

SGEC Standards and Indicators for Forest Management Certification, and JAFTA Elaborations.

STANDARD #1: Identification of Forests and their Management Policies

Concrete contents (location, ownership and use rights, legal restrictions, areas and volumes by forest management type etc.) of subject forests to be certified shall be clearly defined, and also forest management plans of the forests be established based on basic management policies provided by forest owners themselves.

1.1 Owners and/or managers of forest resources, lands and the like should be clearly defined

- a. Copies of land register, such drawings and specifications as forest stand registers and planning maps, are provided.
- b. Situation of the establishment of land-use rights in addition to ownership , surface rights and the like, are filed.
- c. Relations between rights can be clearly identified at random sites.

1.2 Forest registers indicating areas and location of subject forests, forest types related to planting (plantation or natural forest), tree species or forest cover types, stand age and growing stock, should be available at any time.

- a. Forest stand registers that clearly meet the requirements of Indicator 1.2 in every forest division (e.g. sub-compartment), is provided.
- b. Data are renewed every five years.

1.3 The locations of subject forests should be clear both on sites and on maps.

- a. Maps on a scale of about one to five thousand (1/5,000) that show forest compartments, are provided.
- b. Locations on maps and registers correspond to actual sites.
- c. Boundaries can be clearly identified.

1.4 Forest management plans based on the Planning System¹ or equivalent management plans should be established. In the plans, the basic policies for sustainable forest management should be provided by forest owners' own will.

¹ The planning system is defined by the Forest Law and the plans in the system are formulated by national, prefectural and municipal authorities and private forest owners.

In case that Forest Management Plans have been approved by municipal heads:

- a. approved forest management plans are available at anytime.
- b. forest operations are appropriately conducted based on the Plans.

In case that Forest Management Plans have not been approved:

- a. the policies of forest management for subjective forests are documented (plans etc.).
- b. long-term approaches for forest management are provided at every forest division in the policies mentioned above.
note : forest division is classified from the viewpoint of the functions of forests such as forests for cyclic use, water and land conservation and symbiosis of forests and people etc..
- c. long-term cut volumes calculated based on the same way as that of approved Forest Management Plans, are fixed (by final cutting and thinning).
- d. forest operations are appropriately conducted based on the policies.

1.5 Appropriate management plans paying attention to regional characteristics should be established not only for plantations but also for natural forests.

- a. Management policies are provided due to the type of natural forests.

note : type can be classified by natural and secondary forests etc., or by the functions of forests

STANDARD #2: Conservation of Biological Diversity

Management plans on conservation of biodiversity shall be established from at the level of landscape to at the level of representative ecosystem type, and precious natural vegetation, if any, shall be protected in addition to rare, threatened and endangered species.

2.1 Plans for the conservation of biodiversity involve the management policies at landscape level as well as the management policies on major forest types at forest stand level.

[Plans for biodiversity conservation]

In the case of large scale forest management:

- a. the basic policy for the conservation of biodiversity is provided.
- b. the policy refers to biodiversity at the level of landscapes, ecosystems, species and genetics, and also includes the idea of biodiversity conservation at the landscape level.
- c. operational guidelines for typical forest types are developed in terms of biodiversity.

note : “forest types” mean the classification of forests due to the combination of tree species and regeneration methods, e.g. a plantation of *sugi* (*Cryptomeria japonica*), a mixed plantation with *sugi* and *hinoki* (*Chamaecyparis obtuse*), a natural forest of *hinoki* and an evergreen broad-leaved forest etc..

- d. the management is implemented in compliance with the basic policy and the operational guidelines.

In the case of small scale forest management:

- a. it is desirable to provide the basic policy for the conservation of biodiversity.
- b. operational guidelines for typical forest types are developed in terms of biodiversity.
- c. the management is implemented in compliance with the basic policy and the operational guidelines.

[Conservation of natural forests]

In the case of large scale forest management:

- a. protection measures for natural forests and/or semi-natural forests inclusive of surrounding buffer zones are established.
- b. protection is carried out in compliance with the measures

In the case of small scale forest management:

- a. protection of natural forests and/or semi-natural forests is carried out.

2.2 Important components (virgin forests, natural forests, countryside forests, grasslands, marshlands, swamps, farmlands etc.) to ensure biodiversity in subject forests should be clarified on maps and management policies for them should be provided.

[Conservation of important components]

In the case of large scale forest management:

- a. the importance of components is confirmed (by literatures or intellectuals etc.) and the locations of them are shown on maps
- b. the measures to protect and manage the confirmed components are developed.

In the case of small scale forest management:

- a. the components designated as memorials etc. by administration are conserved in place.

[Conservation of riparian forests]

Management plans for the conservation of riparian forests are established and implemented

2.3 Protection of rare, threatened and endangered species (RTE species) and their habitats should be ensured.

[Protection of rare species etc.]

- a. The lists of rare species that appears to be living in applied forests are prepared.
- b. Consideration is paid to rare species etc at the time of tree felling and road construction.
- c. Identified habitats are conserved in place

[Conservation of trees with hollows etc]

- a. Trees with hollows, snags and fallen trees are left in terms of biodiversity conservation

[Consideration to small animals]

- a. In the areas where the probability of the habitation of rare species like Amphibia etc is pretty high, careful attention is paid to the construction of structures such as forest roads

[How to deal with exotic species]

- a. Careful attention is paid to the use of exotic species
- b. Native species to region are used for slope planting.

2.4 Efforts should be made to protect natural vegetation including undergrowth.

- Natural vegetation like natural forests is conserved.

STNDARDS #3: Conservation and Maintenance of Soil and Water Resources

Careful attention shall be paid to forestry operations such as felling, skidding, hauling and forest road constructions to prevent soil erosion and to conserve water resources, and also consideration shall be given to protect water system against contamination by chemicals.

3.1 Appropriate shelter (or protection) tree-belts should be established along windy ridges, drainage system and roads at the time of felling.

- a. Approaches to the establishment and maintenance of protection tree-belts are provided.
- b. Protection tree-belts are established in due location and scale.
- c. Protection tree-belts are forest types suitable to their functions and/or measures

leading to the suitable types are taken.

3.2 Careful consideration should be given to felling, skidding and hauling to protect earth surface, taking into account their influence on surrounding water resources and forest function of soil run-off and failure prevention.

[Harvesting methods]

Harvesting plans comply with laws/regulations and higher level plans.

- a. Such consideration to the conservation of forest lands and water resources as imposing restrictions on the size of continuous cutting area, is provided.
- b. Appropriate harvesting is conducted based on the plans etc..

[Measures for cutting, skidding and hauling]

- a. Matters on the protection of earth surface including soil at the time of cutting and skidding are described in operational manuals.
- b. Those operations are appropriately implemented based on the manuals mentioned above.

3.3 Attention should be paid to fuel, oil used for forestry machines, other contaminants and chemicals like pesticides in order for them not to flow into water system.

- a. Manuals for handling such substances as fuel, oil and chemicals are developed.
- b. The handling is appropriately implemented based on the manuals mentioned above.

3.4 Close attention should be paid to the construction of forest roads etc. to conserve soil and water

- a. Matters on soil and water conservation are provided in the manuals for the construction and maintenance of forest roads inclusive of spur roads.
- b. The operations are appropriately implemented based on the manual.

STANDARD #4: Maintenance of Productivity and Health of Forest Ecosystem

Harvesting shall be conducted in an well-planned way based on the idea of sustainable forest management, and non-clearcutting or small scale clearcutting methods shall be applied in principle. Regeneration shall be conducted based on the principle “right tree for right site”, relating itself to management history, and subsequent tending and

thinning be properly implemented. Appropriate measures to prevent forest fire and damages by disease, insect and mammals shall be taken including extension work and guidance, and attention be paid to the use of such chemicals as pesticides.

4.1 • Harvest volume should be within the range of the quantity to meet requirements functionally classified in Forest Management Plan Approval Criteria² and the volume be properly allotted in time and place.

- **Large scale clear cutting should be avoided and non-clearcutting methods be applied wherever possible.**
- **It is provided that the harvest of forest products should be done in a sustainable manner.**

[Harvesting plan]

- a. Regarding the volume of final cutting and thinning :
 - a) in the case of forests under approved Forest Management Plans, volume corresponds with the planned volume.
 - b) in the case of non-approved forests, volume is calculated based on the idea that Forest Management Plans require.
- b. Concrete harvesting plans are established.

[Guides for harvesting]

- a. Guides for harvesting such as final cutting/regeneration methods, cutting age, thinning etc. are provided. And also the guides take into consideration soil and water/biodiversity conservation.

[Implementation situation]

- a. Harvesting is appropriately conducted based on the standards and harvesting plans

4.2 • Areas after felling are sure to be regenerated within planned periods.

- **Artificial regeneration in cut-over areas should be conducted in compliance with the principle “right tree for right site” based on the management backgrounds.**

[Regeneration Plan]

- a. Regarding regeneration plans:

² These criteria are provided in the Forest Law and related regulations

- a) in the case of forests under approved Forest Management Plans, regeneration quantities correspond with the planed ones.
- b) in the case of non-approved forests, regeneration is appropriately planned for final cutting areas.
- b. Concrete regeneration plans are established.

[Guides for regeneration]

- a. Guides for regeneration such as regeneration methods, tree species to be planted, planting density etc. are provided. And also the guides take into consideration the conservation of soil/water as well as biodiversity.
- b. Regeneration is appropriately conducted based on the guides and the plans.

[Tree species for regeneration]

- a. In the case of artificial regeneration, tree species appropriate to site conditions are chosen
- b. Seedlings are used within the distribution area stipulated in Forestry Seeds and Seedlings Law
- c. Careful attention is paid to the introduction of exotic species.

[Survival surveys]

- a. Survival rate surveys of planted seedlings are conducted and guides for supplementary planting and the like are provided.
- b. Supplementary planting and the like are appropriately conducted.
- c. When death takes place in large areas, inspections into the cause of it, examinations to improve the situation and the like are conducted.

4.3 Appropriate regeneration operations in natural forests should be conducted.

- a. When planning to fell and regenerate natural forests (secondary forests), guides for felling and regeneration methods etc. are provided. And also in the case of implementation, the confirmation of stand structure conditions, undergrowth (seedlings and saplings etc.), mother trees' conditions and the like are conducted.
- b. Supplementary operations for regeneration like ground treatments etc. are conducted if necessary.
- c. Concrete implementing plans (on the location, methods and areas of felling and regeneration etc.) are established.
- d. Felling and regeneration are appropriately conducted based on the guides and the

plans.

- e. No problems on regeneration conditions have occurred.

Note : Felling and regeneration referring here are conducted in and toward secondary forests.

4.4 Tending plans should be clear and be implemented according to site conditions.

[Tending plans]

- a. Concrete tending plans are established.
- b. Tending is appropriately conducted.

[Tending guides]

- a. Guides for tending are provided. And also the guides take into consideration the conservation of water/lands and biodiversity.
- b. Tending is appropriately conducted based on the guides.

4.5 Thinning should be appropriately conducted depending on the situation

[Thinning plans]

- a. Concrete thinning plans (thinning areas, rate and volumes at each site etc.) are established.
- b. Thinning in the plans is consistent with that of forests to be thinned in Municipal Forest Improvement Plans.

[Thinning guides]

- a. Manuals to implement thinning are developed.
- b. The conservation of biodiversity like leaving broad-leaved trees is taken into consideration in the manuals.

[Thinning implementation]

- a. Thinning is appropriately conducted based on the plans and manuals

4.6 Appropriate prevention measures for disease, insect and mammal damage are taken and their damage control should be conducted.

- a. Appropriate measures for the prevention of disease, insect and mammal damages have been taken.
- b. Real conditions of damages are grasped

4.7 Appropriate prevention measures for forest fire are taken and treatments for the damages are given.

[High hazard areas of forest fire]

- a. Protection measures against forest fire like patrolling in critical season are taken.
- b. Measures against fire occurrence such as training, fire-extinguishing materials and systems are taken.
- c. Restoration of burnt areas is conducted in a planned manner

[Low hazard areas of forest fire]

- a. It is desirable that prevention measures as well as fire-extinguishing measures are taken.

4.8 The use of chemicals like pesticides should be in compliance with the laws and regulations and be a minimum necessary amount.

- a. A minimum necessary amount of chemicals are used
- b. A manual for the use of chemicals is developed in case of use.
- c. Chemicals are used according to the manual

STANDARD#5:Legal and Institutional Framework for Sustainable Forest Management

Not only related laws, ordinances and other regulations but also local communities' customary/traditional rights shall be respected. In addition, management policies shall be understood by trustees who are entrusted with managements and forestry workers, and also daily consideration shall be made to employees for their livelihood, health and safety.

5.1 All applicable national laws and international treaties and agreements to which the nation is a signatory should be respected.

- a. Laws and regulations are observed.
- b. Such documents as laws/regulations and operation manuals are available.

5.2 Legal or customary use rights to properties and resources of local communities should be respected.

- a. It is confirmed whether or not local communities have customary rights to applied forests.
- b. The rights are appropriately secured when they are confirmed.

5.3 Appropriate training and guidance on biodiversity and labor safety/health should be given to employees, contractors and forestry workers in implementing management plans.

[Training and education of employees]

- a. Training and education on various operation guides, environment conservation etc. are appropriately conducted for employees.
- b. Manuals for labor safety are developed.
- c. Training, education and the like on labor safety are appropriately conducted for employees.

[Guidance for contractors]

- a. Guidance on operation guides, environment conservation etc. are appropriately conducted for contractors.
- b. Guidance on labor safety are appropriately conducted for contractors.

5.4 Social securities, necessary training implementation and labor safety/health for employees should be ensured.

- a. Entry into a compulsory social security system is ensured for employees.
- b. Management systems for safety and sanitation are established and education on them is conducted for employees.

STANDARD #6: Maintenance and Promotion of Social and Economic Benefits

Efforts not only to provide more opportunity for citizens to come in contact with forests but also to give environmental education to visitors and take safety measures for them, shall be made. Upon managing forests, landscape and outdoor recreation shall be taken into consideration, and culturally and historically valuable forests shall be protected.

In addition, efforts not only to enhance carbon sink function of certified forests but also to separate certified forest products from others and utilize them effectively in various ways with a view to supplying properly forest products produced in certified forests with consumers, shall be made.

- 6.1 • **Efforts should be made to give opportunities/places for citizens to contact with nature**
 - **Forests should be open to local residents as much as possible and**

convenience be offered to them

- a. It is desirable that concrete activities are conducted or planned, but this is not necessarily required

6.2 Environmental education and safety guidance/measures for visitors should be developed.

[Applicable to forests where there are many visitors]

- a. Measures for explanation and enlightenment for visitors, using brochures, information boards etc. are taken.
- b. Sign boards warning such dangerous spots as operation sites are installed.
- c. Visitors are encouraged to bring back their wastes

6.3 Appropriate measures should be taken for forests where forest managements paying attention to forest recreation and maintenance of landscape are necessary.

[Forest management consonant with forest recreation and landscape conservation]

In the case of large scale forest management where a considerable quantities of demand for forest recreation can be expected :

- a. existence of forests which it is necessary to manage taking into consideration forest recreation and maintenance of landscapes, are confirmed
- b. management plans are established and zoning of the forests in the plans is ensured in case of need.
- c. Appropriate management is conducted.

In the case of small scale forest management where a certain amount of demand for forest recreation can be expected.

- a. it is desirable that appropriate managements are conducted for forests where it is necessary to take into consideration forest recreation and landscape maintenance.

[Forest management consonant with the conservation of forests for living environment protection etc.]

- a. Forests of which the managements are restricted by laws, ordinances and/or public plans/systems, are managed in compliance with them.

[Facilities for forest recreation]

In the case of large scale forest management:

- a. they are planned and installed based on the demand trends of users.

- b. they are planned and installed in meeting the criteria for Forest-land Development Permission System.
- c. they are in conformity with approved forest management plans.

In the case of small scale forest management:

- a. they are planned and installed in meeting the criteria for Forest-land Development Permission System.
- b. they are in conformity with Forest Management Plans

6.4 Important cultural and/or historical remains, and high value forests that are significant from the viewpoint of society and resources should be conserved.

- a. Forest areas which are important from cultural and historical viewpoints are demarcated on-site and shown on maps, and management methods for the areas are developed
 - * cultural assets designated by a nation, prefectures and municipalities.
 - * sacred areas for local residents

6.5 Efforts should be made to clearly separate certified forest products in order to properly supply consumers with them produced in certified forests, so that the objectives of “Sustainable Green Ecosystem” can be attained.

- a. Forest products are physically separated in order not to be mixed with non-certified forest products and the quantities of certified products are appropriately recognized.
- b. Certified products are encouraged to be used for various facilities in the applied forests

6.6 Efforts should be made in order that the management and improvement of certified forests could have positive effects on the prevention of global warming, i.e. work as a carbon sink.

- a. The conservation and increase of forest growing stock are planned and ensured.
- b. Large scale disturbances have not taken place on ground surfaces.

STANDARD #7: Monitoring and Disclosure of Information

Forest conditions and management situation shall be periodically monitored for effective reviewing or updating of management plans, and the summary of monitoring results shall be open to the public in principle.

In addition, observation records as well as management records for subject forests to be certified shall be kept as much as possible, and there shall be a readiness to cooperate with local governments and the like in wide-ranging monitoring of plants and animals by them.

7.1 • Monitoring to evaluate the implementation of management plans and its effects should be properly conducted

- **Monitoring results should be incorporated into the implementation and next scheduled update of management plans, and the revision of them if necessary.**

- a. Monitoring items are provided
- b. Monitoring items include the followings:
 - * the conservation of biodiversity: plant and animal species
 - * the conservation and maintenance of soil and water resources: landslide (forest lands and road slopes)
 - * the maintenance of forest ecosystem productivity and soundness: growing stock, growth rate, harvest and regeneration.
- c. Monitoring is conducted in place
- d. Monitoring results are incorporated, if necessary, into the revisions of management plans, various manuals and the like.

7.2 When local governments are monitoring bioindicators to infer biodiversity as a whole, a cooperation system for the monitoring survey should be developed and exist.

- a. Cooperation in the survey done by the third parties like local governments are conducted

7.3 • Various kinds of information records on subject certified forests should be kept as much as possible.

- **Management records by operation, fiscal year and location should be kept when the management are exercised.**

- a. Historical records on management are filed
- b. Outlines of various damages to forests are recorded

7.4 Management and monitoring results should be open to the public in principle.

- a. Demands of outsiders for information disclosure are met.