

FCP Interim Standard
For Forest Management Certification in Malaysia
Under the Forest Stewardship Council
Version 4-1

A. INTRODUCTION

This document contains the Interim Standard used by Scientific Certification Systems for conducting forest certification evaluations in Malaysia. The scope of this standard includes both natural and plantation forests. Once there is an officially FSC accredited standard for use in Malaysia, all further evaluations will be done against said standard. This standard complies with all applicable FSC International policies, standards, and advice notes.

SCS modified its Generic Interim Standard in the creation of this interim standard for Malaysia. SCS also consulted the Malaysia Criteria and Indicators and considered stakeholder comments. Prior to initiating any full certification assessment in Malaysia, this standard will be distributed to stakeholders for comment.

B. STANDARD USE

Conformance with this standard shall be determined by evaluating observed performance at the Forest Management Unit (FMU) level against each indicator of the standard, and in comparison with any performance threshold(s) specified for the indicator. The indicators here apply to all forests covered by the scope of the standard, including SLIMFs, unless otherwise specified.

In the process of adapting this standard for the assessment of a particular forest operation, it may be restructured in order to improve its implementation on the ground or to ease stakeholder interpretation of the standard, but only if pre-approved by the SCS Director of Forest Management Certification. Restructuring or adapting this standard shall not affect the requirements for conformance and certification decision making. If a complaint or appeal is filed, the complete standard shall be considered definitive.

PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

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

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

Performance Indicators:

1.1.1) An up-to-date register (reference list) of all pertinent statutes and bodies of regulations is maintained and is available to forest managers; summaries of key regulations are kept in field offices.

1.1.2) Forest managers demonstrate a working knowledge of the regulatory framework in which they operate.

Means of Verification: e.g., oral discussions with key forest management personnel, consultation with relevant regulatory personnel.

1.1.3) The frequency and nature of regulatory violations are not indicative of widespread and systemic non-compliance with applicable laws and regulations; when violations occur, forest managers act promptly to correct and remediate the circumstances associated with the violation

Means of Verification: e.g., regulatory agency inspection records, interviews with regulatory agency personnel.

1.1.4) The relationship between the forest managers and personnel from pertinent regulatory agencies can be characterized as productive and collaborative.

Means of Verification: e.g., oral discussions with key forest management personnel, consultation with relevant regulatory personnel.

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

Performance Indicators:

1.2.1) Forest managers demonstrate a working knowledge of all applicable fees, royalties, taxes and other charges that apply to their operations.

1.2.2) There is no evidence of chronic non-payment; rather, payments are regularly made in a timely manner.

1.2.3) Up-to-date records are kept of all payments and such records are available to the SCS auditor(s).

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

Performance Indicators:

- 1.3.1) Forest managers are aware of which binding international agreements apply to the nation in which their forest operations reside.
- 1.3.2) Forest managers demonstrate sensitivity to all binding international agreements and endeavor to respect their requirements.

Verifier:

- *FME has a compendium of applicable international agreements that summarizes how the FME respects these.*

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

Performance Indicators:

- 1.4.1) Forest managers are forthright and timely in informing the SCS auditor(s) of any possible conflicts between laws, regulations and the FSC Principles and Criteria.
- 1.4.2) Forest managers are willing to participate in balanced processes for resolving conflicts, at the request of SCS and/or the FSC.
- 1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.

Performance Indicators:

- 1.5.1) The management plan contains express policies stating that the defined forest area (forest management unit for which FSC certification is sought) shall be protected from illegal harvesting, settlement and other unauthorized activities.
- 1.5.2) Forest managers devote resources (manpower and money) to conduct surveillances of the defined forest area at a level such that unauthorized activities are promptly found and controlled.

Means of Verification: e.g., company manpower and capital expenditure records, company surveillance protocols, records or other evidence of nature and frequency of unauthorized activities.

- 1.5.3) Forest managers forge positive and collaborative working relationships with pertinent officials from local, state, and federal enforcement agencies to protect the forest management areas.
- 1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.

Performance Indicators:

- 1.6.1) In the management plan, or another appropriate document of broad public availability, there is an express statement of commitment to the FSC Principles and Criteria. When the FME uses contractors, it shall require its contractors to comply with the FSC P&C.

Verifiers:

- *Contracts contain clear and appropriate language that requires contractors to comply with the FSC P&C in the management plan, and the public summary thereof, or another appropriate document of broad public availability (e.g., operation's website), there is an express statement of commitment to the FSC Principles & Criteria.*

- 1.6.2) Written copies of the FSC Principles & Criteria are available to all management and field personnel; forest managers demonstrate a general conversancy with the P&C
- 1.6.3) The scale of investment in forest management and administration is consistent with a long-term commitment to forest stewardship.

Means of Verification: e.g., company financial records, interviews with field-level personnel, observed forest conditions including roads and other infrastructure.

- 1.6.4) If the defined forest area for which certification is being sought does not constitute the entire ownership, management activities on the portions of the ownership not undergoing certification evaluation are generally compatible with the P&C and conform to the current SCS requirements on partial estate certification requirements and FSC-POL-01-004 V1-0 Policy for Association with FSC.

PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

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

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

Performance Indicators:

- 2.1.1) There is bona fide, written documentation of legal use rights to the defined forest area undergoing certification evaluation. Legal use rights may be associated with: fee-simple ownership, long-term or renewable lease rights, long-term or renewable exclusive management agreements, or other mechanisms allocating long-term or renewable management rights and responsibilities to the parties contracting with SCS (or to the intended holders of a certificate, if the cost of the evaluation is being paid by a third-party).
- 2.1.2) Forest managers/owners support legally-recognized mechanisms for resolving land claims being made by external individuals or entities, including but limited to indigenous peoples.

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

Performance Indicators:

- 2.2.1) Local communities, and/or other stakeholders with duly recognized legal or customary tenure or use rights within the defined forest area have been identified and the nature of these rights are described and documented, and honored by forest managers.

Examples of legal or customary tenure or use-rights may include:

- public rights of way;*
- established easements;*
- collection of non-timber forest products;*
- hiking, fishing, hunting, or other recreation;*
- firewood collection;*
- visitation of culturally significant sites .*

Means of Verification: e.g., interviews with pertinent management personnel, review of company registry of known tenure or use rights, consultation with neighbors are other external individuals or entities.

- 2.2.2) Forest managers maintain positive/collaborative working relationships with holders of duly recognized legal or customary tenure or use rights.

Means of Verification: e.g., interviews with pertinent management personnel, consultation with neighbors or other external individuals and entities.

- 2.2.3) When communities have delegated control of their legal rights or customary tenure or use in whole or in part, this must be confirmed by documented agreements and / or interviews with representatives of local communities.

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

Performance Indicators:

- 2.3.1) Records are kept of past disputes over tenure claims and use rights, to a level of detail sufficient to enable the SCS auditor(s) to ascertain the nature and magnitude of the disputes.
- 2.3.2) Forest managers can demonstrate, through documentation and other evidence, that established mechanisms have been employed to resolve disputes over tenure claims and use rights.

Verifiers:

- *Records or other relevant documents that detail past and current disputes over tenure claims and use rights are maintained and made available to SCS auditors.*
- *Agreements and / or mechanisms to resolve disputes over tenure claims and use rights are documented.*

2.3.3) The magnitude and severity of unresolved tenure claims and use rights disputes are limited to less than 5% of the land base

PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS

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

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

Performance Indicators:

3.1.1) Without exception forest managers affirmatively seek to determine if there are existing indigenous peoples issues (e.g., land claims) associated with the defined forest area that is the focus of the certification evaluation.

Means of Verification: e.g., consultation with indigenous peoples and/or organizations representing indigenous peoples, interviews with pertinent management personnel.

3.1.2) If the defined forest area is comprised of or includes lands or territories duly owned or controlled by indigenous peoples, management of said lands is either: i) under the control of the indigenous peoples or ii) undertaken by other parties to whom free and informed consent to manage has been granted, and documented, by authorized indigenous representatives.

- **Note 1** For consent to be informed requires that the peoples concerned were fully and accurately informed of the implications of any agreements and were consulted through appropriate procedures and through their representative institutions (Ref, ILO Convention 169, Article 6(1)).
- **Note 2** For consent to be free requires that it was given by the Indigenous Peoples through their representative institutions and was freely expressed without coercion or duress. (Ref: ILO Convention 169 Article 7(1)).

3.1.3) Where rights and use issues involving indigenous peoples are in dispute, an established process for addressing and resolving grievances is in place and being actively utilized by the forest managers/owners.

Means of Verification: e.g., interviews with pertinent management personnel, consultation with indigenous peoples and/or organizations representing indigenous peoples.

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

Performance Indicators:

- 3.2.1) Forest managers demonstrate, through policies and actions, awareness of and sensitivity to the resources and tenure rights of indigenous peoples.
- 3.2.2) When indigenous tenure rights are potentially impacted, indigenous peoples are afforded opportunities to participate in management planning, research, and monitoring on forest areas associated with indigenous resources and tenure rights.
- 3.2.3) Forest managers solicit—through effective consultative mechanisms—the concerns and perspectives of potentially affected indigenous peoples; the results of such consultation are documented, including the actions taken to accommodate concerns and viewpoints that have been received.

Verifier:

- *Communications between the FME and indigenous representatives are documented.*

- 3.3. Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.

Performance Indicators:

- 3.3.1) Management activities with potential impacts to sites of special cultural, ecological, economic or religious significance to indigenous peoples are guided by the “precautionary principle”

Examples of such sites may include:

- ceremonial, burial, or village sites;*
- areas used for hunting, fishing, or trapping;*
- areas used for gathering of sustenance and culturally important materials.*

- 3.3.2) Forest managers engage in affirmative procedures for identifying and protecting sites of special cultural or religious significance; the processes for identifying and protecting such sites are documented; the management plan contains express written policies for the identification and protection of such sites.
- 3.3.3) Field workers are adequately trained in the procedures employed for protecting sites of special significance to indigenous peoples.
- 3.3.4) Confidential maps recording the locations of sites of special significance are maintained up-to-date and are used by forest managers and field workers.
- 3.3.5) When sites of significance to indigenous peoples are potentially impacted by management activities, indigenous peoples are afforded opportunities to participate in the identification and protection of sites of special cultural, ecological, economic or religious significance within the defined forest area.

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

Performance Indicators:

- 3.4.1) Forest managers seek to identify and document circumstances in which management activities on the defined forest area are reliant upon or are based upon the application of traditional knowledge traceable to particular indigenous peoples.
- 3.4.2) If commercial utility is created through direct application of traditional knowledge, forest managers seek to compensate, through fair mechanisms, those indigenous peoples with whom the traditional knowledge is associated.

PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS

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

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

Performance Indicators:

- 4.1.1) The management plan, or other pertinent policy document, contains express provisions demonstrating a commitment to hiring and contracting locally, to the extent feasible in light of local capacity and needed workforce skills.
- 4.1.2) Qualified people in local communities are given equal opportunities relative to non-local candidates in employment and contracting; forest managers actively target the local workforce.

Examples may include:

-employment and contractual opportunities offered locally before they are offered outside the region.

- 4.1.3) Forest managers contribute to or directly develop training programs designed to enhance the capabilities and qualifications of local workers.
- 4.1.4) There is active dialogue between forest managers and representatives of local communities, aimed at identifying employment, contracting and training opportunities.

Means of Verification: e.g., interviews with forest management personnel, consultation with members of the surrounding communities, review of employee data and training records.

- 4.1.5) Forest managers give preference to local vendors of equipment and miscellaneous services, subject to cost considerations.

Examples may include:

- timber being offered to local processors before being sold out of the region;
- utilization of local banks, insurance companies, equipment suppliers, etc.

Means of Verification: e.g., interviews with forest management personnel, consultation with local businesses, review of purchasing receipts.

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

Performance Indicators:

- 4.2.1) The forest management operation demonstrates a commitment to worker safety; there is an active safety program.
- 4.2.2) Written guidelines and policies, scaled according to size of the operation, exist for workplace health and safety.
- 4.2.3) Safety equipment is made available to all workers, in accordance to the nature of worker activity and regulatory requirements.
- 4.2.4) Field equipment is periodically inspected and tested for safety performance.
- 4.2.5) Up-to-date information on pertinent health and safety laws and regulations is maintained by forest managers and disseminated to forest workers signs, handbooks, meetings, and/or other methods.
- 4.2.6) Forest managers maintain up-to-date safety records; worker safety statistics deemed from the records (e.g., types of injuries, rates and trends of accidents) compare favorably to industrial or other similar norms in the region.

Means of Verification: e.g., review of safety records, consultation with health and safety regulatory personnel, interviews with employees.

- 4.2.7) No work likely to jeopardize health, safety or morals shall be carried out by anyone under the age of 18 (unless there is special provision for safety, training or traditional community circumstances).
- 4.3. The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organization (ILO).

Performance Indicators:

- 4.3.1) Forest managers, by their actions and policies, respect the rights of workers to organize or join trade unions and to engage in collective bargaining.
- 4.3.2) Issues and grievances raised by workers and/or their organizations are investigated promptly and in a manner that demonstrates fairness and objectivity.

Means of Verification: e.g., review of grievance records and outcomes, interviews with individuals that have filed grievances.

- 4.3.3) There are documented procedures for conflict resolution.
- 4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.

Performance Indicators:

- 4.4.1) The management plan for the defined forest area contains a section presenting the results of periodic social impact assessments.
- 4.4.2) Management activities and policies are modified, as necessary, in response to the results of social impact assessment.
- 4.4.3) Forest managers engage in regular communications with neighbors and other stakeholders within the local communities; to the extent practicable, management policies and activities are sensitive to stakeholder concerns and expectations.

Means of Verification: e.g., interviews with forest management personnel, consultations with neighbors and other local stakeholders.

- 4.4.4) The forest management operation can be fairly characterized as a “good neighbor” within the regional context.
- 4.4.5) Forest managers endeavor to keep neighbors and members of the community informed as to planned activities on the defined forest area; e.g., neighbors are notified of upcoming timber sales.
- 4.5. Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.

Performance Indicators:

- 4.5.1) Where they exist and can be established according to bona fide procedures, preferably within legal frameworks, forest managers recognize and respect legal or customary rights that are subject to influence from management activities on the defined forest area.
- 4.5.2) Forest managers endeavor, through actions and policies, to avoid adverse impacts to the property, resources and/or livelihoods of local peoples.
- 4.5.3) Established procedures, either formal or informal, are employed for resolving grievances and providing fair compensation where forest operations lead to loss or damage to property, resources, livelihoods and/or legal or customary use rights of local peoples.

PRINCIPLE #5: BENEFITS FROM THE FOREST

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

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

Performance Indicators:

- 5.1.1) The forest management operation is supported by financial capital and human resources necessary to implement the management plan, over the long run.
- 5.1.2) The full costs of forest management, including environmental and social costs, are considered and adequately covered by the financial resources of the forest operation.
- 5.1.3) Investments of capital, machinery and human resources are made at a level so as to maintain or restore the productive capacity, ecological integrity and socio-economic profile of the defined forest area.
- 5.1.4) Commercial (income generating) activities are financially viable, given short and medium-term market conditions and costs.

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

Performance Indicators:

- 5.2.1) Management and marketing policies, as well as field-level decisions, systematically assure that commercial forest products are being sold for their highest and best uses.

Examples may include:

- new products are explored and developed for common but less used species*
- access to new markets is explored and developed.*

- 5.2.2) Forest managers, through their management policies and decisions, strive to diversify the mix of commercial products recovered from the forest and marketed.
 - 5.2.3) The forest operation has a demonstrated track record of favoring or encouraging local processing of wood products, subject to competitive pricing and logistical considerations.
- 5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

Performance Indicators:

- 5.3.1) Harvesting operations actively reduce and avoid waste and residual stand damage.

Examples may include:

-bumper trees and directional felling techniques are used to minimize unintentional tree damage.

- 5.3.2) Yarding and log sorting operations actively reduce and avoid product wastage, de-grade and foregone revenue opportunities.
- 5.3.3) Log landings are limited to a number and size, and are located across the defined forest area such that adverse environmental impacts are limited or avoided.
- 5.3.4) Post-harvest audits within harvest units, log landings, log sort yards are systematically conducted; such audits include an assessment of resource damage and wastage; corrective actions are undertaken based upon the results of the post-harvest audits.
- 5.3.5) Where on-site processing takes place, the foot print of the milling facility is no larger than necessary to carry out efficient operations; the decision as to the location of processing facilities includes a consideration of environmental impacts and loss of productive forest land.

Verifier: Records of an impact assessment with completed mitigation measures (where applicable) for placement of charcoal kilns or milling operations.

- 5.3.6) While actively reducing and avoiding resource waste, forest managers establish field guidelines that recognize the ecological value of biomass (e.g., tops and branches) being left on site; forest managers have written guidelines for retention of downed woody debris and standing snags within harvest areas

Verifier

- *Written field guidelines for the biomass retention (snags, tops, and downed woody debris).*

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

Performance Indicators:

- 5.4.1) Forest managers can demonstrate their efforts to diversify the mix of commercial products recovered from the forest and marketed.

Means of Verification: e.g., annual harvest records, accounts receivable, interviews with marketing and field personnel.

- 5.4.2) Where such used does not compromise the ecological health of the forest, multiple forest products are harvested and marketed, to the extent that forest resources and the size of the forest operation enable multiple products to be utilized.
- 5.4.3) Forest managers of large operations provide financial incentives for the establishment and/or expansion of local forest products manufacturing businesses; forest managers can demonstrate efforts taken to encourage local value-added processing.

- 5.4.4) Where market opportunities exist and where such use does not compromise the ecological health of the forest, the marketing of non-timber forest products is pursued by forest managers.

Examples may include:

-compatible uses such as recreation, ecotourism, hunting, fishing, specialty product harvesting, Christmas tree cutting, etc.

- 5.4.5) Forest managers are cognizant of local/regional economic development plans and strategies; forest managers take what actions they can to support these plans and strategies.

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

Performance Indicators:

- 5.5.1) The management plan addresses the full range of forest services associated with the defined forest area including: municipal watersheds, commercial and recreational fisheries (or the supply of water to downstream fisheries), visual quality, contributions to regional biodiversity, recreation and tourism.
- 5.5.2) Timber management activities are designed and implemented, spatially and temporally, with due consideration to the impacts on watershed quality, wildlife habitat, aesthetics, and other forest services.
- 5.5.3) Forest managers demonstrate an awareness of and sensitivity to non-timber forest services, many of which may not generate income.
- 5.5.4) Forest managers engage in regular dialogue with stakeholders and advocates of forest services that are subject to possible impacts from forest operations.
- 5.6) The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

Performance Indicators:

- 5.6.1) For operations involving regular periodic (e.g., annual) harvesting, timber harvesting is guided by a timber management plan that includes a calculated periodic allowable harvest.
- 5.6.2) The timber management plan, including total harvest level, the temporal and spatial pattern of harvests, and the planned prescriptions are being implemented in the field.
- 5.6.3) Forest managers keep accurate records of the harvest volume, by species groups; average annual harvests, calculated as rolling 10-year averages, do not exceed the calculated allowable harvest.
- 5.6.4) Given the scale of the operation and the frequency of commercial activity, estimates of total periodic timber growth on the defined forest area—by species categories—are generated through a combination of empirical data and published literature; growth estimates are conservative.

- 5.6.5) Harvest levels shall be set such that inventories of desired species increase over time, unless it is established (in the management plan) that current inventories (measured in average standing volume per hectare) exceed desired condition.
- 5.6.6) For operations entailing regular annual harvesting, the 10-year rolling average harvest level does not exceed average annual increment.
- 5.6.7) For forest operations that do not entail annual harvesting, the frequency and intensity of harvest entries is set such that inventory levels are allowed to recover—or increase, if resource stocks are depleted—between entries.

PRINCIPLE #6: ENVIRONMENTAL IMPACT

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

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

Performance Indicators:

- 6.1.1) Standard operating procedures for the defined forest area include the completion of project (site)-level environmental impacts assessments, scaled to the size and complexity of operations, prior to commencement of site disturbing activities.
 - 6.1.2) The Environmental Impact Assessment should include suggestions for protection zones (based on biodiversity and landscape-level information) as well as a survey of flora and fauna of the area.
 - 6.1.3) In addition to project-level assessments, forest managers also complete landscape-level environmental impact assessments where, for instance, the cumulative effects of forest operations within and nearby the defined forest area are addressed.
 - 6.1.4) To provide background for environmental impact assessments, the regional, sub-regional, and landscape environmental context of the defined forest area is established and documented (preferably in the management plan), consistent with the scale and intensity of operations.
 - 6.1.5) Planned management activities are modified, based upon the results of the environmental impact assessments, to avoid or limit any potential impacts; that is, day-to-day activities are in-fact influenced by environmental assessments.
 - 6.1.6) Information and data necessary to complete competent impact assessments are being systematically gathered by forest managers.
- 6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established,

appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.

Performance Indicators:

- 6.2.1) Management policies are established and duly documented, before harvesting is conducted, that commit the forest operation to protect rare, threatened and endangered species and their habitats.
- 6.2.2) Endangered species policies comply with all pertinent local, state and federal laws and regulations, as well as international treaties, regarding endangered species.
- 6.2.3) Forest operations demonstrably adhere to the endangered species policies established by the forest managers.
- 6.2.4) Forest managers forge positive and collaborative working relationships with pertinent officials from local, state and federal agencies charged with enforcing endangered species statutes.

Means of Verification: e.g., interviews with regulatory personnel, regulatory compliance records.

- 6.2.5) "Listed" species, their habitats, and sites with unusually high species and/or ecosystem diversity are identified through field surveys or other sources and protected or managed at a level sufficient to ensure that viable populations are maintained or restored; the level of effort should be scaled to the size and complexity of the forest operation.
- 6.2.6) Field employees are trained in the recognition of endangered species and their habitats, for example through short seminar, pamphlets or brochures on endangered species of animals.
- 6.2.7) Areas of critical habitat for listed species are duly delineated, protected or managed to conserve habitat, and recorded on maps.
- 6.2.8) Conservation zones and protection areas if established should be duly delineated, appropriately managed, and recorded on maps of appropriate scale.

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

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

Performance Indicators:

Indicators 6.3.1 through 6.1.3 are applicable to all three sub-criteria (i.e., 6.3.a, 6.3.b, and 6.3.c); the additional indicators elaborate on the specific sub-criterion under which they are listed.

- 6.3.1) Known ecological functions and values are described in the management plan and updated periodically as additional information/knowledge is acquired; forest managers take affirmative

steps to eliminate gaps in information and knowledge about ecological functions within the defined forest area.

6.3.2) Harvesting is designed and laid out, over time and space, with consideration of the types, sizes and frequency of natural disturbances as well as connectivity of wildlife habitats.

6.3.3) Forest managers, through their actions, policies and prescriptions, demonstrate a working knowledge of ecological functions pertinent to the forest types in which they are working.

a) Forest regeneration and succession.

6.3.4) Regeneration after final harvests is timely and successful; young stands, either planted or naturally established, are well-stocked with desired species, vigorous and on the trajectory to healthy merchantable stands.

6.3.5) Subject to the scale operations, the forest operation is managed so as to maintain a full range of successional stages at distributions within the range of natural variability.

6.3.6) Harvesting prescriptions maintain, enhance or restore natural forest composition; management is aimed at maintaining all naturally occurring species.

6.3.7) Managers work with rather than fight natural regeneration; natural regeneration, even in planted stands, is managed so as to enhance species and structural diversity.

b) Genetic, species, and ecosystem diversity.

6.3.8) Tree selection during harvesting, retention, and planting maintains or enhances the productive capacity, genetic diversity and quality, and species diversity of the residual stand.

6.3.9) Within the harvest unit forest managers protect habitat components (e.g., understory species diversity, snags, den and nest trees, horizontal and/or structural diversity) necessary to support native species.

6.3.10) The management plan incorporates principles of landscape and ecosystem-based planning; the plan contains goals pertaining to biological diversity for the range of spatial scales from genetic diversity to landscape diversity.

6.3.11) Special habitats (such as wetlands, riparian areas, unstable slopes and rock outcrops) are protected from impacts of harvesting and other site-disturbing activities.

c) Natural cycles that affect the productivity of the forest ecosystem.

6.3.12) Site disturbing activities (e.g., harvesting, road building, site preparation, planting) limit adverse impacts to soil fertility, structure, organic layers and nutrients.

6.3.13) Post-harvest management activities maintain soil fertility, structure, and functions.

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

Performance Indicators:

- 6.4.1) Reflecting the scale and intensity of operations, a network of protected areas is established within the defined forest area; in establishing the network, forest managers balance ecological and economic considerations.
 - 6.4.2) Forest managers compile information regarding the extent to which representative samples of existing ecosystems are protected within the regional landscape; where gaps exist within the landscape, forest managers take actions that contribute to correcting those deficiencies, that reflects the scale and intensity of operations.
 - 6.4.3) Areas of ecological significance within the defined forest area (e.g., due to uniqueness or rarity) are managed (which might exclude all disturbance activities) such that the ecological values are protected.
 - 6.4.4) Protected areas within the defined forest area are delineated on maps and addressed in the management plan, including written management and protection policies.
 - 6.4.5) In designating representative areas forest managers ensure connectivity of habitats, e.g., riparian corridors, where possible.
- 6.5. Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.

Performance Indicators:

- 6.5.1) The management plan, or another pertinent policy document, contains express written guidelines to effectively avoid or limit soil erosion as a result of site disturbing activities.
- 6.5.2) The management plan, or another pertinent policy document, contains express written guidelines to effectively avoid or limit damage to forest vegetation as a result of site disturbing activities.
- 6.5.3) The management plan, or another pertinent policy document, contains express written guidelines for protecting water resources (e.g., stream courses and adjoining riparian areas, wetlands, seeps and springs) found within the defined forest area; protection measures exceed applicable regulatory requirements and/or best management practices; field conditions demonstrate that protection measures are achieving intended objectives.
- 6.5.4) Forest managers and forest workers demonstrate a working knowledge of resource protection guidelines and, in fact, systematically comply with them in day-to-day operations.
- 6.5.5) Watershed, riparian, and aquatic features are identified, classified, and mapped.

- 6.5.6) Road construction, maintenance and closure standards are followed in the field; road surfaces are well drained, culverts are large enough to accommodate peak flow, and water bars are properly installed so that they operate as designed.
- 6.5.7) All written policies and guidelines are strictly practiced and implemented on the ground.
- 6.5.8) Watercourses are protected on site using buffer zones that meet or exceed regulatory requirement.
- 6.6. Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.

Performance Indicators:

- 6.6.1) Chemical pesticide use occurs within the context of an integrated pest management program, which reflects scale and intensity of operations.

Verifiers

- *Silvicultural prescriptions are selected and designed to minimize the dependence on chemical pesticides.*
- *The FMU can demonstrate evidence of reduction or elimination of the use of chemical pesticides over time.*

- 6.6.2) A complete and up-to-date list of all chemical pesticides used on the defined forest area shall be maintained (including trade name, active ingredient, quantity of active ingredient used, date of use, location of use, reason for use) and made available to the SCS auditor(s); no chemicals prohibited under criterion 6.6 are used unless a formal derogation has been granted by the FSC.
- 6.6.3) Pesticide use is guided by site-specific written prescriptions designed to avoid human and environmental hazard and to maximize efficacy of use.
- 6.6.4) Field personnel applying pesticides are licensed (where applicable) and trained; proper equipment and gear to assure safe application is made available and used by field personnel.
- 6.6.5) Reflecting the scale and type of operations, there is on-site supervision by a professional forester or other employee charged with oversight responsibility during pesticide applications.
- 6.6.6) Silvicultural prescriptions are selected and designed so as to avoid or limit reliance upon chemical pesticides.

Means of Verification: e.g., temporal trends in chemical pesticide use, correlated to silvicultural prescriptions.

- 6.6.7) Forest managers demonstrate a commitment to reducing, and eliminating in due course, planned reliance upon chemical pesticides.

Means of Verification: e.g., written policy statements and other public statements by senior managers.

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

Performance Indicators:

- 6.7.1) Toxic chemicals and their containers, whether from forest operations or processing facilities, are disposed of, off site, in conformance with applicable legal requirement and in a manner that avoids adverse environmental impacts.
- 6.7.2) Managers have developed contingency plans and procedures for prevention and cleanup following spills or other accidents involving chemical pesticides, oils and fuels.

Means of Verification: e.g., review of planning operations documents, interviews with management and field personnel.

- 6.7.3) There are on-site facilities for secure collection of chemical and solid non-organic waste.
- 6.7.4) Proper solid waste disposal systems are utilized- especially near logging camps.
- 6.8. Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

Performance Indicators:

- 6.8.1) There shall be no use (defined as commercial use as well as research) of genetically modified organisms within the defined forest area **Note: Non-conformance to this Indicator constitutes a Major Failure and precludes award of certification until appropriately corrected.**
- 6.8.2) Use of biological control agents takes place within the context of an integrated pest management program.
- 6.8.3) Use of biological control agents takes place only where managers have expressly determined that other methods will not be efficacious and only under established protocols in compliance with applicable laws and regulations.

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

Performance Indicators:

- 6.9.1) Exotic species (tree species as well as other flora and fauna) are introduced into the defined forest area only after active investigation of the potential environmental hazards and mitigation of any risks.
- 6.9.2) When exotic species are used, such use is governed by written guidelines for controlling off-site regeneration; active ongoing monitoring is mandatory.

Means of Verification: e.g., examination of planning and policy documents, interviews with management and field personnel.

6.9.3) Invasive exotic species are not used.

- 6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:
- a) entails a very limited portion of the forest management unit; and
 - b) does not occur on high conservation value forest areas; and
 - c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.

Performance Indicators:

For sub-criterion (a) (Entails a very limited portion of the forest management unit):

6.10.1) No more than 5% of areas occupied by natural forests within the defined forest area has (since 1994) or will be converted to plantations (as defined by the FSC); note that planted stands are not necessarily plantations, in the FSC meaning of the term.

For sub-criterion (b) (Does not occur on high conservation value forest areas):

6.10.2) Areas of high conservation value are not being converted to plantations.

For sub-criterion (c) (Will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit).

6.10.3) Forest managers are able to demonstrate the conservation benefits of converting portions of the defined forest area to plantations.

PRINCIPLE #7: MANAGEMENT PLAN

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

7.1. The management plan and supporting documents shall provide:

- a) Management objectives;
- b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands;
- c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories;
- d) Rationale for rate of annual harvest and species selection;
- e) Provisions for monitoring of forest growth and dynamics;
- f) Environmental safeguards based on environmental assessments;
- g) Plans for the identification and protection of rare, threatened and endangered species;

- h) Maps describing the forest resource base including protected areas, planned management activities and land ownership;
- i) Description and justification of harvesting techniques and equipment to be used.

Performance Indicators:

- 7.1.1) There is a written management plan for the defined forest area that addresses the subjects and plan components enumerated sub-criteria (a) through (i), above. The level of detail in the management plan reflects the scale, intensity, and complexity of the operation.
- 7.1.2) The management plan contains both long term goals and objectives as well as short and near term tactical direction.
- 7.1.3) Forest managers and forest workers, through their actions and policies, demonstrate a commitment and ability to implement the management plan; funding levels enable full plan implementation.

Means of Verification: e.g., interviews with forest management personnel; review of personnel training records; review of investments in timber stand improvement, staffing, training, etc.

- 7.1.4) The format, detail, length and function of the management plan reflect the scale and intensity of operations.
- 7.1.5) The management plan is revised and updated at regular intervals, the frequency of which reflects the scale and intensity of operations; for large-scale operations, the management plan is revised at least once every 10 years.
- 7.1.6) The human and financial resources invested in plan development result in a functional and competent management plan.
- 7.2. The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

Performance Indicators:

- 7.2.1) The management plan is revised and updated at regular intervals, the frequency of which is reflects the scale and intensity of operations.
- 7.2.2) As described in more detail in Principle 8, forest managers design and implement systematic monitoring of forest conditions and management plan implementation, the results of which are considered during periodic plan revisions.
- 7.2.3) Forest managers maintain conversancy in emerging scientific and technical information pertinent to the management of the defined forest area.

Means of Verification: e.g., interviews with forest management personnel, review of personnel training records.

- 7.2.4) Human and financial resources are invested in periodic monitoring at levels so as to maintain up-to-date knowledge of emerging conditions and circumstances.
- 7.2.5) Over time intervals of 10 years and longer, the management plan is kept current and relevant; as such, the plan is able to provide ongoing guidance to the management of the defined forest area.
- 7.3. Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

Performance Indicators:

- 7.3.1) There is a documented protocol by which forest workers are duly trained as to their role in implementing the management plan; the level of detail reflects the scale and intensity of the operation.
- 7.3.2) Standard operating procedures for indoctrination of new forest workers include training regarding the management plan and their role therein.
- 7.3.3) Records are maintained as to when each forest worker receives training on the implementation of the management plan.
- 7.3.4) Actions taken in the field (e.g., harvesting, road building, monitoring) demonstrate compliance with and implementation of the management plan.
- 7.3.5) Both employees and contractors receive sufficient levels of training with respect to the management plan.

Means of Verification: e.g., discussions with forest management personnel review of training records, field review of operations to ensure implementation of management plan.

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

Performance Indicators:

- 7.4.1) Interested stakeholders are readily able to obtain a public summary of the management plan.

Means of Verification: e.g., interviews with pertinent stakeholders.

- 7.4.2) The public summary reflects the scale and intensity of operations.
- 7.4.3) The public summary provides information on the primary elements of the plan, including those enumerated in Criterion 7.1.

Means of Verification: e.g., review of public summary of management plan.

- 7.4.4) The public summary is updated periodically, at a frequency that reflects the scale and intensity of operations.

PRINCIPLE #8: MONITORING AND ASSESSMENT

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

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

Performance Indicators:

- 8.1.1) Reflecting the scale and intensity of operations, there are written protocols for periodic monitoring of forest conditions, management activities, plan compliance and chain-of-custody.

- 8.1.2) Forest managers have a demonstrated track record of complying with the monitoring protocols.

Means of Verification: e.g., interviews with forest management personnel, review of monitoring sites and data.

- 8.1.3) Results of monitoring are used adaptively to modify management activities, goals and objectives, the management plan, and chain-of-custody procedures.

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

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

Performance Indicators:

- 8.2.1) Forest managers periodically gather information on the indicators enumerated in this criterion, above; the level of detail gathered reflects the scale and intensity of operations.

- 8.2.2) Information that is gathered through monitoring activities is utilized to adjust/revise management practices and the management plan.

Means of Verification: e.g., interviews with forest managers, review of monitoring analysis reports and management plan.

- 8.2.3) Written records are kept of the annual or periodic harvest levels, at levels of specificity that reflect the scale and intensity of operations.

Means of Verification: e.g., review of monitoring data and/or records.

- 8.2.4) Forest managers acquire and utilize information on key indicators pertaining to the production, environmental and socio-economic profiles of their operation.
- 8.3. Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."

Performance Indicators:

- 8.3.1) The FME shall have written procedures for the tracking of certified products, also known as "Chain-of-Custody" (COC). At a minimum, these procedures shall include:
- The measures to control and track data related to volume and origin of harvested forest products (e.g., weights, inventories, and other measurements) in the forest, during transport, in logging decks and landings and processing centres controlled by the FME;
 - A description of the FSC product group (e.g., FSC-Pure rubber sheets) and the FME's certificate code (e.g., SCS-FM/COC-XXXXXX) on invoices and other documentation related to the sale of certified products; and
 - A description of the measures used to segregate certified forest products from non-certified ones through marking, labels, separate storage, and invoices or other documentation that accompanies the product until the point of sale, or the "forest gate."
- 8.3.2) The FME shall implement consistently the COC procedures defined in indicator 8.3.1.
- 8.3.3) If the FME wants to use the logo and/or other trademarks of FSC or SCS on its products or in publications, including websites, it shall ask for documented approval from SCS prior to use.
- 8.4. The results of monitoring shall be incorporated into the implementation and revision of the management plan.

Performance Indicators:

- 8.4.1) Forest managers and planners demonstrate a commitment to adaptive management where information gathered during systematic monitoring is incorporated into revisions to the management plan as well as revisions to standard operating procedures.

Means of Verification: e.g., interviews with forest management personnel, review of management plan revisions and supporting data.

- 8.4.2) The evolution of the management plan over successive revisions demonstrates that the results of monitoring are being incorporated.
- 8.4.3) Records of monitoring activities are maintained and made available to the SCS auditor(s).

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

Performance Indicators:

- 8.5.1) Interested stakeholders are readily able to obtain a public summary of the results of periodic monitoring that addresses the indicators listed in Criterion 8.2; the results of periodic monitoring are summarized in a document released by the forest managers or incorporated into the annual certification audit report released by SCS.
- 8.5.2) Forest managers endeavor to keep the monitoring summary up-to-date; revisions are made annually.

PRINCIPLE 9. MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

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

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

Performance Indicators:

- 9.1.1) The FME shall conduct an evaluation to identify High Conservation Values (HCV) attributes present in the FMU. This evaluation, at a minimum, shall include:
- Consultation of regional or national conservation databases and maps;
 - Consultation of the national HCVF toolkit, if it exists, or the first and third parts of the international toolkit for HCV presence (see *HCVF Toolkit* by WWF)¹;
 - Consideration of forest inventory data and observations from field workers, contractors or consultants of the FME;
 - Interviews with biologist and scientific experts, local communities, and other stakeholders;
 - Identification and documentation of possible threats to HCVs.
- 9.1.2) For non-SLIMF operations, the FME shall:
- Provide a written evaluation for HCVs that includes the elements of 9.1.1 and proposals to protect these HCVs;
 - Provide a technical explanation for the HCVs identified and the recommendations presented for the protection of these attributes; and

For FMU's meeting SLIMF requirements, only the following indicator(s) of this criterion apply; the indicator(s) are not to be used for assessing non-SLIMF operations:

¹ *HCVF Toolkit: Guidance for High Conservation Value Forests assessment*
(http://www.panda.org/what_we_do/how_we_work/conservation/forests/tools/hcvf_toolkit/)

- 9.1.3) The FME shall consult environmental stakeholders, government officials or researchers to identify HCVs and/or HCVPs.
- 9.1.4) The FME shall consult the national HCVP toolkit, if it exists, or the first and third parts of the international toolkit for HCV presence (see footnote below).²
- 9.2. The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.

Performance Indicators:

- 9.2.1) The assessment for the presence of HCVPs includes consultation with pertinent stakeholders and outside experts.
- 9.2.2) Forest managers provide to SCS a list of pertinent stakeholders who have been consulted regarding HCVPs.
- 9.2.3) Stakeholder consultation indicates that the forest management operation consistently considers and protects areas of high conservation value.

Means of Verification: e.g., review of HCVP report, interviews with experts and/or stakeholders consulted during HCVP assessment.

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

Performance Indicators:

- 9.3.1) The management plan, and the public summary thereof, contains a section pertaining to HCV areas found within the defined forest area.
- 9.3.2) The conservation values of each identified HCV area are described in the management plan.
- 9.3.3) The plan and public summary contains management and protection policies for the identified HCV areas that are precautionary, readily assuring that the defining conservation values will be maintained or enhanced.

Means of Verification: e.g., review of management plan and public summary.

- 9.3.4) Forest managers utilize biological and ecological experts in developing and executing plans for maintenance of HCVP.
- 9.3.5) Study and research should be put into the HCVP and surrounding habitats to ensure that the documentation gathered would be used in the conservation and management of these areas.

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

Performance Indicators:

- 9.4.1) Measurable effectiveness indicators are developed and presented in the HCVF section of the management plan.
- 9.4.2) Forest managers utilize biological and ecological experts in developing indicators for monitoring HCVF.
- 9.4.3) Reflective of the scale of and intensity of operations, annual monitoring is conducted that focuses on the effectiveness by which HCVF management and protection measures are maintaining and/or enhancing the pertinent conservation attributes.
- 9.4.4) The results of HCVF monitoring are used adaptively in modifying HCVF management and protection policies as well in revising the management plan.
- 9.4.5) The results of annual HCVF monitoring are made available to the SCS auditor(s) and a summary of the results are made available to interested stakeholders.

Means of Verification: e.g., review of HCVF monitoring report.

PRINCIPLE # 10: PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

- 10.1. The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.

Performance Indicators:

- 10.1.1) The management plan for the defined plantation forest area includes a presentation of the landowner and/or plantation owner objectives.
- 10.1.2) The plantation forest objectives include express policies for natural forest conservation as well as restoration of degraded natural forest areas. The proportion of the plantation forest operation that is allocated to natural forest maintenance and restoration exceeds regional norms.

Means of Verification: e.g., review of regulatory requirements for natural forest maintenance in plantation operations, consultation with regionally-based professionals familiar with other plantation operations.

10.1.3) Plantation forest managers demonstrate a systematic pattern of implementing the management plan.

10.2. The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.

Performance Indicators:

10.2.1) Plantation forest managers institute measures to protect, restore and conserve key areas of natural forests within the ownership.

10.2.2) The flow of forest products from the plantation forest contribute to regional demands and thereby help to reduce pressures on natural forests within the region.

10.2.3) The spatial pattern of planted stands within the plantation forest operation mimics natural patterns found within the landscape.

10.2.4) Streamside buffer zones of widths that meet or exceed regulatory requirements (or regional norms if not regulatory requirements exist) are established, within which natural vegetative cover is maintained or established.

10.2.5) Natural vegetative corridors are established for wildlife movement when the scale, distribution, and ecological setting of the ownership allow for it.

Means of Verification: e.g., review of management plan, field review of wildlife corridors.

10.3. Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.

Performance Indicators:

10.3.1) A variety of species and provenances are employed in the planting program.

Means of Verification: e.g., review of planting records, interview with manager responsible for procuring seedlings.

10.3.2) The management regimes introduce diversity through practices such as: variable rotations, cut blocks of different size and shape, maintenance of volunteer (naturally established) seedlings within planted stands.

Means of Verification: e.g., review of silvicultural plan.

10.3.3) The plantation forest management plan contains biodiversity objectives, policies and guidelines.

10.4. The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.

Performance Indicators:

10.4.1) Exotic tree species are planted only after an assessment of native species is conducted, in which it is demonstrated that native species cannot achieve comparable performance levels.

10.4.2) Periodic monitoring is conducted of the adaptability of exotic stands, as indicated by measured levels of mortality, disease and insect outbreaks; the results of monitoring are summarized and made available to the SCS auditor(s).

10.4.3) Selection of tree species to be planted and their provenances is based on field trials that demonstrate their suitability to the plantation sites and management objectives.

10.4.4) Information about the source of seed or planting stock is presented in the management plan or another suitable document.

Means of Verification: e.g., review of planting records, interview with manager responsible for procuring seedlings.

10.5. A proportion of the overall forest management area, appropriate to the scale of the plantation, shall be managed so as to restore the site to a natural forest cover.

Performance Indicators:

10.5.1) Representative samples of existing natural ecosystems are being protected or restored in their natural state.

Means of Verification: e.g., interviews with forest management personnel; review of maps, forest typing/inventory, and GIS, consultations with regional ecologists; review of delineated or candidate reserves in the field.

10.5.2) The percentage of the plantation forest operation that is devoted to natural forest cover exceeds regional plantation forestry norms.

10.5.3) Areas of natural forest or natural vegetative cover are delineated on maps and, as necessary, delineated in the field for purposes of assuring protection.

10.5.4) The management plan contains policies and guidelines for natural area reserves within the plantation forest operation.

10.6. Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.

Performance Indicators:

10.6.1) Plantation forest managers actively engage in or otherwise support field research to assess trends in soil productivity; soil types found within the plantation forest area are mapped and considered during field operations.

10.6.2) Prescriptions for the establishment, tending and final harvest of planted stands are designed with consideration to soil health and productivity.

10.6.3) Site disturbing activities do not adversely impact aquatic and riparian resources including water quality and do not measurably alter the hydrologic characteristics of the site; planted stand establishment is avoided on steeply sloped terrain.

Means of Verification: e.g., field review of plantation sites and aquatic sites, consultation with relevant stakeholders and/or experts on aquatic impact.

10.6.4) All stream courses within the operating area are mapped.

Means of Verification: e.g., map review and ground truthing.

10.6.5) The management plan contains policies and guidelines for soil maintenance and water quality protection.

10.7. Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.

Performance Indicators:

10.7.1) Standard operating procedures for management of the plantation forest include regular monitoring for pest and pathogen activity, inordinate levels of mortality, and the spread of invasive exotic plants.

10.7.2) The management plan contains policies and guidelines for integrated pest management that are demonstrably followed in the field.

10.7.3) Forest managers, through their policies and actions, demonstrate a commitment to limit the use of chemical pesticides and fertilizers.

Means of Verification: e.g., review of management plan, discussion with forest managers, field review of pesticide use areas.

10.7.4) For operations in fire prone regions, there is a written fire prevention and suppression plan; the level of detail reflects the scale and intensity of the operation.

Means of Verification: e.g., review of management plan, discussion with forest managers.

- 10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in Principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

Performance Indicators:

- 10.8.1) Monitoring incorporates ecological and social impacts of plantation forest activities.
- 10.8.2) Monitoring focuses on both on-site and off-site impacts such as landscape level effects generated by the species that are being planted.
- 10.8.3) Species are selected for planting only after local trials and other empirical evidence demonstrates their suitability to the site.
- 10.8.4) Acquisition of land for establishment of plantation forests does not adversely impact, without due compensation, local ownership rights or access/use patterns.

Means of Verification: e.g., consultation with representatives of local communities.

- 10.9 Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.

Performance Indicators:

- 10.9.1) Records are of sufficient detail to enable the SCS auditor(s) to determine if conversion of natural forests to plantations has occurred since November, 1994, within the land area for which certification is being sought.
- 10.9.2) Any such conversions, if they have taken place, can be demonstrated to not be attributable to the current managers/owners.

Annex 1- Pertinent Laws and Regulations

Malaysia National and Local Laws and Environmental Agreement and Conventions:

Peninsular forestry management is under the jurisdiction of:

1. National Forestry Policy 1978;
2. National Forestry Act 1984;
3. Syaye Forest Enactments;
4. State Ordinances related to protection of wildlife;
5. State Forest Rules;
6. Land Conservation Act 1960;
7. Environmental Quality Act 1974;
8. National Parks Enactments;
9. State Parks Act;
10. Protection of Wildlife Act 1972;
11. Aboriginal People Act 1954;
12. National Land Code 1965;
13. Water Act 1920;
14. Occupational Safety and Health Act 1994.

Annex 2- International Agreements

International Conventions which Malaysia is a party of:

1. United Nations Convention on Biological Diversity Convention which leads to National Policy on Biological Diversity 1998;
2. Convention on Wetlands of International Importance Especially on Waterfowl Habitat (RAMSAR) 1971;
3. International Tropical Timber Agreement 1994;
4. UN Framework Convention on Climate Change 1992 follows by Kyoto Protocol;
5. Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973;
6. International Labour Organization Conventions.

Annex 3- Endangered Species

A list of the endangered species in Malaysia can be obtained from the Convention on International Trade in Endangered Species (www.cites.org) website, of which Malaysia is a member country.

Annex 4- Glossary

Words in the P&C are used as defined in most standard English language dictionaries. The precise meaning and local interpretation of certain phrases (such as local communities) should be decided in the local context by forest managers and certifiers. In this document, the words below are understood as follows:

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.

Biological diversity values: The intrinsic, ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components.

Biological control agents: Living organisms used to eliminate or regulate the population of other living organisms.

Chain of custody: The channel through which products are distributed from their origin in the forest to their end-use.

Chemicals: The range of fertilizers, insecticides, fungicides, and hormones which are used in forest management.

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.

Ecosystem: A community of all plants and animals and their physical environment, functioning together as an interdependent unit.

Endangered species: Any species which is in danger of extinction throughout all or a significant portion of its range.

Exotic species: An introduced species not native or endemic to the area in question.

Forest integrity: The composition, dynamics, functions and structural attributes of a natural forest.

Forest management/manager: The people responsible for the operational management of the forest resource and of the enterprise, as well as the management system and structure, and the planning and field operations.

Genetically modified organisms: Biological organisms which have been induced by various means to consist of genetic structural changes.

Indigenous lands and territories: The total environment of the lands, air, water, sea, sea-ice, flora and fauna, and other resources which indigenous peoples have traditionally owned or otherwise occupied or used.

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

High Conservation Value Forests: High Conservation Value Forests are those that possess one or more of the following attributes:

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

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.

Local laws: Includes all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.

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.

Native species: A species that occurs naturally in the region; endemic to the area.

Natural cycles: Nutrient and mineral cycling as a result of interactions between soils, water, plants, and animals in forest environments that affect the ecological productivity of a given site.

Natural Forest: Forest areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present, as defined by FSC approved national and regional standards of forest management.

Non-timber forest products: All forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.

Other forest types: Forest areas that do not fit the criteria for plantation or natural forests and which are defined more specifically by FSC-approved national and regional standards of forest stewardship.

Plantation: Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which

result from the human activities of either planting, sowing or intensive silvicultural treatments.

Principle: An essential rule or element; in FSC's case, of forest stewardship.

Restoration: The act of modifying a habitat or ecosystem to introduce or reintroduce components and characteristics appropriate to the site both ecologically and historically.

Seral stage: a temporary community of vegetation, defined by the dominant species, which indicates the successional phase of the ecosystem.

Short rotation coppice systems -- harvest systems, which are typically perpetuated long-term, and in which only a few characteristics of an indigenous ecosystem remain.

Silviculture: The art of producing and tending a forest by manipulating its establishment, composition and growth to best fulfill the objectives of the owner. This may, or may not, include timber production.

Succession: Progressive changes in species composition and forest community structure caused by natural processes (nonhuman) over time.

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).

Threatened species: Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Use rights: Rights for the use of forest resources 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.