement of the project's outputs and specific objectives.
- iii. Evaluate the impact and relevance of the project, detailing its impact on development and specific objectives as stated in the project document.
- iv. Determine the effectiveness of technology transfer to target groups if applicable.
- v. Assess the overall post-project situation, including the conditions of its intended direct or indirect beneficiaries.
- vi. Define and assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrences.
- vii. Analyze and assess implementation efficiency, including the technical, financial and managerial aspects.
- viii. Asses the overall sustainability of the project after completion, and include appropriate recommendations to safeguard the continuing of its positive impacts, and enhance utilization of the technologies (if applicable) and other results developed by the project.
- ix. Make an overall assessment of the project relative success or failure, to summarize the key lessons learnt; and identify any issues or problems which should be taken into account in designing and implementing similar projects in future.
- x. Asses the overall cost of the project with original budget provisions, and their respective linkage with the overall results.
- xi. Assess the project contribution to the relevant ITTA objectives (1994) and relevant ITTO Action Plan.

The evaluation was conducted in such a way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring Review Evaluation. As part of the evaluation, the consultant Ms. Erika del Rocío López Rojas, Master in Cooperation and International Economic Relations, visited Guyana from 15th to 21st February, 2009. During the visit, she met with Mr. Godfrey Marshall who serves as Project Director and other members of the project team and held meetings with representatives of the forestry industry, non-government organizations (NGOs) and other key stakeholders. A visit to the Forestry Training Center Incorporated was also held for in- depth review.

The evaluation presented in this report was based on a combination of desk research, field visit and discussions with stakeholders, beneficiaries and authorities dealing with the forestry sector. The information obtained came from the following sources:

- Documents relating to the project provided by the ITTO Secretariat (Project Document, Memorandum of Understanding between GFC and TFF and Project Director, Final Technical Report, Audit Report, Completion Report, among others).
- Documents provided by officials during discussions held in Guyana.
- Discussion with officials, industry, academics, NGOs and other stakeholders held at a number of meetings in Georgetown, Guyana during the Ex-post evaluating visit from 15-21 February 2009.
- Inputs provided by the Project Director, Mr. Godfrey Marshall pertaining to the project, as well as related literature.
- Field visit to the Forestry Training Center Incorporated.

3. PROJECT FACTS

Welch (1996), GoG (1997), Van der Hout (1999), Bram (2003) and the forest industry all identified a serious shortage of trained field and management personnel in the forestry sector in Guyana as the most critical constraint to achieving improvements in forest management and in economic value from local forest resources and suggested the need for some kind of vocational training facility.

The Government of Guyana, through the Guyana Forestry Commission (GFC) in coordination with the Tropical Forest Foundation (TFF) and the Forest Products Association of Guyana implemented Project PD 68/01 Rev.2 (I) initiating on May 2002.

The original project timeframe was of 24 months and overall cost of US\$ 1'163,510.00 of which ITTO contribution was US\$ 427,710.00. The project was reported as completed at the 38th Session of the Committee on Forestry Industry in June 2006, with an actual project cost of US\$1,792,351.00, approximately 20% higher in expenditure and 14 months delay.

The development objective was to improve the quality and efficiency of the forest operations by implementing sound forest management and Reduced Impact Logging

practices, which would contribute to a more competitive sector and enhanced livelihood for forest operators and communities.

The specific objective of the project was to strengthen the national capacity to deliver practical training in forest operational and managerial skills and knowledge to personnel at all levels of forest sector, by developing and implementing training program in reduced impact logging (RIL) that met the needs of forest operatives. The major outputs approved were RIL training program – including curricula and training materials, trained trainers, a number of site specific RIL models developed as a demonstration of RIL good practices, a RIL good practices, a RIL field – training facility, and delivery of training courses for forestry managers/ supervisors and operators.

Some ITTO reports indicate that by the mid 1990's it had become widely accepted that the adoption of RIL technologies must be an essential part of the process to improve the management of tropical forest. Most authorities agree that RIL by itself cannot guarantee the sustainability of tropical forest, but that it is critically important as a component of sustainable forest management. Therefore ITTO Objective 2000 specially includes the two priority actions: apply reduced impact logging, and train the work force, including supervisors, in reduced impact logging.

From 1985 there was an increase in large scale logging by multinational firms. Most harvesting operations were characterized by an unacceptable negative environmental impact, non-compliance with occupational health and safety standards and national guidelines and poor timber harvesting practices. These problems were tracked back to unskilled workforces and supervisors without a proper knowledge of logging techniques.

In Guyana, for RIL to be implemented successfully, an enabling environment had to be created. Consequently, training of managerial and supervisory staff was crucial so they could appreciate that RIL necessitates a different approach than the traditional mode of operation. In 2000 during a workshop held in Georgetown, stakeholders agreed that the best strategy to upgrade the skills of field operatives in the forest sector was to establish a field based vocational training center. The center would run a model logging operation and provide participants with hand-on practical training in Reduced Impact Logging.

4. FINDINGS, LESSONS LEARNED

4.1. Findings

4.1.1. Achievements of the Project

To the great extent the project accomplished the outputs set in the project proposal.

Output 1. RIL Training Program designed to address identified stakeholders needs

This output was accomplished with the elaboration of a training manual consisting of 17 RIL modules. The Logical Framework Matrix (LFM) success indicator was to elaborate a program acceptable to key stakeholders and the preparation of course material of high quality.

Almost 3 years after its completion, at the time of the ex-post evaluation visit the training manuals are still in practice, fundamental changes have not been considered as necessary. Although new courses have been integrated.

Output 2. Site specific RIL models developed as a demonstration of RIL good practice

This output was accomplished as two other satellite sites were selected, with the main intention to create RIL models for the main forest conditions that exist across Guyana. The LFM indicator of success was to establish in different regions forest parcels following RIL approach.

Output 3. Training facility established and equipment acquired

This output was achieved with delay. A functional vocational training center with capacity up to 35 people, in an area of 6,500 ha was completed in September 2004 Training is accompanied by material and equipment, which function as a running forest operation providing on-site, hands-on, real-world experience with RIL techniques and issues. The LFM indicator of success was to have fully operational facility by October 2002. Due to the late delivery of heavy machinery this output was delayed.

During the ex-post visit the evaluator realized a visit to the facility. A fully operational basic training facility with equipment was found, and construction expansion in progress.

Output 4 Training staff identified and staff development program delivered

A cadre of dozen trained trainers covering all aspects of RIL from pre-harvest, through post harvest activities and 199 field operatives. The LFM indicator of achievement was to identify and contract by August 2002 permanent and part time staff, and to implement by December 2002 a staff development plan.

FTCI has a total of 16 trained personnel. Local Project Director trained to take over the program.

Shortage of trained field and management personnel was identified due to the lack of vocational training programs in Guyana. FTCl is a major asset providing training to forest operators; still the need for trained cadres persists due to competition of other industries such as gold and diamond mining.

Output 5. Training courses organized and delivered

This output was achieved. At the end of the project a total of 20 courses (8 different categories) of which 11 onsite and 9 offsite courses, for forest managers/supervisors and operators were organized and delivered to 199 participants. These last ones (the offsite courses) were based on full cost recovery. The LFM indicator of achievement was 12 graduates by the end of 2002, 84 by the end of 2003, and 120 by the end of the project.

The camp was set up towards the virtual end of the project, when there were no funds to organize an aggressive marketing strategy. According to the completion report this was one reason for seeking a second project to allow FTCI to take full advantage of the new facility.

At the time of the evaluation the Center has delivered 49 courses covering 465 participants (while for the same period 28 offsite courses covering 344 participants were conducted).

Output 6. Long term sustainability of facility secured

This output was not achieved as planned. The LFM indicator of achievement was the preparation of a business plan by December 2002, a marketing plan by March 2003, and secured funding for non-core activities by June, 2003.

A second phase project [PD 333/05 rev.1(I)] has been submitted which will allow FTCI to build on the capacity developed to date, and to extend RIL training to loggers or enterprises using other timber harvesting technologies.

At the time of the evaluation no document was presented to the consultant that indicated any progress. However stakeholders, including the GFC and academic institutions were firm in their conviction that the training courses offered by FTCI were necessary for the realization of their own respective goals.

Impact and Effects

Post- project situation

At the commencement of the Project the expectation was that after two years of extensive amount of training provided through the project significant contribution would have been made to address the shortage of trained forest workers and managers. Once industry had access to trained workers, operators and supervisors they should be able to achieve higher productivity, better use of the available timber resources within their allocated sites and sustainable timber harvesting.

The situation before the project was that most harvesting operations were characterized by an unacceptably high level of negative environmental impacts, non-compliance with health and safety standards, outdated management techniques, resource wastage, high cost of harvesting operations, damage to machinery, high maintenance cost, high labor turnover, and workers that do not have understanding of the larger picture. All those problems, it was said, could be track down to unskilled workforces, supervisors without knowledge of appropriate techniques, managers unfamiliar with field operations and good working practices. Increasing the national capacity to provide vocational training to the forest sector will mitigate these problems.

The project completion report identified that only one enterprise trained enough people to practice RIL in a meaningful way. Barama Company Limited trained a total of forty one (41) persons. Other companies trained only one or two persons and, in the opinion of project management, such small numbers will not have any major short term impact on large enterprises. It should be noted however that companies have been recruiting graduates of UG and GSA, all of whom have benefited from RIL training.

In terms of monitoring the post project situation no written evidence was available at hand to prove that FTCl or any company keeps proper records and therefore cannot properly track their performance or incremental benefits arising from using trained personnel. One reason for this is the high staff turnover typical of forestry operations in Guyana; in other words, field operatives keep moving from company to company seeking better wages and also moving from the forestry sector to the mining sector.

Therefore the evaluation mainly relied on opinions expressed by the people interviewed during the visit to Guyana. Interviews conducted revealed that there is still a need for a "pool of trained workers".

Impacts may occur incrementally over a long period of time rather than becoming evident immediately after a project has been completed. Some ITTO reports have indicated that people differ in their response and commitment to new standard or technologies and in their ability to put them into practice.

A proper record of performance or incremental benefits arising from using trained personnel should be developed to prove the economic viability of RIL practices (Holmes et al 2000), in order to point to the full adoption of RIL.

An important independent measure of the impact of the project is the contribution the training courses have made toward the introduction of CoP, now mandatory in Guyana.

Specific Objectives and Development Objective

In terms of achievements of the specific objective, Guyana has developed capacity (manuals, a cadre of trained trainers and a basic functional facility) to deliver practical hands-on training on RIL operation and managerial skills to personnel at all levels.

The contribution of the project towards the Development Objective that is improve the quality and efficiency of the forest operations by implementing sound forest management and RIL practices is difficult to assess since no analyzes or monitoring has been done. Nevertheless capacity is the front step to improvement.

In conclusion, the project has made a positive contribution towards the introduction of RIL techniques through on-site demonstration operation. Gradually the acceptance and implementation of RIL and a demand for training in RIL is growing.

Unexpected Effects and Impacts

Over the course of the project unexpected circumstances were identified in the completion report as:

- Demand for RIL courses were below expectations and low willingness of the
 forestry industry to pay for training. The reason identified in the report for this
 problem was disloyalty, egotistic behavior from operatives after they received
 training. (Incidentally, the certificate awarded by FTCI after training programmes
 is the only certificate some workers have and they seek to use it as a
 bargaining tool for higher wages).
- Expatriate workers. 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. Another fact that has influence this migration of expatriates is due to the revaluation of the jobs once they are trained, they would be stimulated to ask for promotion and better salaries. There is no formal policy position anywhere that forces forestry enterprises to maintain formally trained persons in certain key positions.
- Preferences from large enterprises for off-site courses. The primary field center
 was under utilized by many large forest enterprises. The enterprises preferred
 off-site courses, to prevent their employees from mixing with and discussing
 benefits, administrative systems and salaries with other company employees.
- FTCI delivered training to forest operatives in Suriname and Grenada. 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. The opportunity
 to provide offsite training in Suriname fairly early in project life was an
 unexpected bonus and was important for the self-confidence of the instructors.

4.1.2. Sustainability

The project supposed the elaboration of a business and marketing plan prepared and funding for non-core activities to secure long term sustainability of facility, as well as a local project director trained to manage the project. At the end of the project the business and marketing plan was reported as in process, however it has been deferred to a second phase project .The local project director has been trained and fully in charge since January, 2005.

After the completion of the project, FTCI has attracted funds from GFC to carry on with the payrolls for 16 employees and operational costs of its two facilities; it has also undertaken a number of contracts to generate revenue.

The main challenge faced by the center is the relatively high cost of field training -due to the involvement of heavy machinery with high running cost, and fairly large number of staff required to carry out preparatory work- in comparison with the low willingness to pay for training by the forest industry.

FTCI signed a Memorandum for Cooperation with Iwokrama to collaborate on RIL training for local forest operatives. FTCI was also able to align itself with WWF-Guianas and FAO Caribbean to conduct training in Grenada and in Suriname.

Some companies from the forest industry have expressed the need to have a pool of trained personnel, which would lower the vulnerability upon turnover. Demand for training is far from satisfied. The completion reports indicate that companies expressed a solid demand of another 200 persons to be trained at various skill-levels, while 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.

In addition to the above new forestry legislation has been passed early in 2009, making the use of CoP mandatory, which means that only trained technicians can address the prescriptions of the CoP efficiently. Therefore FTCI will play an important role making available to the sector trained technicians to address the requirements of the CoP, other national guidelines and the new forestry legislation.

4.2. Process of Project Formulation and Implementation

4.2.1. Stakeholder Involvement

Although an agreement was signed between the Guyana Forestry Commission, Tropical Forest Foundation and Forest Products Association to reaffirm their commitment in the implementation of the project through specific contributions in cash and in kind FPA was unable to meet its commitment which represented a major input for delays in the project.

The FPA was assumed as an important partner, however over the progress of the project it proved not to have sufficient authority to make hard demands on its memberships and could not manage its obligations to FTCI which were: make available logging equipment as motor grader, bucket loader and logging truck, contribution in cash or in kind of logistic support, contribution in kind for normal running costs of all logging equipment excluding chain saws.

Other stakeholders like GFC, Barama Company Limited and Iwokrama trained sufficient people to transform their enterprises. Other companies have just had one or two persons trained.

However, although FTCl was an institution of early creation it managed to engage Forest enterprises of Suriname in RIL training. WWF-Guianas, FAO Caribbean, regional forestry administrations, and UNDP discovered that FTCl's objectives were closely aligned with theirs and consequently supported FTCl directly and indirectly in very tangible terms. FAO and WWF-Guianas in particular used FTCl to sponsor programs with a regional context.

4.2.2. Appropriateness of the Project Design

The design of the Project was consistent with the logical framework matrix. The project strategy was well captured in the LFM. It addressed the basic need of severe shortage of trained operators, supervisors and managers who understand and can apply RIL, through establishing capacity to deliver training in RIL.

However the project could be improved, particularly by defining more precise progress and sustainability indicators.

4.2.3. Efficiency and Operational Aspects

The project commenced activities on May 2002 with an approved budget of US\$ 1,163,510.00 and a planned duration of two years. For 2003, the total project budget was revised to US\$ 1,183,924.00, primarily to accommodate contributions by DFID. A total of US\$1,792,350.00 in cash and in kind was devoted to the project, while US\$689,192.81 in cash was absorbed by the project.

The project was finally completed with a delay of 14 months, which led to expenditures 20% higher than the original budget; additional funds of US\$64,800.00 were approved by the CEIMI- CFI at its Thirty Fifth Session in Yokohama, Japan in 2004.

The lack of validity of some of assumption at least at the beginning of the project i.e. companies, suppliers and manufactures would contribute training equipment to the program, and forest industry would respond to training opportunities and would be willing to pay for training courses caused several delays with the arrival of the heavy duty machines, which were essential for training purposes, but also required to construct a 4 km access road and the training camp itself. As a consequence, a first extension project was requested and approved. However, the Caterpillar machines were transferred to the field location until February 2004.

In April 2004, a new extension without ITTO additional funding was requested to show that once the center was functioning demand for its services would grow substantially. Another assumption made was the core funding for the center through the charge of a 60% of a course would be adequate to ensure courses that are fully subscribed, however once the facility was operational the willingness of forest industry to pay for training emerged.

FTCI had to offer heavily subsidized not exceeding US\$125.00 for a two week training on site courses to attract the industry. In consequence the center was obligated to search for other sources of funding.

The executing agency was capable to commit funding from other sources and bring in new partners as, FAO, UNP and WWF.

With regard to finances, the audit reported that funds were used for the purposes intended, despite some internal weakness observed in the internal control in petty cash. Some unspent budget was reported under personnel component. This due to reduction in personnel, not extending the contract to the project director (expatriate), under duty travel, consumables items, particularly heavy machinery operation cost. It is important to highlight that US\$17,000.00 were planned for the marketing and business plan which was finalized after the project was completed.

The project was collaboratively governed, a Steering Committee was set up, with a similar structure as the Advisory committee to monitor the execution of the project and deliberate on operational and administrative issues. Monitoring and evaluation was carried out by the Project Steering Committee helped in large measure to keep the project on track and to ensure that the expectations of all stakeholders were duly noted and addressed. The GFC senior staff, the GFC Broad of Directors and the FPA kept track of the work of FTCI.

Overall, the project was well managed by a team of committed and professional personnel. At the time of the evaluation stakeholders involved were very satisfied with the work of the Project Coordinator and his team.

4.2.4. Effectiveness

The project was intended to improve quality and efficiency of operations by establishing an on-site RIL training program, despite the delays the Project Director manage to achieve the outputs.

However, more intensive consultations before the project initiated may have enlightened about some assumptions or unforeseen situations as: industries reservations about sending their employees to the primary site, the issue of expatriate workers in the sector, realistic information about training demand, forest enterprises "ability" to pay and FPA availability to engage in the project.

Significant progress was made, but did not focus on medium sized and small scale operations and community based forest enterprises as they use much simpler technologies, which together cover a significant geographic area and operation result in severe environmental impacts.

Long term sustainability is still unclear what the FTCl future will be, in terms of scope and operation to be self sustained.

Project Proposal Appraisal Process

The project proposal showed a relevant degree of familiarly with the situation prevailing in the forest sector, and had appropriately identified the problem as a shortage of trained personnel. However, it was also essential that at the project planning stage, more precise progress and sustainability indicators should have been defined, and at the beginning consultation with major stakeholder would have identified their willingness to pays and their level of commitment.

4.3. Lessons Learned

- The adoption of RIL has come slowly because of the natural skepticism that exists when any new set of practices is introduced.
- The field operatives the core target group to be trained in RIL, should have been consulted more in the determination of training requirements and willingness to meet the costs of training.
- The RIL model used is oriented to large logging enterprises that use similar equipment, meanwhile the medium size and small scale operations and community based forest enterprises are much more numerous, and use simpler technologies that also result in severe environmental impacts. These considerations should have been taken in consideration when designing the project.
- FTCI will not be able to sustain itself if only on training fees based on RIL courses, it needs to expand. Although the corporate status of FTCI gave it considerable flexibility in addressing emerging revenue options. Training institutions should therefore acquire corporate status before the donor funds are exhausted.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

FTCI was established with the purpose to disseminate RIL techniques; it became clear that the implementation of RIL depends largely on the timber industry's willingness to pay.

Convincing company management of the benefits of RIL is not enough. Field managers should be supportive of the necessary changes as well. Coordinating the correct implementation of the RIL components demands better supervision and communication, this may mean a fundamental change to a logging company's organizational structure (Jonkers 2002, Klassen 2002).

According to Klasen (2002), lack of serious intent remains a major reason for the failure of companies to adopt RIL practices. He explains that companies are not interested in RIL because it disrupts the status quo and because many companies are mainly concerned with their immediate supply of raw material, in the case of Guyana most logging operations are order driven. (FAO, 2004)

For the successful application of RIL, it is necessary to have technically competent planners, operators, and supervisors. Well – trained operators need equally well-trained supervisors to ensure that work is carried out properly and to provide feedback that will help them to improve their practices continually. Forest managers need to appreciate the cost of various operational elements in order to benefit from studies on the financial benefits of RIL. (Dykstra, 2002).

It would have been useful for FTCI to knew about the cost (Tropenbos International is preparing 'feasibility study on RIL practices base on their work in Guyana). FTCI does training which is not the ideal platform for garnering costs; FTCI hopes to obtain data from Iwokrama which will be engaged in RIL on a commercial scale of production using RIL practices, since this has been asked frequently. FTCI should record and analyze data cost.

With the new forestry legislation passed early 2009, CoP is mandatory and can only be addressed by trained technicians; FTCI was an important contributor in its promotion and in demonstrating the feasibility of its prescriptions. Certainly, now FTCI will be a

major asset in the implementation of sound forest management and reduced impact logging techniques. In conclusion, FTCI came timely on board, hands on training is the fastest and most effective way to promote the widespread adoption of reduced impact logging.

5.2. Recommendations

For the Government of Guyana:

- It is recommend the need to set up policies that would encourage forest industry to make available to their workers training on a constant mode. As to identify positions that demand obligatory training to become operators.

For FTCI:

- In order to address the needs of medium small size operators and communities it will be need to broaden the current RIL technologies used since they represent an important area in the country.
- FTCI would have to build on its current strengths and acquire new competencies in wood technology, business administration and social work.
- A follow-up mechanisms for tracking the post training performance of field operatives should be addressed, particularly regarding the cost-benefit analyzes.
- Special attention should be given to evaluating the long- term sustainability
 of the effects of the projects, including developing a strategic plan for
 institutionalization of project benefits that includes roles and responsibilities
 for relevant stakeholders and other actors.

For ITTO:

In order to address future sustainability when establishing training facilities it
is recommended that funding should be made accessible when RIL is
incorporate as an integral part of the project program.

Appendix I

Terms of Reference for Ex-Post Evaluation

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

I. Background

The International Tropical Timber Organization (ITTO) is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources. Its 60 members represent more than 80% of the world's tropical forests and 90% of the global timber trade.

The Committee on Economic and Market Intelligence and the Committee on Forest Industry (CEIMI-CFI), at their Thirty-eight Session in May 2006, decided that an ex-post evaluation for PD 68/01 Rev.2 (I), PD 94/90 Rev.3 (I), PD 46/97 Rev.3 (I) should be carried out to establish how well the projects served their purposes and to draw up recommendations for future action. The background information on these projects is outlined in the Annex to the terms of reference.

II. Terms of Reference for Ex-Post Evaluation

The primary purpose of the evaluation is to provide an in-depth diagnosis of the projects so as to point out the successful and unsuccessful outcomes, the reasons for successes and failures, and the contribution of the projects towards the achievement of ITTO's Objective 2000, and to draw lessons that can be used to improve similar projects in the future.

- To assess the project design and contribution to the achievement of its respective objectives.
- ii. To assess the achievement of the project's outputs and specific objectives.
- iii. To evaluate the impact and relevance of the project, detailing its impact on development and specific objectives as stated in the project documents.
- To determine the effectiveness of technology transfer to target groups if applicable.
- v. To assess the overall post-project situation, including the conditions of its intended direct or indirect beneficiaries.
- vi. To define and assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrences.
- vii. To analyze and assess implementation efficiency, including the technical, financial and managerial aspects.
- viii. To asses the overall sustainability of the project after completion, and include appropriate recommendations to safeguard the continuing of its positive impacts, and enhance utilization of the technologies (if applicable) and other results developed by the projects.
- ix. Taking into account the results of the evaluation, make an overall assessment of the project relative success or failure, to summarize the key lessons learnt; and identify any issues or problems which should be taken into account in designing and implementing similar projects in future.
- x. To asses the overall cost of the projects with original budget provisions, and their respective linkage with the overall results.

- xi. To prepare the evaluation report in accordance with the references for the Project Evaluation Report, as contained in the ITTO Manual for Project Monitoring, Review and Evaluation, third edition.
- xii. To assess the projects' contribution to the relevant ITTA objectives (1994) and relevant ITTO Action Plan.
- xiii. To prepare one or more articles for each project, for possible publication in the ITTO Tropical Forest Update (TFU), in consultation with the editor, containing an overview of the project and summarizing the lessons learned from the evaluation work. Appropriate photographs should be provided, if possible.

The evaluation work shall be conducted in such way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring, Review and Evaluation (page 29), including an executive summary, and a power point presentation to members of ITTO at one of the sessions of the International Tropical Timber Council.

In addition to the above, the consultant is requested to make an in-dept analysis of the outputs of the project and its actual intended situation after project completion, with particular emphasis on:

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

- Training on company based initiatives rather than targeting the entire sector;
- Training in forest concessions rather than in the training facility;
- Quality and availability of RIL training manuals produced;
- Training for medium sized and small scale operators and community based forest enterprises, which operations are not covered under management plans monitored by the GFC and use much simpler technologies;
- Charging of fees for training to loggers who were willing to pay; and
- The need of a second phase project for sustainability of the Forestry Training Centre Incorporated (FTCI), and its options in the long term.

Appendix II

Programme for Evaluation Mission

Date	Activity	Location	Remarks
	9:00-9:30: Meeting with the Commissioner of		
16-feb-09	Forests, Mr. James Single	GFC	Commissioner, Head HRD in attendance
	10:00-10:30 Meeting with Hon. Robert		
	Persaud-Minister of Forestry	Minister's Office	
	11:00-12:00 Review of Project documents	FTCl Building	Brief meeting with project staff
	12:00 Lunch break		-
	14:00-15:30 Meeting with Executives-FPA	PSC Building	Exec-Director FPA & Staff
	16:00 Meeting with Mr. Dane Gobin		, , <u></u>
	Exec Director-Iwokrama	Iwokrama	Raquel Thomas
!	0:00 10:00 Noting Doop	I lui cousite	7-14
17-feb-09	9:00-10:00 Meeting -Dean	University	
	Faculty of Agriculture & Forestry,	Campus-	
	University of Guyana	Turkeyen	Lawrence Lewis, Owen Bovell,
	10:30-11:30: Meeting with Ms. Lynette Cunha	GSA Campuus-	
	-Principal-Guyana School of Agriculture	Mon Repos	Lynette Cunha,
	12:00: Lunch break		
	14:00-15:00 Meeting with Chairman et al		
	-GFC Board of Directors	GFC	Chairman, Board sub committee-staff matters
	16:00 Meeting: WWF-Guiana	WWF-Office	Patrick Williams-Exec Director in attendance
18-feb-09	Field visit -FTCl Field Camp	FTCI	Project staff
			-
20-feb-09	9:00-13:00 Consultant's Discretion	FTCI	
	14:00-15:00 Consultant discuss main findings		
	with stakeholders	GFC	All stakeholders invited
21-feb-09	Consultant's discretion	GFC	FTCI Staffs available
Z1-160-09	Ooriouitarit's discretion	GFC	r for Stans available

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