

# **USAID/GEO**

## **Guyana Economic Opportunities**

### **Development of a National Standard for Forest Certification**

**Prepared by  
Bastiaan Louman**

*Submitted by:*  
**Chemonics International Inc.**  
*In association with*  
**Management Systems International, Inc**

*To:*  
**United States Agency for International Development  
Georgetown, Guyana**

Under Contract No. 504-C-00-99-00009-00

**September 2003**

**Technical Report N° 64**

**Table of Contents**

Mission Report ..... 2

Third Draft Standard ..... 20

Guidelines for the National Certification Standard ..... 42

Field Test Results ..... 83

## **Mission Report**

### **Bastiaan Louman**

Support to Guyana National Initiative on Forest Certification (GNIFC)

Georgetown, Guyana

20 July – 5 August 2003

#### **Objective**

Fieldtesting second national standard for forest certification and elaboration of third draft

#### **Justification**

Since June 2000 an interim working group discussed the desirability of developing a national certification standard that could be internationally recognized. These discussions resulted in October 2001 in the decision to develop a national standard that would meet the FSC requirements, FSC being at the time the only global certification scheme that can give Guyanese forest products a differentiated market access to European and American markets. A first draft was developed by Mr Louman, based on the Bolivian and Brazilian standards and taking into consideration the Costa Rican experiences and the draft Code of Practice of the Guyanese forestry commission. December 2001 a standard setting workshop, with representatives of 20 members of the three major stakeholders groups (economic, ecological, social) revised that draft and proposed a second draft. This second draft was reviewed by external experts and is ready to be field tested.

#### **Summary of activities**

Meetings with key stakeholders and regulatory agencies to talk about progress of forest certification in Latin America and Guyana in particular. Included a press briefing and a public lecture in the national library, and courtesy visits to Mr Bowhan Balkaran (Permanent Secretary Fisheries, crops and Livestock), Mr James Singh (Commissioner of Forests), Dr Patrick Williams (national representative WWF), Mr Tom Whitney (national coordinator Guyana Economic Opportunities Project).

Preparation of field test following methodology developed by CATIE researchers in Central America

Four day field test (7 member evaluation team, support of GFC and Demarara Timbers Ltd)

One day workshop on results of fieldtest

Elaboration of third draft standard and first draft guidelines, based on the field test and following workshop.

A detailed agenda is attached in appendix 1.

#### **Results**

See separate documents: third draft standard and first draft guidelines for the application of the standard.

#### **Discussion and recommendations**

##### *General comments*

- The process seemed to have gone to sleep a bit since 2001, partially due to change of structure of the organization and delays in funding, but the intensive activities of the

fieldtesting, accompanied by media coverage, helped to awake many stakeholders. As a result the workshop that intended to involve additional stakeholders in the standard development, was very successful, with 43 participants (of which 31 stayed for work in groups, and 40% were female) in spite of the very short time available for its organization.

- The process appears to have gained in support from industry, in particular some of the smaller logging companies. This time however, and in spite of its interest in certification and the funds it receives for that purpose from WWF, the mayor company, Barama, has shown little interest in the national standard setting process. This is suprising, since before they did show support of the process, while Dr Williams of WWF indicated that he recommended Barama to continue to show its support of the process. In addition, looking at the fact that Barama buys part of its loginput from other companies, it would be in its advantage if, once certification were achieved, other companies would follow suit. The National Initiative should make it easier for those other companies to achieve certification. Then it will be easier for Barama to obtain its Chain of Custody certification. The GNIFC indicated that it would try to approach the director of Barama to ask for more support.
- DTL has shown much interest in the certification process and wondered why they were not included in the WWF project in support of certification by private companies. They have been trying to achieve certifiable management levels since about 1999 but abandoned their efforts due to the costs of bringing their management up to standard, while at the same time they experienced a drop in their market. They asked for recommendations for improvement of their management, based on the experience of the evaluation team. Some recommendations are attached in appendix 2. It is recommended to pass these on to the company, but otherwise keep them confidential. DTL appears to be a good company to target in the case of a project that is oriented at bringing forest management and chain of custody operations to a certifiable level. Also because of their (apparent) contacts with other companies in Guyana that can do downstream processing and have an interest in certification.
- The current DTL concessions expire within the next three years. According to the company, two of the three are nearly worked over and the current stock of the for them commercial species is not enough to warrant re-entry in the initial compartments, logged over 20 years ago, indicating also that 25 years may not be sufficient for a full cutting cycle. The third concession has difficult access (may need a mayor bridge crossing) and the company is considering wether its worthwhile making that investment. A 5-year plan already exists for that concession but would have to be reviewed and revised, since it was written in 1995/96, and market conditions as well as knowledge on the ecological and technical aspects of forest management have changed since. However, the consultant understood that the rights to all three concessions are up for renewel and whether that will occur is not 100% sure. Under these conditions, it cannot be expected that the company will do any mayor investments for future forest management until those rights have been secured and it has been established that commercial stock is sufficient to run an efficient and economically viable logging and sawmilling operation. It may be worthwhile to assist efforts to at least clarify this situation (feasibility study, renewel rights, should they receive another concession area which is more viable?)

- The GFC continues to support the process, although it might be easier for GFC to continue doing so if larger companies also join the process. They consider putting greater emphasis on approval and implementation of the CoP and management guidelines. This should bring companies closer to certifiable levels. They also want to further strengthen the ITTO-AFP-TFF-GFC training program, which will further reduce the additional costs of certification.
- WWF committed itself to support dissemination of information through their website and assist in design of dissemination documents (e.g. newsletter) independent of whether the current project proposal will be approved or not. It also announced its willingness to consider support to any company interested in reaching certifiable management levels. Dr Williams indicated that once Barama is certified they have reached more than their target for certified areas in Guyana for 2005.
- PS Balkaran stressed the importance of downstream processing and producer organizations to improve the current precarious situation of the forest industry. He also mentioned the need to revise mechanisms for royalty and concession levies payment, making it less attractive for industry to hold on to concessions they are not prepared to operate (speculation).

#### *The standard*

- It was not so easy to apply the indicator-evaluation criteria, it was at times difficult to distinguish between indicator evaluation and company evaluation. As this led to much discussion during the evaluation, it is advisable to edit the evaluation criteria to improve understanding of the methodology. After the discussions it did not seem to affect the evaluation of the indicators, and it is felt that the final result is a good representation of the validity of the indicators under Guyanese circumstances.
- Similar for the items used as parameters for the elaboration of the protocol: what to measure, how and with what, often were confused, also because with many indicators the difference between these three may be just the form of expression, rather than content. This led to much discussion, but was clarified and corrected before the elaboration of the draft guidelines.
- The second draft worked out quite well during the field exercise. 84% of the indicators were considered to be good (scored a mark of 6 out of 6 during the fieldtest). Some (5%) were considered to be good, but costly to apply due to the amount of field work required to correctly assess the management operation for that indicator. Others had problems with relevance (5%) or were suggested to completely remove or rephrase (6%) (see separate document: results of the field test). In addition several recommendations were made for the GNIFC to facilitate the application of the standard. These include checklists for a number of indicators, as well as support for processes oriented at improving forest management (see below).
- The following table summarizes workshop results. These have been incorporated into the new draft standard. In addition a large number of observations were made in relation to the guidelines for standard application. These have been incorporated into the draft guidelines.

Principle	Indicators				
	Proposed to change	Added	Deleted	Doubts	
				Form	Content
1	3.1				6.2
2	None	Mainly propose changes in protocol		2.2	
3	None				1
4	None				
5					2.1 and 3.2
6	1.1; 2.2-2.5; 3.4; 4.1 and 4.2; 5.1 and 5.2; 6.1-6.3; 9.1; 10.2;	3.3a and 3.3b 10.1a and 10.1b	10.3		
7		5.1 and 6.1			
8	1.2; 2.1-2.3; 2.5; 5.1;				2.4
9	4.1				Criterion 1

- The proposed changes mean that, after the field test, in 20% of the indicators changes were made, mainly editing the form rather than content, that 0.8% was deleted, 3% added and that still about 5% of the standard needs to be further discussed, apart from the observations made in appendix 3. Changes were not repetitive, that is, previous discussions were taken into consideration, and further improvements suggested, rather than reverting back to earlier versions of the indicators. This indicates that the current standard is receiving a high level of acceptability among the current representatives of the different stakeholders. The proposed changes have been incorporated in the third draft.

#### *The GNIFC*

- As mentioned previously, the process of developing a national standard for certification went through a period of view activities, partially due to problems with its previous FSC contact person, and partially due to lack of funding. With the founding of the GNIFC in February 2003 it was given new life, and Ms Sharon Ousman was appointed to coordinate its activities. Many discussions have followed since, during which it became apparent that a general lack of understanding of the function of the GNIFC existed and may continue to exist, even among some of the members of the current board of directors. These are, however, not uncommon to new NGOs and it appears that the board is working towards resolving these misunderstandings.
- Greater publicity to the process, and more dissemination of the objectives, results of activities and the concept of certification, may greatly contribute to create a wider understanding of what the GNIFC stands for, and promote both good forest management and its subsequent certification. This, however, will need funds for more workshops, particularly in inland regions, and for publication materials as well as secretarial and other office support. The viability of the GNIFC may depend on their ability to obtain

<sup>1</sup> Consultant feels that indicators 3.1.1 and 3.1.3 overlap due to their protocol. Protocol needs to be reviewed.

funding for these activities, which therefore form an important component of a proposal submitted for funding to the WWF.

- The technical component of the National Initiative is lead by the Working Group on the national standard. The consultant felt that the group consists of professional people with a good knowledge of the process of certification and the place of a standard within that process. The group has the technical capacity to assess both the standard and forestry operations in environmental, economic and social aspects, and it is felt that from the technical point of view they need little further support from outside consultants. At this stage of the standard development this consultant will be able to contribute little to the technical aspects and it is advised to start contacting both FSC and potential certifiers for further support. Most of this could be done by e-mail. Independent international consultants, however, will be able to assist in the future, by their participation in puntual activities (for example in workshops on a national level), bringing in an international, independent point of view, and thus making the process more transparent and possibly attracting a greater audience.
- Besides the points made above, it is recommended that the GNIFC gets involved in the activities outlined in appendix 3
- WWF is supporting the formation of a national initiative in Suriname. Is there an opportunity for bi-national initiatives, considering the small size of population of either country?

## APPENDIX 1

**Schedule for Bas Louman (Sunday July 20 to Monday August 4, 2003)**

Day	Date	Time	Activity	Venue	Participants
1	Sunday July 20, 2003		Arrival in Guyana	Airport	BL
2	Monday July 21, 2003	8:00 - 9:00	Meeting with Tom Whitney – Project Director, GEO Project	Earl's Ave, Subryanville	BL & TW
		10:00 – 12:00	Preliminary meeting DTL	DTL	BL, SO, Mr Yung
		13:00-14:45	Meeting with GNIFC BoD	GSFR, Prashad Nagar	GNIFC BoD & BL
		15:00-17:30	<b>Revision protocol &amp; adjustments</b>	GFC	Evaluation Team
3	Tuesday July 22, 2003	9:00 - 12:00	<b>Revision session of the National Standard</b>	GFC	WG Members
		13:00-17:00	<b>Revision protocol &amp; adjustments</b>	GFC	Evaluation Team & BL
4	Wednesday, July 23, 2003	9:00-15:00	<b>Office Validation</b>	DTL Head Office	Evaluation Team, BL & DTL Staff
		15:30-17:30	Meeting with regulatory bodies	GFC	Evaluation team
5, 6, 7	July 24-26, 2003	6:00-17:00	<b>Field Testing</b>	DTL Concession	Evaluation Team, BL & DTL Staff
5	Thursday	<ul style="list-style-type: none"> <li>• 6:00-10:30</li> <li>• 11:00-12:00</li> <li>• 13:00-17:00</li> </ul>	<ul style="list-style-type: none"> <li>• Travel to Mabura (DTL Concession)</li> <li>• Early Lunch</li> </ul> Revision of office documentation and annual planning procedures	DTL Concession	Evaluation Team, BL & DTL Staff
6	Friday	7:00-17:00	<ul style="list-style-type: none"> <li>• Social Group: Visit to 58-miles Community, Frenchman Mining Community – Tentative and Great Falls Community</li> <li>• Other groups continue to field test the indicators on concession</li> </ul>	DTL Concession	Evaluation Team, BL & DTL Staff
7	Saturday	8:00 - 14:00	<b>Discussion of Field Results</b>		Evaluation Team, BL & DTL Staff
		14:00-18:00	Travel to GT		Evaluation Team & BL

Day	Date	Time	Activity	Venue	Participants
8, 9	July 27-28, 2003 (Sun & Mon)		<b>Adjust standard according to results validation</b>		
9	Monday	10:00 - 11:30	Press Briefing	GFC Board Room	Press, BL, SO, TW, JF, DB
		16:00-18:00	Public Lecture	National Library (TBC)	General Public
10	Tuesday July 29, 2003	10:00 – 11:00	Prerecording GTV (cancelled at last moment)	GBC, High Street	General Public
		14:30 – 15:30	Meeting with Patrick Williams, WWF	WWF	BL, Twilliams, DB
		15:30 – 17:00	Meeting with Mona Bynoe and other members FPA	FPA	BL, Twilliams, DB, VB
11	Wednesday July 30, 2003	9:00-10:00 rest of day	<ul style="list-style-type: none"> <li>• <i>Meeting with Minister Sawh</i></li> <li>• Preparation for Workshop</li> </ul>	Issano Place & Ituni St. Bel Air Park	BL, DB, DS & TW
12	Thursday, July 31, 2003		<b>Discuss field test results at Multi-Stakeholder Workshop</b>	To be determined based on budget available	All stakeholders
13, 14, 15	Fri-Mon, Aug 1-4, 2003		<b>Elaboration of 3rd Draft Standard</b>		BL
16	Tue, August 5, 2003		Return to Costa Rica		BL

## APPENDIX 2

Some recommendations for improvement of the DTL field operations

Above all it should be noted that the operation that was visited, in the Mauri compartment, was a relatively low intensity operation, since only a few species are currently extracted. As a consequence, the environmental impact is low relative to the area of forest managed, although it could be reduced further through application of some of the measures outlined below.

Three major issues were found to warrant special attention:

1. The process of planning, including the preparation of the FMP, the operational plans, 100% pre-harvest inventories with their resulting maps, and two-way communication between the different management levels.
2. The neighbourly relations
3. Working relations, especially of the workers of the sub-contractors.

It should be noted, though, that in general the team felt that operations were better than most other companies. In addition, the visit had as an objective to evaluate the standard, not the company, so that it was not possible, nor desired from the point of view of the evaluation team, to get a complete picture of the DTL operations.

### 1. The process of planning

A brief overview of the FMP indicated that in general the plan is well written and presents a lot of essential information. Not all the information, however, seems to have been interpreted correctly and other has not been used in planning, while the visit to the field operations indicated that the FMP is outdated. The latter is not of great concern, since both the FMP and the currently operated concession areas will be in use for only one more year, according to DTL management. Thus, at this moment it is not worthwhile to invest in updating this particular plan. However, some suggestions are made to improve any future FMP, and its relation to the operational plan.

- The concept of allowable cut has been applied based on the legally allowable cut. The silviculturally allowable cut has also been calculated, however has not been used for further calculations. In this case, that means that overcutting could be justified, although the actual volume harvested is closer to the silviculturally allowable cut than the legally allowable cut. This could, however, change, once other species will be harvested. It is therefore recommended to revise this section of the plan, putting greater emphasis on the potential of the forest, without surpassing the legally allowed limits (CATIE published a document in Spanish that explains a simple method to calculate the allowable cut and do a projection of the next harvest, chapter 9 in “inventarios forestales para bosques latifoliados” Orozco y Brumer (eds) 2002. This has been used as basis for courses in different countries in Latin America, including Suriname, and in combination with computerized yield projection programmes (e.g. Myrlin, available over the internet) this is a powerful tool to come to reasonable estimates of sustainable levels of timber harvest).

- A total allowable cut has been calculated, rather than a cut per species or species group. It is recommended to group species according to their most important potential use and ecological requirements. Both the earlier mentioned document and the Myrlyn program suggest methods to group species. In calculation of the allowable cut, as well as in harvest planning, scarcity of species should be considered for ecological as well as economic reasons: their removal may result in local extinction of that species and species directly and uniquely associated with it; while if proper planning and harvesting is done, trees of this species will be too dispersed within the area to be able to harvest a sufficient quantity under controlled harvesting procedures, while going to look for them in different blocks at the same time makes the operation relatively expensive. The latter could only be justified for high value species, but then would it still raise ecological concerns unless additional efforts are made for regeneration of this species. Purpleheart (*Peltogyne*) may be a species that requires careful analysis in this respect. On the other hand, Rice *et al* (2001?) consider that in the case of, for example mahogany, it is justifiable to deplete the stock if that means that afterwards the concession is taken out of timber production and its forest protected from further logging and/or forest conversion activities.
- Maps show different forest types, but from the conversations with staff and the quick revision of the FMP it is not clear how this information is being incorporated in planning of management and harvest. A logical consequence of different forest types would be the use of two compartments simultaneously. This is done for climatic reasons (during the rains different compartments are harvested than during the dry season) but could also be done in order to be able to harvest species that rarely occur together or are abundant in one forest type but not in other.
- Little is explained about the harvesting system, nor the silvicultural system other than some generalities and an enumeration of equipment. Two concession areas are being used, and two FMP exist, but it is not clear whether the equipment mentioned in one plan is used for only that concession, or is also used for the other concession. So far, no silvicultural treatments seem to have been implemented (was not discussed during the visit) and it is not clear how the forest will be assessed for the need of treatments after harvest.
- Although some attention is paid to social aspects, this relates principally to the workers. No assessment seems to have been made of the opportunities to work with the local communities in other aspects than timber harvesting (apparently there is or used to be a potential for the commercial harvest of liana-cane (*Clusia* spp)).
- There seems to be little evaluation of the economic and technical viability of the proposed annual harvest. How much machinery is needed, at what periods during the year, etc. this should include an assessment of human resource needs, considering the needs for the different inventories and silvicultural treatments.
- Within the company little seems to have been done to “socialize” the FMP. It is recommended to include at least lower-level management staff in the planning process, for example through working sessions of one or two days during which they are asked to assist in working out a logical framework that describes how best each company section can contribute to the objectives of the company (suggesting for example products and lines of action). This may help the staff to visualize their position within the company and create greater motivation to achieve the products and objectives which they themselves helped formulate.

- The previous recommendation is even more relevant for the annual operational plans, the implementation of which is the responsibility of the managers at medium and lower levels.
- It is strongly recommended to base the harvesting plan on a 100% inventory of the commercial species. Although the commercial species could be adjusted from year to year, it is advisable to follow a preliminary list of species proposed in the FMP. This could be adjusted only after proper justification and proof of market changes. In the ideal case, a harvesting plan follows the FMP allowing the annual cut as stipulated in that FMP. The annual cutting areas (ACA) should only be open for one year. Thus, the 100% inventories should also serve as a guideline for the list and volume of species marketed: not sell more than is available in the ACA. Re-entry should be avoided as much as possible, and, if necessary during the same year, should be planned based on the knowledge of the exact location of the trees to be harvested, in order to avoid longer than necessary skidding trails and inefficient use of human and machine resources. The same 100% inventory will also facilitate environmental monitoring and evaluation of the Chain of Custody.

## 2. Neighbourly relations

- It is always difficult to assess to what degree a company should contribute to social and economic development of neighbouring villages. In Guyana the legislation or proposed legislation requires a lot of companies. However, apart from providing tangible benefits to the community, it is also important to maintain good social relations. This requires greater openness of a company, and, in the case of a company of the size of DTL, could justify the employment of a special public relations officer in the Mabura Hill area. Often problems occur and demands are made on companies because of lack of mutual misunderstandings between companies and neighbouring villages. A PR officer should be able to prevent or manage such potential conflicts by their early detection and applying conflict resolution mechanisms.
- It is suggested that the company looks for ways that facilitate that both workers and local villagers benefit from the company's production in ways that carry little cost to the company. For example use of rejected or low-grade products and access to company facilities such as first-aid post and grocery stores. Participation of the company in local transport options other than use of company vehicles could also be looked at. There was no opportunity, however, to check with the company what their experience has been with this type of work, and to what extent the company is already providing some of those benefits.

## 3. Workers' relations, especially with the sub-contractors.

- This basically refers to the system of payment and the control that the company can exert over the sub-contractors to give their workers a fare pay within a reasonable time period. Payment for all sub-contracted field work is based on timber entering the mill. However, road transport on the one hand, and felling and skidding on the other, is often done by different contractors and these may have different interests. Only if a tight control can be kept on time, location and volume of the activities, can it be assured that payment is fair and timely. This will be facilitated by the use of 100% inventories in the planning and monitoring of all these activities. In addition, with proper monitoring, sub-contractors could be paid based on the amount of volume produced up to the point of their

responsibility (that is, landing in the case of extraction crew, sawmill or riverlanding for the transport crew). Such monitoring would have to be done anyway in case the company opts for certification of the chain of custody.

## APPENDIX 3

### Recommended activities GNIFC

*Based on standard setting workshop of dec 2001:*

*Definitions and clarifications required during the 2001 workshop and not yet addressed in July 2003:*

*Principle 1:*

Forest management should be well defined.

In relation to indicator 1.6.2, the optimum length of a cutting cycle should be defined.

*Principle 2:*

Customary tenure and use rights need to be defined. For example, do these rights include commercial activities, that is, harvest to sell?

Need to define:- free and informed consent

- appropriate mechanisms
- co-planning
- participatory planning (should include resource mapping with the community involved as well as documentation of the decision-making process)
- local control (the level of this should be defined in the management plan, but here control should be specified a bit further)<sup>2</sup>.

*Principle 3:*

Need to define:

- diminish
- significance (criterion 3.3)
- indigenous

Clarify:

- how to deal with different social (indigenous) structures (C 3.3)
- what constitutes traditional ecological knowledge, what are its benefits and what is adequate compensation?

---

<sup>2</sup> You may want to refer to appropriate control. That may mean that community has control over long term activities but control over day to day activities is with the company, as long as it remains within the long term framework. This would require that the community is involved in writing and approving the management plan (see also next indicator), and has meaningful participation in monitoring of the operation.

*Principle 4:*

What are “good neighbourly relations”? (Indicator 4.1.4) Do they include health services, education, transportation, communication, and infrastructure?

What is included in basic health care? (4.2.4)

*Principle 6:*

Need to define:- rare, threatened and endangered species  
- Exotic (6.9.1)

*Principle 8:*

It was felt that it needs to be clarified who decides what needs to be monitored (8.1.1)

*Principle 9:*

It is needed to define what High Conservation Value Forests are in the Guyana context. In addition, it is necessary to define their attributes and prioritise these according to their value for conservation.

**FSC WG tasks (summary)**

FSC WG is to raise or participate in discussions on the following issues at a national level:

- FSP to obtain secure rights for longer term access to the forest resources
- sensitising Guyanese society on the value of traditional knowledge and develop guidance for compensation for use of this knowledge
- documentation of customary rights
- improving health conditions in concession areas through co-operation between concessionaires and Ministry of Health
- malaria as an occupational hazard
- adjust CoP to require 4.5% of productive forest area, rather than 4.5% of each block, in order to improve planning of protective areas
- co-operation between FMU operators and competent authorities to comply with the requirement to prevent illegal hunting and collection (6.2.3)
- land use planning and overlapping rights between mining and forestry uses
- Code of Practice
- definition of High Conservation Value Forests
- participatory planning

FSC WG is to prepare background documentation on the following issues:

- relevant, current legislation and binding international agreements
- health and safety legislation, regulations and conditions covered in general (4.2.2.and 4.2.3), and the EPA regulations related to hazardous materials in particular (4.2.2)
- List of ILO conventions that apply to Guyana
- list of useful and/or critical species and protocols (C 6.2)

- updated lists of chemical products (I 6.6.1)

FSC WG should review and revise standard based on the following information:

- Caribbean standard in relation to ILO 87 and 98
- FSC approval of changes in Criteria 3.3 and 3.5
- Legality of priority employment (C 4.1)
- Caribbean free movement of labour (I 4.1.3)
- Effects of salvage harvesting and harvesting of dead trees on biodiversity
- Methods of control on harvesting on dead trees (5.3.4)
- New legislation and regulations (CoP included) (C 6.5; C 7.5)

Further observations for the FSC-WG to look into:

- Indigenous communities don't necessarily manage their commercial operations in the best interest of the community. What effect may this have on certification?
- revise 8.2.5 in relation to social principles. Is there an overlap?
- reliability of indicator 8.3.2

Criteria and indicators should be "flagged" or weighted by WG. For this, a methodology could be used, similar to the one proposed by R Zagt and used in 2001 by the interim working group to evaluate the critical issues of forest management.

### ***Based on fieldtest 2003.***

Besides activities mentioned above, several of which were recommended again during the field testing and workshop activities, GNIFC should also support that regulatory bodies join forces in resolving concession boundary conflicts.

In relation to the HCVF it should be noted that some experience on this exists with PROFORESTS and information is available on their website (I think proforest.org) while BARAMA and Variety Woods propose to contract Dr B Finegan of CATIE to help them set up a biological monitoring system. This system is specifically oriented at monitoring in HCVF and the process of establishing the system incorporates a workshop on defining HCVF characteristics for Guyana.

Further, during the workshop, the following observations were made regarding the indicators and needs for clarification by the GNIFC

Indicator	Observation
Criterion 1.1	GNIFC should compile list of all relevant legislation
4.1.3	Indicator evaluation checklist: access to medical and/or educational facilities on company site; sports facilities and equipment; transportation, especially in emergencies; purchases of local community products
4.2.1	Indicator evaluation checklist: check workers' housing, access to potable water at main and forest camps of direct and indirect workers
4.2.2	Regulations should be available to evaluators through GNIFC
4.6.4	New indicator, doesn't have protocol yet

Principle 5	Although no specific observations were recorded, much discussion involved the viability of the production of diverse products, the incorporation of NTFP, and the use of lesser known species. This discussion should probably continue, and it is recommended to take into consideration the interim generic standard of SCS (version January 2002 attached as appendix 4). You may want to review the protocol of indicator 5.5.1.
6.1.1	Guidelines to describe what environmental considerations should be.
6.2.2	Guidelines could elaborate and cover egg collection
6.2.5	Needs guidelines to help define indicator
6.3.2	Define gapsize (400 m <sup>2</sup> ?)
6.3.4	Needs protocol
6.4.1	Recommend that companies have BRs overlaid on forest type maps so certifiers could gauge productive areas
6.4.2	Put “felled trees” and “with signpost” in guidelines
6.9.1	Guidelines and species lists
6.10.2	Needs protocol
7.5.1	Needs protocol
7.6.1	Needs protocol
8.1.2	Guidelines that include a) Establishing PSPs themselves, b) Making space available, c) Or Contributing financially to the national programme but PSP plots will be required if management systems differ significantly
8.2.2	Specify key faunal species (e.g. large predators, terrestrial birds, deer, tapir, monkeys esp. spider monkeys, macaws, turtles etc)
8.2.4	Needs guidance on what to measure (social chamber)
8.2.5	In guidelines: requires more detailed parameters for monitoring
9.1	Indicators still need to be developed

The GNIFC should consult with FSC on the validity of imposing guidelines on certifiers in Guyana, as well as review the first draft guidelines based on consultation with certifiers. The main argument to impose such guidelines are that no standard is complete without them (each certifier has its own standard that include guidelines; the Tropenbos document on harmonization of standards indicates that a standard exists of P,C&I as well as norms and guidelines). It should also consult on the criteria added and the deletion of criterion 9.2.

During the workshop, a suggestion was made to edit the principles and criteria in such a way that they become easier to understand for the layman. It may be useful to do so, and include such descriptions of the P&C in the guidelines, or consult with FSC whether it is acceptable to use them as the official standard

Finally, the GNIFC should clarify what scales of operations should be distinguished under Guyanese conditions.

**APPENDIX 4**  
**Principle 5 of the**  
**INTERIM INTERNATIONAL GENERIC STANDARD SCS**  
**(version January 2002)**

**PRINCIPLE #5: BENEFITS FROM THE FOREST**

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

5.1. Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.

Performance Indicators:

- a) The forest operation has sufficient financial capital and human resources to implement the management plan, over the long run
- b) The full costs of forest management, including environmental and social costs, are considered and adequately covered by the financial resources of the forest operation
- c) Adequate investments of capital, machinery and human resources are made so as to maintain or restore the productive capacity, ecological integrity and socio-economic profile of the define forest area
- d) Commercial (income generating) activities are financially viable, given short and medium-term market conditions and costs

5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

Performance Indicators:

- a) Management and marketing policies, as well as field-level decisions, systematically assure that commercial forest products are being sold for their highest and best uses
- b) Forest managers strive to diversify the mix of commercial products recovered from the forest and marketed
- c) The forest operation has a demonstrated track record of favoring or encouraging local processing of wood products, subject to competitive pricing and logistical considerations

5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

Performance Indicators:

- a) Harvesting operations minimize waste and residual stand damage
- b) Yarding and log sorting operations minimize product wastage, de-grade and foregone revenue opportunities

- c) Log landings are kept to a minimum practicable number and size and are located so as to minimize adverse environmental impacts
- d) Post-harvest audits within harvest units, log landings, log sort yards are systematically conducted to identify avoidable wastage
- e) Where on-site processing takes place, the foot print of the milling facility is kept to the smallest practicable size; the processing facilities are located in the most environmentally benign locales as well as in locations where losses to productive forest area are minimized
- f) While minimizing undue waste, forest managers establish field guidelines that recognize the ecological value of biomass (e.g., tops and branches) being left on site; forest managers have written guidelines for retention of downed woody debris and standing snags within harvest areas

5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.

Performance Indicators:

- a) Forest managers can demonstrate their efforts to diversify the mix of commercial products recovered from the forest and marketed
- b) Appropriate to the scale of operations, multiple forest products are harvested and marketed
- c) Appropriate to the scale of operations, forest managers provide financial incentives for the establishment and/or expansion of local forest products manufacturing businesses; forest managers can demonstrate efforts taken to encourage local value-added processing
- d) Where market opportunities exist and where such use does not compromise the ecological health of the forest, the marketing of non-timber forest products is undertaken by forest managers
- e) Forest managers are cognizant of local/regional economic development plans and strategies; forest managers take what actions they can to support these plans and strategies

5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.

Performance Indicators:

- a) The management plan addresses the full range of forest services associated with the defined forest area including: municipal watersheds, commercial and recreational fisheries (or the supply of water to downstream fisheries), visual quality, contributions to regional biodiversity, recreation and tourism
- b) Timber management activities are designed and implemented, spatially and temporally, with due consideration to the impacts on other forest services
- c) Forest managers demonstrate an awareness of and sensitivity to non-timber forest services, many of which may not generate income
- d) Forest managers engage in regular dialogue with stakeholders and advocates of forest services that subject to impact from forest operations

5.6. The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

Performance Indicators:

- a) Appropriate to the scale of operations and the frequency of commercial activity, timber harvesting is guided by a timber management plan that includes a calculated periodic allowable harvest
- b) The timber management plan, including total harvest level, the temporal and spatial pattern of harvests, and the planned prescriptions are being faithfully implemented in the field
- c) Forest managers keep accurate records of the harvest volume, by species groups; average annual harvests do not exceed the calculated allowable harvest
- d) Appropriate to the scale of operations and the frequency of commercial activity, estimates of total periodic timber growth on the defined forest area—by species categories—are generated through a combination of empirical data and published literature; growth estimates are conservative
- e) Harvest levels are set such that inventories of desired species increase over time, unless it is established (in the management plan) that current inventories (measured in average standing volume per hectare) exceed optimal levels
- f) For operations entailing regular annual harvesting, the 10-year rolling average harvest level does not exceed average annual increment
- g) For smaller operations that do not harvest annually, the frequency and intensity of harvest entries is set such that inventory levels are allowed to recover—and increase, as appropriate—between entries

**Third Draft**  
**National Certification Standard**

**THIRD DRAFT STANDARD**

Compilation of recommendations and editing by Bastiaan Louman (consultant)

***PREAMBLE***

1. All text referring to “written agreement” presumes that these agreements were reached based on free and informed consent.
2. This version is based on the second draft standard, a field test by a seven member evaluation team (Miss Vanessa Benn and Dr R Thomas (environmental), Miss T Williams and Mr R. .... (economic) and Mrs J Forte, Mr C Thom and Mr E Brandford (social)) and the discussions of a one day workshop. Their comments have been integrated in the text.

**LIST OF ACRONYMS (needs to be revised)**

ACT	Amazon Co-operation Treaty
CITES	Covention on International Trade in Endangered Species of Wild Fauna and Flora
CoP	Code of Practice for timber harvesting
EIA	Environmental Impact Assessment
FMO	Forest Management Unit Operator
FMP	Forest Management Plan
FMPG	Forest Management Plan Guidelines
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GCCC	Global Convention on Climate Change
GFC	Guyana Forestry Commission
GGMC	Guyana Geology and Mines Commission
HCVF	High Conservation Value Forest
ILO	International Labour Organization
OIT	Organization for International Trade
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organization
P&C	Principles and Criteria
PROFOR	Programme for Forestry
SFM	Sustainable Forest Management
SIA	Social Impact Assessment
UNDP	United Nationas Development Programme
WHO	World Health Organization

## PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

### **Criterion 1.1**

Forest management shall respect all national and local laws and administrative requirements

1.1.1 The FMO manages and harvests the forest according to laws, regulations and legally valid dispositions.

1.1.2 The FMO has in place a mechanism that facilitates access to legal and supporting documents for authorized company and regulatory body staff.

### **Criterion 1.2:**

All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid

1.2.1 The payment of taxes, fees, and penalties applicable to the FMO is done to the satisfaction of the relevant authorities.

### **Criterion 1.3:**

In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.

1.3.1 Forest management complies with the spirit of any non-legislative accords (ITTO agreement, OIT 169, Agreement of biological Diversity, CITES, GCCC, ACT and the Trade International Agreements).

### **Criterion 1.4:**

Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.

1.4.1 Conflicts between laws, regulations and the FSC P&C shall be resolved between the Government of Guyana and the Guyana National Initiative and if not resolved, presented to the FSC.

### **Criterion 1.5:**

Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.

1.5.1 Mechanisms against invasion by third parties are documented and acceptable to all stakeholders as well as legally applicable.

1.5.3 The FMO maintains a record of invasion by third parties and documents the outcomes of resolution procedures.

**Criterion 1.6:**

Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.

1.6.1 The FMO makes a commitment to the FSC P&C in a written statement within the management plan.

1.6.2 In the FMP, land is devoted to forest management as dominant land use for at least one cutting cycle of 60 years.

## PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

### **Criterion 2.1:**

Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

2.1.1 Land tenure or use right is secure and legal

2.1.2 A written agreement on specific use areas between parties with overlapping use rights exists.

### **Criterion 2.2:**

Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.

2.2.1 There is an agreement with the community to implement forest management and the community controls the forest management process.

2.2.2 In the case that the utilisation (cutting permission (?) a management contract (??)) is delegated to third parties there are clear contracts in which the local and community regulations of forest activities are respected.

2.2.3 Forest management plans are agreed upon with the communities and are based on the practice of participatory planning, joint planning and implementation and local control.

### **Criterion 2.3:**

Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

2.3.1 Mutually agreed, written procedures are being used used to manage existing conflicts.

2.3.2 In the case of potential conflicts there are written procedures to prevent them. The procedures recognise the negotiation strategies of local communities and the participation of a negotiator mutually accepted by parties and within the legal framework. The mechanisms are included in the management plan.

2.3.3 The FMO has a documented public relations policy and is involved in an active dialogue process with the surrounding communities affected by forest management.

### PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected.

#### **Criterion 3.1:**

Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.

3.1.1 There is a written agreement with the indigenous community to implement long-term forest management, and the community controls the process related to management.

3.1.2 Forest management plans are agreed upon with communities and are based on participatory planning practices, co-management and local control.

3.1.3 There is evidence that written agreements are adhered to.

#### **Criterion 3.2:**

Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.

3.2.1 The legal, traditional rights and customs of indigenous people to the management or use of the forest resource (flora and fauna) have been formally recognised and documented in written agreements, and are reflected in resource use maps produced in participatory processes with the communities.

3.2.2 The FMU is clearly demarcated from indigenous lands, based on existing well-defined limits (demarcations) and mutually agreed written agreements.

3.2.3 In the case of potential conflicts there are written procedures to prevent them. If conflicts exist, there are mutually agreed, written procedures to solve them, based on free and well informed consent. The procedures are included in the management plan.

#### **Criterion 3.3:**

Sites of special cultural, ecological, or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognised and protected by forest managers.

3.3.1 The forest management plan identifies places of special cultural, ecological, religious and spiritual significance for indigenous people and proposes actions for its protection, with the existence of a written agreement among involved parties.

3.3.2 There should be evidence of protective measures taken in worked areas when such sites have been identified.

**Criterion 3.4:**

Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

3.4.1 Traditional ecological knowledge used in the FMU is recognised as a technical skill and appropriately compensated as such.

3.4.2 If the FMU derives economic benefit from the application of traditional knowledge in planning and forest operations, indigenous people contributing traditional knowledge are adequately compensated. The compensation is agreed upon with the consent of those people.

**Criterion 3.5:**

Sites of special economic and geographic significance to indigenous people shall be clearly identified in co-operation with such people, and recognised and protected, or adequately compensated for, by forest operators.

3.5.1 The FMP identifies places of economic significance for indigenous people and proposes actions for their protection, or adequate compensation, based on a written agreement among involved parties.

3.5.2 The sites are indicated in a resource use map, and if protective actions need to be taken, they are also demarcated in the field.

**Criterion 3.6:**

Measures should be taken to avoid negative social impacts of forest management on indigenous and traditional communities and to safeguard their cultural diversity.

3.6.1 The forest management plan should include a section on the FMO's social policy concerning local and indigenous communities. This section should include the identification of potential negative impacts and a description of existing cultural diversity.

## **PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS**

Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.

### **Criterion 4.1:**

The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

4.1.1 Given equal qualification, local forest-dependent populations have priority access to employment, and to the possibility of training and promotion.

4.1.2 Given equal qualification, Guyanese have priority access to employment, and possibility of training and promotion.

4.1.3 There is clear evidence of good neighbourly relations.

### **Criterion 4.2:**

Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.

4.2.1 Salaries and other benefits (social security, rent, lodging and food) of direct and indirect employees comply with the national standards for the same type of work.

4.2.2 Occupational Health and Safety Regulations, EPA hazardous materials regulations and provisions concerning Health and Safety, operational and camp hygiene in the Code of Practice for Timber Harvesting are adhered to in felling, extraction, trucking, road construction, camp and workshop activities, in-forest saw milling and other forest management activities.

4.2.3 All relevant legislation relating to health and safety of employees and their families in situ is complied with.

4.2.4 Basic health care and emergency first aid is available in the work place.

4.2.5 Adequate shelter, clean water, sanitation and protection from occupational disease (e.g. malaria) in camps are provided.

4.2.6 The FMO should take measures to ensure that their employees and those of contractors receive fair wages and social care.

4.2.7 Agreements between FMO and subcontractors should adhere to national labour legislation and sector labour agreements.

### **Criterion 4.3:**

The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).

4.3.1 The employees are free to organise themselves. It is not prohibited nor is there any obstacle for employees to be member of a Labour Union or association, or for negotiating collectively with their employers if they wish to do so.

4.3.2 There is clear evidence that employees are directly and effectively informed of their rights by relevant third parties. There is evidence of FMO support for this process.

**Criterion 4.4:**

Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.

4.4.1 There is a methodology to measure the impact of forest management on resource access and social well being of the community. It is compatible with the scale of the operations.

4.4.2 Populations that are directly affected by forests operations have the opportunity to participate in the planning of specific tasks of forest management that could affect them.

4.4.3 A clearly defined, ongoing dialogue process exists.

**Criterion 4.5:**

Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.

4.5.1 Measures are taken to prevent damage or loss that may affect the rights, goods, or livelihoods of local communities and these are documented in the management plan.

4.5.2 In case of damage or negative impacts, the surrounding communities are compensated for damage to crops and environment (water quality, access to forest services) or for the loss of income, and the process is validated by a written agreement.

**Criterion 4.6:**

Mechanisms should be in place to enhance job security and worker retention capacity.

4.6.1 Terms of reference exist for positions in the FMO and are the basis for contracts, specifying regular pay slip and wage book.

4.6.2 Evidence of NIS coverage exists.

4.6.3 Written service contracts exist with specified turn-around periods, and guarantees of return travel.

4.6.4 Clear transparent processes related to on-the-job training and promotion exist.

## PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

### **Criterion 5.1:**

Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.

5.1.1 Forest management plan projections include estimates of all planning and operational costs.

5.1.2 Planning, organisation and application of appropriate technology are applied.

5.1.3 Up dated registers of the production and costs of the different operations are kept for each Annual Harvesting Area.

### **Criterion 5.2:**

Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

5.2.1 Forest operations seek efficient and optimal utilisation of forest resources.

5.2.2 If feasible, local processing is promoted, including the utilisation of residues and other forest products.

5.2.3 The Forest Management Unit Operator has updated market information that is guided by the marketing strategies of the company and is linked to forest resource assessment information.

### **Criterion 5.3:**

Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

5.3.1 Logs and processed wood and other products (honey, balata, manicole, nibbi, etc) are manipulated in such a way that degradation and loss are minimised.

5.3.2 It is documented that contract and payment systems with field workers (tree identification, fellers, bunchers, and machinery operators) include incentives and **disincentives** (check labour legislation section 23) that consider not only production criteria, but also product quality and reduction of damage to the remaining forest.

5.3.3 The FMO has a mechanism in place to evaluate tree quality before felling (marking, directional felling).

5.3.4 If feasible, salvage harvesting should be done in current or recent annual harvest areas based on results of objective assessment of forest stand (e.g. silvicultural survey).

**Criterion 5.4:**

Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.

5.4.1 The FMO conducts actions to develop markets and sustainable utilisation of new species and products.

5.4.2 Based on discussion with the other relevant forest users the FMO allows the collection of information on the presence and distribution of potential non-timber products producing species during the pre-harvest inventory.

**Criterion 5.5:**

Forest management operations shall recognise, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.

5.5.1 Forest management must show evidence of recognition, maintenance, and when appropriate improvement of the forest services and resources in particular related to watersheds.

5.5.2 Areas of special services and resources are mapped .

5.5.3 The FMO consults with other relevant agencies on special (forest and environmental) service areas and facilitate their management.

**Criterion 5.6:**

The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

5.6.1 A reasonable and prudent cutting cycle has been set that contributes to the maintenance of sustainability and forest stability, and the places in which the annual cut will happen are pre-determined.

5.6.2 The AAC (per area, volume or other relevant unit measurement) is based on relevant growth and yield determinations and in the absence of that on conservative assumptions acknowledged by the competent authorities.

5.6.3 The applied silvicultural treatments are ecologically justified based on the best available information, be this based on practical experience or on published research results as specific to the forest type as possible.

5.6.4 Only trees that are previously selected and marked are felled, respecting the minimum felling diameters or other silvicultural prescriptions established in the operative or management plan.

**Criterion 5.7:**

Sites of special archaeological significance shall be clearly identified, and recognised and protected by forest managers.

5.7.1 Such sites should be mapped and described in forest management plans.

5.7.2 Personnel should be aware of sites and know that they need to be protected.

## PRINCIPLE #6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

### **Criterion 6.1:**

Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.

6.1.1 A clear environmental management plan and associated protocols must be in place and implemented.

6.2.1 The forest management plan proposes concrete actions to avoid the extinction of tree species, the reduction of other plant or animal species with conservation status and soil and aquatic environment degradation. In doing so, provisions of CoP for timber harvesting must be observed.

6.2.2 The FMO has policies and actions to reduce hunting, trapping and gathering for commercial purposes, for sports, as pets or to feed the employees of the forest and industrial operations.

6.2.3 National or international legislation and conventions for the protection of species are complied with.

6.2.4 The FMP and subsequent revisions take into consideration the evaluation of the state of conservation of critical and threatened species.

6.2.5 There is a list of rare, threatened and valuable species and guidelines for the protection of these species contained within the management plan.

### **Criterion 6.3:**

Ecological functions and values shall be maintained intact, enhanced, or restored, including forest regeneration and succession, genetic, species, and ecosystem diversity and Natural cycles that affect the productivity of the forest ecosystem.

6.3.1 The number of trees harvested follows the CoP (or harvesting) guidelines.

6.3.2 Gap size does not exceed a defined size

A new indicator is suggested in related to size limits for harvested trees. This, however, overlaps with indicator 5.6.4.

6.3.3 Trees are marked for retention-seed and habitat trees.

6.3.4 Fire management methodologies must be included in the FMP

**Criterion 6.4:**

Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.

6.4.1 There is not less than 5% reserve areas of all representative forest types within the concession.

6.4.2 Protection forest is marked in the field and forest areas show no signs of interference

**Criterion 6.5:**

Written guidelines shall be prepared and implemented to: control erosion; minimise forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.

6.5.1 Guidelines are implemented for pre-harvesting, harvesting and post-harvesting operations towards mitigating the impacts of these operations on the environment. These guidelines comply with the CoP

6.5.2 Guidelines are implemented for the design and construction of the road network towards mitigating the impacts of these operations on the environment. These guidelines comply with the CoP.

**Criterion 6.6:**

Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks.

6.6.1 Protocols governing the use of chemical products banned by Guyanese or international law are observed.

6.6.2 Personnel have been trained and apply the appropriate techniques for safe handling, storage and disposal of chemical products and containers.

6.6.3 There is no evidence of pollution by chemicals.

6.6.4 There are no medical records of chemical pollutant related health symptoms.

**Criterion 6.7:**

Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

6.7.1 Containers, wastes, garbage and lubricants generated in forest and sawmill operations are disposed of in a manner consistent with EPA and CoP guidelines and regulations.

6.7.2 Sufficient and adequate waste storage capacity is available on site and is being used.

**Criterion 6.8:**

Use of biological control agents shall be documented, minimised, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

6.8.1 The usage of biological control agents is supervised, monitored and strictly documented.

**Criterion 6.9:**

The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.

6.9.1 The use or introduction of exotic or invasive species is strictly supervised, monitored and documented.

**Criterion 6.10:**

Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:

- Entails a very limited portion of the forest management unit; and
- Does not occur on high conservation value forest areas; and
- Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.

6.10.1 Primary and commercial forest are not cleared or converted

6.10.2 Degraded forest types are not converted to other land uses without the permission of GFC or/and other relevant authorities

6.10.3. Clear guidelines for the establishment of plantations and other forms of land use are observed.

## PRINCIPLE #7: MANAGEMENT PLAN

A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

### Criterion 7.1:

The management plan and supporting documents shall provide:

- a) Management objectives.
- b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.
- c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.
- d) Rationale for rate of annual harvest and species selection.
- e) Provisions for monitoring of forest growth and dynamics.
- f) Environmental safeguards based on environmental assessments.
- g) Plans for the identification and protection of rare, threatened and endangered species.
- h) Maps describing the forest resource base including protected areas, planned management activities and land ownership.
- i) Description and justification of harvesting techniques and equipment to be used.
- j) Plans should incorporate recommendations from the SIA

7.1.1 A multi-annual forest management plan exists that clearly specifies the objectives of forest management and that orients and details the main activities to be executed to achieve the objectives, covering all the elements listed in criterion 7.1.

7.1.2 The FMP has estimates to calculate the future forest structure and composition at least until the end of the first cutting cycle, based upon a resource assessment of the FMU.

7.1.3 There are Annual Harvesting Plans based on detailed maps that include volumes or number of trees to extract in determined areas, planning of harvesting and silvicultural treatments, and other activities such as road construction. This plan indicates where and when and how the activities will be executed.

7.1.4 Management inventories were designed and executed according to established technical criteria, and provide reliable results that form a solid base for the multi-annual Forest Management Plan.

**7.1.5 Operational level inventories are conducted that provide the basis for planning and execution of the annual harvest.**

7.1.6 The annual plan, together with the maps are available to provide operative guidance to the management activities and to facilitate the monitoring of activities execution.

7.1.7 The silvicultural prescriptions established in the forest management plan are executed in the field.

**Criterion 7.2:**

The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

7.2.1 The FMP is periodically reviewed (at least each five years) to include the results of monitoring, the new scientific and technical information as well as the changes in the environmental, social and economic context.

7.2.2 Operational plans based on the five-year plan should be reviewed annually and incorporate relevant changes in information and technology in next year's plan.

7.2.3 Formal feedback mechanisms are in place to improve implementation of the FMP field guides.

**Criterion 7.3:**

Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

7.3.1 The FMO has a documented training plan and proof of execution that fulfils the Forest Management Plan objectives.

7.3.2 Field guides are available for use in the different field operations for the training of the workers.

7.3.3 There is supervision of field activities to assure that the operative norms are duly implemented.

7.3.4 The field, technical and administrative middle management personnel has adequate information for the implementation of the management plan.

**Criterion 7.4:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.

7.4.1 There is a Forest Management Plan summary available.

**Criterion 7.5:**

In the case of forest management operations that do not need to follow GFC guidelines the details of the forest management plan should follow the scale, intensity and characteristics of the operations.

**Criterion 7.6:**

Where appropriate (when you have overlapping use areas) planning should follow a participatory approach.

7.6.1 Appropriate mechanisms follow a participatory approach

## PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

### **Criterion 8.1:**

The scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment should determine the frequency and intensity of monitoring. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.

8.1.1 Monitoring objectives and procedures as specified in management plan are implemented.

8.1.2 The FMO demonstrates an active commitment to the national PSP programme as it is relevant to the concession

### **Criterion 8.2:**

Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

- Yield of all forest products harvested.
- Growth rates, regeneration and condition of the forest.
- Composition and observed changes in the flora and fauna.
- Environmental and social impacts of harvesting and other operations.
- Costs, productivity, and efficiency of forest management.

8.2.1 The FMP utilises growth, mortality and recruitment data (from established PSPs within or outside concession).

8.2.2 Records are kept on observations of key faunal species

8.2.3 The yield of harvested forest products is recorded.

8.2.4 There is a systematic evaluation of the impacts of forest management on the quality of life of the workers.

8.2.5 The environmental impact of the FMU on the neighbouring communities is controlled

### **Criterion 8.3:**

Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody."

8.3.1 There is a system and adequate documentation for each annual harvesting area, which permits monitoring the chain of custody.

8.3.2 Certified forest products are clearly identified with labels or marks during all stages of processing and physical distribution.

8.3.3 Documentation on origin and destination of all certified forest products must be available in the intermediary locations of storage and/or processing and physical distribution centres.

**Criterion 8.4:**

The results of monitoring shall be incorporated into the implementation and revision of the management plan.

8.4.1 Results of monitoring are included in the execution and review of the FMP and the annual plan.

**Criterion 8.5:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.

8.5.1 A summary of the results of monitoring is publicly available.

## **PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS**

Management activities in high conservation value forests shall maintain or enhance the attributes, which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

### **Criterion 9.1:**

Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.

No indicators have been defined yet.

### **Criterion 9.2:**

~~The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.~~ Eliminated during workshop, because is assessing the certification methodology rather than FMU operation.

### **Criterion 9.3:**

The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.

9.3.1 HCVPs are identified and mapped and criteria used to define the areas are listed in the management plan.

9.3.2 Forest management plan is site-specific and detailed in describing the measures taken to protect the HCVP resource.

9.3.3 Measures to protect HCVP values are available in public documents.

### **Criterion 9.4:**

Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.

9.4.1 An annual system for monitoring the maintenance of HCVP values is defined and incorporated into the FMO's planning, monitoring and reporting procedures and is applied.

## **Guidelines to Accompany the National Certification Standard**

## GUIDELINES TO ACCOMPANY THE NATIONAL CERTIFICATION STANDARD

First draft, August 2003

These guidelines are elaborated because it was felt during the discussions on the standard that the viability of an indicator depends significantly on its correct interpretation and the methods of measurement applied. It is recommended to adjust the guidelines based on further field tests and in consultation with at least two certification bodies. In addition, FSC should be consulted on to what extent these guidelines will be binding for the certification bodies when they come to perform certification in Guyana.

The basis for these guidelines is formed by the experiences of the first fieldtest, for which the evaluation team developed a protocol. In addition, a smartwood document, explaining the application of its generic standard, was used as reference (Smartwood generic guidelines, March 2000, consulted through internet, [www.smartwood.org](http://www.smartwood.org), August 2001). Where this is done, it should be seen as suggestion, and it should be decided by GNIFC and the stakeholders whether these suggestions will be followed or not. If they are, they will need editing.

It is suggested that for each of the indicators an assessment scale is prepared. This could be done based on previous documents prepared by this consultant.

### PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

Smartwood points out that “the purpose of the certification process is not to assess actual legal compliance; that is the mandated task of government institutions. But <certifiers> must check with government agencies and other stakeholders to verify that an operation is dealing with legal requirements in a responsible fashion, and in some cases the field assessment can be a valuable way for helping operations improve the quality of their compliance. Finally, in some cases there may be applicable international conventions or treaties that apply, as is clearly the case of endangered species under the Convention on Trade in Endangered Species (CITES)”. This means that for a number of indicators, rather than looking for prove of compliance, it will be sufficient to look for evidence of non-compliance in the records of the relevant regulatory bodies and through interviews with relevant authorities.

#### **Criterion 1.1**

Forest management shall respect all national and local laws and administrative requirements

1.1.1 The FMO manages and harvests the forest according to laws, regulations and legally valid dispositions.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
------------------	--------------------	------------	--------	-------

Compliance	Through records and (current) legislation	COP, harvesting manuals, laws, regulations, records, interviews	Offices of authorities	On 1 <sup>st</sup> evaluation and annual checks in certain areas of defined non-compliance
Observations: may be easier to look for records of non-compliance GNIFC is to compile list of all relevant legislation to be distributed to operators and certifiers alike				

1.1.2 The FMO has in place a mechanism that facilitates access to legal and supporting documents for authorized company and regulatory body staff.

What to measure?	How to measure it?	With what?	Where?	When?
Compliance	Check availability of legal and supporting documents	Visual inspection, interviews	Offices and field stations	On 1 <sup>st</sup> evaluation and annual checks
Observations; as above, may be easier to check for non-compliance				

**Criterion 1.2:**

All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid

1.2.1 The payment of taxes, fees, and penalties applicable to the FMO is done to the satisfaction of the relevant authorities.

What to measure?	How to measure it?	With what?	Where?	When?
Compliance	Inspection of relevant documents	Receipts and written agreements, compliance certificates	GFC, offices of office of relevant authorities and FMO office	1 <sup>st</sup> evaluation, annually if non-compliance
Observations; it may be necessary to revise indicator in times of economic crisis				

**Criterion 1.3:**

In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.

1.3.1 Forest management complies with the spirit of any non-legislative accords (ITTO agreement, OIT 169, Agreement of biological Diversity, CITES, GCCC, ACT and the Trade International Agreements).

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Compliance	Compare management documents with international agreements	agreements, records, FMP, interviews	Offices company,	1 <sup>st</sup> evaluation
Smartwood remarks that for medium and small companies it is acceptable to become aware during the process of certification of these agreements if the FMO commits itself to guide staff in adherence to these agreements or accords.				

**Criterion 1.4:**

Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.

1.4.1 Conflicts between laws, regulations and the FSC P&C shall be resolved between the Government of Guyana and the Guyana National Initiative and if not resolved, presented to the FSC.

What to measure?	How to measure it?	With what?	Where?	When?
Contradictions and whether these have been resolved	Documents GNIFC, FSC	Documents and interviews	GNIFC office	When required
Observation: operators can be expected to approach relevant authorities with recommendations for changes in legislation or FSC to reach agreements on conflicts. This should be documented by both authorities, FSC and the FMO				

### Criterion 1.5:

Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.

1.5.1 Mechanisms against invasion by third parties are documented and acceptable to all stakeholders as well as legally applicable.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of mechanism	Inspection of documents, interviews	Preventive and resolution mechanisms	GFC, office company, field	When necessary
My remark: The guiding principle of graduality clearly applies to the valuation of this indicator. One cannot expect the FMO to comply fully under the local circumstances. This is the case in most tropical countries.				

1.5.2 Borders of the FMU are identified in the field and in conflict cases there are written resolution procedures.

What to measure?	How to measure it?	With what?	Where?	When?
Concession boundaries, existence of conflicts	Revise marcation in field (paals and boards)	Maps, agreements boundaryu descriptions, interviews	Offices company, surveys in field, GFC	1 <sup>st</sup> evaluation or when necessary
Observations; it is recommended that relevant authorities join forces. Task for GNIFC?				

1.5.3 The FMO maintains a record of invasion by third parties and documents the outcomes of resolution procedures.

What to measure?	How to measure it?	With what?	Where?	When?
Occurrence and reason for invasion, legitimacy	Invasion logbook, review in the field, compare with legal rights	Logbook, observations, interviews	Company offices, field, GFC, land and surveys, GGMC	1 <sup>st</sup> evaluation, annually

### Criterion 1.6:

Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.

1.6.1 The FMO makes a commitment to the FSC P&C in a written statement within the management plan.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of commitment	Read document	FMP or other relevant document	Office company	1 <sup>st</sup> evaluation
<p>Observations; Perhaps it should be allowed to have the statement in another relevant planning or policy document.</p> <p>My remark: You may want to include something on such a commitment for other areas outside the area being assessed, as well as for areas from which the company is buying logs. Smartwoods recommends something like: “will not implement activities that blatantly conflict with the FSC P&amp;C on forest areas outside of the forest area under current assessment”. What, however, is blatantly? I would define it as illegal or against the CoP of Guyana</p>				

1.6.2 In the FMP, land is devoted to forest management as dominant land use for at least one cutting cycle of 60 years.

What to measure?	How to measure it?	With what?	Where?	When?
Statement in FMP	Revise FMP	FMP	Office	1 <sup>st</sup> evaluation
<p>Observations: It was discussed whether the cutting cycle should have a specific number of years. The consultant recommends to either only use “cutting cycle” and allow the length of the cutting cycle to be established based on technical considerations (see indicators 5.6.1 and 7.1.2) or use “60 years”, establishing a period of commitment independent of the cutting cycle. The former probably will meet better the spirit of the standard.</p>				

## PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

This is an important principle and possibly one of the more conflictive issues in the Guyanese conditions. The spirit of this principle, as described by Smartwood in its generic standard, however, would allow for arrangements to be made between different stakeholders and endorsed by GFC and other relevant regulatory bodies, meeting thus the requirements of this principle. Smartwood writes:

*“Experience indicates that consistent long-term forest management will not take place unless forest managers can be sure that forestland will stay as forest and that the rights and responsibilities of direct forest managers and other users are clear. Though many parties may play a role in this, the intent of this section is to ensure that the candidate forestry operation is taking all realistic actions under their control to protect and maintain the forest over the long-term, and resolving conflicts with neighbors or other forest users. In some cases this means protecting the forest from threats of competing land uses, or misuse by other forest users (e.g. timber trespass, hunting, etc.). In other cases forest operations may take proactive steps to improve forest security by carefully negotiating and controlling joint management or access to forest resources with local communities or individuals. **The existence of major unresolved, or poorly resolved, conflicts within the local community may be an impediment to certification.**”*

### Criterion 2.1:

Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

#### 2.1.1 Land tenure or use right is secure and legal

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Legality of FMU documents	Seeing said documents and checking records of issue	Document	Company HQ. GFC. Lands and Surveys Commission	
Observations: the consultant suggests that the period over which rights are secured should coincide with the period established for indicator 1.6.1				

2.1.2 A written agreement on specific use areas between parties with overlapping use rights exists.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of written agreements	1) written documentation by FMO, verified by GFC, supported by site visit and map. 2) If there is overlapping use right this should be supported by documents showing legality of use rights of all involved parties. 3) written agreements between parties with oversight from regulatory agencies. Review maps		GGMC, GFC. Lands and Surveys Commission, GNRA Company HQ	

### Criterion 2.2:

Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.

2.2.1 There is an agreement with the community to implement forest management and the community controls the forest management process.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of written agreement	1) need official documentation between representatives of community and company, with oversight regional gov'tment or regulatory agencies. 2) records/minutes of meetings at community level. 3) company records 4) site visits and interviews		Community Company HQ Regional Office	

2.2.2 In the case that the utilisation (cutting permission (?) a management contract (?)) is delegated to third parties there are clear contracts in which the local and community regulations of forest activities are respected.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence contract between company and contractor as well as company and community	Contracts, minutes meetings		Company HQ, Community records/office Regional Office	

2.2.3 Forest management plans are agreed upon with the communities and are based on the practice of participatory planning, joint planning and implementation and local control.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Annual plan has evidence of participatory planning and implementation with community	Community records; site visits; degree of compliance	Maps, Annual operational plan, community minutes of meetings, FMP	HQ company, community; GFC; Regional Office	
Observations: what is "control", "participatory planning"?				

**Criterion 2.3:**

Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

2.3.1 Mutually agreed, written procedures are being used used to manage existing conflicts.

**Protocol:**

What to measure?	How to measure it?	With what?	Where?	When?
Existence and fulfilment of dispute resolution procedures	Records/minutes Interviews Current legislation		GFC-Forest monitoring unit	
Observations: smartwood suggests that the indicators of this criterion should be more strictly evaluated in large scale operations than in small scale ones.				

2.3.2 In the case of potential conflicts there are written procedures to prevent them. The procedures recognise the negotiation strategies of local communities and the participation of a negotiator mutually accepted by parties and within the legal framework. The mechanisms are included in the management plan.

**Protocol:**

What to measure?	How to measure it?	With what?	Where?	When?
Existence written procedures between reps of FMU and communities; Compliance	Checking FMP, annual plan, any records/written procedures related to conflict, interviews		Company office Community, GFC, Regional Office	

2.3.3 The FMO has a documented public relation policy and is involved in an active dialogue process with the surrounding communities affected by forest management.

**Protocol:**

What to measure?	How to measure it?	With what?	Where?	When?
Existence of policy and its implementation	Checking written policy, evidence of implementation	Records, interviews	Company office, community, regional office	

### PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected.

#### Criterion 3.1:

Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.

Smartwood uses the following, by FSC accepted, definition of “indigenous”:

*"The existing descendants of the peoples who inhabited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them and, by conquest, settlement, or other means reduced them to a non-dominant or colonial situation; who today live more in conformity with their particular social, economic and cultural customs and traditions than with the institutions of the country of which they now form a part, under State structure which incorporates mainly the national, social and cultural characteristics of other segments of the population which are predominant."*

If this definition is not acceptable to Guyana, the GNIFC should negotiate a different one with FSC and its certifiers.

3.1.1 There is a written agreement with the indigenous community to implement long-term forest management, and the community controls the process related to management.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Degree of implementation of written agreement	Records of FMU, GFC, min. of amerindian affairs, community	Minutes, interviews, records	Company office, Ministry of Amerindian Affairs, Regional Office	

3.1.2 Forest management plans are agreed upon with communities and are based on participatory planning practices, co-management and local control.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Evidence in FMP of joint planning with indig community	Inspection FMP, asking community	Maps, interviews, records, FMP	Company office, community, Ministry of Amerindian Affairs, Regional Office	

3.1.3 There is evidence that written agreements are adhered to.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of written agreements, evidence of their adherence	Revision of documentation	Records, minutes, interviews	GFC, community, Ministry of Amerindian Affairs, Regional Office	
Observations: Consultant feels that this indicator overlaps with 3.1.1. Needs to be reviewed.				

**Criterion 3.2:**

Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.

Smartwood puts emphasis on threats to resource and tenure rights of indigenous groups. Thus, when such threats do not exist, this criterion will be less important. Who, however, decides what is a threat? The GNIFC needs to discuss whether they follow this interpretation of the criterion, and if so, will need to define what they consider to be a “threat”.

3.2.1 The legal, traditional rights and customs of indigenous people to the management or use of the forest resource (flora and fauna) have been formally recognised and documented in written agreements, and are reflected in resource use maps produced in participatory processes with the communities.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Recognition of rights in documents and maps, implementation	Inspection of documents and maps, interviews with key informants	Maps, records, interviews	Company, community, min. Amerindian Affairs, GFC	

3.2.2 The FMU is clearly demarcated from indigenous lands, based on existing well-defined limits (demarcations) and mutually agreed written agreements.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of agreements and clearly marked boundaries on the ground	Maps, titles, boundaries, min. of AA, lands and Surveys, GFC		Field, field office, GFC, min. AA, Lands and Surveys	

3.2.3 In the case of potential conflicts there are written procedures to prevent them. If conflicts exist, there are mutually agreed, written procedures to solve them, based on free and well informed consent. The procedures are included in the management plan.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence and fulfilment of conflict resolution procedure and inclusion in FMP	Records, minutes, interviews		Company, community	

**Criterion 3.3:**

Sites of special cultural, ecological, or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognised and protected by forest managers.

3.3.1 The forest management plan identifies places of special cultural, ecological, religious and spiritual significance for indigenous people and proposes actions for its protection, with the existence of a written agreement among involved parties.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of maps with sites, written agreement on actions and implementation of agreements	Inspection plans and maps, site visits, interviews	Antiquities law, amerindian act, maps	Office and field	
Observations: "Significance" needs to be defined (workshop 2001 remark)				

3.3.2 There should be evidence of protective measures taken in worked areas when such sites have been identified.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Implementation of protective measures	Site visits, written protocols, maps	Maps, surveys	In the field	
Observations: Define protective measures				

#### Criterion 3.4:

Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

3.4.1 Traditional ecological knowledge used in the FMU is recognised as a technical skill and appropriately compensated as such.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Payment of indigenous people for usage of their knowledge	Records of payments, interviews with workers	Accounting records Interviews	Company office, field office/site, community	
Observations: Indigenous knowledge includes knowledge of ecosystems and biodiversity, including tree spotting				

3.4.2 If the FMU derives economic benefit from the application of traditional knowledge in planning and forest operations, indigenous people contributing traditional knowledge are adequately compensated. The compensation is agreed upon with the consent of those people.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Agreements on compensation for use of indigenous knowledge	Review individual/company/community records of payments made, interviews	Records on compensation, interviews	Company office; community office; Ministry of Amerindian Affairs; Regional Office	

**Criterion 3.5:**

Sites of special economic and geographic significance to indigenous people shall be clearly identified in co-operation with such people, and recognised and protected, or adequately compensated for, by forest operators.

3.5.1 The FMP identifies places of economic significance for indigenous people and proposes actions for their protection, or adequate compensation, based on a written agreement among involved parties.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence and compliance written agreements,	inspection documentation	Agreements	Office and community	

3.5.2 The sites are indicated in a resource use map, and if protective actions need to be taken, they are also demarcated in the field.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
demarcation of reservations	Maps and inspection of boundaries	Maps, field visit	Office and field	

**Criterion 3.6:**

Measures should be taken to avoid negative social impacts of forest management on indigenous and traditional communities and to safeguard their cultural diversity.

3.6.1 The forest management plan should include a section on the FMO's social policy concerning local and indigenous communities. This section should include the identification of potential negative impacts and a description of existing cultural diversity.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of such a section in the FMP	Inspection of FMP	Interviews; FMP	community/company records; Ministry of Amerindian Affairs; Regional Office	

## PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS

Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.

Again, the spirit of the principle is well defined by Smartwood, emphasizing the different needs for good neighbourly relations for operations of different sizes:

*“Certified operations are expected to be generally recognized good neighbors in local communities. For smaller operations this may be quite simple, such as responsible operation of harvesting equipment on local roads, protection of historic cultural or archeological sites, or positive relationships with adjoining landowners. For larger public or private operation the implications are usually greater. Typically, larger operations will need to give careful consideration to local recreational needs, hiring practices that emphasis the training and participation of local people, and contributions or support for local services, such as health or education. Finally, given the scale of larger operations, their activities will affect broader regions and numbers of people; because of this it is important that such operations have in place more of a system for public interaction on their forest management activities.”*

### Criterion 4.1:

The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

4.1.1 Given equal qualification, local forest-dependent populations have priority access to employment, and to the possibility of training and promotion.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Employment (level) of local people and their access to training	Inspection of records of employment last five years, training records, Selection procedures for all jobs, training and promotion opportunities, interviews with workers and union representatives, union records		Company office Union office	

4.1.2 Given equal qualification, Guyanese have priority access to employment, and possibility of training and promotion.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Records of total amount of employment	Evaluation records, % Guyanese versus foreign workers employed, trained or promoted	Training and employment records, interviews with union reps	Company office	
Observations: check with caribbean agreements regarding employment (workshop 2001 remark)				

#### 4.1.3 There is clear evidence of good neighbourly relations.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Evidence of such relations	Job advertisements at community level, access to low-grade produce	Records, interviews	Min AA, office, community	
Observations: Indicator evaluation checklist: access to medical and/or educational facilities on company site; sports facilities and equipment; transportation, especially in emergencies; purchases of local community products.				

#### **Criterion 4.2:**

Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.

#### 4.2.1 Salaries and other benefits (social security, rent, lodging and food) of direct and indirect employees comply with the national standards for the same type of work.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Compliance with national standards	Inspection of work conditions, comparison with national standards for similar work	Records of salaries, medical records	Office company and sub-contractors,	
Observations: Indicator evaluation checklist: check workers' housing, access to potable water at main and forest camps of direct and indirect workers.				

#### 4.2.2 Occupational Health and Safety Regulations, EPA hazardous materials regulations and provisions concerning Health and Safety, operational and camp hygiene in the Code of Practice for Timber Harvesting are adhered to in felling, extraction, trucking, road construction, camp and workshop activities, in-forest saw milling and other forest management activities.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Compliance	Inspection of records and protocols, interviews with workers	Field visit observations, records (GFC, EPA, Ministry of Labour (health and safety), protocols	Company office and field	
Observations: Regulations should be available to evaluators through GNIFC				

#### 4.2.3 All relevant legislation relating to health and safety of employees and their families in situ is complied with.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Degree of compliance,	Inspection of accident and health records, monitoring records, compensation package,	Records, interviews	Health post, company office, relevant agencies, union records	
Observations: GNIFC should make available copies of relevant legislation to evaluators				

#### 4.2.4 Basic health care and emergency first aid is available in the work place.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of kit and availability, existence of emergency/ evacuation procedures and equipment	Inspection of documents and facilities		Worksite, office, health post	

#### 4.2.5 Adequate shelter, clean water, sanitation and protection from occupational disease (e.g. malaria) in camps are provided.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of minimum standards for these conditions	Visit sites, inspection of health records		Camp sites of direct and indirect workers	
Observations: Need to define minimum conditions				

#### 4.2.6 The FMO should take measures to ensure that their employees and those of (sub-) contractors receive fair wages and social care.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Social care and wages meet national standards	Inspection of wage policy, camp facilities	Salary records, health and safety records, recreational protocols	Office, camp site	
Observations: It is not only important how much is paid, but also what system is used to determine amount of payment, as well as when is paid.				

#### 4.2.7 Agreements between FMO and subcontractors should adhere to national labour legislation and sector labour agreements.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Adherence of agreements to legislation	Inspection of agreements	Agreements, interviews	Office, worksite	

### Criterion 4.3:

The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).

4.3.1 The employees are free to organise themselves. It is not prohibited nor is there any obstacle for employees to be member of a Labour Union or association, or for negotiating collectively with their employers if they wish to do so.

##### Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Satisfaction/level of comfort of workers with company policy	Inspection	Review of company and union records; interviews with workers	Office company, union, visit working site, min of Labour	

4.3.2 There is clear evidence that employees are directly and effectively informed of their rights by relevant third parties. There is evidence of FMO support for this process.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Worker's knowledge of their rights, visits of third parties (union, regulatory agencies) to workers	Inspection of records, interviews		Company office, union/regulatory agency office	

#### Criterion 4.4:

Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.

4.4.1 There is a methodology to measure the impact of forest management on resource access and social well being of the community. It is compatible with the scale of the operations.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of protocols for such measurements	Inspection of documentation		Office, community	
Scale of operations should be considered while evaluating this indicator. Small operations cannot be expected to have such protocols (consultant's remark).				

4.4.2 Populations that are directly affected by forests operations have the opportunity to participate in the planning of specific tasks of forest management that could affect them.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Local involvement in planning processes	Inspection planning procedures	Interviews, documents	Office, community, worksite	
Observations: Smartwood suggests that at least a list of adjoining landowners should exist.				

4.4.3 A clearly defined, ongoing dialogue process exists.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of dialogue	Inspection of records of meetings, verification through interviews	Minutes, interviews	Company, community, work site	

**Criterion 4.5:**

Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.

4.5.1 Measures are taken to prevent damage or loss that may affect the rights, goods, or livelihoods of local communities and these are documented in the management plan.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Whether description of such mechanisms exist in FMP	Review FMP, verify implementation through field visits and interviews	FMP, fieldvisit and interviews	Field, office, community, Ministry of Amerindian Affairs/Regional Office	

4.5.2 In case of damage or negative impacts, the surrounding communities are compensated for damage to crops and environment (water quality, access to forest services) or for the loss of income, and the process is validated by a written agreement.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of written agreement, its implementation	Inspection of documentation, verify implementation through interviews and records	Interviews, records, legal agreement	Office, community, Ministry of Amerindian Affairs/Regional Office	

**Criterion 4.6:**

Mechanisms should be in place to enhance job security and worker retention capacity.

4.6.1 Terms of reference exist for positions in the FMO and are the basis for contracts, specifying regular pay slip and wage book.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of wages book/records	Inspection of recruitment policy, evidence of procedures, workers' reps accounts, regulatory agency accounts	Policy, interviews,	Company office	

4.6.2 Evidence of NIS coverage exists.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Evidence of NIS coverage exists	Records NIS, company		NIS office, company office	

4.6.3 Written service contracts exist with specified turn-around periods, and guarantees of return travel.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of such contracts	Inspection of contracts	Interviews	Company office	

4.6.4 Clear transparent processes related to on-the-job training and promotion exist.

Had been added by evaluation team, however, was not discussed in workshop.

## PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

### Criterion 5.1:

Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.

Smartwood suggests that certification from the economic perspective does not give a guarantee of financial viability, rather “our mandate is to evaluate economic viability from the perspective of ensuring, as much as possible, that sound long-term investments are being made by the operation in terms of forest management, conservation and local communities”. From this we can deduct that they are not so much evaluating profitability, but rather, viability of long term investments or investment promises. This has a lot to do with efficiency of technology applied, use of resource, and the relation between resource needed for an economically viable operation and resource available.

5.1.1 Forest management plan projections include estimates of all planning and operational costs.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of that information	Review of plans	FMP and OP	In company offices (HQ and field)	1 <sup>st</sup> evaluation and plan revisions
Observations: Consultant suggests that these data show at least short term financial viability				

5.1.2 Planning, organisation and application of appropriate technology are applied.

What to measure?	How to measure it?	With what?	Where?	When?
Technology used	Assess its appropriateness under local conditions	Productivity data, maintenance costs, accident data	Office, site inspections, interviews	1 <sup>st</sup> evaluation
Observations: What about an appropriate system?				

5.1.3 Up dated registers of the production and costs of the different operations are kept for each Annual Harvesting Area.

What to measure?	How to measure it?	With what?	Where?	When?
Existences of registers	Inspection of records	Annual harvesting records and production costs	Office company	1 <sup>st</sup> evaluation

### Criterion 5.2:

Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

### 5.2.1 Forest operations seek efficient and optimal utilisation of forest resources.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Inventories, productivity	Marketing policy and strategies, production policies	FMP, business plan, operational plan, marketing strategies	Office company	1 <sup>st</sup> evaluation
Observations: It is suggested to look separately at NTFP, since their harvesting operations are separate.				

### 5.2.2 If feasible, local processing is promoted, including the utilisation of residues and other forest products.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Local processing, feasibility	Inspection of documents and processing plants (machinery)	FMP, business plan, visit to mills	Office and plants	1 <sup>st</sup> evaluation

### 5.2.3 The Forest Management Unit Operator has updated market information that is guided by the marketing strategies of the company and is linked to forest resource assessment information.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Whether marketing and forest resource assessment are linked	Inspection marketing strategy, availability info on resource and market demand	FMP, 100% inventory, marketing strategy	Office company and field office	1 <sup>st</sup> evaluation, annually

### Criterion 5.3:

Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

#### 5.3.1 Logs and processed wood and other products (honey, balata, manicole, nibbi, etc) are manipulated in such a way that degradation and loss are minimised.

What to measure?	How to measure it?	With what?	Where?	When?
Loss and degradation	Inspection harvesting and processing activities, estimate losses and degra.	Field and plant inspections	Concession and plants	1 <sup>st</sup> evaluation and annually

#### 5.3.2 It is documented that contract and payment systems with field workers (tree identification, fellers, bunchers, and machinery operators) include incentives and **disincentives (check labour legislation section 23)** that consider not only production criteria, but also product quality and reduction of damage to the remaining forest.

What to measure?	How to measure it?	With what?	Where?	When?
Operational plan, CoP and HR policies	Inspection of current records	Salary and wage records, interviews	Office company, field	annually
Observations: in the case of contracted workers incentives are not always given by the contractor to his workers. How to measure moral and social obligation?				

5.3.3 The FMO has a mechanism in place to evaluate tree quality before felling (marking, directional felling).

What to measure?	How to measure it?	With what?	Where?	When?
Existence of mechanism	Revise relevant documentation, protocols	Relevant documentation, interviews, visual assessment	Field and field office	continuously

5.3.4 If feasible, salvage harvesting should be done in current or recent annual harvest areas based on results of objective assessment of forest stand (e.g. silvicultural survey).

What to measure?	How to measure it?	With what?	Where?	When?
Occurrence salvage harvesting, feasibility	Review FMP, field visits, and interviews	Records, FMP, interviews, observations	Field, office	Annually in areas to be closed

#### **Criterion 5.4:**

Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.

5.4.1 The FMO conducts actions to develop markets and sustainable utilisation of new species and products.

What to measure?	How to measure it?	With what?	Where?	When?
Occurrence of actions	Review plans, inspect plants,	Company policy, businessplan, operational plan, marketing strategy	Office, plants	annually

5.4.2 Based on discussion with the other relevant forest users the FMO allows the collection of information on the presence and distribution of potential non-timber products producing species during the pre-harvest inventory.

What to measure?	How to measure it?	With what?	Where?	When?
Whether this is allowed	Review plans and 100% inventory data	OP and 100% inventory, interviews	Field	annually

#### **Criterion 5.5:**

Forest management operations shall recognise, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.

5.5.1 Forest management must show evidence of recognition, maintenance, and when appropriate improvement of the forest services and resources in particular related to watersheds.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of such evidence	In FMP, maps and OP, field inspections	FMP, maps and OP, observations,	Field and office	annually
Observations; Smartwood refers specifically to fisheries and other recreational resources, looking at siltation and sedimentation levels of watercourses				

5.5.2 Areas of special services and resources are mapped .

What to measure?	How to measure it?	With what?	Where?	When?
Areas marked on map	Inspection of maps	Maps, description	Office and field	1 <sup>st</sup> evaluation

5.5.3 The FMO consults with other relevant agencies on special (forest and environmental) service areas and facilitate their management.

What to measure?	How to measure it?	With what?	Where?	When?
Evidence of consultancy reports and assessments	Review FMP, agreements, and other relevant documents	FMP, interviews	Office company and relevant agencies	1 <sup>st</sup> evaluation

### Criterion 5.6:

The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

5.6.1 A reasonable and prudent cutting cycle has been set that contributes to the maintenance of sustainability and forest stability, and the places in which the annual cut will happen are pre-determined.

What to measure?	How to measure it?	With what?	Where?	When?
Method of determining cutting cycle and documents that show annual areas	Inspection of FMP, operational plan, literature on growth, inventory data	Same	Office and field	1 <sup>st</sup> evaluation

5.6.2 The AAC (per area, volume or other relevant unit measurement) is based on relevant growth and yield determinations and in the absence of that on conservative assumptions acknowledged by the competent authorities.

What to measure?	How to measure it?	With what?	Where?	When?
Justification of AAC	Review relevant documents and FMP	Expertise, interviews	Office	1 <sup>st</sup> evaluation

5.6.3 The applied silvicultural treatments are ecologically justified based on the best available information, be this based on practical experience or on published research results as specific to the forest type as possible.

What to measure?	How to measure it?	With what?	Where?	When?
Justification treatments	Inspection of FMP, compare with relevant documents	interview with experts	Office and field	1 <sup>st</sup> evaluation

5.6.4 Only trees that are previously selected and marked are felled, respecting the minimum felling diameters or other silvicultural prescriptions established in the operative or management plan.

What to measure?	How to measure it?	With what?	Where?	When?
Compliance	100% inventory, field inspection	100% inventory, operational plan, observations	Field,	1 <sup>st</sup> evaluation

**Criterion 5.7:**

Sites of special archaeological significance shall be clearly identified, and recognised and protected by forest managers.

5.7.1 Such sites should be mapped and described in forest management plans.

What to measure?	How to measure it?	With what?	Where?	When?
Location sites on maps	Inspection of maps, field inspections	Maps, interviews	Field	1 <sup>st</sup> evaluation

5.7.3 Personnel should be aware of sites and know that they need to be protected.

What to measure?	How to measure it?	With what?	Where?	When?
Awareness personnel	Interviews	Interviews, documents	Office and field	1 <sup>st</sup> evaluation

## PRINCIPLE #6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

### Criterion 6.1:

Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.

6.1.1 A clear environmental management plan and associated protocols must be in place and implemented.

Indicator changed. Needs protocol to be defined

### Criterion 6.2:

Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.

6.2.1 The forest management plan proposes concrete actions to avoid the extinction of tree species, the reduction of other plant or animal species with conservation status and soil and aquatic environment degradation. In doing so, provisions of CoP for timber harvesting must be observed.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Reference
Actions proposed in FMP	Compare MP with accepted protocols	CoP Harvesting guidelines (GFC and MP)	Head Office Field Office	FMP 12.2.1

6.2.2 The FMO has policies and actions to reduce hunting, trapping and gathering for commercial purposes, for sports, as pets or to feed the employees of the forest and industrial operations

Protocol:

What to measure?	How to measure it?	With what?	Where?	ref
Protocols in place to prevent such action	MP review Food source for employees	MP Wildlife regulations	Head Office Wildlife Division	AP 7.6 FMP 12.4 (Closure of blocks and signage for biodiversity reserves )
Observation: guidelines could elaborate and cover egg collection				

6.2.3 National or international legislation and conventions for the protection of species are complied with.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Species prohibited by legislation are not being utilised	MP makes provisions for cons. and prot. Zones Evidence of signage EPA/GFC monitoring records	FMP EPA?GFC monitoring records Field observations Maps	Head office Field site	FMP 6.1 (8) 12.4 Signage at Biodiversity reserves 12.0 Env. Cons. Methodos

6.2.4 The FMP and subsequent revisions take into consideration the evaluation of the state of conservation of critical and threatened species.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Evaluation programme in place	Review MP Recommendations of eval. Used in MP	MP	Head or Field Office	

6.2.5 There is a list of rare, threatened and valuable species and guidelines for the protection of these species contained within the management plan.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
There is a list in MP	Review MP  Confirm list with EPA, Wildlife Division if acceptable	MP  EPA/Wildlife docs	Head Office Field Office EPA/Wildlife Division	
GNIFC should prepare and update list on national level				

### Criterion 6.3:

Ecological functions and values shall be maintained intact, enhanced, or restored, including forest regeneration and succession, genetic, species, and ecosystem diversity and Natural cycles that affect the productivity of the forest ecosystem.

6.3.1 The number of trees harvested follows the CoP (or harvesting) guidelines.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Number of trees harvested per ha	Review MP Production Data Log tagging in field (verification)	MP Production data	Head and Field Offices Field logging site	AP 2.3, 2.1, 2.2, 5.2 FMP pg 448 (harvesting site)

### 6.3.2 Gap size does not exceed a defined size

Protocol:

What to measure?	How to measure it?	With what?	Where?	ref
Gap size regulations in harvesting protocols (400 m <sup>2</sup> or 20 m diameter)	Field check – Frequency of multiple tree gaps Evidence of persistence of pioneer species, lianas Damage by lianas, minimum distance between harvested trees	Tree stocking map Field measurements	Field office Felling site	AP 2.4-2.5 (inventory) FMP 9.2

### 6.3.3 Trees are marked for retention-seed and habitat and keystone trees.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Have trees been marked	Was 100% inventory done and trees identified Field observations	Stock maps Inventory data	Field office Tree felling site	AP 4.2

### 6.3.4 Fire management methodologies must be included in the FMP

**New indicator, needs protocol**

#### **Criterion 6.4:**

Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.

6.4.1 There is not less than 5% reserve areas of all representative forest types within the concession.

Protocol:

What to measure?	How to measure it?	With what?	Where?	ref
FMP includes reserve area	Review MP Available maps to check locations Forest type map to determine productive percentage	MP Relevant maps	Head and Field Office	FMP Biodiversity Reserves (Table 7 pg 31) 6.1 (4), 8(1)
Observation: Note that Smartwood indicates that a target figure of 10% is recommended but not mandatory				

6.4.2 Protection forest is marked in the field and forest areas show no signs of interference.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Protection forest has signage, limited access, no signs of interference (e.g. trees felled)	Field observations		Field sites	

### Criterion 6.5:

Written guidelines shall be prepared and implemented to: control erosion; minimise forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.

6.5.1 Guidelines are implemented for pre-harvesting, harvesting and post-harvesting operations towards mitigating the impacts of these operations on the environment. These guidelines comply with the CoP.

Protocol:

What to measure?	How to measure it?	With what?	Where?	ref
Guidelines that comply with CoP are available	Review Guidelines Field observations for compliance Interviews with staff , GFC	MP CoP	Head and Field Office Field sites  GFC	AP 5.2 Ap 2.4, 2.5, 4.1,.4.2  FMP 9.0 Inventory Design, pg 45 mang't level inventory, pg 53 yield regulation, 7.0 post harvest  12.2.2 fire control  6.1 (9), pg 52 (iii), 9.2  pg 52 revisions of harvesting strategy based on inventory

6.5.2 Guidelines are implemented for the design and construction of the road network towards mitigating the impacts of these operations on the environment. These guidelines comply with the CoP.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Existence of guidelines and adherence to CoP	Review MP Evaluate written guidelines Interview with company, GFC, Min of Public Works, EPA	CoP MP,	Head Office Relevant offices	AP 6.4, 12.7, 2.8, 3.1, 3.2  FMP 5.4.2, 12.2
Observation: Smartwood indicates that topographic should be used to clearly indicate wet- and dry-harvesting areas, while operational manuals should exist to guide staff.				

### Criterion 6.6:

Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks.

6.6.1 Protocols governing the use of chemical products banned by Guyanese or international law are observed.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of guidelines for use of chemicals and adherence to CoP	Monitoring records of EPA and GFC	MP CoP	Head and Field Offices Regulatory Offices	

6.6.2 Personnel have been trained and apply the appropriate techniques for safe handling, storing and disposal of chemical products and containers.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Evidence of programme for training personell	Review MPs Interview employees Observations	MPs	Head and Field Office Field Sites	FMP pg 48, 12.3, (on job training on env disposal or waste) Pg 105-106 – protective clothing AP OSH 7.3

6.6.3 There is no evidence of pollution by chemicals.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
No signs of pollution	Observations Monitoring records Health records Interviews with surrounding communities Means of transportice chemicals/fuel etc Types of containers used and how dispensed	Monitoring records	Field sites	

6.6.4 There are no medical records of chemical pollutant related health symptoms.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
No evidence of medical records	Check medical records Sick leave records  Records of Min of Health, Labour	Records	Head office Field Office (if not recorded at Head office) Ministry of Health	

**Criterion 6.7:**

Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

6.7.1 Containers, wastes, garbage and lubricants generated in forest and sawmill operations are disposed of in a manner consistent with EPA and CoP guidelines and regulations.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Evidence of guidelines for proper disposal of such in place	Review MP Field observations GFC/EPA Monitoring records Fire Dept approval. OHS	MP Monitoring records	Head or Field Office Company sites eg workshop, dumpsites  Regulatory offices	AP 6.3  FMP 12.3

6.7.2 Sufficient and adequate waste storage capacity is available on site and is being used.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Evidence of provision in FMP	Review MP GFC/EPA monitoring records Observations	MP Monitoring records	Head or Field Office  Regulatory offices	

**Criterion 6.8:**

Use of biological control agents shall be documented, minimised, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

6.8.1 The usage of biological control agents is supervised, monitored and strictly documented.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
N/A but should be left for future consideration				

**Criterion 6.9:**

The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.

6.9.1 The use of exotic species is strictly supervised, monitored and documented.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Use of exotic species is monitored, controlled and documented	Guidelines Interviews Field checks	Species list		
Observation: can include dogs, chickens, grasses, fruit trees etc; However, Smartwood is mainly concerned with planting of exotic tree species and possible related insect attacks or diseases.				

### Criterion 6.10:

Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:

- Entails a very limited portion of the forest management unit; and
- Does not occur on high conservation value forest areas; and
- Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.

#### 6.10.1 Primary and commercial forest are not cleared or converted

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Change in land use	Review MP Interview surrounding communities Monitoring records of GFC/EPA Field observations Satellite images (GIS)	MP, interviews, records GFC and EPA, Satellite images	Head of Field Office  GFC/GIS info units	FMP Table 7 pg 31, 6.1 (4), 8 (i) ID of prod and non prod forest

6.10.2 Degraded forest types are not converted to other land uses without the permission of GFC or/and other relevant authorities

**New indicator, needs protocol**

6.10.3. Clear guidelines for the establishment of plantations and other forms of land use are observed.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Clear evidence of guidelines and protocols in establishment of plantations	Review guidelines Interview field staff Observations		Field Office Field sites	FMP 6.10.1

## **PRINCIPLE #7: MANAGEMENT PLAN**

A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

### Observations:

While management plans are important and in most cases an essential element of the planning process, it should be emphasized that above all management practices in the field need to be sustainable. Preferably this should be backed up by adequate documentation and systems, which should be developed according to the scale of the operation.

SmartWood expects that management plans for large operations will be much more detailed and systematic than those for small landowners, due to financial constraints and the relative risk of negative environmental impact due to scale differences. Recently, much more understanding of the importance of landscape level biological concerns has been gained and increasing importance is placed on this topic during SmartWood assessments, particularly for medium and large public or private forest holdings. Adjoining landowner concerns are always important, no matter what scale of operation, but expectations in terms of processes of local consultation, during and after the initial planning process, are clearly higher for larger operations. Some aspects of community interaction on management planning are covered in Section 6.0. In the selection of a forest management system, SmartWood does not advocate any single silvicultural approach, e.g. even-aged versus uneven-aged, single tree selection versus shelterwood, etc. Rather, certified forest managers are expected to balance production with environmental objectives, weigh the advantages and disadvantages of each forest management approach, and select techniques that maintain or restore ecosystems while at the same time responding to social and economic realities. Every technique can be used well, or misused.

Finally, from both certification and sustainable forest management perspectives, experience indicates that it is crucial for internal monitoring systems to exist that provide quality control for forest management operations, identify operational challenges, and report on the success or failure of management interventions to resolve problems. This section also focuses on clarifying internal controls that each forest management operation has established to ensure quality control.

### **Criterion 7.1:**

The management plan and supporting documents shall provide:

- a) Management objectives.
- k) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.
- l) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.
- m) Rationale for rate of annual harvest and species selection.
- n) Provisions for monitoring of forest growth and dynamics.
- o) Environmental safeguards based on environmental assessments.
- p) Plans for the identification and protection of rare, threatened and endangered species.
- q) Maps describing the forest resource base including protected areas, planned management activities and land ownership.
- r) Description and justification of harvesting techniques and equipment to be used.
- s) Plans should incorporate recommendations from the SIA

7.1.1 A multi-annual forest management plan exists that clearly specifies the objectives of forest management and that orients and details the main activities to be executed to achieve the objectives, covering all the elements listed in criterion 7.1.

What to measure?	How to measure it?	With what?	Where?	When?
Content of FMP	Inspection of FMP,	FMP	Office	1 <sup>st</sup> evaluation

7.1.2 The FMP has estimates to calculate the future forest structure and composition at least until the end of the first cutting cycle, based upon a resource assessment of the FMU.

What to measure?	How to measure it?	With what?	Where?	When?
Content FMP	Inspection of FMP and resource assessment,	FMP and inventory	Office	1 <sup>st</sup> evaluation

7.1.3 There are Annual Harvesting Plans based on detailed maps that include volumes or number of trees to extract in determined areas, planning of harvesting and silvicultural treatments, and other activities such as road construction. This plan indicates where and when and how the activities will be executed.

What to measure?	How to measure it?	With what?	Where?	When?
Content AHP	Inspection plan and maps	AHP, 100% inventory	Office	1 <sup>st</sup> evaluation

7.1.4 Management inventories were designed and executed according to established technical criteria, and provide reliable results that form a solid base for the multi-annual Forest Management Plan.

What to measure?	How to measure it?	With what?	Where?	When?
Content inventory, design, statistics, results	Revise inventory and compare with GFC guidelines	Inventory document	Office	1 <sup>st</sup> evaluation

**7.1.5 Operational level inventories are conducted that provide the basis for planning and execution of the annual harvest.**

What to measure?	How to measure it?	With what?	Where?	When?
Existence of operational level inventories	Inspection documents	Operational (100%) inventory	Office	1 <sup>st</sup> evaluation and annual intervals

7.1.6 The annual plan, together with the maps are available to provide operative guidance to the management activities and to facilitate the monitoring of activities execution.

What to measure?	How to measure it?	With what?	Where?	When?
Availability operational plan	Check for its existence and use	Maps, species lists	Office, field	annually

7.1.7 The silvicultural prescriptions established in the forest management plan are executed in the field.

What to measure?	How to measure it?	With what?	Where?	When?
Execution of silvicultural prescriptions described	FMP, operational plan and field check	FMP, OP, observations	Field	annually

**Criterion 7.2:**

The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

7.2.1 The FMP is periodically reviewed (at least each five years) to include the results of monitoring, the new scientific and technical information as well as the changes in the environmental, social and economic context.

What to measure?	How to measure it?	With what?	Where?	When?
Whether FMP is updated	Inspection current and previous FMP	FMPs	Office	1 <sup>st</sup> evaluation

7.2.2 Operational plans based on the five-year plan should be reviewed annually and incorporate relevant changes in information and technology in next year's plan.

What to measure?	How to measure it?	With what?	Where?	When?
Whether OP is updated	Inspection current and previous OP, post-harvest evaluation of ACA	Ops, post harvest assessments	Office	annually

7.2.3 Formal feedback mechanisms are in place to improve implementation of the FMP field guides.

What to measure?	How to measure it?	With what?	Where?	When?
Dissemination mechanisms, field guides	Inspection documents and interview key informants	Documents such as monitoring reports, interviews	Field and office	annually

**Criterion 7.3:**

Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

7.3.1 The FMO has a documented training plan and proof of execution that fulfils the Forest Management Plan objectives.

What to measure?	How to measure it?	With what?	Where?	When?
Existence training plan and contents	Inspection training plan	Plan, definition of training needs	Office, field	annually
Observations: Scale of operation should be considered				

7.3.2 Field guides are available for use in the different field operations for the training of the workers.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of field guides	Inspection of guides and training schedule	Guides, schedule/plan	Office and field	annually

7.3.3 There is supervision of field activities to assure that the operative norms are duly implemented.

What to measure?	How to measure it?	With what?	Where?	When?
Existence of supervision	Field checks	Observations and interviews	Field	annually
Observations: quality of supervision should be considered as well				

7.3.4 The field, technical and administrative middle management personnel has adequate information for the implementation of the management plan.

What to measure?	How to measure it?	With what?	Where?	When?
Availability of applicable information	Review information, interviews	Documents, interviews, observations; dissemination mechanisms	Office, field	annually
Observations: Define what is adequate information.				

#### **Criterion 7.4:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.

7.4.1 There is a Forest Management Plan summary available.

What to measure?	How to measure it?	With what?	Where?	When?
Availability FMP summary	Check availability	Observations and interviews, documents	Office and field	1 <sup>st</sup> evaluation

#### **Criterion 7.5:**

In the case of forest management operations that do not need to follow GFC guidelines the details of the forest management plan should follow the scale, intensity and characteristics of the operations.

7.5.1 Forest management plan follows the scale and intensity of the operations

New indicator, needs protocol

**Criterion 7.6:**

Where appropriate (when you have overlapping use areas) planning should follow a participatory approach.

7.6.1 Appropriate mechanisms follow a participatory approach

New indicator, needs protocol

## PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

### Criterion 8.1:

The scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment should determine the frequency and intensity of monitoring. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.

8.1.1 Monitoring objectives and procedures as specified in management plan are implemented.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Rel
Evidence in MP that monitoring protocols are implemented	Review relevant docs (monitoring records etc) Field checks for implementation Interviews with field staff/surrounding communities GFC silvicultural surveys	Relevant docs	Head and field office GFC	AP 6.2, 6.4  FMP 6.1(10), pg 52, 13.0 (Monitoring and research)
Smartwood adds something on quality of these protocols: should indicate how management prescriptions should be changed, based on new ecological, silvicultural, or market information				

8.1.2 The FMO demonstrates an active commitment to the national PSP programme as it is relevant to the concession.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Companies commitment to contribute to PSP programme, either by establishing them themselves, make space available, or contribute financially	Any PSPs at company or financial contributions	MP  PSP secretariat	Office  PSP secretariat	FMP pg 66 Pg 85, Map

### Criterion 8.2:

Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

- Yield of all forest products harvested.
- Growth rates, regeneration and condition of the forest.
- Composition and observed changes in the flora and fauna.
- Environmental and social impacts of harvesting and other operations.
- Costs, productivity, and efficiency of forest management.

8.2.1 The FMP utilises growth, mortality and recruitment data (from established PSPs within or outside concession).

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
MP utilises relevant PSP data for making decisions	Review FMP Confirm with PSP documentation used Confirm with experienced foresters	MP PSP data	Head office  Foresters location/s	FMP pg 52, 67, 74 (plans for monitoring effects of logging)  Pg 50

8.2.2 Records are kept on observations of key faunal species

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Existence of documentation of observations of key faunal species (large predators, terrestrial birds, deer, tapir, monkeys esp. spider monkeys, macaws, turtles etc)	Review documentation of observations Interviews with staff making observations		Head or field office  Field (staff)	

8.2.3 The yield of forest products is recorded.

What to measure?	How to measure it?	With what?	Where?	Ref
Documentation shows that forest products are recorded	Production records  Confirm with GFC records	Rel. docs	Head office  GFC	FMP p[g 107 (Expected products); 6.1 (10)

8.2.4 There is a systematic evaluation of the impacts of forest management on the quality of life of the workers.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
System in place to evaluate the impacts of FM on such	Review protocols Interview workers Medical records Observations of available facilities	Protocols MP Rel records	Head and field offices  Field sites	AP 7.5  FMP 6.1 (6) pg 52, pg 32
Needs review by social chamber members				

### 8.2.5 The environmental impact of the FMU on the neighbouring communities is controlled

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
Parameters in place to determine impact levels	Interviews with communities Observations of infrastructure etc Review parameters		Office Community Min of Amerindian Affairs	AP 2.13, 7.4, 7.5 (community and regional initiatives)  FMP 6.1 (3) – rights to access Pg 32
Guidance definitely needed for this indicator eg what to look for- water quality, noise or dust pollution, waste disposal				

#### Criterion 8.3:

Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody."

8.3.1 There is a system and adequate documentation for each annual harvesting area, which permits monitoring the chain of custody.

Protocol:

What to measure?	How to measure it?	With what?	Where?	Ref
System in place to monitor chain of custody	Review rel. docs Field observations of application of system Log tracking	Rel docs	Head and field offices  Field sites  GFC	FMP 6. 3 Scaling and Grading
Smartwood remarks: Volume and source data on loads of raw material (certified logs or lumber) is available (i.e. scaled, inventoried, measured) in the forest, in transport, and at intermediate storage yards (e.g. log yards), processing and distribution centers controlled by FMO. Invoices, bills of lading, certificates of origin (e.g. GATT Form A) and other applicable documentation related to shipping or transport of forest products are kept in a central location and/or easily available for inspection.				

8.3.2 Certified forest products are clearly identified with labels or marks during all stages of processing and physical distribution.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Clear labelling during all stages of processing and physical distribution	Interviews Observations		Field Processing plants eg sawmills	

8.3.3 Documentation on origin and destination of all certified forest products must be available in the intermediary locations of storage and/or processing and physical distribution centres.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Availability of such documentation	Review docs  Can product be traced back to stump	Rel docs	Head or Field Office	

**Criterion 8.4:**

The results of monitoring shall be incorporated into the implementation and revision of the management plan.

8.4.1 Results of monitoring are included in the execution and review of the FMP and the annual plan.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Inclusion of monitoring results in such	Review of MPs and operational plans Monitoring records and see if recommendations are included  GFC records		Head or Field Office  GFC	

**Criterion 8.5:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.

8.5.1 A summary of the results of monitoring is publicly available.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Results summaries publicly accessible	Records available  Confirm with relevant stakeholders who require info like GFC.		Head Office	

## **PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS**

Management activities in high conservation value forests shall maintain or enhance the attributes, which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

### **Criterion 9.1:**

Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.

**No indicators have been defined yet.**

From the Smartwood documents:

HCVFs have a specific definition within the FSC context. An HCVF is considered to exist when:

- forest contains globally, regionally or nationally significant: concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or, large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
- they are in, or contain rare, threatened or endangered ecosystems;
- they provide basic services of nature in critical or unique situations (e.g. watershed protection, erosion control); and, it is fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

The FSC currently is organizing a technical committee to assist FSC-approved certifiers in developing procedures for more consistent application of the HCVF idea. FSC regional standards groups are wrestling with this issue as well. Scale issues are particularly important; no one expects small landowners to be able to cover HCVF issues as well as larger organizations, but conservation of HCVF values must be stressed in all cases.

### **Criterion 9.2:**

~~The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.~~ Eliminated during workshop, because is assessing the certification methodology rather than FMU operation.

### **Criterion 9.3:**

The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.

9.3.1 HCVFs are identified and mapped and criteria used to define the areas are listed in the management plan.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
HCVFs are identified and mapped	Review MP Review lists, maps etc Confirm with other regulatory agencies eg GFC		Head or Field Office	

9.3.2 Forest management plan is site-specific and detailed in describing the measures taken to protect the HCVF resource.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Measures to protect HCVFs are described in MP	Review measures in FMP Check available maps	MPs Maps	Head or field office	

9.3.3 Measures to protect HCVF values are available in public documents.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
Such is available in public docs	Review docs Cornfim through interviews or visits if info available at rel. organisations		Public facilities	

#### **Criterion 9.4:**

Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.

9.4.1 An annual system for monitoring the maintenance of HCVF values is defined and incorporated into the FMO's planning, monitoring and reporting procedures and is applied.

Protocol:

What to measure?	How to measure it?	With what?	Where?	When?
A system for such is in place	Review of relevant docs GFC/EPA records		Head or field office Regulatory offices	

## **Results of the Field Test of the Draft Standard**

## PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

### Criterion 1.1

Forest management shall respect all national and local laws and administrative requirements

1.1.1 The FMO manages and harvests the forest according to laws, regulations and legally valid dispositions.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

1.1.2 The FMO has in place a mechanism that facilitates access to legal and supporting documents for all company and regulatory body staff.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### Criterion 1.2:

All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid

1.2.1 The payment of taxes, fees, and penalties applicable to the FMO is done to the satisfaction of the relevant authorities.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 1.3:**

In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.

1.3.1 Forest management fulfils all valid international agreements (ITTO agreement, OIT 169, Agreement of biological Diversity, CITES, GCCC, ACT and the Trade International Agreements).

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 1.4:**

Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.

1.4.1 Conflicts between laws, regulations and the FSC P&C shall be resolved between the Government of Guyana and the Guyana National Initiative and if not resolved, presented to the FSC.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 1.5:**

Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.

1.5.1 Mechanisms against invasion by third parties are documented and acceptable to all stakeholders as well as legally applicable.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

1.5.2 Borders of the FMU are identified in the field and in conflict cases there are written resolution procedures.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

1.5.3 The FMO maintains a record of invasion by third parties and documents the outcomes of resolution procedures.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 1.6:**

Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.

1.6.1 The FMO makes a commitment to the FSC P&C in a written statement within the management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:** is acceptable to have written statement outside management plan in initial period of certification?

1.6.2 In the FMP, land is devoted to forest management as dominant land use for at least one cutting cycle of 60 years.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	1	1	1	1	1

**Observations:** may not be realistic to put specific length on cutting cycle. Current FMPs written based on different information. 60 years recommendation based on limited information of few forest types

## PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

### Criterion 2.1:

Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

#### 2.1.1 Land tenure or use right is secure and legal

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

2.1.2 A written agreement on specific use areas between parties with overlapping use rights exists.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 2.2:**

Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.

2.2.1 There is an agreement with the community to implement forest management and the community controls the forest management process.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

2.2.2 In the case that the utilisation (cutting permission (?) a management contract (??)) is delegated to third parties there are clear contracts in which the local and community regulations of forest activities are respected.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:** The onus is on the company to ensure that sub-contractors are bound by written agreements to conform to local and community regulations of forest activities

2.2.3 Forest management plans are agreed upon with the communities and are based on the practice of participatory planning, joint planning and implementation and local control.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 2.3:**

Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

2.3.1 Mutually agreed, written procedures are being used used to manage existing conflicts.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

2.3.2 In the case of potential conflicts there are written procedures to prevent them. The procedures recognise the negotiation strategies of local communities and the participation of a negotiator mutually accepted by parties and within the legal framework. The mechanisms are included in the management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

2.3.3 The FMO has a documented public relations policy and is involved in an active dialogue process with the surrounding communities affected by forest management.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected.

#### Criterion 3.1:

Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.

3.1.1 There is a written agreement with the indigenous community to implement long-term forest management, and the community controls the process related to management.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.1.2 Forest management plans are agreed upon with communities and are based on participatory planning practices, co-management and local control.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.1.3 There is evidence that written agreements are adhered to.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 3.2:**

Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.

3.2.1 The legal, traditional rights and customs of indigenous people to the management or use of the forest resource (flora and fauna) have been formally recognised and documented in written agreements, and are reflected in resource use maps produced in participatory processes with the communities.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.2.2 The FMU is clearly demarcated from indigenous lands, based on existing well-defined limits (demarcations) and mutually agreed written agreements.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.2.3 In the case of potential conflicts there are written procedures to prevent them. If conflicts exist, there are mutually agreed, written procedures to solve them, based on free and well informed consent. The procedures are included in the management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 3.3:**

Sites of special cultural, ecological, or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognised and protected by forest managers.

3.3.1 The forest management plan identifies places of special cultural, ecological, religious and spiritual significance for indigenous people and proposes actions for its protection, with the existence of a written agreement among involved parties.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.3.2 There should be evidence of protective measures taken in worked areas when such sites have been identified.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 3.4:**

Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

3.4.1 Traditional ecological knowledge used in the FMU is recognised as a technical skill and appropriately compensated as such.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

3.4.2 If the FMU derives economic benefit from the application of traditional knowledge in planning and forest operations, indigenous people contributing traditional knowledge are adequately compensated. The compensation is agreed upon with the consent of those people.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 3.5:**

Sites of special economic and geographic significance to indigenous people shall be clearly identified in co-operation with such people, and recognised and protected, or adequately compensated for, by forest operators.

3.5.1 The FMP identifies places of economic significance for indigenous people and proposes actions for their protection, or adequate compensation, based on a written agreement among involved parties.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	0

3.5.2 The sites are indicated in a resource use map, and if protective actions need to be taken, they are also demarcated in the field.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	0

**Criterion 3.6:**

Measures should be taken to avoid negative social impacts of forest management on indigenous and traditional communities and to safeguard their cultural diversity.

3.6.1 The forest management plan should include a section on the FMO's social policy concerning local and indigenous communities. This section should include the identification of potential negative impacts and a description of existing cultural diversity.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

#### PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS

Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.

##### Criterion 4.1:

The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

4.1.1 Given equal qualification, local forest-dependent populations have priority access to employment, and to the possibility of training and promotion.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.1.2 Given equal qualification, Guyanese have priority access to employment, and possibility of training and promotion.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.1.3 There is clear evidence of good neighbourly relations.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 4.2:**

Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.

4.2.1 Salaries and other benefits (social security, rent, lodging and food) of direct and indirect employees comply with the national standards for the same type of work.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	0	1	0

**Observations:** Suggested additions:

4.2.1.2

Appropriate mechanisms are put in place to facilitate the acquisition at concessionary rates of lumber unsold after 6 months to a year to forestry workers with five years service and/or low income housing projects in lieu of dumping and/or burning that lumber.

4.2.1.3

Appropriate mechanisms are put in place to facilitate access by local community members to medical and/or commercial facilities located within the FMUs precincts, so long as there is no compromise to the company's security.

**4.2.2 Occupational Health and Safety Regulations, EPA hazardous materials regulations and provisions concerning Health and Safety, operational and camp hygiene in the Code of Practice for Timber Harvesting are adhered to in felling, extraction, trucking, road construction, camp and workshop activities, in-forest saw milling and other forest management activities.**

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.2.3 All relevant legislation relating to health and safety of employees and their families in situ is complied with.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.2.4 Basic health care and emergency first aid is available in the work place.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.2.5 Adequate shelter, clean water, sanitation and protection from occupational disease (e.g. malaria) in camps are provided.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.2.6 The FMO should take measures to ensure that their employees and those of contractors receive fair wages and social care.

#### 4.2.6.1

Sub-contractors supplying services to an FMO should be paid within a specified time, for example, within 10 working days of having notified the company of logs having been cut and delivered to an agreed forest log market.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.2.7 Agreements between FMO and subcontractors should adhere to national labour legislation and sector labour agreements.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### **Criterion 4.3:**

The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).

4.3.1 The employees are free to organise themselves. It is not prohibited nor is there any obstacle for employees to be member of a Labour Union or association, or for negotiating collectively with their employers if they wish to do so.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.3.2 There is clear evidence that employees are directly and effectively informed of their rights by relevant third parties. There is evidence of FMO support for this process.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 4.4:**

Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.

4.4.1 There is a methodology to measure the impact of forest management on resource access and social well being of the community. It is compatible with the scale of the operations.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	0

**Observations:** Check will have to be made in forest and community to measure impact. May be costly.

4.4.2 Populations that are directly affected by forests operations have the opportunity to participate in the planning of specific tasks of forest management that could affect them.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

#### 4.4.3 A clearly defined, ongoing dialogue process exists.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

#### **Criterion 4.5:**

Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.

4.5.1 Measures are taken to prevent damage or loss that may affect the rights, goods, or livelihoods of local communities and these are documented in the management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.5.2 In case of damage or negative impacts, the surrounding communities are compensated for damage to crops and environment (water quality, access to forest services) or for the loss of income, and the process is validated by a written agreement.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

#### **Criterion 4.6:**

Mechanisms should be in place to enhance job security and worker retention capacity.

4.6.1 Terms of reference exist for positions in the FMO and are the basis for contracts, specifying regular pay slip and wage book.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.6.2 Evidence of NIS coverage exists.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

4.6.3 Written service contracts exist with specified turn-around periods, and guarantees of return travel.

4.6.3.1

Clear transparent processes related to on-the-job training and promotion exist.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

## PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

**Criterion 5.1:**

Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.

5.1.1 Forest management plan projections include estimates of all planning and operational costs.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.1.2 Planning, organisation and application of appropriate technology are applied.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	1	1	1	1	1

**Observations:** what about evaluating for an appropriate system?

5.1.3 Up dated registers of the production and costs of the different operations are kept for each Annual Harvesting Area.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	1	1	1	1	1

**Criterion 5.2:**

Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

### 5.2.1 Forest operations seek efficient and optimal utilisation of forest resources.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	1	1	1	1	1

**Observations:** need to define up to what point nfp should be included

### 5.2.2 If feasible, local processing is promoted, including the utilisation of residues and other forest products.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### 5.2.3 The Forest Management Unit Operator has updated market information that is guided by the marketing strategies of the company and is linked to forest resource assessment information.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:** add to indicator: that is economically available at the time

### **Criterion 5.3:**

Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

5.3.1 Logs and processed wood and other products (honey, balata, manicole, nibbi, etc) are manipulated in such a way that degradation and loss are minimised.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:** may need description of what is considered to be loss and degradation; can it be done for NTFP?

5.3.2 It is documented that contract and payment systems with field workers (tree identification, fellers, bunchers, and machinery operators) include incentives and **disincentives** (**check labour legislation section 23**) that consider not only production criteria, but also product quality and reduction of damage to the remaining forest.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	0

5.3.3 The FMO has a mechanism in place to evaluate tree quality before felling (marking, directional felling).

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.3.4 If feasible, salvage harvesting should be done in current or recent annual harvest areas based on results of objective assessment of forest stand (e.g. silvicultural survey).

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	0

**Criterion 5.4:**

Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.

5.4.1 The FMO conducts actions to develop markets and sustainable utilisation of new species and products.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.4.2 Based on discussion with the other relevant forest users the FMO allows the collection of information on the presence and distribution of potential non-timber products producing species during the pre-harvest inventory.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	0	0	0	0	0

**Observations:** cannot be done in Guyana??

**Criterion 5.5:**

Forest management operations shall recognise, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.

5.5.1 Forest management must show evidence of recognition, maintenance, and when appropriate improvement of the forest services and resources in particular related to watersheds.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.5.2 Areas of special services and resources are mapped .

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.5.3 The FMO consults with other relevant agencies on special (forest and environmental) service areas and facilitate their management.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 5.6:**

The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

5.6.1 A reasonable and prudent cutting cycle has been set that contributes to the maintenance of sustainability and forest stability, and the places in which the annual cut will happen are pre-determined.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.6.2 The AAC (per area, volume or other relevant unit measurement) is based on relevant growth and yield determinations and in the absence of that on conservative assumptions acknowledged by the competent authorities.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.6.3 The applied silvicultural treatments are ecologically justified based on the best available information, be this based on practical experience or on published research results as specific to the forest type as possible.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.6.4 Only trees that are previously selected and marked are felled, respecting the minimum felling diameters or other silvicultural prescriptions established in the operative or management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 5.7:**

Sites of special archaeological significance shall be clearly identified, and recognised and protected by forest managers.

5.7.1 Such sites should be mapped and described in forest management plans.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

5.7.4 Personel should be aware of sites and know that they need to be protected.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

## PRINCIPLE #6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

### Criterion 6.1:

Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.

6.1.1 In elaboration, approval and monitoring of the management plan the regulations on EIA must be observed.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)

#### Observations:

- **Indicator needs revision**
- **EIA prerequisite for getting concession**
- **Check and see if results of EIA is incorporated in Management Plan (GFC FMP guidelines does not seem to require at moment**
- **CRITERIA does not require an EIA so this indicator may be too severe**
- **An Environmental Management Plan may be too severe appropriate**

6.2.1 The forest management plan proposes concrete actions to avoid the extinction of tree species, the reduction of other plant or animal species with conservation status and soil and aquatic environment degradation. In doing so, provisions of CoP for timber harvesting must be observed.

Evaluation of indicator: Score of 5 -Pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	1	1	1	1	1

#### Observations:

Indicator too long and could be more precise  
*DTL indicated that adhere to Code of Practice*

6.2.2 The FMO has policies and actions to reduce hunting, animal or egg collection for commercial purposes, for sports, as pets or to feed the employees of the forest and industrial operations.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:**

**Concessionaires have no real control over hunting etc but can put measures in place (eg signage)**

6.2.3 Species protected by national or international legislation and agreements are not utilised.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:**

Concessionaires has no real control over hunting but can put some sytems in place like signage

6.2.4 The reviews of the FMP take into consideration the evaluation of the state of conservation of critical and threatened species.

Evaluation of indicator: Score of 5 - OK

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	0	1	1	1

**Observations:**

- Rephrase: The FMP and subsequent revisions take into consideration.....species
- Difficult as info needs to be derived from animal and plant inventories, PSPs, BRs etc

6.2.5 There is a list of rare, threatened and socially valuable species and guidelines for the protection of these species contained within the management plan.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 6.3:**

Ecological functions and values shall be maintained intact, enhanced, or restored, including forest regeneration and succession, genetic, species, and ecosystem diversity and Natural cycles that affect the productivity of the forest ecosystem.

6.3.1 The number of trees harvested follows the CoP (or harvesting) guidelines.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

6.3.2 Gap size does not exceed a defined size (still to be defined) –

Evaluation of indicator: Score of 5- ok

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	0	1

**Observations:** maybe consider 400 m<sup>2</sup> (20 metre width) – SUGGEST MERGE WITH 6.3.3 since both address the issue of gap size

### 6.3.3 Minimum distance between trees is not less than a defined norm (see CoP) SUGGEST MERGE WITH 6.3.2

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:**

**Need 2 more indicators**

**1. Size limits for harvested trees must adhere to the CoP or relevant harvesting regulations**

**2. Something on Fire Prevention**

### 6.3.4 Trees are marked for retention-seed and habitat trees.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 6.4:**

Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.

6.4.1 There exists a minimum of 10% of reserve areas within the concession area of which at least 45% is commercial forest.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:**

Recommend that companies have BRs overlaid on forest type maps so certifiers could gauge productive areas

6.4.2 Protection forest is marked in the field (e.g. with signpost), access is limited to avoid hunting and the protection forest areas show no signs of interference (e.g. felled trees)

Evaluation of indicator: Score of 6- Pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### Criterion 6.5:

Written guidelines shall be prepared and implemented to: control erosion; minimise forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.

6.5.1 Guidelines exist to orient pre-harvesting, harvesting and post-harvesting operations. These guidelines comply with the Code of Practice and are oriented towards reducing the impacts of these operations on the environment. The guidelines are applied in the field. (suggest delete this part)

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

6.5.2 Guidelines exist to orient the design and construction of the road network. These guidelines comply with the Code of Practice and are oriented towards reducing the impacts of these operations on the environment. The guidelines are applied in the field.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 6.6:**

Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks.

6.6.1 Directives or guidelines exist so that chemical products listed as banned by Guyanese or international legislation are not used.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

6.6.2 Personnel have been trained and apply the appropriate techniques for manipulating, storing and disposal of chemical products and containers.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

6.6.3 There are no signs of sites polluted by forbidden chemicals.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

6.6.4 There are no medical records of chemical pollutant related health symptoms.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 6.7:**

Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

6.7.1 Containers, wastes, garbage and lubricants generated in forest and sawmill operations are disposed of in a manner consistent with EPA guidelines and regulations.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)

**Observations:**

Storage of over a certain amount of fuel needs fire dept approval

6.7.2 Sufficient and adequate waste storage capacity is available on site and is being used.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 6.8:**

Use of biological control agents shall be documented, minimised, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

6.8.1 The usage of biological control agents is supervised, monitored and strictly documented. N/A but should be left for future consideration

Evaluation of indicator: (5?)

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)

**Criterion 6.9:**

The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.

6.9.1 The use of exotic species is strictly supervised, monitored and documented. (can include dogs, chickens, grasses, fruit trees etc)

Evaluation of indicator: Score of 3 – difficult to use as is

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	0	0	1	0

**Observations:**

Mechanisms not well defined to gather information

**Criterion 6.10:**

Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:

- Entails a very limited portion of the forest management unit; and
- Does not occur on high conservation value forest areas; and
- Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.

6.10.1 Primary, degraded primary and mature secondary forests are not cleared by current forest managers to create tree plantations or other types of land use.

Evaluation of indicator: Score of 3 – difficult as info may not be readily available and efficiency low

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	0	0	1	0

6.10.2 If plantations are established in early successional forest areas, natural grasslands or wetlands, clear guidelines and rationales are given to field staff for identifying acceptable areas. (rephrase – see below)

Evaluation of indicator: Score of 6 – pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Observations:**

Rephrase to ‘**Clear guidelines for the establishment of plantations are used for identifying acceptable areas if plantations are to be established in early successional forest areas, natural grasslands and wetlands**’

6.10.3 If forest conversion occurs complying with above indicators, it is also proven to lead to long-lasting economic and social benefit that exceed those generated from the natural forest cover. DIFFICULT INDICATOR to measure– SUGGEST DELETE TOTALLY

Evaluation of indicator: Score of 1 – suggest delete as too difficult to measure

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	0	0	0	1	0

**PRINCIPLE #7: MANAGEMENT PLAN**

A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

**Criterion 7.1:**

The management plan and supporting documents shall provide:

- a) Management objectives.
- t) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.
- u) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.
- v) Rationale for rate of annual harvest and species selection.
- w) Provisions for monitoring of forest growth and dynamics.
- x) Environmental safeguards based on environmental assessments.
- y) Plans for the identification and protection of rare, threatened and endangered species.
- z) Maps describing the forest resource base including protected areas, planned management activities and land ownership.
- aa) Description and justification of harvesting techniques and equipment to be used.
- bb) Plans should incorporate recommendations from the SIA

7.1.1 A multi-annual forest management plan exists that clearly specifies the objectives of forest management and that orients and details the main activities to be executed to achieve the objectives, covering all the elements listed in criterion 7.1.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.1.2 The FMP has estimates to calculate the future forest structure and composition at least until the end of the first cutting cycle, based upon a resource assessment of the FMU.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.1.3 There are Annual Harvesting Plans based on detailed maps that include volumes or number of trees to extract in determined areas, planning of harvesting and silvicultural treatments, and other activities such as road construction. This plan indicates where and when and how the activities will be executed.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.1.4 Management inventories were designed and executed according to established technical criteria, and provide reliable results that form a solid base for the multi-annual Forest Management Plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**7.1.5 Operational level inventories are conducted that provide the basis for planning and execution of the annual harvest.**

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.1.6 The annual plan, together with the maps are available to provide operative guidance to the management activities and to facilitate the monitoring of activities execution.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.1.7 The silvicultural prescriptions established in the forest management plan are executed in the field.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 7.2:**

The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

7.2.1 The FMP is periodically reviewed (at least each five years) to include the results of monitoring, the new scientific and technical information as well as the changes in the environmental, social and economic context.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.2.2 Operational plans based on the five-year plan should be reviewed annually and incorporate relevant changes in information and technology in next year's plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.2.3 Formal feedback mechanisms are in place to improve implementation of the FMP field guides.

Evaluation of indicator:

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 7.3:**

Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

7.3.1 The FMO has a documented training plan and proof of execution that fulfils the Forest Management Plan objectives.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.3.2 Field guides are available for use in the different field operations for the training of the workers.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.3.3 There is supervision of field activities to assure that the operative norms are duly implemented.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

7.3.4 The field, technical and administrative middle management personnel has adequate information for the implementation of the management plan.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 7.4:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.

7.4.1 There is a Forest Management Plan summary available.

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 7.5:**

In the case of forest management operations that do not need to follow GFC guidelines the details of the forest management plan should follow the scale, intensity and characteristics of the operations.

**THIS CRITERION WAS ADDED LATER AND STILL DOESN'T HAVE INDICATORS  
PLEASE PROPOSE INDICATORS**

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)

**Criterion 7.6:**

Where appropriate (when you have overlapping use areas) planning should follow a participatory approach.

**THIS CRITERION WAS ADDED LATER AND STILL DOESN'T HAVE INDICATORS  
PLEASE PROPOSE INDICATORS**

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)

## PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

### Criterion 8.1:

The scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment should determine the frequency and intensity of monitoring. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.

8.1.1 Monitoring objectives and procedures as specified in management plan are implemented.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**8.1.2** The FMO demonstrates an active commitment to a national PSP programme as is relevant to the concession via: a) Establishing PSPs themselves, b) Making space available, c) Or Contributing financially to the national programme

However, PSP plots will be required if management systems differ significantly.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

### Observations:

Maybe indicator could be rephrased to be less cumbersome

**Criterion 8.2:**

Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

- Yield of all forest products harvested.
- Growth rates, regeneration and condition of the forest.
- Composition and observed changes in the flora and fauna.
- Environmental and social impacts of harvesting and other operations.
- Costs, productivity, and efficiency of forest management.

8.2.1 The FMP contains (utilises) growth, mortality and recruitment data (from established PSPs within or outside concession).

Evaluation of indicator: Score 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

8.2.3 Records are kept on observations of (key) faunal species (large predators, terrestrial birds, deer, tapir, monkeys esp. spider monkeys, macaws, turtles etc)

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

8.2.4 The yield of forest products is recorded.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

8.2.5 There is a systematic evaluation of the impacts of forest management on the quality of life of the workers.

Evaluation of indicator: Score of 0 – indicator needs rephrasing to be usable

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
0	0	0	0	0	0

**Observations:**

Indicator needs guidance..maybe can rephrase along the lines of Indicator 8.2.6

8.2.6 In the case of communities being affected by the FMO , quality of life parameters are used as indicators to determine the impact level ( e.g. water quality, availability of the forest resources, infrastructure of the communities).

Evaluation of indicator: Score of 6 - Pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 8.3:**

Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody."

8.3.1 There is a system and adequate documentation for each annual harvesting area, which permits monitoring the chain of custody.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

8.3.2 Certified forest products are clearly identified with labels or marks during all stages of processing and physical distribution.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

8.3.3 Documentation on origin and destination of all certified forest products must be available in the intermediary locations of storage and/or processing and physical distribution centres.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 8.4:**

The results of monitoring shall be incorporated into the implementation and revision of the management plan.

8.4.1 Results of monitoring are included in execution and review of the FMP and the annual plan.

Evaluation of indicator: Score of 6- pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 8.5:**

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.

8.5.1 A summary of the results of monitoring is available.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS**

Management activities in high conservation value forests shall maintain or enhance the attributes, which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

**Criterion 9.1:**

Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.

No indicators have been defined yet.

**Criterion 9.2:**

Eliminated during workshop, because is assessing the certification methodology rather than FMU operation.

**Criterion 9.3:**

The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.

9.3.1 HCVFs are identified and mapped and criteria used to define the areas are listed in the management plan.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

9.3.2 Forest management plan is site-specific and detailed in describing the measures taken to protect the HCVF resource.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

9.3.2 Measures to protect HCVF values are available in public documents.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1

**Criterion 9.4:**

Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.

9.4.1 A annual system for monitoring the maintenance of HCVF values is defined and incorporated into the FMO's planning, monitoring and reporting procedures and is applied. (in a technically sound and timely fashion) – suggest to delete.

Evaluation of indicator: Score of 6 - pass

Relevant and unambiguous for SFM evaluation	Measurable (can give value)	Information readily available	Information representative and real	Add to information	Efficient (low cost)
1	1	1	1	1	1