

COMPARISON OF STANDARDS OF SUSTAINABLE FOREST MANAGEMENT AND THE REGULATIONS OF GUYANA

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INTRODUCTION

This document compares some of the existing standards that define what is sustainable forest management with the regulations for forest management in the law and regulations of Guyana. The standards here under comparison are the FSC Principles and Criteria, the Management Unit Level Criteria and Indicators of Sustainability for the Amazon Forests (TARAPOTO), the ITTO Criteria and Indicators at the level of the Forest management Unit, the Standards for Certification of Forest Management of Wood Products in the Bolivia Lowlands by the Consejo Boliviano para la Certificación Forestal Voluntaria. The Regulations considered in the comparison are the Forest management Guidelines, the Draft of the Forestry Act of 1998, and the Code of Practice for the Forest Operations.

The purpose of this comparison is to provide a basis for the IWG of Guyana for the definition of National Criteria and Indicators for Forest Management and to see the possible distance between the national regulations and the international standards. The basis for comparison that will be used are the FSC Principles and Criteria. The comparison do not pretend to promote a Standard over other, but simply to establish the differences between regulations in the country and standards.

The compared documents are the following and are identified as follows in the comparison tables:

1. The FSC principles and criteria, version January 1999. Corresponds to the defined principles and the Criteria heading each of the tables. Are underlined with bold characters.
2. The International Tropical Timber Organisation; Criteria for the management of sustainable tropical forest management . 1992. **ITTO**
3. The Tarapoto proposal on criteria and indicators of sustainability for the Amazon Forests. Amazon Co-operation Treaty. **ACT**.
4. Estándares para la certificación del manejo forestal de productos maderables en las tierras bajas de Bolivia. Versión aprobada por el Consejo de Manejo Forestal (FSC). Consejo Boliviano para la Certificación Forestal Voluntaria. 1999. **BOLIVIA**
5. Code of Practice for Forest Operations. Final document. Produced by the Guyana Forestry Commission. 1998. **CoP**
6. Forest Management Plan Guidelines. Guyana Forestry Commission. 1999. **FMPG**
7. Forests Act. Drafts for discussion. Guyana Forestry Commission. 1998. **FA**.

The legal basis for forest management in Guyana is made by the documents 5, 6 and 7. The mentioned document are very explicit for the forest management in lands under granted Concessions, Forest Licences and Use Permits, but not for the lands allocated or belonging to Amerindians.

Comparison of Standards and Regulations for Principle 1**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.

1.1 Forest management shall respect all national and local laws and administrative requirements.
ACT. C8. Legal and institutional framework. a. A forest management plan approved by competent authorities c. Legal framework that guarantees the stability of long term investments in the forest sector
BOLIVIA. 1.1.1. The owner of the forest management unit makes management and utilisation according to laws, regulations and legally valid dispositions
1.2 All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.
BOLIVIA.1.2.1. The payment of taxes, fees, penalties of the forest management are paid according to the laws
FA. Part VIII Refers to forest revenues and Art. 51, 52, 53, 54, 55, refer to Area Premium, annual area-based management charge, levies on forest produce, user fees, administrative fees.
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.
BOLIVIA. 1.3.1. Forest management must fulfil all laws and regulations as well as the valid international agreements (forestry law, ITTO agreement, OIT 169, Agreement of biological Diversity, CITES, GCCC, ACT and the Trade International Agreements.
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.
BOLIVIA. 1.4.1. Conflicts with the P/C of FSC will be presented to the CFV and if not solved to the FSC.
1.5 Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.

ITTO. Resources security.
The legal establishment of forest areas and management units
The presence or absence of illegal exploitation and encroachments
BOLIVIA. 1.5.1. Measurements against invasion by third parties are preventive, effective and acceptable and legally applicable.
1.5.2. Borders of the FMU are identified in the field and in conflict cases there are procedures for its solution.
FMPG 12.2.1. Illegal operations address include protection against encroachment, fires,
FA Part IV.Art.16 and 17 refers to forest fires

1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.
ITTO. Resource security. The duration of concession agreements
BOLIVIA.1.6.1. The FMU operator adheres the FSC P&C in a written statement or is reflected in the management plan.
BOLIVIA 1.6.2. Land is devoted to forest management for a long period of time.

Comments:

The CoP, the FMPG and the FA constitute a good legal and regulations background for forest management in Guyana. Practically all the principles and criteria of all different standards are in one way or the other included in the Guyanese set of documents. In the documents are also all provisions for fees and taxes.

There is a need to review more closer the international agreements signed by Guyana and make an interpretation of the consequences for forest management if any, and if in the policies that GFC wants to follow and promote are there particular aspects related with the international agreements. In the National Forest Policy Statement of 1997, there is no reference to the international agreements, like the Biological Diversity Convention, of the Climate Change Convention, or CITIES. It could be useful to expand the Statement and include some orientations for action in relation with the international agreements.

In relation with conflicts between the Standards presented and the national laws and

regulations, it does not seem to be any particular conflict, except the fact that in granted forest under Concessions, Forest Licences and Use Permits there is a de facto access of chain saw operators that make impossible long term commitment with forest management of the operators with legal authorisation. The situation makes difficult to protect the forests from illegal interventions and influences.

Comparison of Standards and Regulations for Principle 2

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.

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.
ITTO. Resource security. Clear demarcation of boundaries in the field.
BOLIVIA. 2.1.1. Land tenure or use right is safe and legal.
FMPG 5.1.1. defines the classification of the concession and all information related to the concession contract.
FA Part V. Art.24,25,26, 28, 30 refer to exploratory permits, forest concessions, Tenders for forest concessions forest licences, use permits, community forestry, that regulate the right of different groups to forest management.
BOLIVIA. 2.2.1. There is an agreement with the community to implement forest management, and the community controls the forest management process.
BOLIVIA 2.2.2. In the case that the utilisation is delegated to third parties there are clear contracts in which the local and community regulations to control forest activities are respected.
BOLIVIA 2.2.3. Forest management plans are agreed with the communities and are based in the practice of participatory planning, implementation and local control.
FA. Part VI. Art. 37. Refers to Amerindian Lands
FA. Part V. Art. 30. Creates the legal figure of Community Forest management Group, that favours Amerindians and other community groups.
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.

BOLIVIA 2.3.1. There are not serious conflicts in land tenure that can put at risk forest operations.

BOLIVIA 2.3.2. There are written procedures to prevent conflicts for potential conflicts. If there are existent conflicts , there are written procedures to solve 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.

BOLIVIA 2.3.3. There is a public relations policy from the FMU operator to the communities in the surroundings or the ones that can be affected by forest management.

FMPG 14.0 Social Issues refer to consultations with communities

Comments

The demonstration of long term rights is easy: In Forest Concessions the period included in the Draft of the FA is 40 years , and is enough to demonstrate long term commitment. In Licences and Use Permits there is as mayor problem, with one year renewable periods. Under one year basis and with areas that correspond only to one year, there is no way to have long term commitment and long term user rights.

Amerindians may delegate the control to their forest to third parties. If the delegation is long term, there could be also long term commitment to sustainable management. The same is with forests granted to under Community Forest Management Groups. Again , there is a need for the Groups to have rights granted for a long period.

The length of the period is secondary if the process for renewal is clear, transparent and objective. If the process of renewal is disresional, the land use rights for a long term are not safe.

The FMPG include the need to set mechanisms to solve disputes. The process of disputes solving is much more a declaration of will and commitment of the FMU operator than a legal requirement and should be very easy to overcome as requisite.

A potential problem in Guyana is the fact that many concessionaires are moving from one granted area to the other. So far they still have presence and control over the left over area, and keep controlling illegal occupation and maintenance of infrastructure, it should not be a problem for long term commitment and obligation to preserve the functions of the ecosystem (Principle 6).

Comparison of Standards and Regulations for Principle 3

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.

<p>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.</p>
<p>ITTO. Planning and Adjustment to Experience. Community consultation.</p>
<p>BOLIVIA 3.1.1. There is an agreement with the indigenous community to implement long term forest management, and the community controls the process related with the management.</p> <p>BOLIVIA 3.1.2. In cases of delegation of utilisation to thirds, there are clear contracts or agreements that respect the local and community norms to control forest activities.</p> <p>BOLIVIA 3.1.3. Forest management plans are agreed with communities and are based in participatory planning practices and in local implementation and control.</p>
<p>CoP. 5:0 Silviculture. 5.5. further development , includes the development of social programmes involving indigenous peoples and hinterland folk whose support is critical to successful silviculture.</p>
<p>FMPG 14.0 Social issues refers to EIA that includes Social impacts, consultation with communities, impact of forest management on communities,</p>
<p>FA Part Vart.30 refers to community forestry; FA Part XII, Miscellaneous, Art. 99 refers to protection of rights of Amerindians.</p>
<p>3.2 Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.</p>
<p>ACT. C 11.Local Socio-economic benefits. a. Quality of life of local populations.</p> <p>ACT. C 11.Local Socio-economic benefits d. Impact of the economic use of the forest on the availability of forest resources of importance to local populations</p>
<p>BOLIVIA 3.2.1. The legal , traditional rights and custom of indigenous people to management or use of forest resources (wood and non-wood) have been formally recognised and documented in written agreements, and if necessary reflected in maps of the pertinent areas.</p> <p>BOLIVIA 3.2.2. the indigenous lands have been excluded from forest concessions of property, existing well defined limits and written agreements.</p> <p>BOLIVIA 3.2.3. There are written procedures to prevent conflicts for potential conflicts. If there are existent conflicts , there are written procedures to solve 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.</p>
<p>FMPG 14.0 Social issues refers to EIA that includes Social impacts, consultation with communities, impact of forest management on communities,</p>

3.3 Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognised and protected by forest managers.
ITTO. Planning and Adjustment to Experience. Arrangements for forest management to take into account traditional forest utilisation
BOLIVIA 3.3.1. The forest management plan identifies places of special cultural, ecological and economic significance for indigenous people and propose actions for its protection, with the existence of a written agreement among involved parties.
CoP 3.0. Biodiversity Reserves .and Appendix 5.Objectives and criteria for segregating biodiversity reserves are fixed .Must represent the mayor forest types in different areas of the concession ,linked with corridors of unlogged forests. allocated including special cultural, religious and historical places. Suggests indirectly that 4.5% of the forest area could be a criteria.
FMPG 14.0 Social issues refers to EIA that includes Social impacts, consultation with communities, impact of forest management on communities,
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.
ITTO. Planning and Adjustment to Experience. Arrangements for forest management to take into account traditional forest utilisation
ACT. C 11.Local Socio-economic benefits. a. Quality of life of local population.
ACT. C 11.Local Socio-economic i . Mechanisms for consultation and the effective participation of local communities in the management of forest resources, depending upon the scale of management.
BOLIVIA 3.4.1. If the FMU operators use knowledge privative of indigenous people, they are compensated and recognised.

BOLIVIA 3.4.2. If indigenous people participate in different phases of the management plan, they are adequately compensated. The compensation is agreed with consent of people.

BOLIVIA COMMUNITY FORESTRY Forest management and Harvesting activities are compatible with traditional production systems. A mechanism exists for the distribution of economic benefits obtained of forest activities, in such a way that the community is benefited.

FMPG 14.0 Social issues refers to EIA that includes Social impacts, consultation with communities, impact of forest management on communities, FMPG 14.0 Social issues refers to EIA that includes Social impacts, consultation with communities, impact of forest management on communities,

FA Part VI regulates the relations with Amerindian and Art.37 the commercial exploitation of forest produce on Amerindian lands.

Comments:

Theoretically, all criteria relative to Amerindian people , are covered in one or the other way by the FA, CoP and the FMPG. There is a need to review if the conditions for implementation and control really exist. Par exemple , the declaration of Community forest management Groups contemplated in the Forest Act, could be an interesting tool for forest management by Amerindians. The right of people to earn their livelihood could also be recognised, by regulated by the existing laws and regulations. There is a need to make consultations with Amerindian People and review all the articles that relate to them if they consider that they need to do it, and also, Amerindians could think in adapting many of the proposals of the CoP and the FMPG to be used in their own management agreements. There is also a lot of room to discuss possible agreements between Amerindian and concessionaires, top work together in forest management.

This is an important issue that put under scrutiny any attempt to certify under any standard.

Comparison of Standards and Regulations for Principle 4

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.

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

ITTO. Socio-Economic Benefits.

The number of people employed
The nature and extent of benefits from forestry activities
ACT. C 11.Local Socio-economic benefits. a. Quality of life of local populations.
ACT. C 11.Local Socio-economic benefits e. Amount of direct/indirect employment and income level.
BOLIVIA 4.1.1. Local populations has priority of access to employment sources and possibilities of training and promotion.
BOLIVIA 4.1.2. When possible, regulated access of local communities to make use of wood and non wood products will be permitted , using subsidiary agreements when necessary.
CoP.1.0. Planning. The annual update requires a summary of the training completed.
CoP Appendix 11. Forest management Quality Assessment Check list includes the need for training for chainsaw operators, and for the people handling with chemicals.
FMPG 14.0 refers to social issues refers to training and employment policies
4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.
ACT. C 11.Local Socio-economic benefits. a. Quality of life of local populations.
BOLIVIA 4.2.1. salaries and other benefits (social security, rent, lodging and food) are in agreement with the general labour law .social security law, its regulations and complementary dispositions , and are not below the regional standards for the same type of work.
BOLIVIA 4.2.2.Industrial safety regulations are applied in the felling , sawmilling and other activities.
BOLIVIA 4.2.3. The social and labour legislation of Bolivia is accomplished
BOLIVIA 4.2.4. Basic health care and emergency first aid in the field is available.
CoP Appendix 11. On Forest management assessment checklist, contemplates safety and health requirements for feller's safety, fist aid kit, skidder operators safety, and chemicals handling.
CoP 8.0 Health and Safety. Indicates mandatory planning requirements and standards on clothing, use of equipment, vehicles, building and record of accidents.
FMPG 14.0 refers employment policies and issues of employment welfare
FA Part v.Art.32 refers to occupational health and safety; Part XII, Art. 100refers to the access of representatives of Trade Unions.

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).

BOLIVIA 4.3.1. The employees are free to organise . Is not prohibited or made any obstacle to the employees to be member of a Labour Union or association, or for negotiating collectively if they wish to do so with its employers.

FMPG 14.0 refers to Trade Unions, but do not give any detail.

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.

ITTO. Socio-Economic Benefits. The number of people employed

ITTO. Planning and Adjustment to Experience. Community consultation

BOLIVIA 4.4.1. There is a methodology to measure the impact of forest management over the productive system of the community and its correspondence with the social stability. It is compatible with the scale of the operations.

BOLIVIA 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.

FMPG 14.0 refers to the inclusion of Social impacts in the EIA in new concessions

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.

ACT. C 11. Local Socio-economic i . Mechanisms for consultation and the effective participation of local communities in the management of forest resources, depending upon the scale of management.

BOLIVIA 4.5.1. Safeguards are taken to prevent damage or lost that affect rights, goods or

life of local communities. In case of damage or negative impacts, the surrounding communities are compensated by damages to crops, environment (water quality, access to forest services) or for the lost of income.

FMPG 14.0 refers to consultations, liaison with communities and the designation of personnel responsible.

Comments:

Issues related to community relations and workers rights, are in general covered in the CoP, FMPG and FA proposal. Aspects like employment, health and safety policies, training, are considered in all three documents. The important issue here is the control over the application or implementation of the regulations. It is frequent to ear from concessionaires, that in relation to training , they practice in service training. In many cases there is no way to determine if a worker is a regular one or a trainee, because you can argue that every worker is a trainee. There is a need to have formal policies and plans and way to check the implementation. May be is also useful to encourage visits of concessionaires to places like Brazil (Tropical Forest Foundation) or Bolivia, and to TFMU in which formal training has occurred to show them the financial advantages of a systematic training of personnel.

The accomplishment of health and safety regulations is at least in the regulations well covered, but the salary in a well managed forest must be equal or higher than in the average in the region and sector. Again , concessionaires must be confronted with the decision to change the policy of busyness as usual for a policy in which well protected, treated and paid workers are also committed with production and forest management.

The representatives of Unions have the right to access to concessions, but there is a need for a more explicit declaration in the laws and regulations about the right of the workers to define their own mechanisms of negotiation or to adhere to existing Unions and systems.

The need to make Social impact studies is considered within the EIA in all new concessions. It would be worthwhile, to give support to a concessionaire willing to prepare such an impact analysis, to give support to him in conducting a good social impact analysis. The attempt should also be considering the design and operation of consultation mechanisms. The experience of Iwokrama in their relations with Amerindians could be very useful and be adapted by a concessionaire willing to adopt the proposals of the CoP, FMPG and FA..

Comparison of Standards and Regulations for Principle 5

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.

<p>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.</p>
<p>ACT. C 11. Local Socio-economic benefits. b. Profitability and rate of return of forest management.</p>
<p>BOLIVIA 5.1.1. Forest management plan is economically viable, and permits to cover the operational costs of traditional utilisation and the costs of the planning activities (operational inventory, mapping, demarcation, monitoring), the implementation of silvicultural prescriptions, protection of the forest, construction and maintenance of good roads, etc.</p> <p>BOLIVIA 5.1.2. Benefits of good planning, order and technification of activities are an incentive for the FMU operator to continue with the implementation with a long term forest management plan.</p> <p>BOLIVIA 5.1.3. Up dated registers of the production and costs of the different operations and kept for each Annual Harvesting Compartment</p>
<p>FMPG 5.4. Refers to the economic environment</p>
<p>5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.</p>
<p>ACT. C.9. Sustainable forest production. Degree of diversification of production</p>
<p>BOLIVIA 5.2.1. Forest operations look for efficient and optimal utilisation by tree and specie.</p> <p>BOLIVIA 5.2.2. Local processing is promoted, including the utilisation of residues and other forest products, if feasible.</p>
<p>FMPG 15.0 Refers to Markets and Utilisation.</p>
<p>5.3 Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</p>
<p>ACT. C 11. Local Socio-economic benefits. c . Efficiency of systems of production and transformation of forest products.</p> <p>ACT. C 11. Local Socio-economic benefits d. Impact of the economic use of the forest on the availability of forest resources of importance to local populations</p>
<p>BOLIVIA 5.3.1. Logs and processed wood are manipulated in such a way that degradation and lost are minimised.</p> <p>BOLIVIA 5.3.2. It is tried that contract and payment systems with field workers (tree</p>

identification, fellers, bunchers, and machinery operators) include incentives and disincentives that consider not only production criteria, but also product quality and reduction of damage to the remaining forest.

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

ACT. C.9. Sustainable forest production. Degree of diversification of production.

ACT. C 11. Local Socio-economic benefits f. Nature and quantity of benefits deriving from forest management.

BOLIVIA 5.4.1. The FMU operator conduct actions to develop markets and sustainable utilisation of new species and products, including the use of non wood forest products, provided that is feasible.

FMPG 15.0 refers to species utilisation.

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

ACT. C 11. Local Socio-economic benefits h. Added value of production

BOLIVIA 5.5.1. Forest management must show enough evidence of recognition, maintenance, and when appropriate improvement of the forest services and resources like watersheds.

FMPG 12.4 refers to Bio-Diversity Reserves.

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

ITTO. The Continuity of Timber Production.

The presence of clear, official harvesting rules

ACT. C.9. Sustainable forest production. Annual extraction of timber and non-timber forest products compatible with the sustainability capacity of the resource base.
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ACT. C 11. Local Socio-economic benefits g . Annual quantity of products extracted per ha.

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

BOLIVIA 5.6.2. The annual allowable cut, per area or volume, is based in conservative assumptions or in growth and yield determinations, in order to guarantee that the extracted volume is sustainable.

BOLIVIA 5.6.3. The applied silvicultural treatments are ecologically supported based in the best available information, empirical or based in results of research published specific to the site.
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BOLIVIA 5.6.4. Only trees that are previously determined and marked are felled, respecting the minimum felling diameters or other silvicultural prescriptions established in the operative or management plan.

FMPG 10.1.1. refers to the calculation of the cutting cycle and allowable cut.

Comments:

The principle on benefits of the forest in general is not very much addressed in the FSC standards. Normally requirements as feasibility studies and Business Plans are not demanded. It is in general assumed that a company that has invested and is investing currently, has a long term commitment. But that fact is not always the case. There are companies investing huge sums of money without having a right idea of the quality of the forest and the appropriateness of the forest structure and composition in relations to the usual markets. It should be a requirement for a concessions and for a company buying the rights to a concessions , to present feasibility studies and investment plans. There are situations in which concessionaires are surprised, after taking over a company, that the forests of Guyana are not the same that the ones that they operated before in Asia. Such questions are made normally before taking a decision to invest or not to invest, and not after.

Sustainable forest management and traditional wood markets are normally not compatible. Traditional markets act by orders, considering that the forest is a supermarket to which you come with the order and select the trees , species and dimensions that the order demands. Sustainable forestry has a maximum production capacity in quantity, species and dimensions. In reality, production planning should occur at least two years in advance to the harvest, in such a way that with a known inventory of standing trees stock, you can make a supply offer to the markets. Ideally, you could be selling the wood of future harvests. Also there is a problem of dimensions: the markets normally want wood for further processing. They want to pay the

lowest class of grade from along piece of wood. The forest operator should be able to sell most of the species in all dimensions and classes as it happens in the forest. Thus, a traditional marketing strategy is not enough for sustainable forest management. requirements of increasing number of species, products, grades and dimensions is not included in the requisites, but it should under the graduallity principle.

More attention should be put on the forest services. It could be useful to make a study in a current concession about the environmental services of the forest and to define mechanisms on how to capture the rent.

In general there are provisions on how to calculate the allowable cut , and also norms are set in the CoP, but is still the need to develop better decision making tools, like the Planning Tools proposed by D. Alder, including simple growth models. The discussion on the length of the cutting cycle and the diameter limits, should evolve to the definition of harvest conditions of a tree of a particular species. If you harvest a certain quantity of wood of particular species, the cutting cycle should be defined in a different way: if you set a cutting cycle, nature will determine what to harvest after it. If you set a harvest, in volume and composition, nature will determine your cutting cycle.

Comparison of Standards and Regulations for Principle 6

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.

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.

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

FMPG 12.0 refers to Environmental Conservation , EIA and include illegal activities, use of chemicals, biodiversity reserves

FMPG 13.0 refers to monitoring and research including monitoring of the effects of logging

FA Part IV, Art. 20 refers to EIA.

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.**

ITTO. The Conservation of Flora and Fauna. Protection of ecosystems in the concession or management unit.

ITTO. An Acceptable level of Environmental Impact.

Extent of soil disturbance.

Extent and spatial distribution of riparian and other watershed protected areas.

Provision of protection of bodies of water

ACT. C 10. Conservation of Forests Ecosystems.

- a. **Proportion of area of permanent production in areas of environmental protection.**
- b. **Measures to protect, recuperate and sustainable use wild populations of species in danger of extinction.**

f. Measures for protection of water courses from forest activities

BOLIVIA 6.2.1. The forest management plan proposes concrete actions to avoid the extinction of useful tree species, the reduction of other plant or animal species with conservation status and soil and aquatic environment degradation.

BOLIVIA 6.2.2. A minimum of 10% of reserved areas with utilisation restrictions is fixed. In the different habitats, with the purpose to protect critical areas for refuge, feeding or reproduction of threatened , rare species or for nesting of colonies, according to each particular situation. In case of a lack of special areas for protection, a minimum of 10% of each forest strata is left as protected area. The spatial distribution the areas must consider the wildlife flow in the forest(biological corridors instead of islands)

BOLIVIA 6.2.3. The forest management operator has concrete policies and actions to avoid hunting, animal or eggs recollection with commercial purposes, for sports, as pets or to feed the employees of the forest and industrial operations.

BOLIVIA 6.2.4. Species prohibited by national or international legislation and agreements are not utilised.

BOLIVIA 6.2.5. The reviews of the FMP include the evaluation of the state of conservation of critical and threatened species.

BOLIVIA COMMUNITY FORESTRY In areas of community forest management, where hunting is fundamental for the survival of people, the plan contemplates measures to monitor and minimise the impact over fauna populations and to promote the recovery of the same.

CoP 3.0. Biodiversity Reserves .and Appendix 5.Objectives and criteria for segregating biodiversity reserves are fixed .Must represent the mayor forest types in different areas of

the concession ,linked with corridors of unlogged forests. allocated including special cultural, religious and historical places. Suggests indirectly that 4.5% of the forest area could be a criteria.

CoP 6.0.harvesting.Limits the harvest to 1000 tress in 100 ha., 300 greenheart trees, and a list of species than can not be harvested

CoP 6.0. Harvesting. 6.7.9. and 6.7.10, restricting felling in the water courses strips and the maintenance of the water courses free of debris.

FMPG 12.0 refers to environmental conservation.

FA Part IV Art.11 and 12 refer to protected species and areas

6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including:

- a) Forest regeneration and succession.
- b) Genetic, species, and ecosystem diversity.
- c) Natural cycles that affect the productivity of the forest ecosystem.

ITTO. The Continuity of Timber Production. Long term soil productivity

ITTO. An Acceptable level of Environmental Impact.

Extent of soil disturbance.

The extent and severity of soil erosion

ACT. C.9. Sustainable forest production. b. Area and percentage of forest soils affected by significant alterations in physical-chemical properties and erosion

ACT C 10. Conservation of Forest Ecosystems .d. Rates of regeneration and forest ecosystem structure.

BOLIVIA 6.3.1. Forest management maintains, increase or recover vital ecological functions such as: a) natural regeneration and forest succession, b) genetic diversity of species and ecosystems, c) the natural cycles that affect the productivity of ecosystems.

BOLIVIA 6.3.2. There are measures to prevent and reduce the impact on key species for feeding fruit eating animals (bibosi, azucaró, paquió, and different palms) and hollow and felled trees that could serve as refuges for different animals.

BOLIVIA 6.3.3. The harvesting and silvicultural treatments are not cons9idered to put at risk the biodiversity of the forest (eliminating species, genetic erosion)

FMPG 12.0 refers to environmental conservation

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.

ITTO. The Conservation of Flora and Fauna. Protection of ecosystems in the concession or management unit.

ACT. C 10. Conservation of Forests Ecosystems. a. Proportion of area of permanent production in areas of environmental protection.

BOLIVIA 6.4.1. Samples of representative ecosystems are at least identified in maps, and are not significantly threaten by forest harvest.

CoP 6.0. Harvesting. 6.7.9. and 6.7.10, restricting felling in the water courses strips and the maintenance of the water courses free of debrisFMPG 12.4 refers to the Biodiversity reserves

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.

ITTO. The continuity of Timber Production. Long term soil productivity.

ITTO. The Conservation of Flora and Fauna. The extent of vegetation disturbance after logging.

ACT. C.9. Sustainable forest production.

b. Area and percentage of forest soils affected by significant alterations in physical-chemical properties and erosion.

ACT, C10. Soil conservation measures.

b. Measures for protection of water courses from forest activities

BOLIVIA 6.5.1. Appropriate treatments are taken (vines cutting, directional felling) to reduce the negative effect of felling and to facilitate the logging operations.

BOLIVIA 6.5.2. Appropriate treatments are taken to avoid the obstruction of water courses and that they are not contaminated.

BOLIVIA 6.5.3. Extraction and transportation is suspended when due to water saturation of roads they can destroy the roads and skid trails.

BOLIVIA 6.5.4. Felling and road construction operations are made under good planing and supervision taken into account the prescriptions for the purpose.

BOLIVIA 6.5.5. Extraction of wood supposes the minimum remotion of soil and minimal damage to the residual forest, with concrete and written prescriptions for the purpose. A)

utilising the which cable to its maximum extension, b) employing the appropriate machines, c) not utilising the frontal wedge of the skidder, except when is necessary to maintain the safety of the operation.

BOLIVIA 6.5.6. The location, density and size of the log yards in each management unit is rationalised

BOLIVIA 6.5.7. When possible, the yards have low and gentle slopes and do not drain in the next roads or water courses.

BOLIVIA 6.5.8. Actions are taken when necessary top rehabilitate areas used for yards.

BOLIVIA 6.5.9. Roads (primary , secondary, skidtrails) are planed using the best available information of the landscape and forest(maps, inventories, harvest inventories, satellite images) in order to minimise the production costs and EI.

BOLIVIA 6.5.10. There are acceptable technical prescriptions for the design, construction and maintenance of roads that take into account the mitigation of negative impacts on the environment and the reduction of construction costs.

BOLIVIA 6.5.11. All roads under usage are adequately maintained , including the circulation surface and the drainage structures.

BOLIVIA 6.5.12. After harvesting the corespondent roads and skid trails are duly repaired, maintained and closed to limit the illegal access and access from forest and industry personnel and to reduce the erosion damages.

CoP 4.0 ROADS. Detailed definition of categories of roads, guiding principles, objectives, potential consequences of improper practices, recommended practices with all necessary details and practices including roads, skidtrails, log markets, bridges and river crossings with requirements and mandatory standards.

CoP 6.0. Harvesting. 6.7.9. and 6.7.10, restricting felling in the water courses strips and the maintenance of the water courses free of debris

FMPG 14.0 Social Issues refers indirectly that new concessions need to have a EIA.

FA Part IV, Art.13 refers to Soil and Water Conservation

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.
ACT. C.9. Sustainable forest production. e. Degree of utilisation of environmentally friendly technologies.
ACT. 10. Conservation of Forest Ecosystems. c. Area and percentage of forest affected by processes or other natural agents (insect attack, disease, fire, etc.) and by human actions.
BOLIVIA 6.6.1. Chemical products listed as banned by Bolivian or international legislation are not used.
BOLIVIA 6.6.2. Personnel has been trained and apply the appropriate techniques for manipulating, storing and disposal of chemical products and containers.
BOLIVIA 6.6.3. The company have available the medicaments and safety measures to treat the personnel and to clean the site in case of accidents with the chemical products utilised.
FMPG 12.3 refers to the use of chemicals
FA Part IV a) Art. 14 refers to prevention of Chemical pollution and Art.15 to regulation of Waste disposal
FA part IV. Art.18 refers to protection against diseases, pests and exotic species.
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.
BOLIVIA 6.7.1. Containers, wastes, garbage and lubricants generated in forest and sawmill operations are properly disposed
CoP Appendix 11. On Forest management assessment checklist, contemplates safety and health requirements for feller's safety, fist aid kit, skidder operators safety, and chemicals handling.
CoP.7.0. Chemical handling and storage gives detailed instructions including mandatory planning and standards for the use , storage and disposal of chemicals and residues
FMPG 12.3 refers to the use of chemicals

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.

BOLIVIA 6.8.1. The usage of biological control agents is supervised, monitored and strictly documented and there is a trend to reduce its use.

BOLIVIA 6.8.2. National laws and scientific protocols are observed

BOLIVIA 6.8.3 Genetically modified organisms are not used

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

BOLIVIA 6.9.1. The use of exotic species is controlled and monitored to avoid adverse ecological impacts.

FA part IV. Art.18 refers to protection against diseases, pests and exotic species

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

- a) entails a very limited portion of the forest management unit; and**
- b) does not occur on high conservation value forest areas; and**
- c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.**

Comments:

The CoP, FMPG and FA set enough requisites and basis for defining criteria, indicators and norms to have the impacts of harvesting under control. Again, the practice of reduced impact is a matter of commitment by FMU operators and a matter of control and control delegation by the GFC.

New concessions are required to present EIA that include social aspects, the impacts of logging in the remaining forest, the impacts of logging on fauna, soils and waters, the impacts and rules for the use of chemicals. With existing concessions, in the norm, if they want to certificate under any system, they would need to prepare an EIA with all the needed remedial actions.

In the CoP and the other laws and regulations, there is clear mention to the segregation of preservation areas per forest type and criteria are defined. Commitment by concessionaires is necessary. par example, conservation or biodiversity reserves should not be left in the already harvested areas or in burned areas with marginal forests, or only in the poorer ecosystems from a productivity point of view.

There are also regulations that correspond to the standards in the use of chemical products disposal of filters, oil, garbage and wastes that not necessarily are accomplished , but that are easy to fulfil.

Comparison of Standards and Regulations for Principle 7

PRINCIPLE #7: MANAGEMENT PLAN

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

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.**

ITTO. Resource Security. Existence of a management plan.,

ITTO. The Continuity of Timber Production.

The presence of clear, official harvesting rules

A pre-logging stand inventory

The number of trees and/or volume of timber per ha. harvested

Records of annual areas cut over time

ACT. C.9. Sustainable forest production.

- a. **Annual extraction of timber and non-timber forest products compatible with the sustainability capacity of the resource base**

e. **Degree of utilisation of environmentally friendly technologies.**

BOLIVIA 7.1.1. It exists a multiannual forest management plan that specify clearly the objectives of forest management and that orients and give details the main activities to be executed to achieve the objectives.

BOLIVIA 7.1.2. The FMP has estimates to calculate the future structure and composition of the forest at least until the end of the first cutting cycle.

BOLIVIA 7.1.3. The forest management plan includes

- **Objectives of management**
- **Analysis of the species forest inventory and factors that affect populations**
- **Silvicultural treatments planning**
- **Identification of affected communities and relations policies of the company with them.**
- **Conflict solving mechanisms and internal evaluation of the social impact,**
- **Maps describing forest strata, harvesting, conservation and buffer areas, roads, etc.,**
- **Protection plan against plagues, fires, poaching, etc.**
- **Description of environmental protection measures including soil conservation, watersheds, biodiversity, key trees for fauna, toxic material usage, etc.**
- **Wood utilisation and marketing plan**
- **Determination of allowable cut by species.**

BOLIVIA 7.1.4. There are Annual Harvesting Plans based in detailed maps, that include volumes to extract in determined areas, utilisation and silvicultural treatments planning, and other activities such as road construction. This plans indicate where and when and how the activities will be executed.

BOLIVIA 7.1.5. There are safe results of inventories, well designed and executed, that provide a solid base for the multiannual FMP.

BOLIVIA 7.1.6. Detailed harvesting inventories are conducted that provide a good base for planning and execution of the annual harvest.

BOLIVIA 7.1.7. The annual plan, together with the maps to an appropriate scale is available to provide operative guidance to the management activities and to facilitate the monitoring of activities execution.

BOLIVIA 7.1.8. The silvicultural prescriptions established in the forest management plan are executed in the field.

BOLIVIA COMMUNITY FORESTRY There is a organisation that guarantees the implementation of the forest management plan

CoP. 1.0 Planning refers to the instruments of planning: Forest management plan, Annual plan for the next 12months period.: road operations, inventory operations, production operations, silvicultural operations, other forest uses and activities, maps, 2.0 refers top the pre-harvest inventory with maps including the location of trees and stand tables

CoP 3.0. Biodiversity Reserves .and Appendix 5.Objectives and criteria for segregating biodiversity reserves are fixed .Must represent the mayor forest types in different areas of the concession ,linked with corridors of unlogged forests. allocated including special cultural, religious and historical places. Suggests indirectly that 4.5% of the forest area could be a criteria.

CoP 4.0 ROADS. Detailed definition of categories of roads, guiding principles, objectives, potential consequences of improper practices, recommended practices with all necessary details and practices including roads, skidtrails, log markets, bridges and river crossings with requirements and mandatory standards.

CoP.5.0 Silviculture. General orientation for silviculture.

CoP.6.0. Harvesting. Define harvesting practices, and mandatory requirements and standards, setting the area of blocks (max.100 ha.) sequence of block opening, tree location map, slope limits for harvesting, protection of river buffer zones. It set limits of harvest (1000 trees in 100 ha., no more than 300 greenheart trees,

CoP. Appendix 3. Outline contents of as forest management plan includes all the requirements for the management plan and the 5 years operational plan .

FMPG. Includes the detailed content for management plans for concessions: company profile, company policy, background information, Objectives, silviculture, forest use organisation, forest inventory design at management plan level, pre-harvest, post-harvest and growth and yield data, production operations, harvesting operations, environmental conservation, monitoring and research, social issues, market and utilisation, records and maps.

FA Part III Art.9. refers to the content of the FMP Art.10 refers to CoP, Guidelines and Standards

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.

ACT.C.8. Legal and institutional framework. b. Periodicity of evaluation of management

plan implementation and average percentage of implementation.
BOLIVIA 7.2.1. The FMP is periodically reviewed (at least each 5 years) to include the results of monitoring, the new scientific and technical information as also the changes in the environmental, social and economic context.
CoP. 1.0 Planning. A FMP for the cutting cycle a Operational plan for 5 years and reviewed and a Annual Plan with review of the last 12 months of operations
7.3 Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.
BOLIVIA 7.3.1. There are concrete actions to train the field personnel
BOLIVIA 7.3.2. There are field guides and are used for the f}different field operations to support the training of new workers.
BOLIVIA 7.3.3. There is an adequate supervision of field activities to assure that the operative norms are duly implemented.
CoP.1.0. Planning. The annual update requires a summary of the training completed.
CoP Appendix 11. Forest management Quality Assessment Check list includes the need for training for chainsaw operators, and for the people handling with chemicals
FMPG 14.1refers to training of employees but is not developed, but only mentioned.
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.
BOLIVIA 7.4.1. The field, technical and administration personnel has adequate information for the right implementation of the management plan.
BOLIVIA 7.4.2. There is a FMP Summary available.

Comments:

In general the CoP, FMPG and FA , provide many of the criteria, indicators, verifiers and norm for the judgement of a forest management plan, its quality and the quality of its implementation, including monitoring. The existing tools need only to be applied and controlled. The FPA and concessionaires, need to have commitment, real commitment with sustainable forest management and the GFC to develop a system to make an efficient control, based also on sampling and delegation and to make commitment to have permit system that is compatible with climate and the harvesting schedule of the FMU operators.

Most of the social, environmental and economic requirements of standards are included in the Guyana laws and regulations and as said, in many cases, including the norms, limits, thresholds, qualities, etc.

Issues such as determination of the harvest, length of the cutting cycle, segregation of

conservation reserves, protection of species, impact of logging on nature, soils and water. Are all included.

If a certification system is selected, the GFC will have the possibility to delegate the control on the certifier. The FPA and concessionaires should try to visit good managed forest in different places, to see how far are they to have a sustainable management and discuss with peer entrepreneurs the advantages and disadvantages for them to practice sustainable management.

Comparison of Standards and regulations for Principle 8

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.

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

ACT. C.9. Sustainable forest production. c. Effectiveness of systems of administration and control.

BOLIVIA 8.1.1. There is a monitoring system in place that corresponds to the scale of management.

BOLIVIA 8.1.2. Permanent Plots are installed and measured according to what the law prescribes, according to scale and intensity of forest management.

CoP. Appendix 7, Daily felling Report, Appendix 8, Post-harvest report form, appendix 9. Guides for submissions to GFC, Appendix 10. Monitoring compliance form, Appendix 11. Forest Management Quality Assessment checklist and form.

FMPG 13.0 refers to monitoring, and include research activities, PSP, effects of logging, co-operation in research. There is no specification on PSP.

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

- a) Yield of all forest products harvested.**
- b) Growth rates, regeneration and condition of the forest.**
- c) Composition and observed changes in the flora and fauna.**
- d) Environmental and social impacts of harvesting and other operations.**

e) Costs, productivity, and efficiency of forest management.

ITTO. The Continuity of Timber Production. Provision for monitoring growing stock after logging.

ACT. C.9. Sustainable forest production.

- a. Area and percentage of forest soils affected by significant alterations in physical-chemical properties and erosion. ACT. C.9.

e. Degree of utilisation of environmentally friendly technologies.

ACT. C10. Conservation of Forest Ecosystems. e. Soil conservation measures.

BOLIVIA 8.2.1. Structure and dynamic of the managed forest are monitored in order to have information on presence, abundance, diametric distribution, growth, mortality and recruitment of different species, in order to support decision making in forest management and to select and apply silvicultural treatments.

BOLIVIA 8.2.2. Registers are kept on observation of fauna species indicative of the health of the ecosystem.

BOLIVIA 8.2.3. The yield of forest products is evaluated, including costs. Registers are kept.

BOLIVIA 8.2.4. There is systematic evaluation of the impacts of forest management on life quality of workers. In case of communities affected by the FMP, life quality parameters are used as indicators to determine the impact level (water quality, availability of forest resources). Management activities do not damage the services or the infrastructure of the community area.

BOLIVIA COMMUNITY FORESTRY there is a mechanism to evaluate the impact of forest management over the productive system of the community and correspondence with its social stability.

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."

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

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

BOLIVIA 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 distributions centres.

FMPG 13.0 refers to monitoring, but without big detail.

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

ACT.C.8. Legal and institutional framework. Periodicity of evaluation of management plan implementation and average percentage of implementation.

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

FMPG 13.0 refers to monitoring and its use.

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.

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

Comments:

The CoP indirectly, with the reports that it demands from the concessionaires, is setting a monitoring system that is normally required by standards. The only thing that is necessary is to apply it, to keep the records and process and use the resulting information.

The FMPG has a more detailed definition of the monitoring system explaining which issues must be monitored, and the monitoring plan is a part of the management plan.

Again, the tools are there. There is may be a need of a further development and explanation of some issues in the FMPG. The better again is to be exposed to an example in which a monitoring system is being applied, like it could be the case in the Community concessions in Petén, or the case of a couple of companies in Brazil like Juruá, Cikel, Mil Maderira Itacoatiara or La Chonta and CIMAL in Bolivia.

Is difficult to separate Principle 6 and principle 8. one refers to impact of logging and the other to monitoring. By monitoring, impact is measured. Also under monitoring, social impact monitoring is also considered.

Comparison of Standards and Regulations for Principle 9

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.

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.

BOLIVIA 9.1-2.1 Sowing or planting trees or enrichment planting in natural forests can complement natural regeneration, fill gaps and contribute to the conservation of genetic resources. Those techniques do not replace or alter significantly the natural ecosystem. When possible, natural regeneration of species is to be preferred.

BOLIVIA 9.1-2.2 On the annual harvesting areas a minimum acceptable above the minimum diameter is preserved, when is about species that do not have the " inverted J" structure.

BOLIVIA 9.1-2.3 In case of forests degraded through selective utilisation ,special considerations are taken to conserve overexploited species (Swietenia, Cederela, Amburana). In extreme cases the harvesting of such species is prohibited.

BOLIVIA 9.1-2.4 If monitoring shows that unacceptable changes are occurring in the structure and composition, adjustments are made.

BOLIVIA 9.1-2.5 Natural forests is not replaced by plantations or crops.

FMPG 12.0 and 13.0 can be useful if well applied

9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.

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.

FMPG 12.0 refers to environmental conservation

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

FMPG 13.0 refers to monitoring.

Comments:

Principle nine, refers not to preservation areas, but productive forest that have some attributes that make them High Conservation Value Forests. It is a need to make a special segregation in the productive area of the HCVF and apply special practices and methods that conserve the wished attributes. An attribute could be the production of water for a city, in which case the forest in the micro basin could be harvested with a lower intensity , or in a period of the year , migrant birds occupy that area of the forest, in which case certain species should not be harvested or in that period of the year no harvest should occur. Also is possible that in a certain area endemic animals or plants occur

It is recommended that in a sample concession, an effort is done to define High conservation Value Forests in order to have a rule and a mechanism.

General Comments:

The existing tools in Guyana, the CoP, the FMPG and the proposed FA, are tools that can provide many criteria, indicators, norms and verifiers of good forest management. Some issues need to be defined.

- 1. The Act must be consulted, discussed and approved in order to know the legal framework,**
- 2. The tenure conflicts with chain saw operators must be addressed and solutions must be analysed, including the Community Forest management Groups, agreements with Amerindians, etc. After consultations with the groups, the adjusted CoP, FMPG and FA could be used by default as the regulations for Amerindian Groups and Communities in general.**
- 3. GFC must define an appropriate control system, but with the commitment and support of the AFP, concessionaires and communities and Amerindians. Delegation can happen through certification.**
- 4. The concessionaires, through FPA and individually, must commit themselves to follow the rules and to have an internal control of the situation, by demanding their members to fulfil rules, and by sanctioning them if not fulfilling.**
- 5. Exposure of Amerindians, communities and concessionaires is needed to experiences in which companies and communities are practising good forest management and where the government has reasonable control of the situation.**
- 6. Try to develop some examples of practices in certain concessions through which an extension and dissemination work for others can be practice. Examples of tasks to develop could be. Social impact study, EIA, development of a monitoring system, etc.**