



The FSC National Forest Stewardship Standard of Papua New Guinea



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The Forest Stewardship Council® (FSC) is an independent, not for profit, non-government organization established to support environmentally appropriate, socially beneficial, and economically viable management of the world's forests.

FSC's vision is that the world's forests meet the social, ecological, and economic rights and needs of the present generation without compromising those of future generations.

Forest Stewardship Council®



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1. Preface

1.1. Descriptive statement of the Forest Stewardship Council (FSC)

The Forest Stewardship Council A.C. (FSC) was established in 1993, as a follow-up to the United Nations Conference on Environment and Development (the Earth Summit at Rio de Janeiro, 1992) with the <u>mission</u> to promote environmentally appropriate, socially beneficial, and economically viable management of the world's <u>forests</u>.

Environmentally appropriate forest management ensures that the production of timber, <u>non-timber products</u> and <u>ecosystem services</u> maintains the forest's biodiversity, productivity, and ecological processes. Socially beneficial forest management helps both local people and society at large to enjoy long term benefits and also provides strong incentives to local people to sustain the forest resources and adhere to long-term <u>management plans</u>. Economically viable forest management means that forest operations are structured and managed so as to besufficiently profitable, without generating financial profit at the expense of the forest resource, the <u>ecosystem</u>, or affected communities. The tension between the need to generate adequate financial returns and the principles of responsible forest operations can be reduced through efforts to market the full range of forest products andservices for their best value (<u>FSC A.C.</u> <u>By-Laws</u>, ratified, September 1994; last revision in June 2011).

FSC is an international organization that provides a system for voluntary accreditation and independent third-party certification. This system allows certificate holders to market their products and services as the result of environmentally appropriate, socially beneficial and economically viable forest management. The FSC accredits and regularly monitors independent Certification Bodies, who in turn, carry out systematic audits in the field to assess whether a forest is managed in accordance with FSC standards. It is a process that results in a certificate being issued by the Certification Body verifying that a forest is 'well managed' according to the Forest Stewardship Standards. The process of FSC certification is voluntary and will be initiated by forest owners and managers who want to obtain this recognition for their forest management.

1.2. Descriptive statement of the Standard Development Group

The work of FSC In Papua New Guinea started in 1995 with the late Yati Bun becoming the official FSC Contact Person for the Country. In 1996 a three-chamber balanced PNG FSC National Working Group (NWG) was established during the first PNG National Certification Workshop. In 2003 the NWG was registered as an independent legal entity under the name PNG Forest Certification Incorporated (PNG FC Inc.), with the NWG serving as its Board. The purpose of PNG FC Inc. is to promote FSC certification in PNG. It is a national level multi-stakeholder membership organization, with a three-chamber structure similar to FSC's for its Board and Committees. PNG Forest Certification Inc. was recognized as FSC's National Initiative for PNG in 2008, but lost this recognition in 2011, due to the FSC Global Network restructure. Papua New Guinea has had a National Standards Working Group since 1997, which in 2003 became part of PNG Forest Certification Inc., and was renamed National Standard Technical Committee. PNG Forest Certification Inc. was recognized by the FSC Performance and Standards Unit (PSU) as FSC's Standards Development Group (SDG) for PNG in June 2012.



2. Preamble

2.1. Purpose of the standard

This standard sets out the required elements against which FSC accredited Certification Bodies shall evaluate forest management practices within the scope (see 2.2.below) of the standard. The <u>FSC Principles and Criteria (P&C)</u> for Forest Stewardship provide an internationally recognized standard for responsible forest management. However, any international standard for forest management needs to be adapted at the regional or national level in order to reflect the diverse legal, social and geographical conditions of forests in different parts of the world.

The <u>FSC Principles and Criteria</u> together with a set of national indicators approved by FSC Policy and Standards Committee (PSC) constitute an FSC National Forest Stewardship Standard (NFSS). The development of NFSS follows the requirements set out in the following FSC normative documents:

<u>FSC-PRO-60-006 V2-0 EN</u> Development and Transfer of National Forest Stewardship Standards to the FSC Principles and Criteria Version 5-1;

<u>FSC-STD-60-002</u> (V1-0) EN Structure and Content of National Forest Stewardship Standards AND

<u>FSC-STD-60-006</u> (V1-2) EN Process requirements for the development and maintenance of National Forest Stewardship Standards.

2.2. Scope of standard

The FSC National Forest Stewardship Standard for PNG set the Principles, Criteria, Indicators and Verifiers by which all forest operations in Papua New Guinea can be judged. They are uniquely tailored to reflect the social, economic and environmental situation in PNG.

This standard is applicable to all forest operations seeking FSC certification within Papua New Guinea. The standard applies to all forests.

2.3. Background information on the standard development

This Version 2.0 of the standard is a revision of Version 1.1 (May 2010). Following the approval by the FSC membership of a new version (V5.0) of the FSC Principles& Criteria and the need for a revision of Version 1.1, a transfer and revision process was started in May 2015, and completed in June 2017. The FSC Policy and Standards Committee approved Version 2.0 with conditions in October 2017, and final approval was received from the FSC PSU in April 2019.

3. Version of the standard

This Version 2-0 of the FSC National Forest Stewardship Standard of PNG was approved by the Policy and Standards Committee of FSC on 24/10/2017, and becomes effective on 01/08/2019. The next review of the Standard is scheduled to take place in 2022. The transfer and revision process was implemented by the National Standard Technical Committee (NSTC) of PNG Forest Certification Inc. made up of the following members: Economic Chamber - Robert Kiapranis, George Damien, Boniface Talele, and Victor Penias Environmental Chamber - Ted Mamu, TamalisAkus, Rose Singedan, and Sam Moko Social Chamber – Stewart Serawe, Rosa Koian, Cosmas Makamet, and Claire Asi NSTC Coordinator – Peter Dam.



4. Context

Papua New Guinea (PNG) is a south pacific nation located between Indonesia, Australia and the Solomon Islands. It forms the eastern half of the Island of New Guinea, which is the third largest tropical rain forest area on Earth. PNG has a rugged mountainous interior with extensive flatter lowlands reaching to the coast. Seventy percent of its land area is covered by closed natural forest, ranging from high-altitude cloud and montane forest to lowland mixed forest and mangroves near the coast.

The tropical forests of the island of New Guinea have been ranked among the world's most ecologically distinctive forest regions. New Guinea's forests are home to an estimated 200 species of mammals, 15,000 to 20,000 plant species, 1,500 tree species, and 750 species of birds, many of which are endemic.

PNG's forests are also essential to the livelihoods of the 80 percent of Papua New Guineans who still live in rural communities. There are more than 800 local languages spoken, and most people retain a close spiritual and cultural association with the forest.

Local custom is recognized in the PNG Constitution and 97% of the land in PNG is owned by its traditional owners. This means that almost all of PNG's forests are under the customary ownership of local clans and tribes.

5. References

The following referenced documents are relevant for the application of this standard. For references without a version number, the latest edition of the referenced document (including any amendments) applies.

FSC-POL-01-004	Policy for the Association of Organizations with FSC
FSC-POL-20-003	The Excision of Areas from the Scope of Certification
FSC-POL-30-001	FSC Pesticides Policy
FSC-POL-30-401	FSC Certification and the ILO Conventions
FSC-POL-30-602	FSC Interpretation on GMOs (Genetically Modified Organisms)
FSC-STD-01-002	Glossary of Terms
FSC-STD-01-003	SLIMF Eligibility Criteria
FSC-STD-20-007	Forest Management Evaluations
FSC-STD-30-005	FSC Standard for Group Entities in Forest Management Groups
FSC-STD-60-002	Structure and Content of National Forest Stewardship Standards
FSC-STD-60-006	Development of National Forest Stewardship Standards
FSC-PRO-01-001	The Development and Revision of FSC Normative Documents
FSC-PRO-01-005	Processing Appeals
FSC-PRO-01-008	Processing Complaints in the FSC Certification Scheme
FSC-PRO-01-009	Processing Policy for Association Complaints in the FSC Certifica-
	tionScheme
FSC-DIR-20-007	FSC Directive on Forest Management Evaluations
FSC-GUI-60-005	Promoting Gender Equality in National Forest Stewardship Stand- ards



6. Interpretation of this standard

6.1 Types & scales of operation

For this FSC National Forest Stewardship Standard for PNG Version 2.0 the following types and scales of operations have been identified:

- 1. LS Large scale operation (>10,000ha)
- 2. MS Medium scale operation (>1,000 -10,000 ha)
- 3. SS Small scale operation (up to 1,000 ha)
- 4. LI Low intensity operation (<20% MAI and <5000m3/yr, or only NTFP harvesting)
- 5. PL Plantation

6. WL - Woodlot (single plantation of trees of up to 10ha, owned by an individual person or family)

7. CE Conservation / Ecosystem service management (no commercial timber or NTFP extraction)

6.2 General disclaimers and clarification

- Any activities conducted by third parties on the Management Unit or on behalf of the Organization to comply with FSC requirements are subject to FSC's evaluation processes on the requirements of these FSC Forest Management Standard for PNG.
- Unless otherwise indicated, all indicators apply for all scales and types of operations.
- The term "The Organization" as used throughout the standard means; the person or entity holding or applying for certification and therefore responsible for demonstrating compliance with the requirements upon which FSC certification is based.
- In PNG the term Indigenous Peoples* is not used, as its inhabitants, apart from a very small percentage of recent immigrants, are all indigenous. For the use of this Standard the term used instead of Indigenous Peoples in all Criteria, Indicators, Verifiers and Guidance is Customary landowners.
- All terms defined in the Glossary of Terms are indicated in the standard text (Section 7) with an asterix (*).
- All Clarification provided is additional text to the Indicator and is normative, i.e. has to be considered and complied with.
- The Guidance provided at Criterion or Indicator level is not normative, and serves to provide a better understanding of the meaning of a Criterion or Indicator, how it can be complied with, and/or gives examples of information sources that can assist the Organization in complying with the requirements.

6.3 Language of the standard

The compulsory nature of each Instruction is reflected in its language, expressed according to the ISO 'verbal forms for the expression of provisions':

"shall": indicates Instructions strictly to be followed.

- "**should**": indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others. Implementation of these instructions can be done in an equivalent way provided this can be demonstrated and justified.
- "may": indicates a course of action permissible within the limits of the standard.
- "can": is used for statements of possibility and capability, whether material, physical or causal.



7. Principles, Criteria and National Indicators

PRINCIPLE 1: COMPLIANCE WITH LAWS

<u>The Organization</u> shall comply with all <u>applicable laws</u>, regulations and nationally-<u>ratified</u> international treaties, conventions and agreements.

Criterion 1.1. <u>The Organization</u> shall be a legally defined entity with clear, documented and unchallenged <u>legal registration</u>, with written authorization from the <u>legally competent</u> authority for specific activities.

Indicator 1.1.1 Legal registration* to carry out all activities within the scope of the certificate is documented and unchallenged, neither formally or informally.

Clarification: Informal complainants have to back up their claims with objective evidence. *Verifiers:*

1.1.1.1 For Customary landowners operating on their own land: Incorporated Land Group, and/or Business group or Company registration

1.1.1.2 Business group or Company registration

1.1.1.3 Business group or Company registration

1.1.1.4 Certificate of Compliance certification (tax)

1.1.1.5 Forest Industry Participant registration if processing more than 500m3 of round log volume, or K20,000 in value of Sandal wood or rattan, per annum

Indicator 1.1.2 Legal registration* is granted by a legally vetted* authority according to legally prescribed processes.

Verifiers:

1.1.2.1 Lands Department for Incorporated Land Group

1.1.2.1 Investment Promotion Authority for business registration

1.1.2.2 Internal Revenue Commission for CoC

1.1.2.3. PNG Forest Authority for Forest Industry Participant registration

1.1.2.4 Climate Change & Development Authority for REDD+ activities

Criterion 1.2 <u>The Organization</u> shall demonstrate that the <u>legal</u> status of the <u>Manage-</u> <u>ment Unit</u>, including <u>tenure</u> and <u>use rights</u>, and its boundaries, are clearly defined.

Indicator 1.2.1 Legal* tenure* to manage and use resource within the scope of the certificate is granted by a legally vetted* authority according to legally prescribed processes. **Clarification:** For operations by customary landowners* on their own customary land, there is no need to document tenure and resource use rights. Instead these can be confirmed with the Village Court Magistrate Ward Councillor and local land mediators / lands officer.

Verifiers:

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1.2.1.1 Legal* tenure* to manage and use resources within the scope of the certificate is documented

1.2.1.2 For operations on customary owned land; documented tenure and resource use rights are confirmed with the Village Court Magistrate, Ward Councillor and local land mediators / lands officer

Guidance: For customary landowners working on their own land, documentation of legal tenure is not required, as the PNG Constitution recognises customary law. It is not necessary for the customary landowners to establish an Incorporated Land Group (ILG).

Indicator 1.2.2 The boundaries of all Management Units* within the scope of the certificate are clearly marked in the field, documented and clearly shown on maps.

Clarification: For Small-scale operations* and Low intensity operations* boundaries do not have to be marked in the field.

Verifier:

1.2.2.1 Management and field staff are familiar with the boundaries of the Management Unit, and able to identify them in the field

Indicator 1.2.3 Copies of the tenure and use-rights documents, all licences, permits, and/or other documents issued under statute or regulation and relating to the Management Unit* are available for viewing to all affected stakeholders*. These documents are held at sites easily accessible to affected stakeholders*, and affected stakeholders are notified by Organization that these documents are available for viewing.

Clarification 1: Confidential documents are only accessible to affected stakeholders*.

Clarification 2: For Small scale operations* and Low intensity operations*, documents are kept by the Group Certification Manager.

Verifiers:

1.2.3.1 For large scale operations documents are kept at the main site office within the Management Unit

1.2.3.2 For medium scale operations documents are kept at an office on site or at an office accessible by road from the Management Unit

Criterion 1.3 <u>The Organization</u> shall have <u>legal</u> rights to operate in the <u>Management Unit</u>, which fit the legal status of The Organization and of the Management Unit, and shall comply with the associated legal obligations in applicable national and <u>local laws</u> and regulations and administrative requirements. The legal rights shall provide for harvest of products and/or supply of <u>ecosystem services</u> from within the Management Unit. The Organization shall pay the legally prescribed charges associated with such rights and obligations.

Indicator 1.3.1 The Organization* provides evidence that legal procedures were followed to establish the permits and licenses that allow it to operate in the Management Unit*.



Verifiers:

1.3.1.1 Copies of documents from relevant authorities showing proper processes adhered to for all steps of permit and license establishment and issuance, for such documents which are officially available to The Organization*

1.3.1.2 Interviews with affected stakeholders confirm the documented proper processes

1.3.1.3 Where The Organization* does not have copies of officially available documents, it demonstrates its efforts to try to obtain them

1.3.1.4 Interviews with affected stakeholders confirm The Organization's efforts to try obtain these documents

Indicator 1.3.2 All activities undertaken in the Management Unit^{*} and covered in the management plan^{*} are designed and carried out in compliance with:

1) Applicable laws* and regulations and administrative requirements,

2) Legal* and customary rights*; and

3) Obligatory codes of practice*.

Verifiers:

1.3.2.1 For all operations: Timber Authority if exporting timber

1.3.2.2 For Woodlots, Small scale operations and Low intensity operations, this can be verified at the Group Manager's level

Indicator 1.3.3 The Organization verifies that where a Landowner Company exist in relation to the forest management unit, it is the legal representative of the Customary landowners* of that area, andits formation complies with Indicator 3.1.3.

Verifier:

1.3.3.1 Interviews at the village level confirm public and specific meetings with different groups (in particular women, youth and other marginalised groups) were held, with evidence of understanding, critical comment and reaching of general consensus, on the formation of the Landowner Company

Guidance: Landowner Companies may exist for operations under Timber Rights Purchase, Local Forest Agreement and Timber Authority.

Indicator 1.3.4 The Organization verifies that where a Landowner Company exist in relation to the forest management unit, it is in compliance with all relevant laws & regulations that governs them.

Verifier:

1.3.4.1 Up to date checks of company extract with IPA to confirm if its registration is current, and annual returns have been submitted

Indicator 1.3.5 The Organization verifies that where a Landowner Company exist in relation to the forest management unit, it holds annual general meetings and other meetings as required.

Verifiers:

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1.3.5.1 Annual General Meetings minutes verified through interviews at the village level, showing compliance with their Constitution and the Companies Act requirements1.3.5.2 Copies of any decisions by meetings by the Landowner Company related to the activities of The Organization

Criterion 1.4 <u>The Organization</u> shall develop and implement measures, and/or shall engage with regulatory agencies, to systematically protect the Management Unit from unauthorized or illegal resource use, settlement and other illegal activities.

Indicator 1.4.1 The rights, duties, and responsibilities of all affected stakeholders* in relation to unauthorized or illegal harvesting, hunting, fishing, trapping, collecting, settlement and other unauthorized activities are identified and defined in writing.

Verifier:

1.4.1.1 For small and low intensity operations: Land Use Plan and Community conservation rules

Indicator 1.4.2 Measures are implemented to provide protection* from all unauthorized or illegal activities identified under 1.4.1.

Indicator 1.4.3 If any illegal or unauthorised activity is detected, action is taken by The Organization* to ensure this activity ceases and that any relevant legal procedures are followed.

Clarification: For illegal or unauthorised activities on customary land, the Customary landowners* are involved, and preferably local customary practices, e.g. Village mediation*, are used.

Verifier:

1.4.3.1 Evidence of field checks by The Organization that identified illegal activities have ceased

Indicator 1.4.4 Where protection is the legal responsibility of regulatory bodies, The Organization* implements a system to work with these regulatory bodies to identify, report, control and discourage unauthorized or illegal activities.

Verifier:

1.4.4.1 Evidence of existence and functioning of such a collaborative system

Criterion 1.5 <u>The Organization</u> shall comply with the applicable <u>national laws</u>, local laws, <u>ratified</u> international conventions and obligatory codes of practice, relating to the transportation and trade of forest products within and from the <u>Management Unit</u>, and/or up to the point of first sale.

Indicator 1.5.1 Compliance with applicable national laws*, local laws*, ratified* international conventions and obligatory codes of practice* relating to the transportation and trade of forest products up to the point of first sale is demonstrated.



Verifier:

1.5.1.1 Interviews show awareness of the requirements of relevant international agreements with management and workers

Indicator 1.5.2 Compliance with CITES provisions is demonstrated, including through possession of certificates for harvest and trade in any CITES species.

Criterion 1.6 <u>The Organization</u> shall identify, prevent and resolve <u>disputes</u> over issues of statutory or <u>customary law</u>, which can be settled out of court in a <u>timely manner</u>, through engagement with <u>affected stakeholders</u>.

Indicator 1.6.1 A publically available* dispute* resolution process on issues of statutory or customary law* is in place; developed through culturally appropriate engagement* with affected stakeholders*.

Indicator 1.6.2 Disputes* related to issues of applicable laws* or customary law* that can be settled out of court are responded to in a timely manner*, and are either resolved or are in the dispute* resolution process.

Verifiers:

1.6.2.1 Evidence of resolved disputes, or if not yet resolved, evidence of action and progress

1.6.2.2 For small scale and low intensity operations: If no records on the settlement of disputes are available, check the Village Magistrate and both disputing parties on the settlement process of the dispute

Guidance: Disputes should be resolved within 12 months. If not yet resolved, evidence of action and progress by The Organization* on the resolution process.

Indicator 1.6.3 The resolution of disputes* related to issues of applicable laws* or customary law* is done in a transparent manner with consent of all affected stakeholders*.

Guidance: Disputes related to any damage to environmental values* or private or common property, should be attempted to be resolved either through restoration of the damage done, or through provision of community services meeting or exceeding the monetary value of the damage, having both damaged party and the Organization* agree.

In the case of damage to private property, resolution may be through monetary compensation.

When settlement out of court is not successful, The Organization* will not attempt, through coercion or undue influence, to prevent stakeholders from pursuing legal remedies.

Indicator 1.6.4 Genuine disputes^{*} over customary land tenure, customary rights to use the forests, and customary rights to alienate forest resources are to be settled under the Land Dispute Settlement Act.

Guidance: The Organization* should for these situations be mindful not to become a



party in the dispute, but merely advise the Customary landowners* parties involved to use the correct procedures and relevant authorities specified in the Land Dispute Settlement Act.

Indicator 1.6.5 Up to date records of disputes related to issues of applicable laws* or customary law, are held including:

1) Steps taken to resolve disputes*;

2) Outcomes of all dispute* resolution processes; and

3) Unresolved disputes*, the reasons they are not resolved, and proposed options for how they may be resolved.

Clarification: Small scale and low intensity operations by customary landowners* on their own land do not need to hold these records.

Verifiers:

1.6.5.1 For Small scale operations and Low internsity operations by Customary landowners on their own land: Interviews with the Village Magistrate and both disputing parties on the settlement of the dispute

1.6.5.2 Records of disputes with Public Relations Officer, Community Relations Officer or other responsible person within the Organization

Indicator 1.6.6 Operations cease in areas where disputes* on issues of statutory or customary law* exist:

1) Of substantial magnitude*; or

2) Of substantial duration*; or

3) Involving a considerable level* of interests.

Criterion 1.7 The Organization shall publicize a commitment not to offer or receive bribes in money or any other form of corruption, and shall comply with anti-corruption legislation where this exists. In the absence of anti-corruption legislation, The Organization shall implement other anti-corruption measures proportionate to the <u>scale</u> and <u>intensity</u> of management activities and the <u>risk</u> of corruption.

Indicator 1.7.1 An anti-corruption policy is implemented that includes a written commitment not to offer or receive bribes of any description or engage in any other form of corruption.

Verifiers:

1.7.1.1 Written commitment can be part of the Organization's management plan summary or other official public document of the Organization

1.7.1.2 For Small scale operations and Low intensity operations or other Group Certificates, documentation to be held at Group Manager's level

Indicator 1.7.2 The anti-corruption policy meets or exceeds related legislation.

Guidance: Whenever (new) legislation comes into effect, the Organization* updates its



anti-corruption policy to reflect this legislation and ensure compliance with it (e.g. the Anti-corruption Bill in preparation). In absence of national legislation the Organization* should take guidance from international anti-corruption legislation. The Organization* should affiliate itself with existing national anti-corruption organisations and/or agencies through publicly advertised commitment.

Indicator 1.7.3 The anti-corruption policy is publicly available* at no cost.

Indicator 1.7.4 The Organization* has procedures in place that prevent bribery, coercion and other acts of corruption in relation to the Organization's operation.

Indicator 1.7.5 For Medium and Large scale operations, the Organization*conducts internal audits of its compliance with its anti-corruption policy.

Indicator 1.7.6 Corrective measures are implemented if corruption does occur, including referral of offenders for prosecution.

Verifier:

1.7.6.1 There is written evidence of the corrective measures taken

Criterion 1.8 <u>The Organization</u> shall demonstrate a <u>long-term</u> commitment to adhere to the FSC <u>Principles</u> and <u>Criteria</u> in the <u>Management Unit</u>, and to related FSC Policies and Standards. A statement of this commitment shall be contained in a <u>publicly available</u> document made freely available.

Indicator 1.8.1 A written policy, endorsed by an individual with authority to implement the policy, includes a long-term^{*} commitment to forest^{*} management practices consistent with the FSC National Forest Stewardship Standard for Papua New Guinea and other FSC related Policies and Standards.

Clarification: For Small scale and Low intensity operations or other Group Certificates, documentation is held at Group Manager's level.

Verifier:

1.8.1.1 Written and endorsed policy

Guidance: The policy should be written in a manner that is easily communicated to all affected stakeholders*.

Indicator 1.8.2 The policy is communicated throughout the Organization* and to affected stakeholders* and is publicly available at no costs. Upon request, the policy istranslated into Tok Pisin, Hiri Motu, or into another widely used regional language, as may be appropriate in the circumstances.

Verifiers:

1.8.2.1 Staff induction includes communication of the policy

1.8.2.2 Evidence of awareness to communities

1.8.2.3 Annual stakeholders meetings with documented attendance

1.8.2.4 Publiction on public notice board



1.8.2.5 Awareness programs on local radio stations

Indicator 1.8.3 The policy is reviewed and updated if any change in the FSC National Forest Stewardship Standard for PNG or FSC Policy and Standards warrents this.

Indicator 1.8.4 The Organization* commits to promoting these FSC National Forest Stewardship Standard for PNG through providing awareness to communities within the Management Unit* and upon request to communities adjacent to the Management Unit*. *Verifiers:*

1.8.4.1 Evidence of awareness to communities

1.8.4.2 Annual stakeholders meetings with documented attendance

1.8.4.3 Publiction on public notice board

1.8.4.4 Awareness programs on local radio stations

Indicator 1.8.5 The Organization* informs affected stakeholders* of their rights to make use of FSC complaint or dispute resolution procedures and does not prevent any affected stakeholder* from exercising these rights.

<u>Go to Annex A.</u> Minimum list of applicable laws*, regulations and nationally-ratified* international treaties, conventions and agreements.



PRINCIPLE 2: WORKERS' RIGHTS AND EMPLOYMENT CONDITIONS

<u>The Organization</u> shall maintain or enhance the social and economic wellbeing of <u>workers</u>*.

Criterion 2.1 <u>The Organization</u> shall <u>uphold</u> the principles and rights at work as defined in the ILO Declaration on Fundamental Principles and Rights at Work (1998) based on the eight ILO Core Labour Conventions.

Indicator 2.1.1 Employment practices and conditions for workers* demonstrate conformity with or uphold* the principles and rights of work addressed in the eight ILO Core Labour Conventions as defined in the ILO Declaration on Fundamental Principles and Rights at Work (1998).

Indicator 2.1.2 Employment conditions show consideration for workers' cultural obligations.

Verifier:

2.1.2.1 Organization's system on allowing workers to attend to cultural obligations

Indicator 2.1.3 Workers* are free to establish or join workers unions of their own choosing, subject only to the rules of the workers union concerned.

Verifier:

2.1.3.1 Interviews with workers and their representatives confirm the right to free negotiation of employment conditions

Indicator 2.1.4 Agreements are implemented resulting from collective bargaining with formal and informal workers organizations^{*}.

Clarification: This requirement is not applicable for Small scale operations* and Low intensity operations* of Customary landowners* working on their own land.

Indicator 2.1.5 All workers* of Large scale operations* and Medium scale operations*, including all workers* of contractors, have a written contract. Workers* areinformed about all employment conditions, including wages and any deductions before they sign their contract. Upon request by the worker*, the contract is translated into Tok Pisin, Hiri Motu, or into another widely used regional language, as may be appropriate in the circumstance.

Verifiers:

2.1.5.1 Workers contracts in appropriate language(s)

2.1.5.2 No consecutive 3-months contracts with job declassification for the same worker

2.1.5.3 Interviews with workers confirm understanding of employment conditions before contract signing

Indicator 2.1.6 The Organization* meets or exceeds the requirements on workers* living conditions as per the Employment Act (1978). This includes workers* from contractors living within the Management Unit*.

Verifier:



2.1.6.1 On-site checks confirm workers living conditions

Criterion 2.2 <u>The Organization</u> shall promote <u>gender equality</u> in employment practices, training opportunities, awarding of contracts, processes of <u>engagement</u> and management activities.

Indicator 2.2.1 Systems are implemented that promote gender equality* and prevent gender discrimination in employment practices, training opportunities, awarding of contracts, processes of engagement* and management activities.

Clarification: For Small scale operations* and Low intensity operations*, documented systems may not be necessary. Interviews with female workers, other women, and other stakeholders can provide evidence of implementation.

Verifiers:

2.2.1.1 Written policies and procedures and other elements of the management system such as operative programmes, monitoring, and evaluation or manuals addressing gender equality, including participation in decision-making in the Organization, prevention of gender-based discrimination, and sexual harassment

2.2.1.2 Any set of disaggregated data, including by sex and age, which supports the above

2.2.1.3 Job advertisements, training sessions, information shared in visible places by different ways and means

2.2.1.4 Interviews with contractors, workers of all gender, and other stakeholders

Indicator 2.2.2 Job opportunities are open to both women and men under the same conditions, and women are encouraged to participate actively in all levels of employment. The Organization* makes reasonable* efforts to adjust working conditions to allow women to be equally suitable for job opportunities.

Clarification: For Small scale operations* and Low intensity operations* interviews with female workers, other women, and other stakeholders can provide evidence of compliance.

Verifiers:

2.2.2.1 Absence of evidence that women may not have been hired, or have been penalized because of their gender, e.g. by being pregnant

2.2.2.2 Job descriptions and recruitment initiatives that encourage more women to apply, including to managerial positions

2.2.2.3 Record of gender-balanced selection panels and selection procedures that specifically prohibit gender-based discrimination

2.2.2.4 Records and sex-disaggregated data of training and capacity building and induction of personnel to all employees

2.2.2.5 Records of encouragement to women to apply to training and capacity building



events

2.2.2.6 Records of empowerment or affirmative actions taken to encourage women to lead important initiatives and assignments inside the Organization

Guidance: Examples of adjustments that can be made are; if a worker is breastfeeding or has given birth, the Organization* should consider the risks and take action such as temporarily alter your working conditions or hours of work, if this is reasonable, allow extra breaks, avoiding heavy lifting. If those kind of adjustments are not possible, suitable alternative work should be offered on terms and conditions that are not substantially less favourable than of the original job.

Indicator 2.2.3 Work typically carried out by women (nurseries, silviculture, non timberforest products* harvesting, weighing, packing, etc.) is included in training and health & safety programs to the same extent as work typically carried out by men. *Verifiers:*

2.2.3.1 Records and sex-disaggregated data on engagement activities with staff to identify different training needs and interests in non-traditional occupations for their gender

2.2.3.2 Records/lists of number and type of trainings conducted, with qualitative records on the participation of all gender, number of invitees, of subscribers and of successful participants

2.2.3.3 Interviews with female and male workers

Indicator 2.2.4 Women and men are paid the same wage when they do the same work. *Verifiers:*

2.2.4.1 Evidence of same wage for men and women for the same work, as outlined in contracts, with the notice that pay levels may vary depending on qualification and experience

2.2.4.2 Interviews with female and male workers, including contractors

Indicator 2.2.5 All gender are paid directly and using mutually agreed methods (e.g. direct bank transfer, direct payments for school fees, etc.) to ensure they safely receive and retain their wages.

Verifiers:

2.2.5.1 Records of agreements on the way to pay the wages and other benefits

2.2.5.2 Interviews with workers showing the agreement is not forced (either internally or externally to the Organization)

2.2.5.3 Records of direct transfers and direct contracts with all gender

Indicator 2.2.6 Maternity leave of at least eight weeks paid leave after childbirth, plus at least four weeks unpaid leave either before or after childbirth, is available and there is no penalty for taking it.

Clarification: Not applicable to Small scale operations* and Low intensity operations* under informal workers' employment arrangements.



Verifiers:

2.2.6.1 Examples of communications to explain workers rights to staff

2.2.6.2 Records of maternity leave given to employees

2.2.6.3 Employment contracts and/or a collective bargaining agreement

2.2.6.4 nterviews with workers, particularly females who are or have been pregnant while working for the organization

Indicator 2.2.7 Paternity leave of at least ten days paid leave is available and there is no penalty for taking it.

Clarification: Not applicable to Small scale operations* and Low intensity operations* under informal workers employment arrangements.

Verifiers:

2.2.7.1 Examples of communications to explain their right to workers

2.2.7.2 Records of paternity leaves given to employees

2.2.7.3 Interviews with workers, particularly those who are or have been young parents while working for the Organization

Indicator 2.2.8 Meetings, management committees and decision-making forums are organized to include all gender, and to facilitate the active participation of all gender present.

Clarification: It will only be possible and necessary to consider and include all gender in the types of meetings mentioned when the relevant workers to attend these meetings consist of all gender.

Verifiers:

2.2.8.1 Notes of meetings and decision making forums, with sex-aggregated data, showing the participation, both in terms of attendance, discussion and decision-making, of all gender present

2.2.8.2 Interviews with female and male workers

2.2.8.3 Empowerment training with sex-disaggregated data on participation of workers and management staff

2.2.8.4 Evidence that meetings, management committees and decision-making forums are held at times and venues conducive to the participation of all gender

2.2.8.5 Review the organization chart to locate how many women are in positions of decision-making

Indicator 2.2.9 Confidential, effective and safe mechanisms exist for reporting and eliminating cases of sexual harassment and discrimination based on gender, marital status, parenthood or sexual orientation.

Clarification: For Small scale operations* and Low intensity operations*, the Group Manager has a mechanism in place, including awareness to be provided to Group Members on what type and/or level of cases can be settled through Village Court and which



ones need to be referred.

Verifiers:

2.2.9.1 Check on records of cases related to the operation at Village Court 2.2.9.2 Interviews with workers and village elders confirm cases have been settled following the correct process

2.2.9.3 Interviews with workers at all levels, particularly women

Verifiers 2.2.9.4 - 2.2.9.6 apply toLarge scale operations and Medium scale operations: 2.2.9.4 Policies, procedures and associated documentation on implementation 2.2.9.5 Records of awareness training to personnel including manager, security and supervising staff

2.2.9.6 Sex-disaggregated records of incidents and complaints related to health and safety, including violence, sexual harassment and discrimination based on gender, marital status, parenthood or sexual orientation and their follow up

Criterion 2.3 <u>The Organization</u> shall implement health and safety practices to protect <u>workers</u> from occupational safety and health hazards. These practices shall, proportionate to <u>scale</u>, <u>intensity and risk</u> of management activities, meet or exceed the recommendations of the ILO Code of Practice on Safety and Health in Forestry Work.

Indicator 2.3.1 Health and safety practices, including for vehicle and heavy equipment use, are developed, documented and implemented that meet or exceed the ILO Code of Practice on Safety and Health in Forestry Work, and the PNG Logging Code Of Practice.

Indicator 2.3.2 For large and medium scale operations; hazardous areas and hazardous substances are identified, documented and demarcated.

Guidance: Hazardous areas can also be cliffs, sink holes, etc within or adjacent to the Management Unit*.

Indicator 2.3.3 For large scale operations* and Medium scale operations*; workers* are identified that have the responsibility for implementing health and safety policies.

Indicator 2.3.4 The Organization* provides workers* with personal protective equipment appropriate to their assigned tasks and provides training in its use.

Verifier:

2.3.4.1 Guidance to be taken from C3.of the Operating Standards of the PNG LCOP and Employment Act

Indicator 2.3.5 All equipment is subject to periodic inspection, testing and maintenance with regard to safety, with intervals depending on the type of equipment, and only equipment which has passed such tests is used.

Verifiers:

2.3.5.1 For Large scale operations and Medium scale operations, maintenance records

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show periodic testing and maintenance, that can be traced back to each piece of equipment

2.3.5.2 For smaller pieces of equipment, such as gloves and hardhats, more informal inspection may be desirable unless these items are accompanied by expiration dates 2.3.5.3 For Small scale operations and Low intensity operations, interviews confirm regular maintenance

2.3.5.4 All vehicles and moving heavy equipments used must be registered and insurance cover paid

Indicator 2.3.6 No worker* is allowed to work without personal protective equipment and the Organization* has a clear and robust system in place to ensure compliance.

Verifiers:

2.3.6.1 Evidence of implemented clear and robust system

2.3.6.2 Evidence of regular checks ensuring compliance

2.3.6.3 Evidence of corrective action taken

Indicator 2.3.7 Records are kept on health and safety practices including accident rates and lost time to accidents.

Clarification: For Small scale operations* and Low intensity operations* lost time to accidents does not have to be recorded.

Verifiers:

2.3.7.1 Records on health & safety practices, accidents rates and lost time

2.3.7.2 For Small scale operations and Low intensity operations; if no records are available from the Organization, checks on possible accidents through records and/or interviews of local aids posts and health centres

Indicator 2.3.8 For Large scale operations* and Medium scale operations*, the Organization* can show that the frequency and severity of accidents are consistently low, and makes reasonable* attempts to obtain information from Labour Department or other available sources to be compared with their own records on accidents.

Verifier:

2.3.8.1 The Organization can show longer term trends on number and frequency of accidents, e.g. in graphs

Guidance: PNG Forest Certification Inc and PNG Forest Authority will collaborate with the PNG Labour Department and the FSC Asia-Pacific Regional Office to gather National, Regional and relevant global level information to help determine forest industry averages for frequency and severity of accidents. PNG Forest Certification Inc may be contacted on the progress of this collaboration and any already available data.

Indicator 2.3.9 After major incidents and accidents, and serial minor incidents and accidents, the root cause is identified and the health and safety practices and/or their implementation are reviewed and revised as required.



Verifier:

2.3.9.1 Evidence of adjusted health & safety practices and implementation

Indicator 2.3.10 Medical assistance is available in case of accidents.

Clarification:

For Large scale operations* and Medium scale operations* the Organization* ensures training for key workers* in first aid, with retraining every three years, and general health awareness to all workers*.

For Small scale operations* and Low intensity operations* the forest manager ensures two permanent workers* are trained to act as first aid officers and receive refresher training at least once every three years.

Criterion 2.4 <u>The Organization</u> shall pay wages that meet or exceed minimum <u>forest</u> industry standards or other recognized forest industry wage agreements or <u>living wages</u>, where these are higher than the <u>legal</u> minimum wages. When none of these exist, The Organization shall through engagement with workers develop mechanisms for determining living wages.

Guidance: The concept of living wages* is going to be researched at the national forestry sector level by PNG Forest Certification Inc. in close collaboration with all affected stake-holders*. The requirement for Organizations to pay living wages* may be introduced in the next version of the FSC National Forest Management Standard for PNG.

Information on living wages* is available from the Global Living Wage Coalition;

https://www.isealalliance.org/our-work/improving-effectiveness/global-living-wagecoalition

Indicator 2.4.1 Wages paid by The Organization* in all circumstances meet or exceed legal* minimum wage rates, where such rates exist.

Clarification: If the Organization* has an official derogation from paying full minimum wages, it provides written and substantiated motivation for requesting this.

Verifiers:

2.4.1.1 Approval letter from Labour Department if allowed to pay lower than minimum wage due to incapacity to pay, etc

2.4.1.2 Clear written and substantiated motivation for requesting derogation from paying full minimum wages

Indicator 2.4.2 Wages paid meet or exceed:

1) Minimum forest* industry standards; or

2) Other recognized forest* industry wage agreements; or

3) Living wages* that are higher than legal* minimum wages

Verifier:

2.4.2.1 Records of the total benefits provided to all workers, showing they meet or exceed



minimum wage levels

Indicator 2.4.4 Updated requirements of forest industry wages, including information on normal working hours and overtime, is made publicly available by the Organization* at operation sites.

Clarification: Not applicable to Small scale operations* and Low intensity operations*.

Indicator 2.4.5 Wages for all workers* involved in implementation of management activities in relation to the Management Unit* are paid on time, and at each payment workers* receive calculation of their pay, including all benefits and any deductions and their motivation.

Clarification:

For Large scale operations* and Medium scale operations* this information is in writing. For Woodlots*, Small scale operations* and Low intensity operations*, verbal information may be provided.

Verifiers:

For Large scale operations and Medium scale operations:

2.4.5.1 Up to date pay slips, with details on all benefits

2.4.5.2 Evidence of written explanations provided to workers for any deductions and their motivation

For all operations:

2.4.5.3 Interviews with workers confirm timely wages payment, and understanding of benefits received and deductions made

Guidance: This Indicator applies to all workers* involved in implementation of management activities in relation to the Management Unit*, and all contractors or other workers* not directly employed by the Organization*.

Criterion 2.5 <u>The Organization</u> shall demonstrate that <u>workers</u> have job-specific training and supervision to safely and effectively implement the <u>Management Plan</u> and all management activities.

Indicator 2.5.1 The Organization*undertakes training needs analysis to determine the type and level of training needed for all workers* to continuously safely and effectively implement the Management Plan* and all management activities.

Verifier:

2.5.1.1 Evidence of training needs analysis

Indicator 2.5.2 The Organization* identifies workers* responsible for all job specific training.

Verifier:

2.5.2.1 Identified worker(s) for job specific training

Indicator 2.5.3 Workers* have job specific training consistent with Annex B and supervi-



sion to safely and effectively contribute to the implementation of the management plan* and all management activities.

Clarification 1: For Small scale operations* and Low intensity operations* and other types of Group Certificates responsibility for job specific training provision is at Group Manager's level.

Clarification 2: Non-compliance of the Organization* with Indicator 2.5.2 is specific to each of the applicable individual elements of Annex B for the operation of the Organization*.

Verifier:

2.5.3.1 Training requirements under Annex B

Indicator 2.5.4 For Large scale operations* and Medium scale operations* there is a written training program with specific named person(s) responsible for all issues regarding education and training of workers*.

Verifier:

2.5.4.1 Written training program including names of responsible person(s) for education & training of workers

Indicator 2.5.5 Large scale operations* and Medium scale operations*minimize the number of expatriate workers*, and demonstrate why a position needs to be filled by an expatriate worker*.

Verifiers:

2.5.5.1 No evidence of expatriate workers in classified positions as per Employment of Non-Citizens Act (2007), and Employment of Non-Citizen Act Regulations (2008).

2.5.5.2 Evidence of advertisement of positions

2.5.5.3 Use of recruitment agencies

2.5.5.4 Evidence of on the job training by expatriates to localise positions

Indicator 2.5.6 Expatriate workers*are able to communicate in English, Tok Pisin and/or Hiri Motu to a level that ensures safe and effective implementation of all management activities under their responsibility.

Verifier:

2.5.6.1 Interviews with national workers under their supervision confirm language skills of expatriate workers

Indicator 2.5.7 Up to date training records are kept for each worker*.

Verifier:

2.5.7.1 Regularly updated workers training records

Indicator 2.5.8 Procedures are developed and implemented for assessing the effectiveness of any training to forest workers*, based on performance levels of the activities covered in the training.

Clarification: For Woodlots*, Small scale operations* and Low intensity operations*,



development and implementation of procedures can be at the Group Manager's level. *Verifiers:*

2.5.8.1 Periodical internal reviews (staff performance appraisal in appropriate manner, e.g. oral testing) with records kept

2.5.8.2 Use of different trainers (internal and external) to compare outcomes and improve training effectiveness

2.5.8.3 Internal audits on training effectiveness

Criterion 2.6 The Organization through engagement with workers shall have mechanisms for resolving grievances and for providing <u>fair compensation</u> to workers for loss or damage to property, occupational diseases, or occupational injuries sustained while working for The Organization.

Indicator 2.6.1 A dispute* resolution process is in place, developed in line with local custom and existing local dispute resolution processes.

Clarification: For Small scale operations* and Low intensity operations*, the dispute resolution process may be the existing local customary process.

Verifiers:

2.6.1.1 Evidence of how the dispute resolution procedure was developed and approved

2.6.1.2 Evidence of workers* grievances being assessed to whether they can be resolved through the Organization's internal dispute resolution process, or have to be referred to external legal processes

2.6.1.3 Evidence of referral to external legal processes

Guidance: Organizations* may operate in local situations where there is no need to have a dispute resolution process based on local custom and local dispute resolution processes. E.g. plantation operations on titled land.

Indicator 2.6.2 Workers* grievances are identified and verified, and are then responded to and are resolved as soon as possible, the latest within 12 months after their identification.

Verifier:

2.6.2.1 Interviews with workers confirm grievances are dealt with to the satisfaction of both parties

Indicator 2.6.3 Up-to-date records of workers* grievances related to workers* loss or damage of property, occupational diseases* or injuries are maintained including:

1) Steps taken to resolve grievances;

2) Outcomes of all dispute* resolution processes including fair compensation*; and

3) Unresolved disputes*, the reasons they are not resolved, and proposed options for how they may be resolved.

Clarification: Small scale operations* and Low intensity operations* do not need to hold



these records.

Verifiers:

2.6.3.1 Up-to-date records of workers grievances

2.6.3.2 For small scale and low internsity operations; interviews with the Village Magistrate and both worker(s) and The Organization on the settlement of the grievance

Indicator 2.6.4 Fair compensation* is provided to workers* for work-related loss or damage of property and occupational disease* or injuries, meeting or exceeding the requirements as per the Workers Compensation Act (1978) and Workers Compensation Regulations (1983).

Clarification: For Small scale operations* and Low intensity operations* of Customary Landowners* on their own land, fair compensation is agreed to following local customary practices.

Go to Annex B. Training requirements



PRINCIPLE 3: INDIGENOUS PEOPLES' RIGHTS

<u>The Organization</u> shall identify and <u>uphold</u> Indigenous Peoples' <u>legal</u> and <u>customary</u> <u>rights</u> of ownership, use and management of land, territories and resources affected by management activities.

Clarification: In PNG the term Indigenous Peoples* is not used, as its inhabitants, apart from a very small percentage of recent immigrants, are all indigenous. For the use of this National Standard the term used instead of Indigenous Peoples* in all Criteria, Indicators, Verifiers and Guidance is Customary landowners*.

Criterion 3.1 The Organization shall identify the Customary landowners* that exist within the <u>Management Unit</u> or those that are affected by management activities. The Organization shall then, through engagement with these Customary landowners, identify their rights of <u>tenure</u>, their rights of access to and use of <u>forest</u> resources and <u>ecosystem services</u>, their <u>customary rights</u> and legal rights and obligations that apply within the Management Unit. The Organization shall also identify areas where these rights are contested.

Indicator 3.1.1 Customary landowners* that may be affected by management activities are identified.

Clarification: If the operation is taking place on State Land, the original Customary landowners* of that land would be considered as affected Customary landowners*. *Verifier:*

3.1.1.1 Evidence of identification of all potentially affected Customary landowners

Indicator 3.1.2 Through Culturally appropriate engagement* with the Customary landowners* identified in 3.1.1, the following issues are documented and/or mapped:

1) Their legal* and customary rights* of tenure*;

2) Their legal* and customary* access to, and use rights*, of the forest* resources and ecosystem services*;

3) Their legal* and customary rights* and obligations that apply;

4) The evidence supporting these rights and obligations;

5) Areas where rights are contested between Customary landowners*, governments and/or others;

6) Summary of the means by which the legal* and customary rights* and contested rights, are addressed by The Organization*;

7) The aspirations and goals of Customary landowners* related to management activities.
8) Indigenous Cultural Landscapes* and the values that the Customary landowners* have for different parts of the Intact Forest Landscapes* are mapped.

Clarification: This Indicator does not apply for Small scale operations* and Low intensity operations* by Customary landowners* working on their own land.

Verifiers:

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3.1.2.1 For small scale operations working on other peoples' land relevant PNGFA forms will provide the required information

3.1.2.2 The information from the compliance with Indicators 5.1.2, 5.4.2 and 5.4.3 is considered for the identification of 3.1.2 Point 7)

3.1.2.3 Interviews at community level confirm use of culturally appropriate engagement

Indicator 3.1.3 Where Customary landowners* are represented through Incorporated Land Groups* or any other body, the group or body is formed transparently, with the Free, Prior and Informed Consent* of clan members, including the Free, Prior and Informed Consent* of women, youth and other marginalised groups :

• on the genealogy of the group

• on the customary rules that apply to the disposition of land rights and rights over timber

• on the written constitution of the group, which should reflect their customary rules and laws and may refer to general verbal agreements on these in case of low literacy rates within the group

• on the appointment of the groups dispute resolution authority

Verifiers:

3.1.3.1 Interviews at the village level confirm public and specific meetings with different groups (in particular women, youth and other marginalised groups) were held, with evidence of understanding, critical comment and reaching of general consensus, on the ILG formation or other representative body

3.1.3.2 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

3.1.3.3 Annual General Meetings minutes verified through interviews at the village level, showing compliance with their Constitution and the ILG Act requirements

Criterion 3.2 <u>The Organization</u> shall recognize and <u>uphold</u> the legal and <u>customary rights</u> of Customary landowners* to maintain control over management activities within or related to the <u>Management Unit</u> to the extent necessary to protect their rights, resources and lands and territories. Delegation by Customary landowners* of control over management activities to third parties requires <u>Free</u>, <u>Prior and Informed Consent</u>.

Indicator 3.2.1 The Organization* uses culturally appropriate engagement* to ensure that Free, Prior and Informed Consent* is granted by Customary landowners* prior to management activities that affect their identified rights through a process that includes:

1) Ensuring Customary landowners* know their rights and obligations regarding the resource;

2) Informing the Customary landowners* of the value, in economic, social and environmental terms, of the resource over which they are considering delegation of control. including Intact Forest Landscapes* Core Areas*;



3) Informing the Customary landowners* of their right to withhold or modify consent to the proposed management activities to the extent necessary to protect their rights, resources, lands and territories*; and

4) Informing the Customary landowners* of the current and future planned forest* management activities and their potential positive and negative social, economic and environmental impacts.

Verifiers:

3.2.1.1 Interviews at community level confirm FPIC was given

3.2.1.2 FPIC processes followed meet the requirements as suggested in the FSC FPIC Guidelines

Indicator 3.2.2 For Large scale operations* and Medium scale operations*, Free Prior and Informed Consent* is reconfirmed at every timber permit review and renewal, and a report on this reconfirmation is made available to the Provincial Forest Management Committee for their deliberation on the Permit renewal.

Verifiers:

3.2.2.1 Interviews at community level confirm FPIC was given

3.2.2.2 FPIC processes followed meet the requirements as suggested in the FSC FPIC Guidelines

3.2.2.3 FPIC reconfirmation report

Indicator 3.2.3 If no Incorporated Land Group* or other representative body exists delegation of control on forest management has to be given with Free, Prior and Informed Consent* of all Customary landowner* groups (at the minimum at clan level representation, and including the Free, Prior and Informed Consent* of women, youth and other marginalised groups) through public meetings at the village level.

Clarification: For Woodlots*; proof of individual ownership/user-rights, where village elders, priests or other publicly recognized persons verify the rights of the custodian of the land area in question.

Verifiers:

3.2.3.1 Interviews with landowners at village level confirm that public meetings at the village level have been held and delegation of control on forest management has been given with free and informed consent

3.2.3.2 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

3.2.3.3 For Woodlots; documented, signed and verified proof of individual ownership/userights

Indicator 3.2.4 Free, Prior and Informed Consent* is obtained through a general meeting at the community level of the landowning group involved, with at least 75% of all adult (male and female) landowning group members residing on their land in agreement of the



decisions made.

Verifier:

3.2.4.1 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

Indicator 3.2.5 The interests of women, youth and other marginalised groups is considered during the Free, Prior and Informed Consent* process, through seperate meeting(s) of women, youth and other marginalised groups in preparation for the general Free, Prior and Informed Consent* meeting, and with the general Free, Prior and Informed Consent* meeting being held in a venue, manner and time conducive to the participation of these groups.

Verifiers:

3.2.5.1 Evidence of event occurred should be demonstrated, and checked with existing groups in the community, e.g.Womengroups, Youth groups and Church groups

3.2.5.2 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

Indicator 3.2.6 Through public village meetings with all affected clans the Organization* informs the Customary landowners* of management activities and allows them to comment and request modification to the extent necessary to protect their rights, resources, lands and territories*.

Verifiers:

3.2.6.1 Evidence that adequate notice is given, particularly to isolated/remote villages to allow participation

3.2.6.2 These meetings should at least take place every five years in preparation for the 5-year forest working plan

Indicator 3.2.7 Where evidence exists that legal* and customary rights* of Customary landowners* related to management activities have been violated the situation is corrected, if necessary, through Culturally appropriate engagement* and/or through the dispute* resolution process as required in Criteria* 1.6 or 4.6.

Clarification: Correction of the situation may mean that the Customary landowners* withhold their consent.

Verifiers:

3.2.7.1 Interviews with the Village Magistrate and clan leaders confirm appropriate and agreed to process was used, and all parties agreed with the settlement of the dispute 3.2.7.2 Record of dispute settlement process and outcome, and where records lacking, confirmation through 3.2.7.1

Indicator 3.2.8 No evidence exists of a genuine dispute* over the authenticity of the Incorporated Land Groups* representation or of any other body representing the Customary landowners* within the Management Unit*. If such a dispute does exist, operations may



cease as per Indicator 1.6.5.

Indicator 3.2.9 Where there is a Local Forest Agreement, Timber Authority or other forest contract, involving direct negotiation on harvesting rights between the Organization* and Customary landowners*, there is clear evidence that the members of the Incorporated Land Group(s)* or identified Customary landowner* groups involved gave their Free, Prior and Informed Consent*.

Verifiers:

3.2.9.1 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

3.2.9.2 Logging and Marketing Agreement

3.2.9.3 TA application form

3.2.9.4 Any form of contract or agreement signed between the Organization and the Customary landowners

Indicator 3.2.10 Where the Management Unit^{*} is covered by a Forest Management Agreement or another type of agreement on forest management rights between the State and Customary Landowners^{*}, the Organization^{*} collects evidence to demonstrate that the agreement was obtained from the rightful Customary Landowners^{*} with their Free, Prior and Informed Consent^{*}.

Clarification: If evidence shows no Free, Prior and Informed Consent* was obtained, or was not obtained from the rightful Customary landowners*, or was not obtained through customary appropriate engagement*, Indicators 3.2.6 and 3.2.7 apply.

If the available evidence is inadequate or inconclusive, Indicator 3.2.6 applies. *Verifiers:*

3.2.10.1 Copies of documents from relevant authorities showing how FPIC was obtained, for such documents which are officially available to the Organization

3.2.10.2 Evidence that Culturally appropriate engagement was adhered to for all steps of the FPIC process

3.2.10.3 Interviews with Customary landowners at their communities confirm the documented proper processes

3.2.10.4 Where The Organization does not have copies of officially available documents, it demonstrates its efforts to try to obtain them

3.2.10.5 Interviews with affected stakeholders confirm the Organization's efforts to try obtain these documents

Criterion 3.3 In the event of delegation of control over management activities, a binding agreement between <u>The Organization</u> and the Customary Landowners* shall be concluded through <u>Free</u>, <u>Prior and Informed Consent</u>. The agreement shall define its duration, provisions for renegotiation, renewal, termination, economic conditions and other terms



and conditions. The agreement shall make provision for monitoring by Customary Landowners* of The Organization's compliance with its terms and conditions.

Clarification: For Customary landowners* working on their own land only Indicator 3.3.9 applies.

Indicator 3.3.1 Negotiations over the conditions of the binding agreement between the Organization* and the affected Customary landowners* are based on Culturally appropriate engagement*. Negotiations may be aided by prior discussions between the Organization and Customary landowner representatives, however the main discussions and the final Fee, Prior and Informed Consent* on the binding agreement is obtained through public meetings at the village level.

Clarification: For Woodlots*, where clearly demarcated areas are managed by or are under the custodianship of one individual, public meetings are not required.

Verifier:

3.3.1.1 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

Indicator 3.3.2 Before engaging with Customary landowner* representatives, the Organization* checks, through Culturally appropriate engagement*, if these representatives have been given their authority through Free, Prior and Informed Consent* by the Customary landowning groups involved.

Verifiers:

3.3.2.1 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

3.3.2.2 Interviews at the village level confirm the authority of representatives

Indicator 3.3.3 Where management rights and control over customary land and its resources has been granted through Free Prior and Informed Consent* based on Culturally appropriate engagement*, there is a written binding agreement*, referring to the Aspirations and Goals as developed by the Customary landowners* under 3.1.2., and containing the duration, provisions for renegotiation, renewal, termination, economic conditions, and other terms and conditions.

Verifier:

3.3.3.1 Written binding agreement with reference to the Customary landowners Aspirations & Goals

Indicator 3.3.4 The duration, provisions for renegotation, renewal, termination, economic conditions and other terms and conditions of the binding agreement arecommunicated to all affected Customary landowners* in a clear and comprehensive manner at public village meetings.

Clarification 1: These communications include clear explanations of Criterion 5.5 Financial planning and reporting to ensure an understanding with the Customary landowners*



on the economic basis of the Organization.

Clarification 2: For Woodlots*, where clearly demarcated areas are managed by or are under the custodianship of one individual, public meetings are not required.

Verifier:

3.3.4.1 Evidence of public village meetings

3.3.4.2 Interviews at the village level confirm communication and understanding of terms & conditions of the binding agreement

Indicator 3.3.5 The binding agreement* contains a financial plan that details value and time of delivery for all monetary and non-monetary benefits for the Customary landowners*, and forbids any advance or in-kind payments to individuals or groups in-lieu of agreed benefits.

Clarification: Advances for operational expenses to smallholder woodlot* owners are allowed.

Verifier:

3.3.5.1 Evidence of timely delivery of all benefits, both through reports from the Organization and on-site verification at the village level

Indicator 3.3.6 Records of binding agreements* are maintained by the Organization* and by the affected Customary landowners*.

Verifier:

3.3.6.1 Copies of binding agreements

Indicator 3.3.7 The binding agreement* contains the provision for monitoring* by Customary landowners* of The Organization*'s compliance with its terms and conditions, including possible adverse impact the forest operation may have on the direct or indirect forest or land rights of the Customary landowners, the monitory and non-monitory benefits under the binding agreement, and the aspirations and goals of Customary landowners* related to management activities.

Verifier:

3.3.7.1 Development of standard monitoring systems and forms by the Organization for use by the Customary landowners

Indicator 3.3.8 If requested by the Customary landowners*, the binding agreement is translated into Tok Pisin, Hiri Motu, or into another widely used regional language, as may be appropriate in the circumstances.

Verifier:

3.3.8.1 Copies of translated contracts available at the village level

Indicator 3.3.9 For Customary landowners* working on their own land, business or financial planning details value and time of delivery of monetary and non-monetary benefits to the local communities* involved and/or affected by their operation.

Verifiers:



3.3.9.1 Business or financial plan

3.3.9.2 If no plan available, interviews with management and village leaders confirm knowledge of planned benefits

Criterion 3.4 <u>The Organization</u> shall recognize and <u>uphold</u> the rights, customs and culture of <u>Indigenous Peoples</u>/Customary landowners* as defined in the United Nations Declaration on the Rights of Indigenous Peoples (2007) and ILO Convention 169 (1989).

Indicator 3.4.1 The Organization informs the Customary landowners* of their rights under the UNDRIP and ILO Convention 169.

Verifiers:

3.4.1.1 Evidence of awareness to Customary landowners

3.4.1.2 Interviews at the village level confirm awareness provided

Indicator 3.4.2 The rights, customs and culture of Customary landowners* (Indigenous Peoples*) as defined in UNDRIP and ILO Convention 169 are not violated by The Organization*.

Verifier:

3.4.2.1 No evidence of violation of UNDRIP or ILO Convention 169 elements

Indicator 3.4.3 Where evidence that rights, customs and culture of Customary landowners* (Indigenous Peoples*), as defined in UNDRIP and ILO Convention 169, have been violated by The Organization*, the situation is documented including steps to restore* these rights, customs and culture of Customary landowners*, to the satisfaction of the rights holders.

Verifier:

3.4.3.1 Documents showing restoration process

Guidance: The Constitution of PNG recognizes Custom and Customary Law.

Criterion 3.5 <u>The Organization</u>, through <u>engagement</u> with Customary landowners*, shall identify sites which are of special cultural, ecological, economic, religious or spiritual significance and for which these Customary landowners* hold <u>legal</u> or <u>customary rights</u>. These sites shall be recognized by The Organization and their management, and/or <u>protection</u> shall be agreed through engagement with these Customary landowners*.

Indicator 3.5.1 Sites of special cultural, ecological, economic, religious or spiritual significance for which Customary landowners* hold legal* or customary rights* are identified through Culturally appropriate engagement*. These may include sites used by communities of settlers*, which have been allowed these use rights* by the Customary landowners*.

Verifiers:

3.5.1.1 HCV identification process and documentation



3.5.1.2 Landowner cultural site identification form

Indicator 3.5.2 Measures to protect such sites are agreed, documented and implemented through culturally appropriate* engagement* with Customary landowners*. When Customary landowners* determine that physical identification of sites in documentation or on maps would threaten the value or protection* of the sites, then other means will be used. *Verifier:*

3.5.2.1 HCV identification process and documentation

Indicator 3.5.3 Wherever sites of special cultural, ecological, economic, religious or spiritual significance are newly observed or discovered, management activities cease immediately in the vicinity until protective measures have been agreed to with the Customary landowners*, and as directed by local and national laws*.

Clarification: For Large scale operations* and Medium scale operations* Standard Operating Procedures include clear guidelines on this.

Verifier:

3.5.3.1 For Large scale operations & Medium scale operations: Standard Operating Procedures

Indicator 3.5.4 Whenever sites of special cultural, ecological, economic, religious or spiritual significance are disturbed and/or destroyed as a result of management activities, the Organization*,through Culturally appropriate engagement* with the affected Customary landowners*, agrees on restoration of the site and/or compensation for damage done. The agreed restoration and compensation measures are in accordance with the local customary practices.

Verifiers:

3.5.4.1 Checks on proper process used through reports from the Organization, confirmed through interviews at the community involved and on-site verification

3.5.4.2 Use of "Valuer Generals Compensation Schedule for trees & plants" to determine value of damages

Guidance: It may be impossible to restore sites to their orginal or an acceptable restored state, the Organization* may agree with the affected Customary landowners* on a balance between restoration and compensation.



PRINCIPLE 4: COMMUNITY RELATIONS

<u>The Organization</u> shall contribute to maintaining or enhancing the social and economic wellbeing of <u>local communities</u>.

Clarification: In PNG the use of the term Local communities* as a distinction from Indigenous Peoples*, will create confusion with the term Customary landowners*. Therefore, in those instances the term Communities of settlers* is used instead (C4.1 and C4.2).

Where an indicator refers to Local communities* in a manner that refers to both Customary landowners* and Communities of settlers*, the term Local communities* has been maintained (C4.3, C4.4, C4.5, C4.6 and C4.7).

Criterion 4.1 <u>The Organization</u> shall identify the Communities of settlers* that exist within the <u>Management Unit</u> and those that are affected by management activities. The Organization shall then, through <u>engagement</u> with these Communities of settlers*, identify their rights of <u>tenure</u>, their rights of access to and use of <u>forest</u> resources and <u>ecosystem services</u>, their <u>customary rights</u> and <u>legal</u> rights and obligations that apply within the Management Unit.

Indicator 4.1.1 Communities of settlers* that exist in the Management Unit* and those that may be affected by management activities are identified.

Verifier:

4.1.1.1 Evidence of identification of all potentially affected Communities of settlers

Indicator 4.1.2 Through culturally appropriate* engagement* with the Communities of settlers*, identified in 4.1.1 the following are documented and/or mapped:

1) Their legal* rights of tenure*;

2) Their legal* and customary* access to, and use rights*, of the forest* resources and ecosystem services*;

3) Their legal* and customary* rights* and obligations that apply;

4) The evidence supporting these rights and obligations;

5) Areas where rights are contested between Communities of settlers *, governments and/or others.

6) Summary of the means by which the legal* and customary rights*, and contested rights are addressed by The Organization*; and

7) The aspirations and goals of Communities of settlers* related to management activities.

Clarification: This Indicator does not apply for Small scale operations* and Low intensity operations* by Customary landowners* working on their own land.

Verifiers:

4.1.2.1 For Small scale operations working on other peoples' land relevant PNGFA forms will provide the required information

4.1.2.2 The information from the compliance with Indicators 5.1.2, 5.4.2 and 5.4.3 is con-



sidered for the identification of 4.1.2 Point 7)

4.1.2.3 Interviews at community level confirm use of culturally appropriate engagement **Guidance:** The application of listed issues under 4.1.2 will vary depending on the specific situation for each identified local Community of settlers*. Their history of settlement, interconnection with Customary landowners*, and the legal status of the land they reside on will be some of the differentiating and determining factors.

Criterion 4.2 <u>The Organization</u> shall recognize and <u>uphold</u> the <u>legal</u> and <u>customary rights</u> of Communitiess of settlers* to maintain control over management activities within or related to the <u>Management Unit</u> to the extent necessary to protect their rights, resources, lands and territories. Delegation by Communities of settlers* of control over management activities to third parties requires <u>Free</u>, Prior and Informed Consent.

Indicator 4.2.1 Free, prior and informed consent* is granted by Communities of settlers* prior to management activities that affect their identified rights through a process that includes:

1) Ensuring Communities of settlers* know their rights and obligations regarding the resource;

2) Informing the Communities of settlers* of the value, in economic, social and environmental terms, of the resource over which they are considering delegation of control. including Intact Forest Landscapes* Core Areas*;

3) Informing the Communities of settlers* of their right to withhold or modify consent to the proposed management activities to the extent necessary to protect their rights and resources; and

4) Informing the Communities of settlers* of the current and future planned forest* management activities.

Verifiers:

4.2.1.1 Interviews at community level confirm FPIC was given

4.2.1.2 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

Indicator 4.2.2 Through public village meetings with all affected Communities of settlers* the Organization* informs the communities of settlers* of management activities and allows them to comment and request modification to the extent necessary to protect their rights*.

Verifiers:

4.2.2.1 Interviews at community level confirm FPIC was given

4.2.2.2 FPIC processes followed meet the requirements as suggested in the FSC FPIC Guidelines

4.2.2.3 FPIC reconfirmation report



Guidance: The Organization* should look at the existing social organisational structure of each community of settlers and engage with them through this structure. E.g. Church groups, settlement committee, new council wards.

Indicator 4.2.3 Where evidence exists that legal* and customary rights* of Communities of settlers* related to management activities have been violated the situation is corrected, if necessary, through Culturally appropriate engagement* and/or through the dispute* resolution process in Criteria* 1.6 or 4.6.

Verifiers:

4.2.3.1 Interviews with the Village Magistrate and community leaders confirm appropriate and agreed to process was used, and all parties agreed with the settlement of the dispute 4.2.3.2 Record of dispute settlement process and outcome, and where records lacking, confirmation through 4.2.3.1

Clarification: The term Local communities* for Criterion 4.3 to Criterion 4.8 refers to both Customary landowners* and Communities of settlers*.

Criterion 4.3 <u>The Organization</u> shall provide <u>reasonable</u> opportunities for employment, training and other services to <u>local communities</u>, contractors and suppliers proportionate to <u>scale</u> and <u>intensity</u> of its management activities.

Indicator 4.3.1 The Organization* has staff members with defined responsibilities to identify trade union representatives and community leaders and liaise with them on community, industrial and training matters.

Clarification: For Large scale operations* and Medium scale operations*; a community liaison officer with specific ToR is employed.

Verifiers:

4.3.1.1 There is evidence that a dedicated staff member works closely with the HR department of the Organization

4.3.1.2 For Small scale operations and Low intensity operations, interviews confirm there is a person responsible for communication on these matters

Indicator 4.3.2 Prior to the start of the operation an assessment is done to identify gaps between local employment possibilities and required skills and education levels.

Clarification: If the operation is part of a Group Certficate, records of the assessment are held at the Group Manager's level.

Verifiers:

4.3.2.1 For Large scale operations and Medium scale operations, records exist that show that an assessment was done, and interviews at the village level confirm this.

4.3.2.2 For Small scale operations and Low intensity operations, interviews at the village level confirm this has been considered and gaps have been identified

Indicator 4.3.3 Local people and local service providers are given priority for employ-



ment, training and other services. Demonstrable efforts are made to employ, and/or if necessary provide training, for workers from local communities* before workers are sought from outside of the local area or the region. Local people and local service providers from affected Customary landowners* are considered first.

Verifiers:

4.3.3.1 Demonstrable efforts that workers from local communities are sought before employing workers from outside the local area

4.3.3.2 Demonstrable efforts that workers and service providers from affected Customary landowners are considered first

4.3.3.3 Demonstrable efforts of training for workers from local communities

Criterion 4.4 <u>The Organization</u> shall implement additional activities, through <u>engagement</u> with <u>local communities</u> that contribute to their social and economic development, proportionate to the <u>scale</u>, <u>intensity</u> and socio-economic impact of its management activities.

Indicator 4.4.1 As part of the planning stage prior to any forest operation a general assessment is made of the likely socio-economic impacts of the proposed forest activities and as a result of this assessment the management plans are modified where necessary to mitigate expected negative socio-economic effects, and opportunities for local social and economic development are identified. Local communities* areinvolved in this assessment through Culturally appropriate engagement*.

Clarification:

For Large scale operations* a socio-economic impact assessment* is done by an independent qualified consultant.

For Medium scale operations* a socio-economic impact assessment* is done by qualified staff or a qualified consultant, engaging (further) external expertise wherever necessary to be able to conduct a comprehensive impact assessment.

For Small scale operations* and Low intensity operations* basic clear socio-economic indicators are used, which can be directly translated and incorporated into the management plan.

Verifiers:

4.4.1.1 Evidence of local communities' involvement through village meetings

4.4.1.2 Evidence of local communities having been given the opportunity to comment on the draft before finalising

4.4.1.3 Socio-economic Impact Assessment (SIA) may provide part or most of the information needed

4.4.1.4 For Large scale operations and Medium scale operations: Socio-economic impact assessment report

4.4.1.5 For Small scale operations and Low intensity operations: Management plan and



operational procedures clearly show consideration of used indicators

Guidance: For operations consisting of groups of individual small forest areas (<1000ha), the main assessment can be used as a template to add additional small forest areas to the group, using an internal process that can be verified by the FSC auditor during the annual audit.

Indicator 4.4.2 For Large scale operations* and Medium scale operations*, identified and appropriately trained and/or qualified staff members are responsible for consultations on social impact issues.

Verifier:

4.4.2.1 Training and qualifications records of responsible staff members

Indicator 4.4.3 For Large scale operations* and Medium scale operations*, a list of affected local communities* and any other affected stakeholders* is compiled, based on the result of 4.4.1.

Verifier:

4.4.3.1 List of affected local communities and other affected stakeholders

Indicator 4.4.4 Support is provided for the identified local social and economic development. The extent and quality of support, including the management of the infrastructure, is agreed between the Organization* and the local communities* prior to the start of the operation through Culturally appropriate engagement*, and is proportionate to the socio-economic impact of management activities. This agreed support is part of the binding agreement between the Organization* and the Customary landowners* (Criterion 3.3). *Verifiers:*

4.4.4.1 For Small scale operations and Low intensity operations, interviews confirm support for local social and economic development

4.4.4.2 For Large scale operations and Medium scale operations; inclusion in the binding agreement of support for identified local social and economic development, with implementation linked to clear milestones, confirmed through accomplishment reports and physical inspections

Criterion 4.5 <u>The Organization</u>, through <u>engagement</u> with <u>local communities</u>, shall take action to identify, avoid and mitigate <u>significant</u> negative social, environmental and economic impacts of its management activities on affected communities. The action taken shall be proportionate to the <u>scale</u>, <u>intensity and risk</u> of those activities and negative impacts.

Indicator 4.5.1 Through Culturally appropriate engagement* with all affected local communities* identified under 4.4.3, measures are implemented to avoid and mitigate significant* negative social, environmental and economic impacts of management activities, as identified under 4.4.1.



Clarification 1: There are ongoing consultations, communications and meetings with affected stakeholders* on social, environmental and economic impact. For all scales of operations these actions should focus on the village level and include general village meetings.

Clarification 2:

For Large scale operations* and Medium scale operations*, the Organization* has a strategy to inform about and address social, environmental and economic impacts.

For Woodlots*, Small scale operations* & Low intensity operations* measures can be organised and coordinated at the Group Manager's level.

Verifiers:

4.5.1.1 Evidence of Culturally appropriate engagement with local communities

4.5.1.2 Evidence of ongoing consultations, communications and meetings with affected stakeholders with village level general meetings

4.5.1.3 For Large scale operations and Medium scale operations, a social, environmental & economic impacts strategy

4.5.1.4 For Small scale operations and Low intensity operations, interviews at the village level confirm actions are taken

Guidance: Awareness and education should be given to local communities* to ensure an understanding on the positive and negative externalities of the operation. This can be done through physical consultation meetings at the village, and/or through public awareness documents (notices, pamphlets) issued to local communities* and other affected stakeholders*.

Indicator 4.5.2 Prior to the re-assessment of the FSC certificate, the Organization* undertakes an impact assessment on the social, environmental and economic impacts of the operation on affected stakeholders*, which are likely to result from the carrying out the management activities. The Organization* may use a compilation and analysis of monitoring data.

Clarification: Large scale operations* use external expertise of acknowledged experts* to verify this data compilation.

Verfiers:

4.5.2.1 Reassessment to be aligned with the FSC 5-year re-assessment and the PNGFA 5 year working plan requirement (if applicable)

4.5.2.2 For Small scale operations and Low intensity operations, assessment report at Group Manager level

4.5.2.3 For Large scale operations, external expert verification of data compilation

Criterion 4.6 <u>The Organization</u>, through <u>engagement</u> with <u>local communities</u>, shall have mechanisms for resolving grievances and providing <u>fair compensation</u> to local communi-



ties and individuals with regard to the impacts of management activities of The Organization.

Indicator 4.6.1 A publicly available* dispute* resolution process is in place, developed through Culturally appropriate engagement* with local communities*.

Clarification: Existing local type dispute resolution mechanisms (e.g. using Land mediator, ward councillors) are exhausted first.

Verifiers:

4.6.1.1 Publicly available dispute resolution process

4.6.1.2 Interviews at village level confirm Culturally appropriate engagement

Indicator 4.6.2 Grievances related to the impacts of management activities are responded to in a timely manner*, and are either resolved or are in the dispute* resolution process.

Verifier:

4.6.2.1 Interviews at village level confirm timely responses to grievances

Indicator 4.6.3 Resolution of grievances related to the impact of management activities is done in a transparent manner with consent of all affected stakeholders*.

Verifier:

4.6.3.1 Interviews at village level confirm transparent process and consent

Indicator 4.6.4 An up to date record of grievances related to the impacts of management activities is held including:

1) Steps taken to resolve grievances

2) Outcomes of all dispute* resolutiion processes including fair compensation* to local communities and individuals; and

3) Unresolved disputes*, the reasons they are not resolved, and proposed options for how they may be resolved.

Clarification: Small scale operations* and Low intensity operations* of Customary landonwers* working on their own land do not need to hold these records.

Verifier:

4.6.4.1 Large scale operations and Medium scale operations; up to date records of grievances and how they are (being) addressed

4.6.4.2 For Small scale operations and Low internsity operations interviews with the Village Magistrate and both parties on the settlement of the grievance

Indicator 4.6.5 The Organization* suspends operations in areas affected by disputes* with regard to the impact of management activities, if these disputes* are of:

1) Substantial magnitude*;

2) Substantial duration*; or

3) Involving a considerable number* of interests

Verifiers:



4.6.5.1 Incident report and documented decision on operation suspension
4.6.5.2 Internal and public stop work notices with motivation of the decision
4.6.5.3 Interviews with workers and at village level confirm suspension
4.6.5.4 Production records confirm suspension period

Criterion 4.7 The Organization, through <u>engagement</u> with <u>local communities</u>, shall identify sites which are of special cultural, ecological, economic, religious or spiritual significance, and for which these local communities hold <u>legal</u> or <u>customary rights</u>. These sites shall be recognized by <u>The Organization</u>, and their management and/or <u>protection</u> shall be agreed through <u>engagement</u> with these <u>local communities</u>.

Clarification: For the PNG situation this Criterion is **NOT APPLICABLE** as it is already covered by Criterion 3.5 as legal or customary rights to any sites of significance for Communities of settlers will be held by Customary landowners (See Indicator 3.5.1)

Criterion 4.8 The Organization shall uphold the right of <u>local communities</u> to protect and utilize their <u>traditional knowledge</u> and shall compensate <u>local communities</u> for the utilization of such knowledge and their <u>intellectual property</u>. A <u>binding agreement</u> as per Criterion 3.3 shall be concluded between The Organization and the local communities for such utilization through <u>Free</u>, <u>Prior and Informed Consent</u> before utilization takes place, and shall be consistent with the <u>protection</u> of intellectual property rights. (new)

Indicator 4.8.1 Traditional knowledge* and intellectual property* are protected and are only used when the owners of that traditional knowledge* and intellectual property* have provided their Free, Prior and Informed Consent* formalized through a binding agreement*.

Clarification 1: Any traditional knowledge that is in the public domain (i.e., not protected under intellectual property rules or otherwise) is not subject to this indicator.

Clarification 2: The binding agreement is a public event at the village level according to local custom and witnessed by all affected stakeholders^{*}.

Verifiers:

4.8.1.1 Interviews at community level confirm FPIC was given

4.8.1.2 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines

Guidance: Traditional knowledge* can be divided in a) tangible, like physical ownership of art, crafts, paintings, bilums, pottery etc, and b) intangible, i.e. ownership of knowledge, talent, skills and ideas that creates the tangible cultural intellectual property*. The history behind the genesis of the cultural knowledge is sacred.

The rights of individual and community traditional intellectual knowledge and property rights can be protected by way of customary law that is part of the Underlying Act.



Certain traditional knowledge* may not be protected; that is, it may be in the public domain. For example, time of flowering of tree species, best time to collect seed or wildlings in the forest.

Indicator 4.8.2 Local communities* are compensated according to the binding agreement*, reached through Free, Prior and Informed Consent*, for the use of traditional knowledge* and intellectual property*, and benefits arising from this use are equitably shared with the local communities*.

Verifiers:

4.8.2.1 Documented and published Intellectual Property Rights (may not yet be identified at the start of the operation). E.g. singsings, artefacts, use of flora and fauna from forest or land

4.8.2.2 Interviews at community level confirm FPIC was given

4.8.2.3 FPIC process followed meet the requirements suggested in the FSC FPIC Guidelines



PRINCIPLE 5: BENEFITS FROM THE FOREST

<u>The Organization</u> shall efficiently manage the range of multiple products and services of the <u>Management Unit</u> to maintain or enhance <u>long-term</u> economic <u>viability</u> and the range of social and environmental benefits.

Criterion 5.1<u>The Organization</u> shall identify, produce, or enable the production of, diversified benefits and/or products, based on the range of resources and <u>ecosystem services</u> existing in the <u>Management Unit</u> in order to strengthen and diversify the local economy proportionate to the <u>scale</u> and <u>intensity</u> of management activities..

Indicator 5.1.1 For Large scale operations* and Medium scale operations*, the range of natural resources and ecosystem services* that could strengthen and diversify the local economy are identified and documented, including an inventory of the uses by local communities*. This identification includes the following aspects:

1) non timber forest products*

2) minor commercial and lesser known timber species.

3) downstream processing of timber and non-timber products.

4) provision of ecosystem services

Verifiers:

5.1.1.1 Evidence of studies undertaken assessing the feasibility of additional forest products

5.1.1.2 Evidence of studies undertaken assessing the feasibility of minor commercial and lesser known timber species

5.1.1.3 Evidence of studies assessing the feasibility of downstream processing of timber and non-timber products

Guidance 1: Relevant information may be obtained from the PNGFA Development Options Study (DOS), and the Organization's Social & Environmental Impact Assessments (SIA, EIA), and High Conservation Values (HCV) assessment.

Guidance 2: There may be specific conditions on the Management Unit permit regarding limitations for use of resources and/or ecosystem services.

Indicator 5.1.2 For Small scale operations* and Low intensity operations*, consideration and trials of non-timber forest products*, marketing of minor commercial and lesser known species, and/or downstream processing.

Verifiers:

5.1.2.1 Evidence of consideration of other forest products

5.1.2.2 Evidence of attempts to market minor commercial and lesser known species

5.1.2.3 Evidence of consideration of downstream processing of timber and non-timber products

Guidance 1: Relevant information may be obtained from the PNGFA Development Options Study (DOS), and the Organization's Social & Environmental Impact Assessments



(SIA, EIA), and High Conservation Values (HCV) assessment.

Guidance 2: There may be specific conditions on the Management Unit permit regarding limitations for use of resources and/or ecosystem services.

Indicator 5.1.3 Consistent with management objectives*, the identified benefits and products are produced by the Organization* and/or made available for others to produce, to strengthen and diversify the local economy.

Clarification 1:

For large and medium scale operations, the management plan includes an implementation strategy for the identified benefits and products.

For small scale and low intensity operations, successful considerations and trials of other non-timber forest products, marketing of minor commercial and lesser known species, and/or downstream processing under 5.1.1 are implemented.

Clarification 2: The Organization* has the right to deny any request for harvesting by third parties or to halt any agreed harvesting if this would jeopardise any other management objectives.

Verifiers:

For Large scale operations and Medium scale operations:

5.1.3.1 Implementation strategy in the management plan

5.1.3.2 Evidence of implementation of the strategy

5.1.3.3 Clear written agreements on any third party harvesting, specifying sustainable harvest levels and practices

For small scale operations and low intensity operation:

5.1.3.4 Evidence of implementation of successful considerations and trials

Guidance 1: For plantations* there may be limited options to expand the range of products and/or benefits due to their specific management objectives and/or their natural resource base.

Guidance 2:. Examples of ecosystem services are;

- carbon sequestration and storage

- biological diversity conservation

- watershed management

- soil conservation

- recreational services

Indicator 5.1.3 The Organization* respects the requirements of local communities* within or adjacent to the Management Unit* to utilize benefits and products for domestic purposes, following local needs and customary practices.

Verifiers:

5.1.3.1 Assessment report on local uses of benefits and products utilized by the Organization



5.1.3.2 Documented agreement with local communities on benefits and products utlized by the Organization

Guidance: This Indicator links to the identification of use rights^{*} under 3.1.2 and any delegation of control over these rights as identified under 3.2.1, and to the identification of HCV's Category 5 and 6 under 9.1.2 and the development of their management strategies as described under 9.2.3.

Local needs and customary practices and the use rights related to them are normally not documented in PNG.

Indicator 5.1.4 When the Organization* makes FSC promotional claims regarding the maintenance and/or enhancement of ecosystem services*, Annex C is followed regarding additional requirements.

Clarification: Non-compliance of the Organization* with Indicator 5.1.4 is specific to each of the applicable individual elements of Annex C for the operation of the Organization*. *Verifier:*

5.1.4.1 The Management Plan

See verifiers under Annex C.

Criterion 5.2 <u>The Organization</u> shall normally harvest products and services from the <u>Management Unit</u> at or below a level which can be permanently sustained.

Indicator 5.2.1 Timber harvesting levels* are based on an analysis of current Best Available Information* on growth and yield; inventory of the forest*; mortality rates; and maintenance of ecosystem functions*.

Verifiers:

5.2.1.1 For plantations; inventory of planted areas, inventory of sample plots, records of harvested areas, volume and yield

5.2.1.2 For medium and large scale natural forest operations; forest inventory, Permanent Sample Plot data, records of harvesting volumes, SGS reports, research data

5.2.1.3 For small scale and low intensity natural forest operations; forest inventory, records of harvesting volumes, research data

Guidance: Examples of information sources are:

- Forest Research Institute (FRI); a/o PSP growth data and PINFORM growth model for lowland tropical forest in PNG (PNG/ITTO Natural Forest Model)

- WWF-PNG (a/o on Eaglewood)
- UN/FAO
- CITES / IUCN

Indicator 5.2.2 Based on the timber harvesting level* analysis, a maximum allowable annual cut for timber is determined that does not exceed the harvest level that can be permanently sustained including by ensuring that harvest rates do not exceed growth.



Guidance: For plantations* this will be assessed at the Management Unit* level, not for individual coupes or planting areas.

Verifier:

5.2.2.1 Maximum allowable cut based on timber harvesting level analysis

Indicator 5.2.3 Where data is limited or lacking, there is a clear rational for the chosen rate of harvest, following a precautionary approach, and The Organization* conductsresearch to obtain necessary missing data within ten (10) years after obtaining FSC certification.

Clarification: For Small scale operations* and Low intensity operations*, relevant research data can be obtained from third parties.

Verifiers:

5.2.3.1 Evidence of regular monitoring and review and if necessary update of the management plan regarding the rational for the chosen rate of harvest

5.2.3.2 Evidence that the research is started, maintained and progressing

5.2.3.3 Record of staff time or resources on data collection and/or research

Guidance: Research for data collection should start already in the first year of certification.

Indicator 5.2.4 Actual annual harvest levels for timber are recorded and demonstrate that the harvest over any five (5) year period, starting five (5) years prior to the FSC main assessment, does not exceed the allowable cut determined in 5.2.2 for the same defined period.

Verifiers:

5.2.4.1 Harvest records

5.2.4.2 Harvest levels to be in accordance with the project development agreement and to be reported to PNGFA annually

Indicator 5.2.5 For commercial provision of ecosystem services and commercially harvested non-timber forest products* under The Organization's* control, sustainable levels are calculated and adhered to. Sustainable levels are based on Best Available Information*.

Verifier:

5.2.5.1 For Ecosystem Services, any third party validations or verifications or registration on an exchange for the sale of ecosystem services.

Criterion 5.3 <u>The Organization</u> shall demonstrate that the positive and negative <u>externali-</u> <u>ties</u> of operations are included in the <u>management plan</u>.

Indicator 5.3.1 Costs related to preventing, mitigating or compensating for negative social and environment impacts of management activities, as identified under Indicators 4.4.1 and 6.2.1, are quantified and documented in the management plan*.



Clarification: For Small scale operations* and Low intensity operations*, possible negative social and environmental impact events are identified, and their costs included in the business plan.

Verifiers:

5.3.1.1 For Small scale operations and Low intensity operations; the Organization (single certificate) or Group Members (Group certificate) have savings that can cater for negative social and environmental impact events

5.3.1.2 For Large scale operations and Medium scale operations; budget shows monetary buffers to be used either for unforeseen events and/or mitigation of negative impacts of management activities

Guidance: Documentation in the management plan to be merely a summary and identifying link to the detailed cost information in the accounting system.

Indicator 5.3.2 Positive social & environment benefits related to forest management activities are identified and included in the management plan*.

Verifier:

5.3.2.1 The management plan

Criterion 5.4 <u>The Organization</u> shall use local processing, local services, and local value adding to meet the requirements of The Organization where these are available, proportionate to <u>scale</u>, <u>intensity and risk</u>. If these are not locally available, The Organization shall make <u>reasonable</u> attempts to help establish these services.

Clarification: This Criterion* is **NOT APPLICABLE** to Small scale operations* and Low intensity operations*.

Indicator 5.4.1 For Large operations* and Medium scale operations*, where cost, quality and capacity of non-local and local options are at least equivalent, local goods, services, processing and value-added facilities are used.

Verifiers:

5.4.1.1 Consideration of/link to the signed agreement by the Organization with Customary landowners (3.3.7)

5.4.1.1 Evidence exists that technical and/or financial support is given

Indicator 5.4.2 For Large scale operations* and Medium scale operations*, reasonable* attempts are made to encourage and build capacity where local goods, services, processing and value-added facilities are available but do not meet the required standard. *Verifiers:*

5.4.2.1 Consideration of/link to the signed agreement by the Organization with Customary landowners (3.3.7)

5.4.2.2 Evidence exists that technical and/or financial support is given

Indicator 5.4.3 For Large scale operations*, reasonable* attempts are made to establish



and encourage capacity meeting the required standard, where local goods, services, processing and value-added facilities are not available.

Verifiers:

5.4.3.1 Consideration of/link to the signed agreement by the Organization with Customary landowners (3.3.7)

5.4.3.2 Evidence exists that technical and/or financial support is given

Criterion 5.5 <u>The Organization</u>shalldemonstrate through its planning and expenditures proportionate to <u>scale, intensity and risk</u>, its commitment to <u>long-term economic viability</u>.

Indicator 5.5.1 Financial planning shows that sufficient funds are allocated to implement the management plan* in order to meet this standard and to ensure long-term* economic viability*.

Clarification:

For Large scale operations* and Medium scale operations*, financial planning and budget documents approved by senior management for the term of the FSC certificate demonstrate that social, economic and environmental commitments are accounted for.

For Small scale operations* and Low intensity operations*, an expenditure and sales plan suffices.

Verifiers:

5.5.1.1 For Large scale operations and Medium scale operations; financial planning and budget documents approved by senior management

5.5.1.2 For Small scale operations and Low intensity operations; expenditure and sales plan

Indicator 5.5.2 Financial reports show expenditures and investments are made to implement the management plan* in order to meet this standard and to ensure long-term* economic viability*.

Clarification:

For Large scale operations* and Medium scale operations*; Annual financial report showing expenditures in infrastructure, community benefits, long-term savings and investments.

For Small scale operations* and Low intensity operations*: new equipment bought and/or records of funds saved for this purpose.

Verifiers:

5.5.2.1 For Large scale operations and Medium scale operations; annual financial reports 5.5.2.2 For Small scale operations and Low intensity operations: evidence of new equipment bought and/or funds saved



PRINCIPLE 6: ENVIRONMENTAL VALUES* AND IMPACTS

<u>The Organization</u> shall maintain, <u>conserve</u> and/or <u>restore ecosystem services</u> and <u>envi-</u> <u>ronmental values</u> of the <u>Management Unit</u>, and shall avoid, repair or mitigate negative environmental impacts.

Criterion 6.1 <u>The Organization</u> shall assess <u>environmental values</u> in the <u>Management</u> <u>Unit</u> and those values outside the Management Unit potentially affected by management activities. This assessment shall be undertaken with a level of detail, scale and frequency that is proportionate to the <u>scale</u>, <u>intensity and risk</u> of management activities, and is sufficient for the purpose of deciding the necessary <u>conservation</u> measures, and for detecting and monitoring possible negative impacts of those activities.

Guidance: The Organization* should consult with the Conservation and Environment Protection Authority (CEPA) on legal requirements and guiding documents in relation to assessment, maintenance and monitoring of environmental values, and on the assessment, monitoring and mitigation of environmental impacts.

Indicator 6.1.1 Best Available Information* is used to identify environmental values* within, and, where potentially affected by management activities, outside of the Management Unit*. These environmental values* are identified and described with participation of the Customary landowners*.

Verifiers:

6.1.1.1 Representative Sample Areas showing environmental values in their natural condition

6.1.1.2 Field surveys, Biodiversity assessments, HCV assesments

6.1.1.3 National and international publications and databases relevant to the environmental values

6.1.1.4 Consultation with local and regional experts

6.1.1.5 Culturally appropriate engagement with Customary landowners, local communities and affected stakeholders and interested stakeholders

Guidance 1: Information on biological diversity can be obtained from HCV assessment & biodiversity assessments, and on scenic & cultural values from social mapping & socioeconomic assessments. Include refrrence to the importance of water resources.

Guidance 2: Examples and sources of Best Available Information* include:

- HCV Toolkit for PNG
- International Soil Reference and Information Center (ISRIC)
- Soils of Papua New Guinea by Pieter Bleeker.
- IUCN lists
- PNG Herbarium
- PNG Institute of Biological Research
- Bishop Museum



- Wildlife Conservation Society

- WWF-PNG

Indicator 6.1.2 Assessments of environmental values* are conducted with a level of detail and frequency so that:

1) Impacts of management activities on the identified environmental values* can be assessed as per Criterion* 6.2;

2) Risks* to environmental values* can be identified as per Criterion* 6.2;

3) Necessary conservation* measures to protect values can be identified as per Criterion*6.3; and,

4) Monitoring* of impacts or environmental changes can be conducted as per Principle* 8. *Verifier:*

5.1.2.1 Documents that may be required by the Conservation and Environment Protection Authority (CEPA): Environmental Impact Statement, Environmental Plan, Environmental Permit

Guidance 1: Environmental Impact Statements are only required for Level 1. Activities, i.e. operations with annual production of more than 70,000m3.

Guidance 2: Determination on the level and frequency of the assessment to depend on the risk of identified threats.

Criterion 6.2 Prior to the start of site-disturbing activities, <u>the Organization</u> shall identify and assess the <u>scale, intensity and risk</u> of potential impacts of management activities on the identified <u>environmental values</u>.

Indicator 6.2.1 An environmental impact assessment* identifies potential present and future impacts of management activities on environmental values*, from the stand level to the landscape level, prior to the start of site-disturbing activities.

Clarification: When the Organization* uses water ways for the transportation of logs, the Environmental Impact Assessment* specifically includes the impact of this activity.

Guidance 1: In the case of Group Certificates, when individual Group Members are located within one forest type, the impacts of their combined management on the landscape level should be considered.

Guidance 2: Landscape level impact assessment may vary by forest type, topography, and other factors. In the case of group certification, it could involve several patches of land that do not connect each other.

Indicator 6.2.2 For all harvesting and processing operations the assessment of the environmental impacts of the management activities include the following aspects:

• Characterisation of ecosystems within the Management Unit*, and outside the Management Unit* where potentially affected by management activities, using biological and geo-physical information,



• Impact on:

- native plants, animals and ecosystems,
- habitats of rare and endangered species,
- forest connectivity and fragmentation,
- the occurrrence of natural and man-made fire
- the occurrence of pests, including invasive species
- culturally significant areas*,
- physical and chemical soil stability,
- water resources including water quality and quantity in catchments,
- downstream river and coastal systems, and
- visual and aesthetic aspects.
- Impacts of use and disposal of fuel, oil, chemicals, preservatives and non-organic waste

• field assessments, available published and Traditional Ecological Knowledge* knowledge, and

• consideration of timber species on either local and /or international endangered or threatened species of flora and fauna lists (e.g. CITES Appendix 1, World Conservation Monitoring Centre list, any national registry).

High Conservation Values

Clarification:

For Large scale operations* an Environmental Impact Assessment* is done by an independent qualified consultant.

For Medium scale operations^{*} an Environmental Impact Assessment^{*} is done by qualified staff or a qualified consultant, engaging (further) external expertise wherever necessary to be able to assess all listed aspects.

For Small scale operations* and Low intensity operations* the environmental impact considerations are directly translated and incorporated into the management plan and are reflected in the operational procedures.

Verifiers:

For operations with annual production of more than 70,000m3:

6.2.2.1 CEPA Environmental Impact Statement and cover letter signed by the responsible company official or its authorised representative (i.e. Consultantengaged by the company to act on its behalf)

For Large scale operations and Medium scale operations:

6.2.2.2 Environmental Impact Assessment report

6.2.2.3 Confirmation of qualification of consultant

6.2.2.4 Evidence of local communities' involvement through village meetings

6.2.2.5 Evidence of consultation with other affected stakeholders,

6.2.2.6 Evidence of field verification of used data



For Small scale operations and Low intensity operations:

6.2.2.7 Management plan and operational procedures clearly show considerations **Guidance 1:**

For operations with annual production of more than 70,000m3, CEPA Environmental Impact Statement information requirements are;

a) Physical Environment

Details of the existing physical environment including data on ambient environmental quality of various segments of the environment. Information provided in this sub-section includes but is not limited to the following;

- geomorphological, topographical and geological characteristics
- any natural or induced hazard in the area (e.g. flood, earthquake, volcanic zone etc.)
- climatic regime (e.g. rainfall, temperature, etc.)
- air quality and meteorological data set for air dispersion modelling, etc.
- seasonal surface water quality and hydrological information,
- seasonal ground water quality and flow regime,
- noise levels.

b) Biological Environment

Detailed information on the existing biological environment that includes but is not limited to the following details:

- presence of a protected area (Conservation Area or Wildlife Management Area), if any;
- details of any special purpose areas (e.g. Wetland area, etc.),
- aquatic and terrestrial ecology of the area,
- information on vulnerable (endangered) species,
- other relevant biological information.

(Guideline for Conduct for Environmental Impact Assessment & Preparation of Environmental Impact Statement)

Guidance 2: For operations consisting of groups of individual small forest areas (<1000ha), the main assessment can be used as a template to add additional small forest areas to the group, using an internal process that can be verified by the FSC auditor during the annual audit.

Criterion 6.3 <u>The Organization</u> shall identify and implement effective actions to prevent negative impacts of management activities on the <u>environmental values</u>, and to mitigate and repair those that occur, proportionate to the <u>scale</u>, <u>intensity and risk</u> of these impacts.



Indicator 6.3.1 Management activities are planned and implemented to prevent negative impacts and to protect environmental values*.

Indicator 6.3.2 Management activities prevent negative impacts to environmental values*.

Indicator 6.3.3 Where negative impacts to environmental values^{*} occur, measures are adopted to prevent further damage, negative impacts are mitigated^{*} and environmental values are restored^{*}.

Verifier:

6.3.3.1 Evidence of corrective measure taken, both through confirmation by PNGFA ground staff inspection reports and on-site checks

Indicator 6.3.4 If restoration is not successful, or it is impossible to restore the affected environmental values*, The Organization* consults with affected stakeholders* to identify additional alternative conservation measures related to the affected environmental values*, and relative to the non-restorable damage.

Verifier:

6.3.4.1 Evidence of consultation, confirmed through interviews with affected stakeholders **Guidance:** Examples of non-restorable damage are; digging of reef for wharf/road construction, local species extinction, introduction of uncontrolable invasive species, etc.

Criterion 6.4 The Organization shall protect <u>rare species</u> and <u>threatened species</u> and their <u>habitats</u> in <u>the Management Unit</u> through <u>conservation zones</u>, protection areas, <u>connectivity</u> and/or (where necessary) other direct measures for their survival and viability. These measures shall be proportionate to the <u>scale</u>, <u>intensity and risk</u> of management activities and to the <u>conservation</u> status and ecological requirements of the rare and <u>threatened species</u>. The Organization shall take into account the geographic range and ecological requirements of rare and threatened species beyond the boundary of the Management Unit, when determining the measures to be taken inside the Management Unit.

Indicator 6.4.1 Best Available Information*, including traditional ecological knowledge* and results from scientific inventories, is used to identify rare, endemic and threatened species*, and their habitats*, including CITES species (where applicable) and those listed on national, regional and local lists of rare and threatened species* that are present or likely to be present within and adjacent to the Management Unit*. The identified habitats are shown on maps.

Verifiers:

6.4.1.1 Field surveys, Biodiversity assessments, HCV assesments

6.4.1.2 National and international publications and databases relevant to rare, threatened and endemic species

6.4.1.3 Consultation with local and regional acknowledged experts



6.4.1.4 Culturally appropriate engagement with Customary landowners, local communities and affected stakeholders and interested stakeholders

Guidance 1: Information on rare, endemic and threathened species can be obtained from HCV assessment & biodiversity assessments.

Guidance 2: Examples of sources of Best Available Information* include:

- HCV Toolkit for PNG
- IUCN lists
- PNG Herbarium
- PNG Institute of Biological Research
- Bishop Museum
- Wildlife Conservation Society.
- WWF-PNG

Indicator 6.4.2 Potential impacts of management activities on rare and threatened species* and their conservation* status and habitats* are identified and management activities are modified to avoid negative impacts.

Verifiers:

6.4.2.1 For medium and large scale operations, the management plan outlines the measures taken to avoid negative impacts on RTE and their habitats

6.4.2.2 For small scale and low intensity operations, conservation measures are put in place that avoid negative impacts on RTE and their habitat

Indicator 6.4.3 The rare and threatened species* and their habitats* are protected, including through the provision of conservation zones*, protection areas*, connectivity*, and other direct means for their survival and viability, such as species' recovery programs. These areas or zones should be structured to in a manner that avoid forest fragmentation. If within a large scale Management Unit, small conservation areas are used, they have to be linked by undisturbed forest corridors.

Clarification: For large and medium scale operations conservation biology expert assistance from acknowledged experts* is used.

Verifiers:

6.4.3.1 For Large scale operations and Medium scale operations the management plan and associated operational guidelines show these considerations

6.4.3.2 For Small scale operations and Low intensity operations the boundaries of felling blocks, etc. as marked in the field show these considerations

Guidance 1: For plantations* the need for expert assistance will depend on results from EIA/HCV assessment report.

Guidance 2: Consideration should be given to the configuration of the areas under management (e.g. harvest block shape and size) so that it follows the landforms, favours the movement and breeding of fauna and aims to minimise forest fragmentation.



Guidance 3: The Land use planning process (Criterion* 7.1) should consider connectivity for natural vegetation, e.g. through buffer zones, greenbelts, etc.

Indicator 6.4.4.a For Large scale operations* and Medium scale operations* workers* and contractors are qualified to recognise rare, threatened and endangered species of flora and fauna, and are aware of areas or zones set aside for their protection.

Indicator 6.4.4.b For Small scale operations* and Low intensity operations* workers* are aware of rare, threatened and endangered species of fauna and flora and know which areas or zones are set aside for their protection.

Verifiers:

6.4.4.1 Training records for workers and contractors, and knowledge of protected areas, both verified by interviews

6.4.4.2 Interviews at the village level confirm knowledge of protected species and areas

Indicator 6.4.5 Awareness on rare, threatened and endangered species and their protected areas is provided to local communities*.

Verifier:

6.4.5.1 Records of awareness to local communities, and knowledge of protected areas, both verified by interviews

Indicator 6.4.6 Hunting, fishing, trapping, poaching and collection of rare or threatened species* is prevented.

Verifiers:

6.4.6.1 For Small scale operations and Low intensity operations, interviews confirm preventing measures are taken

6.4.6.2 For Large scale operations and Medium scale operations, there is evidence of: a) training of staff

b) awareness to communities within and adjacent to the Management Unit

6.4.6.3 Any species on CITES Appendix II may be hunted, fished, trapped or collected only if covered by an approved management plan by CEPA

Guidance 1: For all scales and types of operations involvement of local communities^{*} in both the development and implementation of measures to prevent hunting, fishing, trapping, poaching and collection of rare or threathened species is essential. Additional to awareness and training for workers^{*}, awareness has to be provided to affected local communities^{*}, both within and adjacent to the Management Unit^{*}.

For operations on state or titled land adjacent communities should be involved.

Implementation and enforcement of preventive measures should be organised in close consultation with and with maximum involvement of local communities*. This will allow for a much easier enforcement of this requirement by the Organization*.

Guidance 2: This Indicator is linked to Criterion^{*} 3.2, Criterion^{*} 4.2, and HCV Categories 5 & 6 of Principle^{*} 9.



Criterion 6.5 <u>The Organization</u> shall identify and protect representative sample areas of <u>native ecosystems</u> and/or <u>restore</u> them to more <u>natural conditions</u>. Where <u>representative</u> <u>sample areas</u> do not exist or are insufficient, The Organization shall <u>restore</u> a proportion of the <u>Management Unit</u> to more <u>natural conditions</u>. The size of the areas and the measures taken for their protection or restoration, including within plantations, shall be proportionate to the <u>conservation</u> status and value of the <u>ecosystems</u> at the <u>landscape</u> level, and the <u>scale, intensity and risk</u> of management activities.

Indicator 6.5.1 Best Available Information*, including local ecologic knowledge*, local traditional ecological knowledge* and results from scientific inventories, is used to identify native ecosystems* that exist, or would exist under natural conditions* within the Management Unit *. The identification of Representative Sample Areas* is done with customary landowner* involvement.

Clarification: For Large scale operations* and Medium scale operations* conservation biology expert assistance from acknowledged experts* is used.

Verifiers:

6.5.1.1 Representative Sample Areas showing native ecosystems in their natural condition

6.5.1.2 Field surveys, Biodiversity assessments, HCV assesments

6.5.1.3 GIS analysis of thematic maps and satellite imagery

6.5.1.4 National and international publications and databases relevant to native ecosystem identification and management

6.5.1.5 Consultation with local and regional acknowledged experts

6.5.1.6 Culturally appropriate engagement with Customary landowners, local communities and affected stakeholders and interested stakeholders

Guidance 1: Examples and sources of Best Available Information include:

- HCV Toolkit for PNG

- IUCN lists

- PNG Herbarium

- PNG Institute of Biological Research

- Bishop Museum

- Wildlife Conservation Society

- WWF-PNG

Guidance 2: Best management practices may differ considerably for specific ecosystems, in particular if these are strongly dominated by one particular species, e.g. Kamarere, Black Bean.

Indicator 6.5.2 Representative Sample Areas* of native ecosystems* are protected, where they exist.



Indicator 6.5.3 Where Representative Sample Areas* do not exist, or where existing sample areas inadequately represent native ecosystems*, or are otherwise insufficient, a proportion of the Management Unit* is restored* to more natural conditions*.

Indicator 6.5.4 The size of the Representative Sample Areas* and/or restoration* areas is proportionate to the conservation* status and value of the ecosystems* at the land-scape* level, the size of the Management Unit* and the intensity* of forest* management. **Guidance:** Reference can be taken from the PNG HCV Toolkit and the (revised) Logging Code Of Practice*.

Indicator 6.5.5 Representative Sample Areas* in combination with other components of the conservation areas network* comprise:

• for large scale operations* and Medium scale operations* in natural forest, not less than 20% of the Management Unit.

• for Plantations*, Small scale operations* and Low intensity operations*, not less than 10% of the Management Unit.

Clarification:

For all operations, buffer zones and other types of protected areas, e.g. culturally significant areas*, may be included in the calculation of the total set aside area.

A clear justification of the total percentage and locations that make up the conservation areas network* is provided.

Guidance 1: The total conservation areas network* can comprise of various components, e.g. watersheds, greenbelts, HCV sites, buffer zones, cultural sites, etc. These components should preferably be connected to each other, if necessary through creation of additional conservation corridors.

Guidance 2: For Forest Management Agreements there is a legal requirement on designation of conservation zones. The Agreement for Forest Management, Clause 7.3 states: "The Authority may identify areas (not including riparian strips or cultural areas) up to but not exceeding 10% of the total harvestable forest in the Forest Managment Area to be designated as a conservation zone. Forest management and harvesting are not permissible within the area of a conservation zone."

Criterion 6.6 <u>The Organization</u> shall effectively maintain the continued existence of naturally occurring <u>native species</u> and <u>genotypes</u>, and prevent losses of <u>biological diversity</u>, especially through <u>habitat</u> management in the <u>Management Unit</u>. The Organization shall demonstrate that effective measures are in place to manage and control hunting, fishing, trapping and collecting.

Indicator 6.6.1 Management activities maintain, enhance or restore the plant communities and habitat features* found within native ecosystems* in which the Management Unit* is located, to support the diversity of naturally occurring species and their genetic diversi-



ty.

Clarification: Not applicable to Plantations* and Woodlots*. *Verifiers:*

6.6.1.1 HCV management activities

6.6.1.2 Justification in the management plan of the chosen silvicultural and management system, using the EIA information as described in 6.1.

Indicator 6.6.2 Where past management has eliminated plant communities or habitat features*, management activities aimed at re-establishing such habitats* are implemented.

Clarification: Not applicable to Plantations* and Woodlots*.

Indicator 6.6.3 The Organization* takes effective measures to manage and control hunting, fishing, trapping and collecting activities to ensure that naturally occurring native species*, their diversity within species and their natural distribution are maintained. Local communities* are involved in development and implementation of these measures.

Verifiers:

6.6.3.1 Evidence of maintenance of populations of native species

6.6.3.1 Evidence of involvement of local communities in development and implementation See **Guidance** under Indicator 6.4.5.

Indicator 6.6.4 The Organization^{*} assesses on a regular basis, and at least once every five (5) years, if hunting for sales is threatening species diversity.

Clarification: The following 5 Indicators (Indicator 6.6.5 – Indicator 6.6.9) are optional and only apply for Management Units* that have identified that hunting for sales is threat-ening species diversity.

Guidance: Hunting for sales may occur for much sought after species used for their meat, feathers, skin or fur, e.g. species of bird of paradise, parrot and cockatoo, turtle, tree kangaroo, cuscus, monitor lizard, etc.

Indicator 6.6.5 Mechanisms for wildlife protection* are in place. Applicable local customary, national and/or international regulations on protection*, hunting and trade in animal species or parts are known and complied with;

Verifiers:

6.6.5.1 Evidence of awareness to local communities, confirmed through interviews at the village level

6.6.5.2 Evidence of use and strengthening of local customary law enforcement, confirmed through interviews at the village level

Indicator 6.6.6 The Organization* bans all activities related to the trade in hunted species, where this trade is threatening species diversity.

Verifier:

6.6.6.1 No evidence of trade in hunted species threatening species biodiversity



Indicator 6.6.7 A system of regular and punctual controls to ensure hunting policies are respected is implemented.

Verifier:

6.6.7.1 Regular and punctual controls

Indicator 6.6.8 The Organization* has effective mitigation measures in place to deal with breaches of 6.6.6.

Verifier:

6.6.8.1 Evidence of effective mitigation measures

Indicator 6.6.9 The Organization* identifies and facilitates alternative options if restrictions in hunting of certain species affects local communities' livelihoods or cultural identity.

Verifier:

6.6.9.1 Interviews at the village level confirm alternative options

Criterion 6.7 <u>The Organization</u> shall <u>protect</u> or <u>restore</u> natural watercourses, <u>water bod-</u> <u>ies</u>, <u>riparian zones</u> and their <u>connectivity</u>. The Organization shall avoid negative impacts on water quality and quantity and mitigate and remedy those that occur.

Clarification: The operation meets or exceeds all the standards as contained in the PNG Logging Code of Practice*.

Indicator 6.7.1 Conservation* measures are implemented to protect natural watercourses*, water bodies*, riparian zones* and their connectivity*, including water quantity and water quality. The potential impact of the use of water ways for log transport is included. *Verifiers:*

6.7.1.1 Identified HCV's

6.7.1.2 Evidence of compliance with relevant sections of the Logging Code Of Practice

Indicator 6.7.2 The Organization* has effective mitigation and restoration measures in place if implemented conservation* measures do not protect watercourses*, water bodies*, riparian zones* and their connectivity*, water quantity or water quality from impacts of forest* management.

Verifier:

6.7.2.1 Evidence of compliance with relevant sections of the Logging Code Of Practice

Indicator 6.7.3 Where natural watercourses, water bodies*, riparian zones* and their connectivity*, water quantity or water quality have been damaged by past activities by The Organization*, restoration activities* are implemented.

Verifiers:

6.7.3.1 Evidence of restoration of the natural vegetation cover for degraded or formerly converted parts of wildlife corridors, habitat zones and buffer zones

6.7.3.2 Evidence of compliance with relevant sections of the Logging Code Of Practice



Indicator 6.7.4 Where continued degradation exists to watercourses*, water bodies*, water quantity and water quality caused by previous managers and the activities of third parties, measures are implemented that prevent or mitigate this degradation. *Verifier:*

6.7.4.1 Evidence of compliance with relevant sections of the Logging Code Of Practice

Criterion 6.8 <u>The Organization</u> shall manage the <u>landscape</u> in the <u>Management Unit</u> to maintain and/or <u>restore</u> a varying mosaic of species, sizes, ages, spatial <u>scales</u> and regeneration cycles appropriate for the <u>landscape values</u> in that region, and for enhancing environmental and economic <u>resilience</u>.

Guidance: The mosaic pattern could be modelled from a standard baseline of species and ecological parameters for the area. There is an emerging field most often called "restoration ecology" that has been practised successfully in many western countries post land disturbance such as logging and mining. For tropical countries, Indonesia is just beginning to develop this practice. In parts of Latin America it has been practiced in various manners for the last 15 years or so (Costa Rica, Mexico, Brazil). Australia has also been working on this, and may provide the best source of regionally relevant information. Possible sources of information could be CISRO, ICRAF, CIFOR and the University of Hawaii.

Indicator 6.8.1 A varying mosaic of species, sizes, ages, spatial scales*, and regeneration cycles is maintained appropriate to the landscape*.

Clarification: Not applicable to Woodlots*.

Indicator 6.8.2 The mosaic of species, sizes, ages, spatial scales*, and regeneration cycles is restored* where it has not been maintained appropriate to the landscape*. **Clarification:** Not applicable to Woodlots*.

Criterion 6.9 <u>The Organization</u> shall not convert <u>natural forest</u> to <u>plantations</u>, nor natural forests or plantations on sites directly converted from natural forest to non-<u>forest</u> land use, except when the conversion:

- a) Affects a very limited portion of the area of the Management Unit, and
- b) Will produce clear, substantial, additional, secure long-term <u>conservation</u> benefits in the <u>Management Unit</u>, and
- c) Does not damage or threaten <u>High Conservation Values</u>, nor any sites or resources necessary to maintain or enhance those High Conservation Values.

Indicator 6.9.1 There is no conversion of natural forest* to plantations*, nor conversion of natural forests* to non-forest* land use, nor conversion of plantations* on sites directly converted from natural forest* to non-forest* land use, except when the conversion:



1) Affects a very limited portion* of the Management Unit*, and

2) The conversion will produce clear, substantial, additional, secure, long-term conservation* benefits in the Management Unit*; and

3) Does not damage or threaten High Conservation Values*, nor any sites or resources necessary to maintain or enhance those High Conservation Values*.

Indicator 6.9.2 Conservation benefits of conversion have been identified and assessed in cooperation with acknowledged experts* and affected stakeholders*.

Criterion 6.10 <u>Management Units</u> containing <u>plantations</u> that were established on areas converted from <u>natural forest</u> after November 1994 shall not qualify for certification, except where:

- a) Clear and sufficient evidence is provided that <u>The Organization</u> was not directly or indirectly responsible for the conversion, or
- b) The conversion affected a <u>very limited portion</u> of the area of the Management Unit and is producing clear, substantial, additional, secure long-term <u>conservation</u> benefits in the Management Unit.

Indicator 6.10.1 Based on Best Available Information*, accurate data on date of plantation establishment, former vegetative cover, and who was responsible for any conversion of forest to non-forest or plantation is compiled on all conversions since 1994.

Indicator 6.10.2 Areas converted from natural forest* to plantation* since November 1994 are not certified, except where:

1) The Organization* provides clear and sufficient evidence that it was not directly or indirectly responsible for the conversion; or

2) The conversion is producing clear, substantial, additional, secure, long-term conservation* benefits in the Management Unit*; and

3) The total area of plantation* on sites converted from natural forest* since November 1994 is less than 5% of the total area of the Management Unit*.



PRINCIPLE 7: MANAGEMENT PLANNING

<u>The Organization</u> shall have a <u>management plan</u> consistent with its policies and <u>objec-</u> <u>tives</u> and proportionate to <u>scale</u>, <u>intensity and risks</u> of its management activities. The <u>management plan</u> shall be implemented and kept up to date based on monitoring information in order to promote <u>adaptive management</u>. The associated planning and procedural documentation shall be sufficient to guide staff, inform <u>affected stakeholders</u> and <u>interested stakeholders</u> and to justify management decisions.

Guidance: For Large scale operations* and Medium scale operations*, the Organization* should use the Environment Act (2000) and the PNGFA Procedures for Natural Forest Logging Operations under Timber Permit (Nov 1995) as a guidance document for its system of monitoring & assessment. These procedures are divided into;

1. Five Year Plans, Project Statements and Approvals

2.Annual Plans and Approvals

3. Set-up Plans and Approvals & Clearances

Criterion 7.1 For all operations on customary land, the forest management plan shall be derived from an overall land use plan that has been completed through Culturally appropriate engagement* with genuine community participation with proper knowledge and understanding of the land use planning process.

Indicator 7.1.1 The Organization*, through Culturally appropriate engagement*, engages with each community in the Management Unit* to ensure a participatory land use planning process by the Customary landowners* and rights holders* has been completed and recorded on maps that include:

1) Garden and village plantation areas (present and proposed),

2) Cash crop areas,

3) Village sites,

4) Forest types and ecosystems,

5) Production forest areas,

6) High Conservation Values and High Conservation Values areas (Criterion* 9.1)

7) Conservation areas, including habitat for rare, threatened and endangered species, representative areas of native ecosystems (Criterion* 6.4 and 6.5)

8) Culturally significant areas (Criterion 3.5),

9) Dedicated non-timber forest product use areas if identified (Criterion 5.1 and 9.1),

10) Watershed protection areas if identified (Criterion 9.1),

11) Ecologically sensitive areas if identified (Criterion 6.1 and 9.1),

12) Any other identified land uses.

The size of each area is recorded in writing.

Clarification: Not applicable to Woodlots*.

Guidance 1: As the Criterion* specifies that the (combined) community land use plans



are to form the basis of the management plan, this Indicator should be given priority in the Organization's planning activities.

Guidance 2: For operations on state land, the management plan should consider the land use zones of adjacent customary land areas, to identify potential conflicts, e.g. intensive land uses adjacent to elements of the conservation areas.

Guidance 3: The Organization* can check with both National and International NGO's working with rural communities for information on community Land Use Planning processes and tools.

Indicator 7.1.2 Records are kept by the Organization* of the participatory land use planning process and any subsequent land use planning meetings. Copies are provided to all landowning communities.

Verifier:

7.1.2.1 Interviews at the village level confirm participatory process

Criterion 7.2 <u>The Organization</u> shall, proportionate to <u>scale</u>, <u>intensity and risk</u> of its management activities, set policies (visions and values) and <u>objectives</u> for management, which are environmentally sound, socially beneficial and economically viable. Summaries of these policies and objectives shall be incorporated into the <u>management plan</u>, and publicized.

Indicator 7.2.1 Policies (vision and values) that contribute to meeting the requirements of this standard are defined.

Clarification: For Woodlots*, Small scale operations* and Low intensity operations*, the policies may be defined at the Group Manager;s level.

Verifier:

7.2.1.1 Defined policies (vision and values)

Indicator 7.2.2 Specific, operational management objectives* that address the requirements of this standard are defined.

Clarification: For Woodlots*, Small scale operations* and Low intensity operations*, the objectives may be defined at the Group Manager's level.

Verifier:

7.2.2.1 Defined operational management objectives

Guidance: It is not necessary for the Organization* to develop objectives for each Principle or Criterion; it may suffice to create a few simple objectives to cover the social, economic, and environmental themes of this standard.

Indicator 7.2.3 Summaries of the defined policies and management objectives* are included in the public summary of the management plan*.

Verifier:

7.2.3.1 Public summary of the management plan



Criterion 7.3 <u>The Organization</u> shall have and implement a <u>management plan</u> for the <u>Management Unit</u> which is fully consistent with the policies and <u>management objectives</u> as established according to Criterion 7.1. The management plan shall describe the natural resources that exist in the Management Unit and explain how the plan will meet the FSC certification requirements. The management plan shall cover <u>forest</u> management planning and social management planning proportionate to <u>scale</u>, <u>intensity and risk</u> of the planned activities.

Indicator 7.3.1 The management plan* includes management actions, procedures, strategies and measures to achieve the management objectives*.

Verifier:

7.3.1.1 The management plan

Indicator 7.3.2 The management plan* addresses the elements listed in Annex D, and is implemented.

Clarification: Non-compliance of the Organization* with Indicator 7.3.2 is specific to each of the applicable individual elements of Annex D for the operation of the Organization*. *Verifier:*

7.3.2.1 Requirements for different scale & types of operations given in Annex D.

Criterion 7.4 The <u>management plan</u> shall include <u>verifiable targets</u> by which progress towards each of the prescribed <u>management objectives</u> can be assessed.

Indicator 7.4.1 Verifiable targets*, and the frequency that they are assessed, are established for monitoring* the progress towards each management objective*.

Guidance: For Small scale operations* and Low intensity operations* especially social and economic targets should be set at realistic levels, to avoid unrealistic expectations from stakeholder communities.

Verifier:

7.4.1.1 Verifiable targets and monitoring frequency

Criterion 7.5 The Organization shall update and revise periodically the management planning and procedural documentation to incorporate the results of monitoring and evaluation, stakeholder <u>engagement</u> or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

Indicator 7.5.1 The management plan* is revised and updated periodically, consistent with the requirements under the Forestry Act (1991) to incorporate:

1) Monitoring* results, including results of certification audits;

2) Evaluation results;

3) Stakeholder engagement* results;



4) New scientific and technical information, and

5) Changing environmental, social, or economic circumstances. *Verifier:*

7.5.1.1 PNG Forest Authority legal requirements:

a) Permit terms and conditions every 5 years

b) Forest working plan every 5 years, within the 3rd year review document, submit plan

for remaining 2 years, and the next 5 years

c) Annual logging plan (variation to the plan possible due to conditions)

Criterion 7.6 <u>The Organization</u> shall make <u>publicly available</u> a summary of the <u>manage-</u> <u>ment plan</u> free of charge. Excluding <u>confidential information</u>, other relevant components of the <u>management plan</u> shall be made available to <u>affected stakeholders</u> on request, and at cost of reproduction and handling.

Indicator 7.6.1 A summary of the management plan* in a format comprehensible to stakeholders including general locality maps and excluding confidential information* is made publicly available* at no cost. If requested, the summary of the management plan* is translated into Tok Pisin, Hiri Motu, or into another widely used regional language, as may be appropriate in the circumstances.

Verifiers:

7.6.1.1 Publicly available management plan summary

7.6.1.2 Translated copies of the management plan summary following requests

Indicator 7.6.2 The summary of the management plan* is updated at least every five (5) years, and whenever changes in management practices warrant this.

Verifier:

7.6.2.1 Updated public summary of the management plan

Indicator 7.6.3 Relevant components of the management plan^{*}, excluding confidential information^{*}, are available to affected stakeholders^{*} on request at the actual costs of reproduction and handling.

Criterion 7.7 <u>The Organization</u> shall, proportionate to <u>scale</u>, <u>intensity and risk</u> of management activities, proactively and transparently engage <u>affected stakeholders</u> in its management planning and monitoring processes, and shall engage <u>interested stakeholders</u> on request.

Guidance: The application of Culturally appropriate engagement* will be enhanced:

i) When The Organization* gets a good understanding of existing local socio-political structures and organisations including church groups, ward councils, youth & women's groups, and other local decision making bodies, and engages through these local groups;
ii) When The Organization* ensures equal representation and partcipation of these minor-



ity group, i.e. women, elderly, youth, disabled persons, etc, in decision making processes in all stages of management planning, development and monitoring. The Organization* should use female staff to engage with women in the community.

Indicator 7.7.1 Culturally appropriate engagement* is used to ensure that affected stakeholders* are transparently engaged in the following processes:

1) Dispute* resolution processes (Criterion* 1.6, Criterion* 2.6, Criterion* 4.6);

2) Definition of Living wages* (Criterion* 2.4);

3) Identification of rights (Criterion* 3.1, Criterion* 4.1), sites (Criterion* 3.5, Criterion* 4.7) and impacts (Criterion* 4.5);

4) Local communities'* socio-economic development activities (Criterion* 4.4); and

5) High Conservation Value* assessment, management and monitoring (Criterion* 9.1, Criterion* 9.2, Criterion* 9.4).

6) Intact Forest Landscape* Core Areas* assessment, management and monitoring*, including strategies to maintain or enhance intactness of core areas* (Criterion* 9.1, Criterion* 9.2, Criterion* 9.4).

Verifiers:

7.7.1.1 Documented evidence of these engagements showing their cultural appropriatness

7.7.1.2 Interviews with affected stakeholders confirm the cultural appropriate engagement Indicator 7.7.2 Culturally appropriate engagement* is used to:

1) Determine appropriate representatives and contact points (including where appropriate, local institutions, organizations and authorities);

2) Determine mutually agreed communication channels allowing for information to flow in both directions;

3) Ensure all actors (women, youth, and other marginalised groups) are represented and engaged equitably;

4) Ensure all formal arranged meetings, all points discussed and all agreements reached are recorded;

5) Ensure the content of records of formal arranged meetings is approved; and

6) Ensure the results of all culturally appropriate* engagement* activities are shared with those involved.

Verifiers:

7.7.2.1 Documented evidence of these engagements showing their cultural appropriatness

7.7.2.2 Interviews with affected stakeholders confirm the cultural appropriate engagement

Indicator 7.7.3 Affected stakeholders* are provided with an opportunity for Culturally appropriate engagement* in monitoring* and planning processes of management activities that affect their interests.



Verifier:

7.7.3.1 No evidence of withholding opportunities for affected stakeholders, with the provision that stakeholders employing 'shifting cultural appropriateness', i.e. constantly changing demands on methods for engagement, may be refused further opportunities by the Organization

Indicator 7.7.4 On request, interested stakeholders* are provided with an opportunity for engagement* in monitoring* and planning processes of management activities that affect their interests.

Clarification: For Woodlots*, Small scale operations* and Low intensity operations* the requirement may be met at the Group Manager's level.

Verifier:

7.7.4.1 Evidence of opportunities provided to stakeholders, following requests

Guidance: Information meetings may be held with interested stakeholders*, or information emails send regarding monitoring and planning activities, inviting them to share their views on areas of their expertise, e.g. social or environmental issues.

Go to Annex D. Elements of the Management Plan



PRINCIPLE 8: MONITORING AND ASSESSMENT

<u>The Organization</u> shall demonstrate that, progress towards achieving the <u>management</u> <u>objectives</u>, the impacts of management activities and the condition of the <u>Management</u> <u>Unit</u>, are monitored and evaluated proportionate to the <u>scale</u>, <u>intensity and risk</u> of management activities, in order to implement <u>adaptive management</u>.

Guidance: For Large scale operations* and Medium scale operations*, the Organization* should use the Environment Act (2000) and the PNGFA Procedures for Natural Forest Logging Operations under Timber Permit (Nov 1995) as guidance for its system of monitoring & assessment. These procedures are divided into;

1. Five Year Plans, Project Statements and Approvals

2. Annual Plans and Approvals

3. Set-up Plans and Approvals & Clearances.

Criterion 8.1 <u>The Organization</u> shall monitor the implementation of its <u>Management Plan</u>, including its policies and <u>management objectives</u>, its progress with the activities planned, and the achievement of its <u>verifiable targets</u>.

Indicator 8.1.1 Procedures are documented and executed for monitoring* the implementation of the management plan* including its policies and management objectives* and achievement of verifiable targets*.

Clarification: For Woodlots*, Small scale operations* and Low intensity operations*, documentation and execution of monitoring procedures may be done at the Group Manager's level.

Verifier:

8.1.1.1 Standardised forms and/or checklist systems are used including references to main components and features of the management plan

Criterion 8.2 <u>The Organization</u> shall monitor and evaluate the environmental and social impacts of the activities carried out in the <u>Management Unit</u>, and changes in its environmental condition.

Indicator 8.2.1 The social and environmental impacts of management activities are monitored* consistent with Annex E.

Clarification: Non-compliance of the Organization* with Indicator 8.2.1 is specific to each of the applicable individual elements of Annex E for the operation of the Organization*. *Verifier:*

8.2.1.1 Requirements for different scale & types of operations given in Annex E

Indicator 8.2.2 Changes in environmental and socio-economic conditions are monitored* consistent with Annex E.

Verifier:

8.2.2.1 Requirements for different scale & types of operations given in Annex E



Criterion 8.3 <u>The Organization</u> shall analyze the results of monitoring and evaluation and feed the outcomes of this analysis back into the planning process.

Indicator 8.3.1 Adaptive management* procedures are implemented so that monitoring* results feed into periodic updates to the planning process and the resulting management plan*.

Clarification:

For Large scale operations*: consideration of development of a research program and official collaboration with PNG Universities to build national capacity.

For Large scale operations* and Medium scale operations*: consideration to cooperate with research institutions to develop scientifically sound/valid monitoring programs, and publishing findings.

Verifier:

8.3.1.1 Evidence of monitoring results leading to management plan updates

Indicator 8.3.2 If monitoring* results show non-conformities with the related Indicator(s) of this FSC Forest Stewardship Standard for PNG, then management objectives*, verifiable targets* and / or management activities are revised.

Verifier:

8.3.2.1 Interviews with workers, surrounding communities and contractors confirm these corrective actions are taken.

Indicator 8.3.3 The management plan* includes a list of all alterations made, and changes to operational procedures are documented, as per the requirements in C7.5. *Verifier:*

8.3.3.1 There is a justification of changes made, which is supported by the monitoring results

Criterion 8.4 <u>The Organization</u> shall make <u>publicly available</u> a summary of the results of monitoring free of charge, excluding <u>confidential information</u>.

Indicator 8.4.1 A summary of the monitoring* results consistent with Annex E, in a format comprehensible to stakeholders, including general locality maps and excluding confidential information*, is made publicly available* at no cost. Upon request, this summary is translated into Tok Pisin, Hiri Motu, or into another widely used regional language, as may be appropriate in the circumstances.

Verifiers:

8.4.1.1 Public summary of monitoring results

8.4.1.2 Translation of public summary upon request

Criterion 8.5 The Organization shall have and implement a tracking and tracing system



proportionate to <u>scale, intensity and risk</u> of its management activities, for demonstrating the source and volume in proportion to projected output for each year, of all products from the <u>Management Unit</u> that are marketed as FSC certified.

Indicator 8.5.1 A system is implemented to track and trace all products that are marketed as FSC certified.

Verifier:

8.5.1.1 Evidence of implementation of a track and trace system

Indicator 8.5.2 Information about all products sold is compiled and documented, including:

1) Common and scientific species name;

2) Product name or description;

3) Volume (or quantity) of product;

4) Information to trace the material to the source of origin logging block or harvesting area;

5) Name of log scaler/recorder

6) Logging/harvesting date;

7) If basic processing activities take place in the forest, the date and volume produced; and

8) Whether or not the material was sold as FSC certified.

Verifier:

8.5.2.1 Documents showing relevant information about products sold

Indicator 8.5.3 Sales invoices or similar documentation are kept for a minimum of five

years for all products sold with an FSC claim, which identify at a minimum, the following information:

1) Name and address of purchaser;

2) The date of sale;

- 3) Common and scientific species name;
- 4) Product description;
- 5) The volume (or quantity) sold;
- 6) Certificate code; and

7) The FSC Claim "FSC 100%" identifying products sold as FSC certified.

Verifier:

8.5.3.1 Sales documentation for the last five years

Go to Annex G. Monitoring requirements



PRINCIPLE 9: HIGH CONSERVATION VALUES

<u>The Organization</u> shall maintain and/or enhance the <u>High Conservation Values</u> in the <u>Management Unit</u> through applying the <u>precautionary approach</u>.

Criterion 9.1 The Organization*, through engagement* with affected stakeholders*, interested stakeholders* and other means and sources, shall assess and record the presence and status of the following High Conservation Values* in the Management Unit*, proportionate to the scale, intensity and risk* of impacts of management activities, and likelihood of the occurrence of the High Conservation Values*:

HCV 1 – Species diversity. Concentrations of biological diversity* including endemic species, and rare*, threatened* or endangered species, that are significant* at global, regional or national levels.

HCV 2 – Landscape*-level ecosystems* and mosaics. Intact forest landscapes and large landscape*-level ecosystems* and ecosystem* mosaics that are significant* at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

HCV 3 – Ecosystems* and habitats*. Rare*, threatened*, or endangered ecosystems*, habitats* or refugia*.

HCV 4 – Critical* ecosystem services*. Basic ecosystem services* in critical* situations, including protection* of water catchments and control of erosion of vulnerable soils and slopes.

HCV 5 – Community needs. Sites and resources fundamental for satisfying the basic necessities of local communities* (for livelihoods, health, nutrition, water, etc.), identified through engagement* with these communities.

HCV 6 – Cultural values. Sites, resources, habitats* and landscapes* of global or national cultural, archaeological or historical significance, and/or of critical* cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities*,

identified through engagement* with these local communities*.

Guidance 1: Information on High Conservation Values and their assessmenty can be obtained from Environmental Impact Assessment & biodiversity assessments, and on scenic & cultural values from social mapping & socio-economic assessments. Include refrrence to the importance of water resources.

Guidance 2: Examples and sources of Best Available Information* include:

- HCV Toolkit for PNG
- IUCN lists
- PNG Herbarium
- PNG Institute of Biological Research
- Bishop Museum
- Wildlife Conservation Society



- WWF-PNG (Ecoregion studies)

- Birdlife International (EBA study)

- Conservation International (Biological hotspot study)

NB: More sources can be found in Annex 2 of FSC-STD-40-005.

Indicator 9.1.2 This assessment includes identification of Intact Forest Landscapes*, within and adjacent to the Management Unit*.

Verifier:

9.1.2.1 Identified Intact Forest Landscapes, or assessed lack thereof

Indicator 9.1.3 The assessment uses results from culturally appropriate engagement^{*} with affected^{*} and interested stakeholders^{*} with an interest in the conservation^{*} of the High Conservation Values^{*}.

Clarification:

For Large scale operations* an HCV assessment is done by an independent qualified consultant.

For Medium scale operations* an HCV assessment is done by qualified staff or a qualified consultant, engaging (further) external expertise wherever necessary to be able to assess all HCV categories.

For Small scale operations* and Low intensity operations* HCV considerations are directly translated and incorporated into the management plan and are reflected in the operational procedures.

Verifiers:

9.1.3.1 Preferred use of licenced PNG nationals HCV auditors as they become available, and use of HCV auditors that have been involved in FSC certified operations and are recommended by both the Organization and Certification Body involved

9.1.3.2 The stakeholder consultation should ensure that any unidentified HCVs can be reported by stakeholders

Criterion 9.2 <u>The Organization</u> shall develop effective strategies that maintain and/or enhance the identified <u>High Conservation Values</u>, through <u>engagement</u> with <u>affected</u> <u>stakeholders</u>, <u>interested stakeholders</u> and experts.

Indicator 9.2.1 Threats to High Conservation Values* are identified using Best Available Information* (Annex F. HCV Toolkit for PNG).

Verifier:

9.2.1.1 Identified threats to HCV's

Indicator 9.2.2 Management strategies and actions are developed to maintain, enhance and/or restore the identified High Conservation Values* and to maintain associated High Conservation Value Areas*, using guidance from the HCV Toolkit for PNG, prior to implementing management activities that may have a potentially negative impact.



Verifier:

9.2.2.1 HCV management strategies

Indicator 9.2.3 Customary landowners*, affected* and interested stakeholders* and experts are engaged in the development of management strategies and actions to maintain, enhance and/or restore the identified High Conservation Values*.

Verifier:

9.2.3.1 Evidence of engagement of customary landowners and other stakeholders

9.2.3.2 Interviews at the village level confirm engagement

Indicator 9.2.4 Local current and traditional conservation practices for HCV's are identified and documented, andare supported and enhanced.

Verifiers:

9.2.4.1 Documented local and traditional HCV conservation practices

9.2.4.2 Evidence of support for these practices

Indicator 9.2.5 The vast majority* of each Intact Forest Landscape* is designated as core area*.

Verifier:

9.2.5.1 The Management Plan

Indicator 9.2.6 Development within Intact Forest Landscapes* core areas* is allowed only if such development:

1) Cannot be located outside core areas*;

2) Affects a very limited portion* of the core area*; and

3) Produces clear, substantial, additional, long-term conservation and social benefits. *Verifier:*

9.2.6.1 Justification of any development within IFL's

Criterion 9.3 <u>The Organization</u> shall implement strategies and actions that maintain and/or enhance the identified <u>High Conservation Values</u>. These strategies and actions shall implement the <u>precautionary approach</u> and be proportionate to the <u>scale</u>, <u>intensity</u> <u>and risk</u> of management activities.

Indicator 9.3.1 The High Conservation Values* and the High Conservation Value Areas* on which they depend are maintained, enhanced and/or restored, by implementing the strategies developed under C9.2.

Verifier:

9.3.1.1 Identification of specific management activities

9.3.1.1 Annual monitoring reporting on the effectiveness of their implementation

Indicator 9.3.2 The strategies and actions prevent damage and avoid risks to High Conservation Values*, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of High Conservation Values* are uncertain.



Verifier:

9.3.2.1 No evidence of damage or risks to HCV's

Guidance: Guidance on possible strategies and actions can be found in the HCV Toolkit for PNG.

Indicator 9.3.3 Activities that may have potentially negative impact on High Conservation Values* cease immediately and actions are taken to restore* and protect the High Conservation Values*.

Verifiers:

9.3.3.1 No evidence of continuation of activities with potential negative impact on HCV's 9.3.3.2 Evidence of restorative and protective actions

Indicator 9.3.4 If restoration is not successful, or it is impossible to restore the affected High Conservation Values*, The Organization consults with affected stakeholders* to identify additional alternative conservation measures related to the affected High Conservation Values*, and relative to the non-restorable damage.

Verifier:

9.3.4.1 Evidence of consultation, confirmed through interviews with affected stakeholders **Guidance:** Examples of non-restorable damage are; digging of reef for wharf/road construction, local species extinction, introduction of uncontrolable invasive species, etc.

Indicator 9.3.5 A summary of the strategies and actions are included in the publicly available management plan summary.

Verifier:

9.3.5.1 Public available management summary

Criterion 9.4. <u>The Organization</u> shall demonstrate that periodic monitoring is carried out to assess changes in the status of <u>High Conservation Values</u>, and shall adapt its management strategies to ensure their effective <u>protection</u>. The monitoring shall be proportionate to the <u>scale</u>, <u>intensity and risk</u> of management activities, and shall include <u>engagement</u> with <u>affected stakeholders</u>, <u>interested stakeholders</u> and experts.

Indicator 9.4.1 A program of periodic monitoring*, based on guidance provided by the HCV Toolkit for PNG, assesses:

1) Implementation of strategies;

2) The status of High Conservation Values* including High Conservation Value Areas* on which they depend; and

3) The effectiveness of the management strategies and actions for the protection* of High Conservation Value* to fully maintain and/or enhance the High Conservation Values*. *Verifiers:*

9.4.1.1 Annual montioring of implementation of protective measures

9.4.1.2 Ongoing monitoring during harvesting operations of the HCV value/area present



in Management Unit likely to be affected by the operation, with immediate reports on impact

9.4.1.2 Pre &post harvest inspection to include monitoring of the elements of High Conservation Values present

9.4.1.3 Monitoring on strategy implentation and its effectiveness iin line with guidance and recommendations from the PNG HCV Toolkit

Guidance 1: Monitoring on HCV status may be less frequent, but monitoring on implementation of protective measures should be done at least annually.

Guidance 2: Guidance on possible strategies and actions can be found in the HCV Toolkit for PNG.

Indicator 9.4.2 The monitoring* program includes engagement* with Customary landowners, affected* and interested stakeholders* and experts.

Verifier:

9.4.2.1 Interviews with Customary landowners, affected and interested stakeholders and records of stakeholder consultation show that the engagement ensures that High Conservation Values are identified and properly protected

Indicator 9.4.3 The monitoring* program has sufficient scope, detail and frequency to detect changes in High Conservation Values*, relative to the initial assessment and status identified for each High Conservation Value*, taking guidance from the HCV Toolkit for PNG and from acknowledged experts on HCV's.

Verifier:

9.4.3.1 Monitoring program

Indicator 9.4.4 Management strategies and actions are adapted when monitoring^{*} or other new information shows that these strategies and actions are insufficient to ensure the maintenance, enhancement and/or restoration of High Conservation Values^{*}.

Verifier:

9.4.4.1 Evidence of adaptation of management strategies and actions

Indicator 9.4.5 Records of monitoring are kept.

Verifier:

9.4.5.1 Monitoring records

Guidance: For Group Certificates, records should be kept at the Group Manager's level.

Indicator 9.4.6 Prior to the re-assessment of the FSC certificate, the Organization undertakes an assessment of the impact of the operation on the status of identified HCV's. The Organization may use a compilation and analysis of monitoring data.

Clarification: Large scale operations* use external expertise of acknowledged experts* to verify this data compilation.

Verifiers:

9.4.6.1 Reassessment to be aligned with the FSC 5-year re-assessment and the PNGFA



5 year working plan requirement (if applicable)

9.4.6.2 For Small scale operations and Low intensity operations, assessment report at Group Manager level

9.4.6.3 For Large scale operations, external expert verification of data compilation

Go to Annex F. High Conservation Value Toolkit for Papua New Guinea



PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES

Management activities conducted by or for <u>The Organization</u> for the <u>Management Unit</u> shall be selected and implemented consistent with The Organization's economic, environmental and social policies and <u>objectives</u> and in compliance with the Principles and Criteria collectively.

Criterion 10.1 After harvest or in accordance with the <u>management plan</u>, <u>The Organiza-</u> <u>tion</u> shall, by natural or artificial regeneration methods, regenerate vegetation cover in a timely fashion to pre-harvesting or more <u>natural conditions</u>.

Guidance 1: For short rotation plantation forestry the requirement would be for the Organization to ensure sufficient regeneration takes place at the level of the total area of the Management Unit under certification.

Guidance 2: There is limited experience in PNG with regeneration activities for natural forest operations. Kandrian Gloucester Integrated Development Project (KGIDP) and PNGFA developed and trialed the Reforestation Naturally method.Further examples can be found with (previously) FSC certified natural forest operations.

Indicator 10.1.1 Harvested sites are regenerated in a timely manner* that:

1. Protects affected environmental values*, which includes exposed soils where these are at risk* of erosion; and

2. Is suitable to recover overall pre-harvest or natural forest* composition, structure, productivity, full stocking, and optimum growth rates of the managed species in order to maintain or enhance overall production from the Management Unit*.

Verifiers:

10.1.1.1 Operational procedures on regeneration of harvested sites are in place, including post harvest surveys and monitoring of natural regeneration

10.1.1.2 Management practices are revised following results of post harvest surveys and monitoring of natural regeneration

Indicator 10.1.2 Regeneration activities* are implemented in a manner that:

 For harvest of existing plantations*, regenerate to the vegetation cover that existed prior to the harvest or to more natural conditions* using ecologically well-adapted species;
 For harvest of natural forests*, regenerate to pre-harvest* or to more natural conditions*; or

3) For harvest of degraded natural forests*, regenerate to morenatural conditions*.

Verifier:

10.1.2.1 Implemented regeneration activities

Indicator 10.1.3 If a third party implements the regeneration activities the Organization* is involved in planning and control of these activities, and continues to have end responsbility for their timely completion and compliance with Indicators 10.1.1 and 10.1.2.



Criterion 10.2 <u>The Organization</u> shall use species for regeneration that are ecologically well adapted to the site and to the management <u>objectives</u>. The Organization shall use native species and local <u>genotypes</u> for regeneration, unless there is clear and convincing justification for using others.

Indicator 10.2.1 Species* chosen for regeneration are ecologically well adapted to the site, are native species* and local genotypes, unless clear and convincing justification is provided for using non-local genotypes* or non-native species*.

Verifier:

10.2.1.1 Selection of species and provenances is based on documented trials that demonstrate their suitability to the site

Indicator 10.2.3 Species chosen for regeneration are consistent with the management objectives*.

Verifier:

10.2.3.1 The Management Plan

Guidance: Consideration should be given to the (potential) long term effects of climate change for species selection.

Criterion 10.3 <u>The Organization</u> shall only use <u>exotic species</u> when knowledge and/or experience have shown that any invasive impacts can be controlled and effective mitigation measures are in place.

Guidance: The Organization should work closely with the National Agriculture Quarantene& Inspection Authority (NAQIA), Conservation & Environment Protection Authority (CEPA) and Department of Agriculture & Livestock (DAL) to implement appropriate control methods for invasive species.

Indicator 10.3.1 Exotic species* are used only when direct experience and/or the results of scientific research demonstrate that invasive impacts can be controlled. *Verifier:*

10.3.1.1 Demonstrable evidence that invase impacts can be controlled

Indicator 10.3.2 Exotic species* are used only when effective mitigation measures are in place to control their spread outside the area in which they are established.

Verifier:

10.3.2.1 Implemented effective mitigation measures

Indicator 10.3.3 Management activities are implemented, preferably in cooperation with separate regulatory bodies where these exist, with an aim to control the invasive impacts of alien species^{*} that were not introduced by the Organization^{*}.

Verifier:

10.3.3.1 Implemented management activities



Criterion 10.4 <u>The Organization</u> shall not use <u>genetically modified organisms</u> in the <u>Management Unit</u>.

Indicator 10.4.1 Genetically modified organisms* are not used. *Verifier:*

10.4.1.1 Documented policies; records of seed, germplasmo or provenance; etc.

Criterion 10.5 <u>The Organization</u> shall use silvicultural practices that are ecologically appropriate for the vegetation, species, sites and <u>management objectives</u>.

Indicator 10.5.1 Silvicultural practices are implemented that are ecologically appropriate for the vegetation, species, sites and management objectives*.

Clarification: Where there is insufficient data information on the long term ecological impacts of the silvicultural practices of the Organization*, Permanent Sample Plots or other long term research and/or trials are undertaken by the Organization*.

Verifiers:

10.5.1.1 Evidence of the ecological appropriateness of the selected silvicultural practices 10.5.1.2 Evidence of on-site research and trials to collect long term data

Guidance: There is limited experience with and data on responsible silvicultural practices for natural forest operations in PNG.

Information is available from the Forest Research Institute on their Permanent Sample Plots research in logged over natural forest.

Further information may be found with (previously) FSC certified natural forest operations.

Criterion 10.6 <u>The Organization</u> shall minimize or avoid the use of <u>fertilizers</u>. When fertilizers are used, The Organization shall demonstrate that use is equally or more ecologically and economically beneficial than use of silvicultural systems that do not require fertilizers, and prevent, mitigate, and/or repair damage to <u>environmental values</u>, including soils.

Indicator 10.6.1 With exception of the use of organic fertilizer* in plantations, the use of fertilizers* is minimized or avoided.

Verifier:

10.6.1.1 Evidence on fertilizer use or the lack thereof

Indicator 10.6.2 When fertilizers* are used, their ecological and economic benefits are higher than those of silvicultural systems that do not require fertilizers*.

Verifiers:

10.6.2.1 Comparative studies on growth and yield with and without fertilizer

10.6.2.2 Economic comparison of with and without fertilizer management

Indicator 10.6.3 When fertilizers* are used, their types, rates, frequencies and site of application are documented.



Verifiers:

10.6.3.1 Management plan

10.6.3.2 Fertilisation plan

10.6.3.3 Results of nutrient imbalance studies

10.6.3.4 Field inspections

Indicator 10.6.4 When fertilizers* are used, environmental values* are protected, including through assessment of their impact (Criterion 6.2) and implementation of measures to prevent damage (Criterion 6.3).

Clarification: Sites to be fertilized are determined in the management plan.

Verifiers:

10.6.4.1 Management plan

10.6.4.2 Fertilisation plan

10.6.4.3 Results of nutrient imbalance studies

10.6.4.4 Field inspections

Guidance 1: The impacts of fertilizer use should be considered as part of HCV assessment (Criterion* 9.1) and Socio-economic and Environmental Impact Assessments (Criterion* 4.5 and Criterion* 6.1).

Guidance 2: The impact of fertilizer use on soils and water quality should be considered (Criterion* 6.1 and 6.3).

Indicator 10.6.5 Damage to environmental values* resulting from fertilizer* use is mitigated, and environmental values are restored*.

Verifier:

10.6.5.1 Restored environmental values

Criterion 10.7 <u>The Organization</u> shall use integrated pest management and <u>silviculture</u> systems which avoid, or aim at eliminating, the use of chemical <u>pesticides</u>. The Organization shall not use any chemical pesticides prohibited by FSC policy. When pesticides are used, The Organization shall prevent, mitigate, and/or repair damage to environmental values and human health.

Indicator 10.7.1 Integrated pest management, including selection of silviculture* systems, is used to avoid, or aim to eliminate, the frequency, extent and amount of chemical pesticide* applications, and result in non-use or overall reductions in applications. *Verifier:*

10.7.1.1 Integrated pest management system

Indicator 10.7.2 Chemical pesticides* prohibited by FSC's Pesticide Policy are not used or stored in the Management Unit* unless FSC has granted derogation.

Clarification: If no chemical pesticides are used this Indicator* is not applicable. *Verifier:*



10.7.2.1 No evidence of use of prohibited pesticides

Indicator 10.7.3 When pesticides* are used:

1) The selected pesticide*, application method, timing and pattern of use offers the least risk to humans and non-target species; and

2) Objective evidence demonstrates that the pesticide* is the only effective, practical and cost effective way to control the pest.

Verifiers:

10.7.3.1 Evidence of considerations on method, timing and patters before pesticide use 10.7.3.2 Objective evidence on need for the pesticide use

Indicator 10.7.4 Records of pesticide* usage are maintained, including trade name, active ingredient, quantity of active ingredient used, period of use, location and area of use and reason for use.

Verifier:

10.7.4.1 Records of pesticide usage

Indicator 10.7.5 The use of pesticides* complies with the ILO document "Safety in the use of chemicals at work" regarding requirements for the transport, storage, handling, application and emergency procedures for cleanup following accidental spillages, with relevant requirements of the PNG Logging Code Of Practice (LCOP), and with the instructions on the product's Material Safety Data Sheet (MSDS).

Verifiers:

10.7.5.1 Evidence of compliance with ILO

10.7.5.2 Evidence of complaince with LCOP

10.7.5.3 Evidence of complaince with MSDS

Guidance: Material Safety Data Sheet is the chemical product card that is supplied with the pesticide.

Indicator 10.7.6 If pesticides* are used, application methods minimize quantities used, while achieving effective results, and provide effective protection* to surrounding land-scapes*.

Verifier:

10.7.6.1 The indiviual pesticides records and prescriptions, in line with the prescriptions on the MSDS card

Indicator 10.7.7 Damage to environmental values* and human health from pesticide* use is prevented and mitigated and the environmental values affected restored. Impacts on human health are compensated as per Criteria 2.6 and 4.6.

Verifiers:

10.7.7.1 Restored environmental values

10.7.7.2 Compensated human health impacts



Criterion 10.8 The Organization shall minimize, monitor and strictly control the use of <u>biological control agents</u> in accordance with <u>internationally accepted scientific protocols</u>. When biological control agents are used, The Organization shall prevent, mitigate, and/or repair damage to <u>environmental values</u>.

Clarification: If no biological control agents are used this Criterion* is not applicable.

Guidance: The Organization* should consult and work closely with NAQIA, CEPA, and other relevant authorities (e.g. Customs) if any biological control agents* are used.

Indicator 10.8.1 The use of biological control agents* is minimized, monitored* and controlled.

Indicator 10.8.2 Use of biological control agents* complies with internationally accepted scientific protocols*. Biological control methods are used only when shown to be harmless to non-target species through controlled trials.

Verifier:

10.8.2.1 Results of controlled trials of biologival control methods

Indicator 10.8.3 The requirements of the National Agriculture and Quarantene Inspection Authority and Environment Act (2000) are followed for the use of biological control agents*.

Verifier:

10.8.3.1 NAQIA requirements

10.8.3.2 Environment Act (2000)

Indicator 10.8.4 The use of biological control agents* is recorded including type, quantity, period, location and reason for use.

Verifier:

10.8.4.1 Records of the use of biological control agents

Indicator 10.8.5 Damage to environmental values* caused by the use of biological control agents* is prevented and mitigated, and environmental values* restored* where damage occurs.

Verifier:

10.8.5.1 Restored environmental values

Criterion 10.9 <u>The Organization</u> shall assess <u>risks</u> and implement activities that reduce potential negative impacts from <u>natural hazards</u> proportionate to <u>scale</u>, <u>intensity</u>, <u>and risk</u>.

Indicator 10.9.1 Potential negative impacts of natural hazards* on infrastructure*, forest* resources and communities in and adjacent to the Management Unit* are assessed. *Verifier:*

10.9.1.1 Consideration of impacts of natural hazards

Guidance: This assessment can be linked with the assessment as required under 6.2.

Indicator 10.9.2 Management activities mitigate potential negative impacts of natural



hazards.

Indicator 10.9.3 Measures are taken to protect the forest from fire.

Verifier:

10.9.3.1 Evidence of fire protection measures

Indicator 10.9.4 For Large scale operations* and Medium scale operations*, the need for fire management and control has been properly evaluated and documented.

Verifier:

10.9.4.1 Written evidence of fire management and control needs evaluation

Indicator 10.9.5 In fire-prone areas, there is a documented fire management plan, detailing a surveillance, prevention and control system.

Verifiers:

10.9.5.1 Fire management plan with resulting operational procedures

10.9.5.2 Identified necessary tools are in place

Indicator 10.9.6 The risk* for management activities to increase the frequency, distribution or severity of natural hazards* is identified for those hazards* that may be influenced by management.

Indicator 10.9.7 Management activities are modified and/or measures are developed and implemented that reduce the identified risks*.

Verifier:

10.9.7.1 Procedures are in place and workers are trained and resourced to minimize identified risks

Criterion 10.10 The Organization shall manage infrastructural development, transport activities and <u>silviculture</u> so that water resources and soils are protected, and disturbance of and damage to <u>rare and threatened species</u>, <u>habitats</u>, <u>ecosystems</u> and <u>landscape values</u> are prevented, mitigated and/or repaired.

Indicator 10.10.1 Development, maintenance and use of infrastructure*, as well as transport activities, are managed to protect environmental values* identified in Criterion* 6.1.

Verifier:

10.10.1.1 Consideration of the type of machinery used in terms of potential impact

Indicator 10.10.2 Silviculture* activities are managed to ensure protection of the environmental values* identified in Criterion* 6.1.

Verifier:

10.10.2.1 Consideration of the type of machinery used in terms of potential impact

Indicator 10.10.3 Disturbance or damages to water courses*, water bodies*, soils, rare and threatened species*, habitats*, ecosystems* and landscape values* are prevented and mitigated, and their environmental values* restored* in a timely manner*, and man-



agement activities modified to prevent further damage. This includes pollution and changing of the chemical composition of water courses and water bodies. *Verifier:*

10.10.3.1 Consideration of the type of machinery used in terms of potential impact **Guidance:**:This Indicator links to the Environmental Impact Assessment (Criterion 6.1) under which sufficient baseline information should be collected to be able to identify disturbance and damage.

Indicator 10.10.4 Management activities identified under 10.10.1 - 10.10.3 meet or exceed the requirements of the PNG Logging Code Of Practice and Environment Act. *Verifier:*

10.10.4.1 PNG Logging Code Of Practice (1996)

10.10.4.2 Environment Act (2000)

Criterion 10.11 <u>The Organization</u> shall manage activities associated with harvesting and extraction of timber and <u>non-timber forest products</u> so that <u>environmental values</u> are conserved, merchantable waste is reduced, and damage to other products and services is avoided.

Indicator 10.11.1 Harvesting and extraction practices for timber and non-timber forest products* are implemented in a manner that conserves environmental values* as identified in Criterion* 6.1.

Indicator 10.11.2 Harvesting practices optimize the use of forest* products and merchantable materials.

Verifiers:

10.11.2.1 National Forest Service Revised Waste Management & Assessment Procedures (undated)

10.11.2.2 Waste logs and off-cuts are utilized for local demand. Local business opportunities such as portable sawmilling to maximize use of waste logs on site are facilitated and encouraged

10.11.2.3 Written agreements with any third parties on arrangements to use waste logs or other materials

10.11.2.4 Consideration of the use of sawdust

Guidance: Options for optimizing the use of forest products and merchantable materials should be considered within the scope of Criterion 5.1 and result in transparent and documented arrangements.

Indicator 10.11.3 Harvesting and extraction practices meet or exceed the requirements under the PNG Logging Code Of Practice and Environment Act.

Verifiers:

10.11.3.1 PNG Logging Code Of Practice (1996)



10.11.3.2 Environment Act (2000)

Indicator 10.11.4 Sufficient amounts of dead and decaying biomass and forest* structure are retained to conserve environmental values*.

Guidance 1: There should be no or only very limited burning of biomass waste (e.g. few food gardens allowed in Plantations*).

Guidance 2: Harvest waste should not be piled, with waste clearance for replanting to be minimized.

Indicator 10.11.5 Harvesting practices avoid damage to standing residual trees, residual woody debris on the ground and other environmental values*.

Verifier:

10.11.5.1 PNG Logging Code Of Practice (1996)

Criterion 10.12. <u>The Organization</u> shall dispose of <u>waste materials</u> in an environmentally appropriate manner.

Indicator 10.12.1 Collection, clean up, transportation and disposal of all waste materials* is done in an environmentally appropriate way that conserves environmental values* as identified in Criterion* 6.1.

Clarification: Organic wastes, when at small volumes and when not detrimental to environmental values, are exempt.

Verifier:

10.12.1.1 PNG Logging Code Of Practice (1996)

Indicator 10.12.2 All non-organic waste products are identified and categorised, and where applicable permit(s) for waste management are obtained.

Verifier:

10.12.2.1 Waste management permit(s)

Indicator 10.12.3 All non-organic wastes (such as oil, tires, containers etc) are reused, recycled or disposed off as described under 10.12.4. The production of non-organic waste is kept to the lowest possible level.

Indicator 10.12.4 Environmentally appropriate methods for the disposal of non-organised wastes that cannot be reused or recycled, are set out at identified appropriate locations. The methods used meet or exceed the requirements of the PNG Logging Code OfPractice (1996) and Environment Act (2000).

Verifiers:

10.12.4.1 Waste management methods

10.12.4.2 Evidence of implementation of the methods

Indicator 10.12.5 Negative environmental impacts of waste disposal will be mitigated and management activities adjusted to prevent future impacts.



8. Annexes

Annex A. List of applicable laws, regulations and nationally-ratified international treaties, conventions and agreements

1. Compliance with rights to harvest timber within forest areas that are legally acquired

Employment Act and Regulations Environment and Protected Areas Policy (2012) Environment Act 2002 Environment (Water Quality Criteria) Regulation 2002 Environment (Prescribed Activities) Regulation 2002 Environment (Fees and Charges) Regulation 2002 Environment (Procedures) 2002 Environment (Permits and Transitional) Regulation 2002 Forestry Act 1991 and Amendments 2000, 2005, 2007 and 2010 International Trade (Fauna and Flora) Act (1979) International Trade (Fauna and Flora) Regulation (1982) Forestry (Budget Amendment) Bill 2007 Forestry [Timber Permit Validation] Bill 2007 Forestry Regulations 1998 Forestry Regulations 2001 Guidelines for Issuing Timber Authorities Industrial Safety (building Works) Order 1976 Industrial Safety, Health and Welfare Act and Regulations National Forest Plan **Provincial Forest Plans** Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit, November 1995 Valuer General's List for Crop Compensation

2. Compliance with requirements regarding forest management, including compliance with relevant environmental, labour and community welfare legislation

Companies Act Conservation Areas Act (1978) Convention on Biological Diversity Convention on International Trade in Endangered Species of Wild Fauna & Flora (international) Electricity Industry Act 2002 Employment Act and Regulations Endangered Species Act Environment and Protected Areas Policy (2012) Environment Act 2002 Environment (Water Quality Criteria) Regulation 2002 Environment (Prescribed Activities) Regulation 2002



Environment (Fees and Charges) Regulation 2002 Environment (Procedures) 2002 Environment (Permits and Transitional) Regulation 2002Forestry Act 1991 and Amendments 2000, 2005, 2007 and 2010 International Trade (Fauna and Flora) Act (1979) International Trade (Fauna and Flora) Regulation (1982) **IUCN Red Data List** Forestry (Budget Amendment) Bill 2007 Forestry [Timber Permit Validation] Bill 2007 Forestry Regulations 1998 Forestry Regulations 2001 Guidelines for Issuing Timber Authorities Industrial Organizations Act and Regulations Industrial Relations Act and Regulations Industrial Safety, Health and Welfare Act and Regulations International Labour Organisation Fundamental Convention numbers 29, 87, 98, 100, 105, 111, 138 and 182 Licensing of Heavy Vehicles Act 1977 Licensing of Heavy Vehicles Regulations 1977 Marine Pollution Bills 2009 Motor Traffic Act 1950 Motor Traffic Regulation 1967 Merchant Shipping Act 1975 Merchant Shipping Regulations 2009 National Minimum Wages and Allowances as from 29 March 2006 National Parks Act (1984) Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit: November 1995 Procedures for Natural Forest Logging Operations under Timber Permit, November 1995 PNG Logging Code of Practice: April 1996 Procedures for the Identification, Scaling and Reporting (including Royalty Self-Assessment) on Logs Harvested from Natural Forest Logging Operations: September 1996 **Public Health Act Revised Waste Management and Assessment Procedures** Worker's Compensation Act and Regulations

3. Compliance with requirements concerning business operations, taxes, import and export duties, royalties and fees directly related to timber harvesting and timber trade

Associations Incorporated Act Companies Act Customs Act 1951 Customs Excise Act 1956 Customs Excise Tariff Act 1956 Import Export Tariff 2012 Customs Regulations 1951 Environment and Protected Areas Policy (2012) Environment Act 2002



Environment (Water Quality Criteria) Regulation 2002 Environment (Prescribed Activities) Regulation 2002 Environment (Fees and Charges) Regulation 2002 Environment (Procedures) 2002 Environment (Permits and Transitional) Regulation 2002 Forestry Act 1991 and Amendments 2000, 2005, 2007 and 2010 Forestry (Budget Amendment) Bill 2007 Forestry [Timber Permit Validation] Bill 2007 Forestry Regulations 1998 Forestry Regulations 2001 Guidelines for Issuing Timber Authorities Superannuation Act2000 Income Tax Act 1959 Income Tax (Rates) Act 1975 and 1976 Income Tax (Rates) Act 1975 and 1976 Income Tax (salary or Wages) (Rates) Act 1979 Income Tax Regulation 1959 Goods and Services Tax Act 2003 Goods and Services Tax Regulation 2005 **Company Associations Act** Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit: November 1995 Procedures for the Identification, Scaling and Reporting (including Royalty Self-Assessment) on Logs

Harvested from Natural Forest Logging Operations: September 1996

4. Compliance with requirements concerning tenure or use rights to land and resources that may be affected by timber harvest rights, where such rights exist

Forestry Act 1991 and Amendments 2000, 2005, 2007 and 2010 (with reference to PNGFA's 34 Step Check-List for Granting a Timber Permit)

Forestry (Budget Amendment) Bill 2007

Forestry [Timber Permit Validation] Bill 2007

Forestry Regulations 1998

Forestry Regulations 2001

Guidelines for Issuing Timber Authorities

Lands and Physical Planning Act (1988)

Land Groups Incorporation Act (1974) and Amendment 2009

Land Dispute Settlement Act

Land Registration (Customary Land) (Amendment) Act 2009a Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit: November 1995

5. Compliance with requirements for trade and export procedures

Customs Act 1951 Customs Excise Act 1956 Customs Excise Tariff Act 1956 Import Export Tariff 2012



Customs Regulations 1951 Forestry Regulations 1998 Forestry Regulations 2001 NAQIA Act and Regulations Quarantine Act and Regulations Procedures for Exporting Logs: April 1996 Preservation Specification for Sawn and Round Timber (2012).

Source: Draft PNG Timber Legality Standard Checklist V3-0, May 2017



Annex B. Training requirements

Guidance: Workers* should receive targeted training, specific to implementing their tasks, periodicity of trainings should be considered, and training schedules, inclusive of refresher courses should be updated regularly.

Where procedures require specific, and specialised/qualified training for which the skills are lacking in the Organisation, external certified trainers must be engaged for this purposes.

A. Workers* shall* be able to:

1) Implement forest* activities to comply with applicable legal* requirements (Criterion* 1.5); 2) Identify, report and prevent bribery, coercion and other acts of corruption. (Criterion* 1.7) 3) Understand the content, meaning and applicability of the eight ILO Core Labour Conventions (Criterion* 2.1); 4) Recognize and report on instances of sexual harassment and gender discrimination (Criterion* 2.2); 5) Safely handle and dispose of hazardous substances to ensure that use does not pose health risks* (Criterion* 2.3); 6) Apply basic first aid/occupational health and safety (Criterion* 2.3) 7) Interpret content, meaning, and applicability of all PNG-related legislation with regards to workers' job specifications (Criterion* 2.5) 8) Implement all Standard Operational Procedures specific to their tasks (Criterion 2.5) 9) Carry out their responsibilities for particularly dangerous jobs or jobs entailing a special responsibility (Criterion* 2.5); 10) Implement the dispute resolution mechanism, including gender related issues such as discrimination and sexual harrasment (Criterion* 2.6) 11) Handle community affairs/relations and conflict resolution (Criterion* 3.1, 3.2, 4.5 and 4.6) 12) Identify where Customary landowners* and Communities of Settlers* have legal* and customary rights* related to management activities (Criterion* 3.2 and Criterion* 4.2) 13) Identify and implement applicable elements of UNDRIP and ILO Convention 169 (Criterion* 3.4); 14) Identify sites of special cultural, ecological, economic, religious or spiritual significance to Customary landowners* before the start of forest* management activities to avoid

negative impacts (Criterion* 3.5)

15) Identify where Communities of Settlers* have legal* and customary rights* related to management activities (Criterion* 4.2)

16) Carry out social, economic and environmental impact assessments* on site, along the corridor, or sphere of influence of the operation/Management Unit, and develop appropriate mitigation measures (Criterion* 4.5)

17) Understand cross-cultural issues if workers from outside the Mangement Unit are engaged (Criterion 4.5)

18) Implement activities related to the maintenance and/or enhancement of declared ecosystem services* (Criterion* 5.1)

19) Identify rare, threatened and endangered species of flora and fauna (Criterion* 6.4)



20) Protect buffer zones and water courses (Criterion* 6.7 and 10.10)

21) Training on changes in management plan & implementation of these changes (Criterion 8.3)

22) Implement forest management activities including nursery, plantation establishment, maintenance and silviculture, harvesting, and reforestation (Criterion* 10.1 and 10.11)

23) Handle, apply and store pesticides* (Criterion* 10.7)

24) Identify alien invasive species, pests, diseases, and apply their management. (Criterion* 10.8.1 - 10.8.4)

25) Identify and mange fire and other risks and hazards (Criterion* 10.9)

26) Implement procedures for cleaning up spills of waste materials* (Criterion* 10.12).

B. The Organization shall provide:

1) Training for Landowner Companies (where they exist in relation to the Managment Unit) on Management roles and responsibilities (Criterion * 1.3)

Clarification: Training would only be required as part of close out action for observed noncompliances with Criterion 1.3

2) Training for Customary landowners to monitor compliance with binding agreement (Critarion* 3.3)



Annex C. Additional Requirements for Ecosystem Services

For the certification of Ecosystem Services*, all other requirements in this Standard continue to apply. Receiving payment, or making claims, for ecosystem services is voluntary. This Annex and accompanying normative and guidance documents describe the requirements and methods for certifying the maintenance of ecosystem services as the basis for promotional claims for improved market access to ecosystem service payments.

There is overlap between the management and monitoring activities for environmental values and those for ecosystem services. When The Organization makes FSC promotional claims regarding the maintenance and/or enhancement of ecosystem services, additional management and monitoring requirements shall apply to ensure credibility of claims and demonstration of impacts.

The "FSC Guidance for Maintaining and Enhancing Ecosystem Services" (to be developed) provides guidance for the identification of ecosystem services, management strategies and activities for their maintenance and enhancement.

The "FSC Ecosystem Services Procedure: Impact Demonstration and Market Tools" (FSC-PRO-30-006 V1-0 EN) describes requirements for evaluating the outcomes and impacts of activities to maintain and/or enhance the provision of ecosystem services. The Procedure also describes how the results of impact evaluation shall be used as the basis for FSC promotional claims that The Organization may make for the provision of ecosystem services, according to FSC's applicable trademark requirements.

I. General Indicators

A publicly available* Ecosystem Services Certification Document is developed and includes:

i. A declaration of the ecosystem services* for which a promotional claim is being or will be made;

ii. A description of the current condition of the declared ecosystem services*;

iii. Legal* tenure* to manage, use and/or receive payments for declared ecosystem services*;

iv. Management objectives* related to maintenance and/or enhancement of declared ecosystem services*;

v. Verifiable targets* related to maintenance and/or enhancement of declared ecosystem services*;

vi. Management activities and strategies related to declared ecosystem services*;

vii. Areas within and outside of the Management Unit* that contribute to the declared ecosystem services*;

viii. Threats to the declared ecosystem services* within and outside of the Management Unit*;



ix. A description of management activities to reduce the threats to declared ecosystem services* within and outside of the Management Unit;

x. A description of the methodology used to evaluate the impacts of management activities on the declared ecosystem services* within and outside of the Management Unit*, based on the FSC Procedure for Demonstrating the Impact of Forest Stewardship on Ecosystem Services;

xi. A description of monitoring results related to the implementation of management activities and strategies related to the maintenance and/or enhancement of declared ecosystem services*.

xii. A description of results of the evaluation of impacts of activities and threats on the declared ecosystem services;

xiii. A list of local communities* and other organizations involved in activities related to the declared ecosystem services*; and

xiv. A summary of culturally appropriate* engagement* with Customary Landowners* and local communities*, related to the declared ecosystem services* including ecosystem service* access and use, and benefit sharing, consistent with Principle* 3 and Principle* 4. *Verifier:*

FPIC process followed meets the requirements as per the PNG REDD+ FPIC Guidelines

2) The results of the evaluation of impacts demonstrate that verifiable targets* for the maintenance and/or enhancement of the declared ecosystem services*, are met or exceeded; and

3) The results of the evaluation of impacts demonstrate no negative impacts from management activities on the declared ecosystem services* within or outside of the Management Unit*.

General verifier I:

Ecosystem Services Certification Document, including elements i-xiv

II. Management Indicators.

A. All Services

1) Management indicators for all Ecosystem Services* ensure:

i. Peatlands* are not drained;

Verifier:

There is no evidence of peatlands being drained

ii. Wetlands*, peatlands*, savannahs or natural grasslands* are not converted to plantations* or any other land use;

Verifier:

There is no evidence of wetlands, peatlands, savannahs or natural grasslands being converted

iii. Areas converted from wetlands*, peatlands*, savannahs or natural grasslands* to plantation* since November 1994 are not certified, except where:

a) The Organization* provides clear and sufficient evidence that it was not directly or indirectly responsible for the conversion; or

b) The conversion is producing clear, substantial, additional, secure, long-term* conservation* benefits in the Management Unit*; and

c) The total area of plantation* on sites converted from natural forest* since November 1994 is less than 5% of the total area of the Management Unit*.



iv. Knowledgeable experts independent of The Organization* confirm the effectiveness of management strategies and actions to maintain and/or enhance the identified High Conservation Value* areas.

B. Carbon Sequestration and Storage

1) In addition to requirements to maintain environmental values* in Principle* 6, and Principle 9* when promotional claims are made regarding carbon sequestration and storage, the following are demonstrated:

i. Forests* are identified to be protected due to their carbon stocks, according to the FSC Guidance for Maintaining and Enhancing Ecosystem Services. *Verifier:*

Evidence of compliance with relevant sections of the FSC Guidance for Maintaining and Enhancing Ecossystem Services

ii. Management activities maintain, enhance or restore* carbon storage in the forest*; including through forest* protection* and reduced impact logging practices for carbon, as described in the FSC Guidance for Maintaining and Enhancing Ecosystem Services. *Verifier:*

Evidence of compliance with relevant sections of the FSC Guidance for Maintaining and Enhancing Ecossystem Services

C. Biological Diversity* Conservation*

1) In addition to provisions to protect biological diversity in Principle* 6 and Principle* 9, when promotional claims are made regarding biological diversity* conservation*, the following are demonstrated:

i. Management activities maintain, enhance or restore*:

a) Rare and threatened species* and their habitats*, including through the provision of conservation zones*, protection areas*, connectivity*, and other direct means for their survival and viability; and

b) Natural landscape-level characteristics, including forest*

diversity, composition and structure.

ii. The conservation area network*, and conservation areas outside the

Management Unit*:

a) Represents the full range of environmental values* in the

Management Unit*;

b) Has sufficient size or functional connectivity, to support natural processes;

c) Contains the full range of habitats present for focal species*

and rare and threatened species*; and

d) Has sufficient size or functional connectivity with other suitable habitat to support viable populations of focal species* including rare and threatened species* in the region. *Verifier:*

Documented and resourced evidence that the conservation area meets the elements a) to d)

iii. Acknowledged experts* independent of the Organization* confirm the sufficiency of the conservation area network*.

Verifier:

Evidence of confirmation by acknowledged experts

D. Watershed Services

1) In addition to measures to protect water in Principle* 6 and measures to reduce the impact from natural hazards* in Principle* 10, where promotional claims are made regarding watershed services:



i. An assessment identifies:

a) Hydrological features and connections, including permanent and temporary water bodies*, watercourses*, and aquifers*;

b) Domestic water needs for Customary landowners* and Communities of settlers* within and outside of the Management Unit* that may be impacted by management activities;
c) Areas of water stress* and water scarcity*; and

d) Consumption of water by The Organization* and other users.

Verifier:

Evidence of an assessment including elements a) to d)

2) Measures are implemented to maintain, enhance or restore* permanent and temporary water bodies*, watercourses*, and aquifers*.

Verifier:

Evidence of implemented measures

3) Chemicals, waste and sediment are not discharged into water bodies*, watercourses* or aquifers*;there is no indirect seepage into water bodies*, watercourses* or aquifers of chemicals.

Verifiers:

3.1 There is no evidence of discharge of chemicals, waste and sediment.

3.2 There is no evidence of indirect seepage of chemicals

4) Management activities and strategies respect universal access to water, as defined in the UN resolution on the human right to water and sanitation.

Verifier:

Identification if Management Unit falls withing any water control districts with watershed management under the Conservation and Environment Protection Authority

E. Soil Conservation

1) In addition to measures related to soil in Principle* 6 and Principle* 10, where promotional claims are made regarding soil conservation, the following are demonstrated:

i. Vulnerable or high risk soils are identified, including thin soils, soils with poor drainage and subject to water logging, and soils prone to compaction, erosion, instability and run-off. *Verifier:*

Evidence of high risk soils identification

ii. Measures are implemented to reduce compaction, erosion and landslides. *Verifier:*

Evidence of implemented measures

iii. Management activities maintain, enhance or restore soil fertility and stability. *Verifier:*

There is no evidence of reduced soil fertility or stability

iv. Chemicals and waste are not discharged into soil.

Verifier:

There is no evidence of chemicals and waste discharged in soil

F. Recreational Services

1) In addition to measures to assess, prevent, and mitigate negative impacts of management activities on social values identified in Principle* 2 to Principle* 5 and Principle* 9, where promotional claims are made regarding recreational services, the following are demonstrated:

i. Measures are implemented to maintain, enhance or restore*:

a) Areas of importance for recreation and tourism including site attractions, archaeological sites, trails, areas of high visual quality and areas of cultural or historical interest; and
b) Populations of species that are a tourist attraction.



ii. The rights, customs and culture of Customary landowners* and Communities of settlers* are not violated by tourism activities;

iii. In addition to health and safety practices in Criterion* 2.3, practices are implemented to protect the health and safety of tourism customers;

iv. Health and safety plans and accident rates are publicly available in recreational areas and areas of interest to the tourism sector; and

v. A summary is provided of activities that demonstrate prevention of discrimination based on gender, age, ethnicity, religion, sexual orientation or disability.



Annex D. Elements of the Management Plan

Table of Management plan elements from PNG Forest Authority:	Principle 7, Annex D. Elements of the management plan:	Types andscales of operations NB: Plantations (PL) to choose correct col- umn based on their scale			PL) to col-	Clarification
	LS: Large scale operation (>10,000ha) MS: Medium scale operation (>1,000 -10,000 ha) SS: Small scale operation (up to 1,000 ha) LI: Low intensity operation (<20% MAI and <5000m3/yr, or only Non- timber forest product harvesting) PL: Plantation WL: Woodlot (Single plantation of trees of up to 10ha, owned by an individual person or family) CE: Conservation/ Ecosystem service management (no commercial timber or Non-timber forest product extraction)	LS / MS	SS / LI	WL	CE	
1. Introduction		Yes	Yes	Yes	Yes	
2. Project Statement	i. Communication of Organizational Policies (Principle 1 & 7); ii. Compliance with National Laws and Regulations (Principle 1).	Yes	No	Yes	Yes	For Large scale operations and Medi- um scale operations, information and data can be obtained from the Envi- ronmental Impact Assessment and Environmental Impact Statement and incorporated into the document Section on how applicable laws and regulations are met is available



3. Forest Resource State- ment		Yes	Yes	Yes	Yes	
3.1 Area Statement		Yes	Yes	Yes	Yes	Information and data can be obtained from the Socio-Economic Impact As- sessment, Environmental Impact As- sessment, Community Development Plan, Gender Development Plan, Training Schedule and incorporated into the document
3.2 Volume Statement	i. The rationale for harvesting rates of timber and other natural re- sources, as identified in Principle* 5	Yes	Yes	Yes	No	Mitigation issues addressed in the document
4. Current Required Forestry Project Benefits		Yes	No	No	Yes	Progressive outputs achieved from rehabilitation and reforestation are incorporated as part of plan revisions
4.1 Royalty		Yes	No	No	No	
4.2 Project Development Bene- fit	i. Benefit sharing from revenue earned (Principle 4,5).	Yes	Yes	No	Yes	
4.3 Domestric Processing Benefits (Non-Mandatory Lev- ies)		Yes	Yes	Yes	No	
5. Summary Description and Major Technical and Finan- cial Elements of the Project		Yes	Yes	Yes	Yes	Summary of annual Ooperational Health & Safety data is incorporated
5.1 Detail and Background of the Proponent		Yes	Yes	Yes	Yes	Include summary of consultation with communities
5.2 Marketing Appraisals and Strategies		Yes	Yes	Yes	No	



5.3 Production Study and Proposals		Yes	Yes	Yes	Yes	General long term plan, covering whole Mangement Unit and at least one full rotation. Overview of planned 5 year manage- ment activities
5.4 Proposed Implementation Schedule	i. Planned management activities and timelines, silvicultural systems used, typical harvesting methods and equipment, as identified in Principle* 10;	Yes	Yes	Yes	No	
5.5 Employment, Training and Localisation	 i. Overall training program for workers* as defined in Principle 2.; ii. Workers*' rights, occupational health and safety, gender equality*, as identified in Principle* 2; iii. Stakeholder engagement* and the resolution of disputes*; and grievances, as identified in Principle* 7 and Principle* 9; 	Yes	Yes	No	Yes	Summary of exported volumes from the previous years
6. Finanical Appraisal		Yes	Yes	No	Yes	
6.1 Socio-Economic	 i. Social, economic and cultural resources and condition, as identified in Principle* 2, Principle* 5 to Principle* 6 and Principle* 9; ii. Customary landowners*, community relations, local economic and social development, identified, as in Principle* 3, Principle* 4 and Prin- ciple* 5; 	Yes	No	No	Yes	Major income revenues to the Cus- tomary landowners are clearly com- municated and there is evidence that they are understood.



7. Monitoring Proposal	 i. Major social and environmental risks in the area, as identified in Principle 2, Principle* 5 to Principle* 6 and Principle* 9; ii. Waste management procedures as identified in Principle 10 (Criterion 10.11 and 10.12); iii. Environmental values*, as identified in Principle* 6 and Principle* 9; iv. Declared Ecosystem services* as identified in Criterion* 5.1 and Annex C; vi. Operational impacts, as identified in Principle* 10; vii. High Conservation Values*, as identified in Principle* 9; viii. Monitoring* systems based on stakeholder engagement* planned or in place, as identified in Principle* 2 to Principle* 5 and Principle* 9; ix. Maps describing the natural resources and land use zoning on the Management Unit*. 	Yes	Yes	Yes	Yes	List of potential high risks and vulnara- ble habitats (Environmental Impact Assessment / Environmental Impact Statement)
8. Environmental Statement	 i. Natural resources and environmental values*, as identified in Principle* 6 and Principle* 9; ii. Intact Forest Landscapes* and core areas*, as identified in Principle* 9; iii. The maintenance and/or enhancement of ecosystem services* for which promotional claims are made as identified in Criterion* 5.1 and Annex C; iv. Intact Forest Landscapes* and core areas*, as identified in Principle* 9; v. Rare and threatened species* and habitats*; vi. Water bodies* and riparian zones*; vii. Landscape* connectivity*, including wildlife corridors; viii. Declared ecosystem services* as identified in Criterion* 5.1, and Annex C; ix. Representative Sample Areas*, as identified in Principle* 6; x. High Conservation Values*, as identified in Principle* 9. 	Yes	Yes	Yes	Yes	



9. Attachments	Yes				
9.1 Environment Impact Statement & Waste Monitoring (summary)	Yes	Yes	No	Yes	This only applies when promotional claims for Ecosystem Service man- agement are made
9.2 Socio-Economic Impacts Statement (summary)	Yes	Yes	No	Yes	Summary can be obtained from Envi- ronmental Impact Assessment / Envi- ronmental Impact Statement
9.3 HCV Assessment (sum- mary)	Yes	Yes	No	Yes	High Conservation Values assessment
9.4 Biodiversity (summary)	Yes	Yes	No	Yes	
9.5 Landuse (summary)	Yes	Yes	No	Yes	Link to PNG Logging Code Of Practice
9.6 Community Development Plan (summary)	Yes	Yes	No	Yes	
9.7 Map(s)	Yes	Yes	Yes	Yes	General locality maps to be accessible and publically available



Annex E. Monitoring Requirements

Types & scales of operations:1. LS: Large scale operation (>10,000ha)2. MS: Medium scale operation (>1,000 -10,000 ha)3. SS: Small scale operation (up to 1,000 ha)4. LI: Low intensity operation (<20% MAI and <5000m3/yr, or only Non-timber forest product harvesting)5. PL: Plantation6. WL: Woodlot (Single plantation of trees of up to 10ha, owned by an individual person or family)7. CE: Conservation/ Ecosystem service management (no commercial timber or Non-timber forest	
product extraction)	Clarification: Applicable to the following types and scales of operations;
1) Monitoring* in 8.2.1 is sufficient to identify and describe the environmental impacts of management activities, including where applicable:	
i. The results of regeneration activities (Criterion* 10.1);	LS, MS, SS, LI, PL and CE. Requirements can be met at Group Manager's level.
ii. The use of ecologically well adapted species for regeneration (Criterion* 10.2);	LS, MS, SS, LI, PL and CE. Requirements can be met at Group Manager's level.
iii. Invasiveness or other adverse impacts associated with any alien species* within and outside the Management Unit* (Criterion* 10.3);	All scales and types of operations
iv. The use of genetically modified organisms* to confirm that they are not being used. (Criterion* 10.4);	All scales and types of operations
v. The results of silvicultural activities (Criterion* 10.5);	LS, MS, SS, LI, PL and WL. Requirements can be met at Group Manager's level.
vi. Adverse impacts to environmental values* from fertilizers* (Criterion* 10.6);	LS, MS, PL and WL



vii. Adverse impacts from the use of pesticides* (Criterion* 10.7);	LS, MS, PL and WL
viii. Adverse impacts from the use of biological control agents (Criterion* 10.8);	PL and WL
ix. The impacts from natural hazards* (Criterion* 10.9);	All scales and types of operations
x. The impacts of infrastructural development, transport activities and silviculture to rare and threat- ened species*, habitats*, ecosystems*, landscape values* water and soils (Criterion* 10.10);	LS, MS, SS, LI, PL and CE
xi. The impacts of harvesting and extraction of timber on non-timber forest products*, environmental values*, merchantable wood waste and other products and services (Criterion* 10.11);	All scales and types of operations
xii. Environmentally appropriate disposal of waste materials* (Criterion* 10.12).	All scales and types of operations
2) Monitoring* in 8.2.1 is sufficient to identify and describe social impacts of management activities, including where applicable:	
i. Evidence of illegal or unauthorized activities (Criterion* 1.4);	All scales and types of operations
ii. Compliance with applicable laws*, local laws*, ratified* international conventions and obligatory codes of practice* (Criterion* 1.5);	All scales and types of operations
iii. Resolution of disputes* and grievances (Criterion* 1.6, Criterion* 2.6, Criterion* 4.6);	LS, MS, SS, LI, PL and CE
iv. Programs and activities regarding workers'* rights (Criterion* 2.1);	LS, MS, SS, LI, PL and CE
v. Gender equality*, Sexual harassment and gender discrimination (Criterion* 2.2);	LS, MS, SS, LI, PL and CE
vi. Programs and activities regarding occupational health and safety (Criterion* 2.3);	All scales and types of operations
vii. Payment of wages (Criterion* 2.4);	LS, MS, SS, LI, PL and CE



viii. Worker* Training (Criterion* 2.5);	All scales and types of operations
ix. Where pesticides* are used, the health of workers* exposed to pesticides* (Criterion* 2.5 and Criterion* 10.7);	All scales and types of operations
x. The identification of Customary landowners* and Communities of settlers*and their legal* and customary rights* (Criterion* 3.1 and Criterion* 4.1);	All scales and types of operations
xi. Full implementation of the terms in binding agreements* (Criterion* 3.2, Criterion* 3.3 and Criterion* 4.2);	All scales and types of operations
xii. Local communities* and community relations (Criterion* 3.2, Criterion* 3.3 and Criterion* 4.2)	All scales and types of operations
xiii. Protection* of sites of special cultural, ecological, economic, religious or spiritual significance to Customary landholders* and Communities of settlers* (Criterion* 3.5 and Criterion* 4.7);	All scales and types of operations
xiv. The use of traditional knowledge* and intellectual property* (Criterion* 3.6 and Criterion* 4.8);	All scales and types of operations
xv. Local economic and social development (Criterion* 4.2, Criterion* 4.3, Criterion* 4.4, Criterion* 4.5);	All scales and types of operations. Requirements can be met at Group Manager's level.
xvi. The production of diversified benefits and / or products (Criterion* 5.1);	LS, MS, SS, LI, PL and CE
xvii. The maintenance and/or enhancement of ecosystem services* (Criterion* 5,1);	All scales and types of operations
xviii. Activities to maintain or enhance ecosystem services* (Criterion* 5.1);	All scales and types of operations
xix. Actual compared to projected annual harvests of timber and non-timber forest products* (Criterion* 5.2);	All scales and types of operations. Requirements can be met at Group Manager's level.
xx. The use of local processing, local services and local value added manufacturing (Criterion* 5.4)	All scales and types of operations. Requirements can be met at Group Manager's level.
xxi. Long term* economic viability* (Criterion* 5.5);	All scales and types of operations. Requirements can be met at Group Manager's level.
xxii. High Conservation Values* 5 and 6 identified in Criterion* 9.1	All scales and types of operations



3) Monitoring* procedures in 8.2.2 are sufficient to identify and describe changes in envi- ronmental conditions including where applicable	
i. The maintenance and/or enhancement of ecosystem services* (Criterion* 5.2) (when The Organi- zation* makes FSC promotional claims regarding the provision of ecosystem services*, or receives payment for the provision of ecosystem services*)	LS, MS, SS, LI, PL and CE
ii. Environmental values* and ecosystem functions* including carbon sequestration and storage (Criterion* 6.1); including the effectiveness of actions identified and implemented to prevent and mitigate negative impacts, and restore environmental values* (Criterion* 6.3);	All scales and types of operations. NB: These requirements do not mean the Organization* has to undertake separate carbon inventories; proxy values to convert normal forest/ecosystem inventories can be used.
iii. Rare and threatened species*, and the effectiveness of actions implemented to protect them and their habitats*(Criterion* 6.4);	LS, MS, SS, LI, PL and CE
iv. Representative sample areas* and the effectiveness of actions implemented to conserve* and/or restore* them (Criterion* 6.5)	LS, MS, SS, LI, PL and CE
v. Naturally occurring native species* and biological diversity* and the effectiveness of actions implemented to conserve* and/or restore* them (Criterion* 6.6);	LS, MS, SS, LI, PL and CE
vi. Water courses, water bodies*, water quantity and water quality and the effectiveness of actions implemented to conserve* and/or restore* them (Criterion* 6.7);	All scales and types of operations
vii. Landscape values* and the effectiveness of actions implemented to maintain and/or restore* them (Criterion* 6.8);	LS, MS, SS, LI, PL and CE
viii. Conversion of natural forest* to plantations* or conversion to non-forest* (Criterion* 6.9);	All scales and types of operations
ix. The status of plantations* established after 1994 (Criterion* 6.10);	All scales and types of operations
x. High Conservation Values* 1 to 4 identified in Criterion* 9.1 and the effectiveness of actions implemented to maintain and/or enhance them.	All scales and types of operations



Annex F. High Conservation Value Toolkit for Papua New Guinea

PNG Forest Certification Inc. together with WWF-PNG has developed the High Conservation Value Forest (HCVF) Toolkit for PNG, First Edition, November 2005. This HCVF toolkit was developed through consultative processes and peer reviewing by experts and stakeholders. The FSC's definition of HCVs encompasses exceptional or critical ecological attributes, ecosystem services and social functions.

The HCVF Toolkit for PNG follows the global HCV definitions, but has, considering the specific PNG customary landownership situation, combined HCV5 Forest areas fundamental to meeting basic needs of local communities, and HCV6 Forest areas critical to local communities' traditional and cultural identity, into one HCV5.

The HCV definitions as captured in the HCVF Toolkit for PNG are listed below, with an example of a Papua New Guinea HCV's for each.

• **HCV1**: Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia). HCVs 1.1 - 1.4 are protected areas, threatened and endangered species, concentrations of endemic species, and critical temporal use.

• **HCV2**: Forest areas containing globally, regionally, or nationally significant large landscape level forests contained within, or containing the management unit where viable population of most, if not all naturally occurring species, exist in natural patterns or distribution and abundance (e.g. viable populations, wide-ranging species, etc)

• **HCV3**: Forest areas that are in or contain rare, threatened or endangered ecosystems (e.g. breeding sites, migratory sites, etc).

• **HCV4**: Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).HCV 4.1 - 4.3 are forests critical to water catchments, forests critical to erosion control, and forests providing barriers to destructive fire.

• **HCV5**: Forest areas fundamental to meeting basic needs of local communities* (e.g. subsistence, health) and critical to local communities' traditional and cultural identity (areas of cultural, ecological, economic or religioussignificance in cooperation with such local communities).

The HCVF Toolkit for PNG provides the following Appendixes related to protected and endangered species in PNG:

Appendix 1 - List of IUCN listed critically endangered species, endangered and data deficient in PNG

Appendix 2 - List of PNG CITES I

Appendix 3 - List of endemic bird and mammal species and their location by ecoregion in PNG

Appendix 4 - List of recognized species that may act as indicators of large-scale ecological processes

PNG Forest Certification Inc. has started a revision process for the HCVF Toolkit for PNG (Edition 1, November 2005) in 2017. The name of the Toolkit will be changed to HCV Toolkit for PNG, and the current combined HCV5 will be separated again to bring the Toolkit in line with the 6 internationally recognized HCV categories.



9. FSC Glossary of Terms

This glossary includes internationally accepted definitions whenever possible. These sources include, for instance, the Food and Agriculture Organization of the United Nations (FAO), the Convention on Biological Diversity (1992), the Millennium Ecosystem Assessment (2005) as well as definitions from online glossaries as provided on the websites of the World Conservation Union (IUCN), the International Labour Organization (ILO) and the Invasive Alien Species Programme of the Convention on Biological Diversity. When other sources have been used they are referenced accordingly.

The term 'based on' means that a definition was adapted from an existing definition as provided in an international source.

Words used in the International Generic Indicators, if not defined in this Glossary of Terms or other normative FSC documents, are used as defined in the Shorter Oxford English Dictionary or the Concise Oxford Dictionary.

Acknowledged expert: An individual or organization acknowledged widely by their community or peers to have or acquired or published knowedge in relation to the conservation values over an area and can include a custodian of traditional ecological knowledge (village elders, custodians/practitioners of traditional ecological knowledge), a qualified individual whose publications on the topic is cited as a source of reference in numerous reports (Ecologist), or an organization who has released publications being combined and acquired knowledge of its personnel (WWF,WCS). Publications in this category must demonstrate field testing and verification and regularly cited source to qualify as a credible information source (PNG FSC's Standard Development Group).

Adaptive management: A systematic process of continually improving management policies and practices by learning from the outcomes of existing measures (Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).

Affected stakeholder: Any person, group of persons or entity that is or is likely to be subject to the effects of the activities of a Management Unit. Examples include, but are not restricted to (for example in the case of downstream landowners), persons, groups of persons or entities located in the neighborhood of the Management Unit^{*}. The following are examples of affected stakeholders:

- Local communities
- Customary Landowners
- o Workers
- Forest dwellers
- o Neighbors
- o Downstream landowners
- Local processors
- Local businesses



- o Tenure and use rights holders, including landowners
- Organizations authorized or known to act on behalf of affected stakeholders, for example social and environmental NGOs, labor unions, etc.

(Source: FSC-STD-01-001 V5-0).

Alien species: A species, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce (Source: Convention on Biological Diversity (CBD), Invasive Alien Species Programme. Glossary of Terms as provided on CBD website).

Applicable law: Means applicable to *The Organization** as a *legal** person or business enterprise in or for the benefit of the Management Unit and those laws which affect the implementation of the FSC Principles and Criteria. This includes any combination of statutory law (Parliamentary-approved) and case law (court interpretations), subsidiary regulations, associated administrative procedures, and the national constitution (if present) which invariably takes *legal** precedence over all other *legal** instruments (Source: FSC-STD-01-001 V5-0).

Aquifer: A formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs for that unit to have economic value as a source of water in that region. (Source: Gratzfeld, J. 2003. Extractive Industries in Arid and Semi-Arid Zones. World Conservation Union (IUCN)).

Best Available Information: Data, facts, documents, expert opinions, and results of field surveys or consultations with stakeholders that are most credible, accurate, complete, and/or pertinent and that can be obtained through *reasonable** effort and cost, subject to the *scale** and *intensity** of the management activities and the *Precautionary Approach**.

Binding Agreement: A deal or pact, written or not, which is compulsory to its signatories and enforceable by law. Parties involved in the agreement do so freely and accept it voluntarily.

Biological diversity: The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems (Source: Convention on Biological Diversity 1992, Article 2).

Biological control agents: Organisms used to eliminate or regulate the population of other organisms (Source: Based on FSC-STD-01-001 V4-0 and World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).

Communities of settlers: Communities of Papua New Guineans of any size that are not Customary landowners of areas in or adjacent to the Management Unit. They live within or close enough to The Management Unit to have a significant impact on the economy or the environmental values of the Management Unit or to have their economies, rights or environments significantly affected by the management activities or the biophysical aspects of the Management Unit (PNG FSC's Standard Development Group).

Confidential information: Private facts, data and content that, if made publicly available, might put at risk *The Organization*^{*}, its business interests or its relationships with stakehold-



ers, clients and competitors.

Conflicts between the Principles and Criteria and laws: Situations where it is not possible to comply with the Principles and Criteria and a law at the same time (Source: FSC-STD-01-001 V5-0).

Connectivity: A measure of how connected or spatially continuous a corridor, network, or matrix is. The fewer gaps, the higher the connectivity. Related to the structural connectivity concept; functional or behavioral connectivity refers to how connected an area is for a process, such as an animal moving through different types of landscape elements. Aquatic connectivity deals with the accessibility and transport of materials and organisms, through groundwater and surface water, between different patches of aquatic ecosystems of all kinds. (Source: Based on R.T.T. Forman. 1995. Land Mosaics. The Ecology of Landscapes and Regions. Cambridge University Press, 632pp).

Conservation/Protection: These words are used interchangeably when referring to management activities designed to maintain the identified environmental or cultural values in existence long-term. Management activities may range from zero or minimal interventions to a specified range of appropriate interventions and activities designed to maintain, or compatible with maintaining, these identified values (Source: FSC-STD-01-001 V5-0).

Conservation Areas Network: Those portions of the Management Unit* for which conservation is the primary and, in some circumstances, exclusive objective; such areas include *representative sample areas**, *conservation zones**, *protection areas**, *connectivity** areas and *High Conservation ValueAreas**.

Conservation / Ecosystem Services Mangement: Forest management operation for nature conservation and/or ecosystem service(s) provision with no extraction of timber or non-timber forest products for commercial purposes (PNG FSC's Standard Development Group).

Conservation zones and protection areas: Defined areas that are designated and managed primarily to safeguard species, habitats, ecosystems, natural features or other sitespecific values because of their natural environmental or cultural values, or for purposes of monitoring, evaluation or research, not necessarily excluding other management activities. For the purposes of the Principles and Criteria, these terms are used interchangeably, without implying that one always has a higher degree of conservation or protection than the other. The term 'protected area' is not used for these areas, because this term implies *legal** or official status, covered by national regulations in many countries. In the context of the Principles and Criteria, management of these areas should involve active conservation, not passive protection' (Source: FSC-STD-01-001 V5-0).

Considerable level: For disputes of statutory law; two or more institutional parties with direct interest in the dispute, and for disputes of customary law; two or more parties consisting of groups at least at sub-clan level (PNG FSC's Standard Development Group).

Critical: The concept of criticality or fundamentality in Principal 9 and HCVs relates to irreplaceability and to cases where loss or major damage to this HCV would cause serious preju-



dice or suffering to affected stakeholders. An ecosystem service is considered to be critical (HCV 4) where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of local communities, on the environment, on HCVs, or on the functioning of significant infrastructure (roads, dams, buildings etc.). The notion of criticality here refers to the importance and risk for natural resources and environmental and socio-economic values (Source: FSC-STD-01-001 V5-0).

Criterion (pl. Criteria): A means of judging whether or not a Principle (of forest stewardship) has been fulfilled (Source: FSC-STD-01-001 V4-0).

Culturally appropriate[mechanisms]: Means/approaches for outreach to target groups that are in harmony with the customs, values, sensitivities, and ways of life of the target audience.

Culturally appropriate engagement [in relation to Customary landowners*, Communities of settlers*, and Local communities*]: Community engagement processes through customary hierarchy* (or publicly recognised local leaders in the case of Communities of settlers), gathering of information through a number of visits at dates & times agreed to by the community, with methods of information gathering and discussions to be agreed on with the community, and considering gender and age groups (PNG FSC's Standard Development Group).

Culturally significant area: an area having spiritual, historic or social value for past, present or future generations, including a significance of natural elements of land, water or vegetation. **Customary hierarchy:** a traditional system in which members of a tribe or clan are ranked according to relative status or authority.

Customary landowner: Person or persons with heritable rights to use or occupy an area of land, in accordance with the custom of the clan or tribe they belong to, having a spiritual connection to the land and looking after it in trust for both the past and future generations (PNG FSC's Standard Development Group).

Customary law: Interrelated sets of customary rights may be recognized as customary law. In some jurisdictions, customary law is equivalent to statutory law, within its defined area of competence and may replace the statutory law for defined ethnic or other social groups. In some jurisdictions customary law complements statutory law and is applied in specified circumstances (Source: Based on N.L. Peluso and P. Vandergeest. 2001. Genealogies of the political forest and customary rights in Indonesia, Malaysia and Thailand, Journal of Asian Studies 60(3):761–812).

Customary rights: Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit (Source: FSC-STD-01-001 V4-0).

Customary uses:Traditional uses of the forest resources to satisfy local needs following from the accepted culture and tradition of the landowning groups exercising customary rights over the area.

Dispute: for the purpose of the IGI, this is an expression of dissatisfaction by any person or



organization presented as a complaint to *The Organization**, relating to its management activities or its conformity with the FSC Principles and Criteria, where a response is expected (Source: based on FSC-PRO-01-005 V3-0 Processing Appeals).

Dispute of substantial duration: *Dispute** that continues for more than twice as long as the predefined timelines in the FSC System (this is, for more than 6 months after receiving the complaint, based on FSC-STD-20-001).

Dispute of substantial magnitude: For the purpose of the FSC National Forest Stewardship Standard of PNG, a *dispute** of substantial magnitude is a *dispute** that involves one or more of the following:

- Affects the legal* or customary rights* of Customary landowners* and/orCommunities of settlers*;
- Where the negative social, environmental or economic impact of management activities is of such a scale that it cannot be reversed or mitigated;
- Physical violence;
- Destruction of property;
- Presence of armed forces;
- Acts of intimidation against forest* workers* and stakeholders*.

Economic viability: The capability of developing and surviving as a relatively independent social, economic or political unit. Economic viability may require but is not synonymous with profitability (Source: Based on the definition provided on the website of the European Environment Agency).

Ecosystem: A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (Source: Convention on Biological Diversity 1992, Article 2).

Ecosystem function: An intrinsic ecosystem characteristic related to the set of conditions and processes whereby an ecosystem maintains its integrity (such as primary productivity, food chain, biogeochemical cycles). Ecosystem functions include such processes as decomposition, production, nutrient cycling, and fluxes of nutrients and energy. For FSC purposes, this definition includes ecological and evolutionary processes such as gene flow and disturbance regimes, regeneration cycles and ecological seral development (succession) stages. (Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. Ecosystems and Human Wellbeing: Synthesis. The Millennium Ecosystem Assessment Series. Island Press, Washington DC; and R.F. Noss. 1990. Indicators for monitoring biodiversity: a hierarchical approach. Conservation Biology 4(4):355–364).

Ecosystem services: The benefits people obtain from ecosystems. These include:

- o provisioning services such as food, forest products and water;
- regulating services such as regulation of floods, drought, land degradation, air quality, climate and disease;
- o supporting services such as soil formation and nutrient cycling; and



 cultural services and cultural values such as recreational, spiritual, religious and other non-material benefits.

(Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. Ecosystems and Human Wellbeing: Synthesis. The Millennium Ecosystem Assessment Series. Island Press, Washington DC).

Engaging / Engagement: The process by which The Organization communicates, consults and/or provides for the participation of interested and/or affected stakeholders ensuring that their concerns, desires, expectations, needs, rights and opportunities are considered in the establishment, implementation and updating of the *management plan** (Source: FSC-STD-01-001 V5-0).

Environmental Impact Assessment (EIA): Systematic process used to identify potential environmental impacts of proposed projects, to evaluate alternative approaches, and to design and incorporate appropriate prevention, mitigation, management and monitoring measures (Source: based on Environmental impact assessment, guidelines for FAO field projects. Food and agriculture organization of the United Nations (FAO). Rome,-STD-01-001 V5-0).

Environmental values: The following set of elements of the biophysical and human environment:

- ecosystem functions (including carbon sequestration and storage);
- biological diversity;
- water resources;
- o soils;
- o atmosphere;
- landscape values (including cultural and spiritual values).

The actual worth attributed to these elements depends on human and societal perceptions (Source: FSC-STD-01-001 V5-0).

Exotic species: A species, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce (Source: Convention on Biological Diversity (CBD), Invasive Alien Species Programme. Glossary of Terms as provided on CBD website).

Externalities: The positive and negative impacts of activities on stakeholders that are not directly involved in those activities, or on a natural resource or the environment, which do not usually enter standard cost accounting systems, such that the market prices of the products of those activities do not reflect the full costs or benefits (Source: FSC-STD-01-001 V5-0).

Fair compensation: Remuneration that is proportionate to the magnitude and type of services, goods or intangible property (intellectual), rendered by another party or of the harm that is attributable to the first party.

Fertilizer: Mineral or organic substances, most commonly N, P2O5 and K20, which are applied to soil for the purpose of enhancing plant growth.



Inorganic fertilizer, also known as mineral or commercial fertilizer, is fertilizer mined from mineral deposits or manufactured from synthetic compounds.

Organic fertilizers are fertilizers derived from animal matter, animal excreta (manure), human excreta, and vegetable matter. (e.g. compost and crop residues). Naturally occurring organic fertilizers include animal wastes from meat processing, peat, manure, slurry, and guano.

Focal species: Species whose requirements for persistence define the attributes that must be present if that landscape is to meet the requirements of the species that occur there (Source: Lambeck, R., J. 1997. Focal Species: A multi-species Umbrella for Nature Conservation. Conservation Biology vol 11 (4): 849-856.).

Forest: A tract of land dominated by trees (Source: FSC-STD-01-001 V5-0. Derived from FSC Guidelines for Certification Bodies, Scope of Forest Certification, Section 2.1 first published in 1998, and revised as FSC-GUI-20-200 in 2005, and revised again in 2010 as FSC-DIR-20-007 FSC Directive on Forest Management Evaluations, ADVICE-20-007-01).

Formal and informal workers organization: association or union of *workers**, whether recognized by law or by *The Organization** or neither, which have the aim of promoting *workers** rights and to represent *workers** in dealings with *The Organization** particularly regarding working conditions and compensation.

Free, Prior, and Informed Consent (FPIC): A *legal** condition whereby a person or community can be said to have given consent to an action prior to its commencement, based upon a clear appreciation and understanding of the facts, implications and future consequences of that action, and the possession of all relevant facts at the time when consent is given. Free, prior and informed consent includes the right to grant, modify, withhold or withdraw approval (Source: Based on the Preliminary working paper on the principle of Free, Prior and Informed Consent of Indigenous Peoples (...) (E/CN.4/Sub.2/AC.4/2004/4 8 July 2004) of the 22nd Session of the United Nations Commission on Human Rights, Sub-commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Populations, 19–23 July 2004).

Gender equality: Gender equality or gender equity means that women and men have equal conditions for realizing their full human rights and for contributing to, and benefiting from, economic, social, cultural and political development (Source: Adapted from FAO, IFAD and ILO workshop on 'Gaps, trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty', Rome, 31 March to 2 April 2009.).

Genetically modified organism: An organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. (Source: Based on FSC-POL-30-602 FSC Interpretation on GMO (Genetically Modified Organisms)). **Genotype**: The genetic constitution of an organism (Source: FSC-STD-01-001 V5-0).

Genuine dispute: A real and serious dispute recognised as such at the village level, involving a second party consisting of a group at least at sub-clan level (PNG FSC's Standard Development Group).



Geophysical: The earth's physical properties and the physical processes acting upon, above and within the earth.

Grassland: Land covered with herbaceous plants with less than 10% tree and shrub cover (Source: UNEP, cited in FAO. 2002. Second Expert Meeting on Harmonizing Forest-Related Definitions for use by various stakeholders).

Habitat: The place or type of site where an organism or population occurs (Source: Based on the Convention on Biological Diversity, Article 2).

Habitat features: Forest* stand attributes and structures, including but not limited to:

- Old commercial and non-commercial trees whose age noticeably exceeds the average age of the main canopy;
- Trees with special ecological value;
- Vertical and horizontal complexity;
- Standing dead trees;
- Dead fallen wood;
- Forest openings attributable to natural disturbances;
- Nesting sites;
- Small wetlands, bogs, fens;
- Ponds;
- Areas for procreation;
- Areas for feeding and shelter, including seasonal cycles of breeding;
- Areas for migration;
- Areas for hibernation.

High Conservation Value (HCV): Any of the following values:

- HCV1: Species Diversity. Concentrations of *biological diversity** including endemic species, and rare, *threatened or endangered** species, that are significant at global, regional or national levels.
- HCV 2: Landscape-level ecosystems and mosaics. Intact Forest Landscapes, large landscape-level ecosystems* and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.
- HCV 3: Ecosystems and habitats. Rare, threatened, or endangered ecosystems, habitats* or refugia*.
- HCV 4: Critical ecosystem services. Basic ecosystem services* in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.
- HCV 5: Community needs. Sites and resources fundamental for satisfying the basic necessities of local communities or Customary Landowners*/Indigenous Peoples* (for example for livelihoods, health, nutrition, water), identified through



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engagement with these communities or Customary Landowners*/Indigenous Peoples*.

HCV 6: Cultural values. Sites, resources, habitats and *landscapes** of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or Customary Landowners*/*Indigenous Peoples**, identified through engagement with these local communities or Customary Landowners*/*Indigenous Peoples**.

(Source: based on FSC-STD-01-001 V5-0).

High Conservation Value Areas: Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified *High Conservation Values**.

High grading: High grading is a tree removal practice in which only the best quality, most valuable timber trees are removed, often without regenerating new tree seedlings or removing the remaining poor quality and suppressed understory trees and, in doing so, degrading the ecological health and commercial value of the forest. High grading stands as a counterpoint to sustainable resource management (Source: based on Glossary of Forest Management Terms. North Carolina Division of Forest Resources. March 2009).

Incorporated Land Group (ILG): Land group as incorporated under the Land Groups Incorporation Act (2009, Amended).

Indicator: A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a Management Unit* complies with the requirements of an FSC Criterion. Indicators and the associated thresholds thereby define the requirements for responsible forest management at the level of the Management Unit* and are the primary basis of forest evaluation (Source: FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)).

Indigenous Cultural Landscapes: living landscapes to which Indigenous Peoples* attribute environmental, social, cultural and economic value because of their enduring relationship with the land, water, fauna, flora and spirits and their present and future importance to their cultural identity. An Indigenous cultural landscape* is characterized by features that have been maintained through long-term interactions based on land-care knowledge, and adaptive livelihood practices. They are landscapes over which Indigenous Peoples* exercise responsibility for stewardship. (Source: FSC-STD-60-004 V2-0 EN International Generic Indicators (2018)) **Indigenous Peoples**: People and groups of people that can be identified or characterized as follows:

- The key characteristic or Criterion is self-identification as Indigenous Peoples at the individual level and acceptance by the community as their member;
- Historical continuity with pre-colonial and/or pre-settler societies;
- Strong link to territories and surrounding natural resources;
- Distinct social, economic or political systems;



- Distinct language, culture and beliefs;
- Form non-dominant groups of society;
- Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities.

(Source: Adapted from United Nations Permanent Forum on Indigenous, Factsheet 'Who are Indigenous Peoples' October 2007; United Nations Development Group, 'Guidelines on Indigenous Peoples' Issues' United Nations 2009, United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007).

Infrastructure: In the context of forest management, roads, bridges, culverts, log landings, quarries, impoundments, buildings and other structures required in the course of implementing the *management plan**.

Intact Forest Landscape: A territory within today's global extent of forest cover which contains forest and non-forest ecosystems minimally influenced by human economic activity, with an area of at least 500 km2 (50,000 ha) and a minimal width of 10 km (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory) (Source: Intact Forests / Global Forest Watch. Glossary definition as provided on Intact Forest website. 2006-2014).

Intellectual property: Practices as well as knowledge, innovations and other creations of the mind (Source: Based on the Convention on Biological Diversity, Article 8(j); and World Intellectual Property Organization. What is Intellectual Property? WIPO Publication No. 450(E)). **Intensity**: A measure of the force, severity or strength of a management activity or other occurrence affecting the nature of the activity's impacts (Source: FSC-STD-01-001 V5-0).

Interested stakeholder: Any person, group of persons, or entity that has shown an interest, or is known to have an interest, in the activities of a Management Unit. The following are examples of interested stakeholders.

- Conservation organizations, for example environmental NGOs;
- Labor (rights) organizations, for example labor unions;
- Human rights organizations, for example social NGOs;
- Faith based organizations;
- Local development projects;
- Local governments;
- National government departments functioning in the region;
- FSC National Offices;
- Experts on particular issues, for example High Conservation Values.

(Source: FSC-STD-01-001 V5-0)

Internationally accepted scientific protocol: A predefined science-based procedure which is either published by an international scientific network or union, or referenced frequently in the international scientific literature (Source: FSC-STD-01-001 V5-0).

Invasive species: Species that are rapidly expanding outside of their native range. Invasive



species can alter ecological relationships among native species and can affect ecosystem function and human health (Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).

Landowner Company: A registered limited company, representing a number of Customary landowner groups in relation to the forestry operation in the Management Unit (PNG FSC's Standard Development Group).

Lands and territories: For the purposes of the Principles and Criteria these are lands or territories that Customary Landowners/Indigenous Peoples or local communities have traditionally owned, or customarily used or occupied, and where access to natural resources is vital to the sustainability of their cultures and livelihoods (Source: Based on World Bank safeguard OP 4.10 Indigenous Peoples, section 16 (a). July 2005.).

Landscape: A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area (Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).

Landscape values: Landscape values can be visualized as layers of human perceptions overlaid on the physical landscape. Some landscape values, like economic, recreation, subsistence value or visual quality are closely related to physical landscape attributes. Other landscape values such as intrinsic or spiritual value are more symbolic in character and are influenced more by individual perception or social construction than physical landscape attributes utes (Source: Based on website of the Landscape Value Institute).

Land title: A certificate of title, being leasehold or freehold, issued under the Lands Registration Act (1974).

Large scale operation: Any forest management operation larger than 10,000 hectares (PNG FSC's Standard Development Group).

Legal: In accordance with primary legislation (national or local laws) or secondary legislation (subsidiary regulations, decrees, orders, etc.). 'Legal' also includes rule-based decisions made by legally competent agencies where such decisions flow directly and logically from the laws and regulations. Decisions made by legally competent agencies may not be legal if they do not flow directly and logically from the laws and regulations and if they are not rule-based but use administrative discretion (Source: FSC-STD-01-001 V5-0).

Legally competent / Legally vetted: Mandated in law to perform a certain function (Source: FSC-STD-01-001 V5-0).

Legal registration: National or local *legal** license or set of permissions to operate as an enterprise, with rights to buy and sell products and/or services commercially. The license or permissions can apply to an individual, a privately-owned enterprise or a publicly-owned corporate entity. The rights to buy and sell products and/or services do not carry the obligation to do so, so *legal** registration applies also to Organizations operating a Management Unit without sales of products or services; for example, for unpriced recreation or for conservation of



biodiversity or habitat (Source: FSC-STD-01-001 V5-0).

Legal status: The way in which the Management Unit is classified according to law. In terms of tenure, it means the category of tenure, such as communal land or leasehold or freehold or State land or government land, etc. If the Management Unit is being converted from one category to another (for example, from State land to communal indigenous land) the status includes the current position in the transition process. In terms of administration, legal status could mean that the land is owned by the nation as a whole, is administered on behalf of the nation by a government department, and is leased by a government Ministry to a private sector operator through a concession (Source: FSC-STD-01-001 V5-0).

Living wage: The remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events (Source: A Shared Approach to a Living Wage. ISEAL Living Wage Group. November 2013).

Local communities: Communities of any size that are in or adjacent to the Management Unit, and also those that are close enough to have a significant impact on the economy or the environmental values of the Management Unit or to have their economies, rights or environments significantly affected by the management activities or the biophysical aspects of the Management Unit (Source: FSC-STD-01-001 V5-0).

Local laws: The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees) which is limited in application to a particular geographic district within a national territory, as well as secondary regulations, and tertiary administrative procedures (rules / requirements) that derive their authority directly and explicitly from these primary and secondary laws. Laws derive authority ultimately from the Westphalian concept of sovereignty of the Nation State (Source: FSC-STD-01-001 V5-0).

Logging Code Of Practice (LCOP): Papua New Guinea Logging Code Of Practice, PNG Forest Authority, April 1996 (Revised 2014).

Long-term: The time-scale of the forest owner or manager as manifested by the objectives of the *management plan**, the rate of harvesting, and the commitment to maintain permanent forest cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following harvesting or disturbance, or to produce mature or primary conditions (Source: FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)).

Low intensity operation: a) the rate of harvesting is less than 20% of the mean annual increment (MAI) within the total production forest area of the unit, AND

b) EITHER the annual harvest from the total production forest area is less than 5000 cubic metres,

c) OR the average annual harvest from the total production forest is less than 5000 m3 / year during the period of validity of the certificate as verified by harvest reports and surveillance



audits.

Forest management units from which non-timber forest products (NTFPs) are collected or harvested shall be evaluated as 'low intensity' on the basis of the timber harvest rate.

A forest management unit consisting of natural forest in which only NTFPs are harvested would, therefore, qualify as a 'low intensity' FMU.

Plantations of non-timber forest products (e.g. oil palm plantations, cocoa plantations) shall not be considered low intensity forest management units within the meaning of this standard (Source: FSC-STD-01-003 V1-0).

Management objective: Specific management goals, practices, outcomes, and approaches established to achieve the requirements of this standard.

Management plan: The collection of documents, reports, records and maps that describe, justify and regulate the activities carried out by any manager, staff or organization within or in relation to the Management Unit, including statements of objectives and policies (Source: FSC-STD-01-001 V5-0).

Management plan monitoring: Follow up and oversight procedures for the purpose of evaluating the achievement of the *management objectives**. The results of the monitoring activities are utilized in the implementation of *adaptive management**.

Management Unit: A spatial area or areas submitted for FSC certification with clearly defined boundaries managed to a set of explicit long term management objectives which are expressed in a *management plan*^{*}. This area or areas include(s):

- all facilities and area(s) within or adjacent to this spatial area or areas under *le-gal** title or management control of, or operated by or on behalf of *The Organiza-tion*, for the purpose of contributing to the management objectives; and
- all facilities and area(s) outside, and not adjacent to this spatial area or areas and operated by or on behalf of *The Organization**, solely for the purpose of contributing to the management objectives.

(Source: FSC-STD-01-001 V5-0).

Managerial control: Responsibility of the kind defined for corporate directors of commercial enterprises in national commercial law, and treated by FSC as applicable also to public sector organizations (Source: FSC-STD-01-001 V5-0).

Medium scale operation: Any forest management operation larger than 1,000 ha up to 10,000 hectares (PNG FSC's Standard Development Group).

National laws: The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees), which is applicable to a national territory, as well as secondary regulations, and tertiary administrative procedures (rules / requirements) that derive their authority directly and explicitly from these primary and secondary laws (Source: FSC-STD-01-001 V5-0).

Native species: Species, subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans) (Source: Convention on Biolog-



ical Diversity (CBD). Invasive Alien Species Programme. Glossary of Terms as provided on CBD website).

Natural conditions/native ecosystem: For the purposes of the Principles and Criteria and any applications of restoration techniques, terms such as 'more natural conditions', 'native ecosystem' provide for managing sites to favor or restore native species and associations of native species that are typical of the locality, and for managing these associations and other environmental values so that they form ecosystems typical of the locality. Further guidelines may be provided in FSC Forest Stewardship Standards (Source: FSC-STD-01-001 V5-0).

Natural forest: A forest area with many of the principal characteristics and key elements of native ecosystems, such as complexity, structure and biological diversity, including soil characteristics, flora and fauna, in which all or almost all the trees are native species, not classified as plantations.

'Natural forest' includes the following categories:

- o Forest affected by harvesting or other disturbances, in which trees are being or have been regenerated by a combination of natural and artificial regeneration with species typical of natural forests in that site, and where many of the aboveground and below-ground characteristics of the natural forest are still present. In boreal and north temperate forests which are naturally composed of only one or few tree species, a combination of natural and artificial regeneration to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, is not by itself considered as conversion to plantations;
- Natural forests which are maintained by traditional silvicultural practices including natural or assisted natural regeneration;
- Well-developed secondary or colonizing forest of native species which has regenerated in non-forest areas;
- The definition of 'natural forest' may include areas described as wooded ecosystems, woodland and savannah.

The description of natural forests and their principal characteristics and key elements may be further defined in FSC Forest Stewardship Standards, with appropriate descriptions or examples.

'Natural forest' does not include land which is not dominated by trees, was previously not forest, and which does not yet contain many of the characteristics and elements of native ecosystems. Young regeneration may be considered as natural forest after some years of ecological progression. FSC Forest Stewardship Standards may indicate when such areas may be excised from the Management Unit, should be restored towards more natural conditions, or may be converted to other land uses.

FSC has not developed quantitative thresholds between different categories of forests in terms of area, density, height, etc. FSC Forest Stewardship Standards may provide such



thresholds and other guidelines, with appropriate descriptions or examples. Pending such guidance, areas dominated by trees, mainly of native species, may be considered as natural forest.

Thresholds and guidelines may cover areas such as:

- Other vegetation types and non-forest communities and ecosystems included in the Management Unit, including grassland, bushland, wetlands, and open woodlands;
- Very young pioneer or colonizing regeneration in a primary succession on new open sites or abandoned farmland, which does not yet contain many of the principal characteristics and key elements of native ecosystems. This may be considered as natural forest through ecological progression after the passage of years;
- Young natural regeneration growing in natural forest areas may be considered as natural forest, even after logging, clear-felling or other disturbances, since many of the principal characteristics and key elements of native ecosystems remain, above-ground and below-ground;
- Areas where deforestation and forest degradation have been so severe that they are no longer 'dominated by trees' may be considered as non-forest, when they have very few of the principal above-ground and below-ground characteristics and key elements of natural forests. Such extreme degradation is typically the result of combinations of repeated and excessively heavy logging, grazing, farming, fuelwood collection, hunting, fire, erosion, mining, settlements, infrastructure, etc.
 FSC Forest Stewardship Standards may help to decide when such areas should be excised from the Management Unit, should be restored towards more natural conditions, or may be converted to other land uses.

(Source: FSC-STD-01-001 V5-0).

Natural Hazards: disturbances that can present risks to social and *environmental values*^{*} in the *Management Unit*^{*} but that may also comprise important ecosystem functions; examples include drought, flood, fire, landslide, storm, avalanche, etc.

Non-timber forest products (NTFP): All products other than timber derived from the Management Unit (Source: FSC-STD-01-001 V5-0).

Objective: The basic purpose laid down by *The Organization** for the forest enterprise, including the decision of policy and the choice of means for attaining the purpose (Source: Based on F.C. Osmaston. 1968. The Management of Forests. Hafner, New York; and D.R. Johnston, A.J. Grayson and R.T. Bradley. 1967. Forest Planning. Faber & Faber, London).

Obligatory code of practice: A manual or handbook or other source of technical instruction which The Organization must implement by law (Source: FSC-STD-01-001 V5-0).

Occupational accident: An occurrence arising out of, or in the course of, work which results in fatal or non-fatal injury (Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website).



Occupational disease: Any disease contracted as a result of an exposure to risk factors arising from work activity (Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website).

Occupational injuries: Any personal injury, disease or death resulting from an occupational accident (Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website).

Organism: Any biological entity capable of replication or of transferring genetic material (Source: Council Directive 90/220/EEC).

The Organization: The person or entity holding or applying for certification and therefore responsible for demonstrating compliance with the requirements upon which FSC certification is based (Source: FSC-STD-01-001 V5-0).

Peatland: Is constituted by flooded and soggy areas, with large accumulations of organic material, covered by a layer of poor vegetation associated with a certain degree of acidity, and which presents a characteristic amber color (Source: Aguilar, L. 2001. About Fishermen, Fisherwomen, Oceans and tides. IUCN. San Jose (Costa Rica)).

Pesticide: Any substance or preparation prepared or used in protecting plants or wood or other plant products from pests; in controlling pests; or in rendering such pests harmless. This definition includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, fungicides and herbicides (Source: FSC-POL-30-001 FSC Pesticides Policy (2005).

Plantation: A forest area established by planting or sowing with using either alien or native species, often with one or few species, regular spacing and even ages, and which lacks most of the principal characteristics and key elements of natural forests. The description of plantations may be further defined in FSC Forest Stewardship Standards, with appropriate descriptions or examples, such as:

- Areas which would initially have complied with this definition of 'plantation' but which, after the passage of years, contain many or most of the principal characteristics and key elements of native ecosystems, may be classified as natural forests.
- Plantations managed to restore and enhance biological and habitat diversity, structural complexity and ecosystem functionality may, after the passage of years, be classified as natural forests.
- Boreal and north temperate forests which are naturally composed of only one or few tree species, in which a combination of natural and artificial regeneration is used to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, may be considered as natural forest, and this regeneration is not by itself considered as conversion to plantations.

(Source: FSC-STD-01-001 V5-0)

Precautionary approach: An approach requiring that when the available information indi-



cates that management activities pose a threat of severe or irreversible damage to the environment or a threat to human welfare, *The Organization*^{*} will take explicit and effective measures to prevent the damage and avoid the risks to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain (Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998).

Pre-harvest[condition]: The diversity, composition, and structure of the *forest*^{*} or plantation prior to felling timber and appurtenant activities such as road building.

Principle: An essential rule or element; in FSC's case, of forest stewardship (Source: FSC-STD-01-001 V4-0).

Protection: See definition of Conservation.

Protection Area: See definition of Conservation Zone.

Publicly available: In a manner accessible to or observable by people generally (Source: Collins English Dictionary, 2003 Edition).

Rare species: Species that are uncommon or scarce, but not classified as threatened. These species are located in geographically restricted areas or specific habitats, or are scantily scattered on a large scale. They are approximately equivalent to the IUCN (2001) category of Near Threatened (NT), including species that are close to qualifying for, or are likely to qualify for, a threatened category in the near future. They are also approximately equivalent to imperiled species (Source: Based on IUCN. (2001). IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN. Gland, Switzerland and Cambridge, UK).

Ratified: The process by which an international law, convention or agreement (including multilateral environmental agreement) is legally approved by a national legislature or equivalent *legal*^{*} mechanism, such that the international law, convention or agreement becomes automatically part of national law or sets in motion the development of national law to give the same *legal*^{*} effect (Source: FSC-STD-01-001 V5-0).

Reasonable: Judged to be fair or appropriate to the circumstances or purposes, based on general experience (Source: Shorter Oxford English Dictionary).

Reduced impact harvesting: Harvesting (or logging) using techniques to reduce the impact on the residual stand (Source: Based on Guidelines for the Conservation and Sustainable Use of Biodiversity in Tropical Timber Production Forests, IUCN 2006).

Refugia: An isolated area where extensive changes, typically due to changing climate or by disturbances such as those caused by humans, have not occurred and where plants and animals typical of a region may survive (Source: Glen Canyon Dam, Adaptive Management Program Glossary as provided on website of Glen Canyon Dam website).

Representative Sample Areas: Portions of the *Management Unit** delineated for the purpose of conserving or restoring viable examples of an ecosystem that would naturally occur in that



geographical region.

Resilience: The ability of a system to maintain key functions and processes in the face of stresses or pressures by either resisting or adapting to change. Resilience can be applied to both ecological systems and social systems (Source: IUCN World Commission on Protected Areas (IUCN-WCPA). 2008. Establishing Marine Protected Area Networks – Making it Happen. Washington D.C.: IUCN-WCPA National Oceanic and Atmospheric Administration and The Nature Conservancy.).

Restore / Restoration: These words are used in different senses according to the context and in everyday speech. In some cases 'restore' means to repair the damage done to environmental values that resulted from management activities or other causes. In other cases 'restore' means the formation of more natural conditions in sites which have been heavily degraded or converted to other land uses. In the Principles and Criteria, the word 'restore' is not used to imply the recreation of any particular previous, pre-historic, pre-industrial or other pre-existing ecosystem (Source: FSC-STD-01-001 V5-0).

The Organization^{*} is not necessarily obliged to restore those environmental values that have been affected by factors beyond the control of The Organization, for example by natural disasters, by climate change, or by the legally authorized activities of third parties, such as public infrastructure, mining, hunting or settlement. FSC-POL-20-003 The Excision of Areas from the Scope of Certification describes the processes by which such areas may be excised from the area certified, when appropriate.

The Organization is also not obliged to restore environmental values that may have existed at some time in the historic or pre-historic past, or that have been negatively affected by previous owners or organizations. However, The Organization is expected to take reasonable measures to mitigate, control and prevent environmental degradation which is continuing in the Management Unit as a result of such previous impacts.

Riparian zone: Interface between land and a water body, and the vegetation associated with it.

Risk: The probability of an unacceptable negative impact arising from any activity in the Management Unit combined with its seriousness in terms of consequences (Source: FSC-STD-01-001 V5-0).

Scale: A measure of the extent to which a management activity or event affects an environmental value or a management unit, in time or space. An activity with a small or low spatial scale affects only a small proportion of the forest each year, an activity with a small or low temporal scale occurs only at long intervals (Source: FSC-STD-01-001 V5-0).

Scale, intensity and risk: See individual definitions of the terms 'scale', 'intensity', and 'risk'. **Significant**: For the purposes of Principle 9, HCVs 1, 2 and 6 there are three main forms of recognizing significance.

 A designation, classification or recognized conservation status, assigned by an international agency such as IUCN or Birdlife International;



- A designation by national or regional authorities, or by a responsible national conservation organization, on the basis of its concentration of biodiversity;
- A voluntary recognition by the manager, owner or Organization, on the basis of available information, or of the known or suspected presence of a significant biodiversity concentration, even when not officially designated by other agencies.

Any one of these forms will justify designation as HCVs 1, 2 and 6. Many regions of the world have received recognition for their biodiversity importance, measured in many different ways. Existing maps and classifications of priority areas for biodiversity conservation play an essential role in identifying the potential presence of HCVs 1, 2 and 6 (Source: FSC-STD-01-001 V5-0).

Silviculture: The art and science of controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the targeted diverse needs and values of landowners and society on a sustainable basis (Source: Nieuwenhuis, M. 2000. Terminology of Forest Management. IUFRO World Series Vol. 9. IUFRO 4.04.07 SilvaPlan and SilvaVoc).

Small scale operation: Any forest management operation up to 1000 hectares (PNG FSC's Standard Development Group).

Social Impact Assessment / Socio-economic Impact Assessment (SIA): Systematic process used to identify potential socio-economic impacts of proposed projects, to evaluate alternative approaches, and to design and incorporate appropriate prevention, mitigation, management and monitoring measures (Source: based on Environmental impact assessment, guidelines for FAO field projects. Food and agriculture organization of the United Nations (FAO). Rome)

Stakeholder: See definitions for 'affected stakeholder' and 'interested stakeholder'.

Statutory law or statute law: The body of law contained in Acts of Parliament (national legislature) (Source: Oxford Dictionary of Law).

Tenure: Socially defined agreements held by individuals or groups, recognized by *legal** statutes or customary practice, regarding the 'bundle of rights and duties' of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant species, water, minerals, etc.) (Source: World Conservation Union (IUCN). Glossary definitions provided on IUCN website).

Threat: An indication or warning of impending or likely damage or negative impacts (Source: Based on Oxford English Dictionary).

Threatened species: Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be re-interpreted for FSC purposes according to official national classifications (which have *legal** significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures) (Source: Based on IUCN. (2001). IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN. Gland, Switzerland and Cambridge, UK.).



Timber harvesting level: The actual harvest quantity executed on *the Management Unit**, tracked by either volume (e.g. cubic meters or board feet) or area (e.g. hectares or acres) metrics for the purpose of comparison with calculated (maximum) allowable harvest levels.

Timely manner: As promptly as circumstances reasonably allow; not intentionally postponed by *The Organization**; in compliance with applicable laws, contracts, licenses or invoices.

Traditional Ecological Knowledge: Information, know-how, skills and practices related to the natural environment that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity (Source: based on the definition by the World Intellectual Property Organization (WIPO). Glossary definition as provided under Policy / Traditional Knowledge on the WIPO website)

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Traditional peoples: Traditional peoples are social groups or peoples who do not self-identify as indigenous and who affirm rights to their lands, forests and other resources based on long established custom or traditional occupation and use (Source: Forest Peoples Programme (Marcus Colchester, 7 October 2009)).

Uphold: To acknowledge, respect, sustain and support (Source: FSC-STD-01-001 V5-0).

Use rights: Rights for the use of resources of the Management Unit that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques (Source: FSC-STD-01-001 V5-0).

Verifier: Data or information that enhances the specificity or the ease of assessment of an indicator.

Verifiable targets: Specific goals, such as desired future forest conditions, established to measure progress towards the achievement of each of the *management objectives**. These goals are expressed as clear outcomes, such that their attainment can be verified and it is possible to determine whether they have been accomplished or not.

Very Limited portion: The area affected *shall** not exceed 0.5% of the area of the *Management Unit** in any one year, nor affect a total of more than 5% of the area of the *Management Unit** (Source: based on FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)).

Village mediation: Village mediation is an alternative dispute resolution method to resolve disputes at the community level, consistent with prevailing local custom, between two or more parties with concrete effects. A third party, the mediator, assists the parties to negotiate a settlement agreed to by all parties (PNG FSC's Standard Development Group).

Waste materials: unusable or unwanted substances or by-products, such as:

Hazardous waste, including chemical waste and batteries;



- Containers;
- Motor and other fuels and oils;
- o Rubbish including metals, plastics and paper; and
- Abandoned buildings, machinery and equipment.

Water bodies (including water courses): Seasonal, temporary, and permanent brooks, creeks, streams, rivers, ponds, and lakes. Water bodies include riparian or wetland systems, lakes, swamps, bogs and springs.

Water scarcity: A water supply that limits food production, human health, and economic development. Severe scarcity is taken to be equivalent to 1,000 cubic meters per year per person or greater than 40% use relative to supply (Source: Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-Being: Policy Responses. Findings of the Responses Working Group. Washington DC: Island Press, Pages 599-605).

Water stress: Occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. Water stress causes deterioration of freshwater resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.) (Source: UNEP, 2003, cited in Gold Standard Foundation. 2014. Water Benefits Standard).

Wetlands: Transitional areas between terrestrial and aquatic systems in which the water table is usually at or near the surface or the land is covered by shallow water (Source: Cowarding, L.M., Carter, V., Golet, F.C., Laroe, E.T. 1979. Classification of Wetlands and Deepwater Habitats of the United States. DC US Department: Washington).

Under the Ramsar Convention, wetlands can include tidal mudflats, natural ponds, marshes, potholes, wet meadows, bogs, peatlands, freshwater swamps, mangroves, lakes, rivers and even some coral reefs (Source: IUCN, No Date, IUCN Definitions – English).

Woodlot: Single plantation of trees of up to 10 hectares, owned by an individual person or family (PNG FSC's Standard Development Group).

Workers: All employed persons including public employees as well as 'self-employed' persons. This includes part-time and seasonal employees, of all ranks and categories, including laborers, administrators, supervisors, executives, contractor employees as well as selfemployed contractors and sub-contractors (Source: ILO Convention C155 Occupational Safety and Health Convention, 1981).

Youth: Person(s) between 15 and 35 years old, with the consideration that culturally age of youth is defined by roles, health and involvement in the community (Source: Transparency International PNG Youth Program & National Youth Policy of Papua New Guinea 2007-2017).