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Annex 2:
ITA 1001-1
CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT CERTIFICATION ON A INDIVIDUAL and GROUP SCALE

REV.	DATE	REASONS	VALIDATION	APPROVAL
11	28/10/2015	Document approved by the BoD after public consultation		
10	04/09/2015	Proposals from the Bologna Forum WG after public consultation		
9	December 2014	Integrations at the instance of PEFCC		

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INDIVIDUAL AND GROUP INDICATORS AND THRESHOLDS

Introduction

On the basis of the PEFC standard, the evaluation of sustainable forest management (SFM) is based on the criteria (C), the indicators (I) and the operative guidelines (GL) developed at the Ministerial conferences in Helsinki and Lisbon, during the so-called "Pan European Process" for the protection of European forests.

This document is structured so as to maintain the subdivision of the six defined criteria for sustainable forest management at a Pan European level, with the aim of using them at a national level for the certification of the forest sector (not for arboriculture of wood).

Rules for use of this document

Each of the criterion is numbered from 1-6 and can include the **guidelines (GL)** for planning of forest management and for the practice of forest management.

The **guidelines** are normative requirements, whenever they are specified, and must be observed even beyond the field of action of the indicators indicated by the guidelines.

The **indicators** can be normative or descriptive.

The "DESCRIPTIVE" indicators are reported with the aim of improving the information and the communication between the various subjects interested in sustainable forest management.

The "NORMATIVE" indicators are relevant to the forest system and woodland management and constitute the basis for the verification of the certification criteria.

Each indicator includes:

MEASUREMENT PARAMETERS: measurable sizes or elements as is verifiable by the CB
CRITICAL THRESHOLDS (for the NORMATIVE indicators): necessary requirement as is verifiable by the CB
AREAS OF IMPROVEMENT: main themes proposed for improving services
EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING: examples of tools to be used to gather information

NB: **The respect for legislation (laws) at various levels (regional, national and EU) is a compulsory pre-requisite, and therefore not specified in the various indicators.** In the case of group certification, only the members of the PEFC group will be considered certified; only their forest area will be considered certified and only the forest material coming from these areas will, therefore, be considered certified.

Short description of Italian Silvicultural treatments

From 1985 to 2005, Italian forests (forest and other woodlands) grew by 17.2% from 8 675 100 hectares to 10 467 533 hectares. The coefficient of national forest area is 34.7%, which is gradually but constantly growing, following a trend which is linked to activities of past reforestation and, in recent years, to the phenomenon of natural expansion of forests in marginal agricultural hilly and mountainous areas.

In Italy, forestry practices are carefully controlled and restricted by specific rules, aimed at a sustainable planning and management of forest land. Silvicultural systems are based on "close to nature" principles that must simultaneously respect socio– economic development and the enforcement of soil protection and water conservation; in other words, the multi - functionality of the forest ecosystems. Therefore, clear-cutting of high forests (forest regenerated by seeds) is forbidden, and operations leading to natural regeneration, such as selection systems and shelterwood systems (group, strip and edge), are strongly encouraged. Coppice forests are most commonly managed on a rotational basis, when the stumps are clear-cut, but several trunks known as standards are left and distributed evenly over the land for partial coverage of the soil and for dissemination.

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CRITERION 1
MAINTENANCE AND APPROPRIATE ENHANCEMENT FOR FOREST RESOURCES AND THEIR CONTRIBUTION TO GLOBAL CARBON CYCLES

GL 1.1 Forest management practices must safeguard the quantity and quality of the forest resources in the medium and long term by balancing harvesting and growth rates, and by favouring techniques that minimise direct or indirect damage to forest, soil or water resources.

Appropriate silvicultural measures must be taken to maintain the growing stock of resources at - or to reach - a level that is economically, ecologically and socially desirable.

Indicator 1.1.a Area of forests, other woodland and changes in area (classified, if appropriate, according to forest and vegetation types, ownership structure, age classes, forest origin).

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Forest area in hectares _____
Per cent change _____ in a period of n. _____ years.
Forest management regime: _____% high forest; _____% coppice; % _____mixed .

CRITICAL THRESHOLD
A reduction in forest cover is not permitted (except for documented cases resulting from management and planning policies or instances where compensation is required according to the law in force).
Forest cover variation percentage greater than or equal to zero.

AREAS FOR IMPROVEMENT:
The implementation and the updating of the databases regarding the size of the forest areas and their parameters.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING
National and/or regional forest inventories, forest and soil-use maps, aerial photographs, satellite images, land register, forest management plans, or equivalent sources

Indicator 1.1.b Variation in the total volume of the wood mass (also approximately and temporarily used as an indicator of total carbon storage), in the mean volume of the wood mass in forest areas (classified, if appropriate, according to different vegetation zones or classes), of age classes or appropriate diameter distribution classes.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS
Mean value of wood supply in the high forest: _____ cubic meters/ha. Variation:_____ % in ____years.
Total wood supply in the high forest: _____ cubic meters. Variation:_____ % in

_____years.
Total wood supply in the coppice:_____ cubic meters or steric meter or tonnes harvested surface. Variation:_____ % in _____years.

CRITICAL THRESHOLD:
Mass figures consistent with the prescriptions of forest management plans or with the forest typology of reference.

AREAS FOR IMPROVEMENT:
Research for the optimal wood mass considered for a correct functioning of the ecosystem.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING
Forest management plans or equivalent tools.

GL 1.2 **The transformation of abandoned rural and non-wooded zones into forested areas must be evaluated, considering all the elements and aspects of the region: economic, ecological, social, landscape, etc.**

Indicator 1.2.a Afforestation operations that have been undertaken.

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS
Surface subjected to forestation operations:_____ hectares

AREA OF IMPROVEMENT:
Valuation of the potential for forestation. Monitoring areas of natural woodland colonization.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Management plans, inventories, aerial photographs, records of work carried out, direct controls, or equivalent sources.

GL 1.3 **Management plans or their equivalent (see 3.1) appropriate to the size and use of the forest area, must be written and periodically updated. They must be based on current legislation as well as existing land use plans, and sufficiently cover the forest resources and the protection of biodiversity.**
Monitoring of the forest resource and evaluation of its management must be periodically undertaken, with the results being fed back into the planning process.

CRITERION 2
MAINTENANCE OF FOREST ECOSYSTEM HEALTH AND VITALITY

GL 2.1   Forest management practices must make the best use of natural structures and processes and use preventive biological measures wherever and as far as economically feasible to maintain and enhance the health and vitality of forests. Adequate genetic, species and structural diversity must be encouraged and/or maintained to enhance the stability, vitality and resistance of the forest to adverse environmental factors and strengthen natural regulation mechanisms.

Indicator 2.1.a Serious damage caused by biotic and abiotic agents: serious damage caused by insects and diseases where the valuation of the severity of the damage is a function of mortality or decrease in growth; annual area of forest or other wooded lands affected by fire; annual area subjected to wind and snow damage, and the subsequent timber volumes deriving from these events; presence of serious forest damage due to game; presence of serious forest damages due to grazing.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Presence/ absence of a system for recording and/or an up-to-date catalogue about biotic, abiotic and human induced adversities or those by unknown causes.

CRITICAL THRESHOLD:
Presence of a system for recording and/or an up-to-date catalogue regarding biotic, abiotic and human induced adversities or those caused by unknown agents.

AREAS FOR IMPROVEMENT:
Integration between systems for recording, planning and monitoring instruments.
Adoption of silvicultural techniques and practices in support of a proper specific and structural diversity to such an extent as to enhance forest stability, vitality and resiliency.

GL 2.2 Appropriate forest management practices such as reforestation and afforestation with tree species and provenances that are suited to the site conditions or the use of growing, harvesting and transport techniques that minimise tree and/or soil damages, fire prevention methods must be applied. The spillage of oil through forest management operations or the indiscriminate disposal of waste on forest land must be strictly avoided.

Indicator 2.2.a Presence of an administrative framework for maintaining the health and vitality of the forest ecosystems. Presence of recording and monitoring systems of the use of pesticides and fertilisers as an assumption to minimize their use.
Description of the surveillance system for the forest's protection from illegal activities and their reporting to competent authorities.
Presence of activities aimed at avoiding fires (except for the prescribed fires).
NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Forest management plan or equivalent tool;
Recording and monitoring systems of the use of pesticides and fertilisers as an assumption to minimize their use.
Presence of a surveillance system

CRITICAL THRESHOLD:
Presence of parameters

AREAS FOR IMPROVEMENT:
Adoption of accident prevention measures, adoption of chemical products with a low environmental impact and biodegradable or with a reduced permanence in the environment; adoption of guidelines for limited use of chemical products.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans at enterprise, inter enterprise or at a higher planning level
Presence of records for fertilisers or chemical product use.

GL 2.3 The use of pesticides and herbicides and GMO is not allowed in natural and semi-natural forests, except for justified phytosanitary reasons, excluding in any case the WHO Type 1A and 1B pesticides, those pesticides whose derivates remain biologically active and accumulate in the food chain beyond their intended use and any pesticides banned by international agreement. For biotechnologies and GMO the approach must be precautionary implementing them only after experimentation has shown the absence of their impact on the ecosystem.

GL 2.4   The use of pesticides and herbicides must be avoided in natural and semi-natural forests.

CRITERION 3
MAINTENANCE AND DEVELOPMENT OF THE PRODUCTIVE FUNCTIONS OF FORESTS (TIMBER OR NON-TIMBER PRODUCTS)

GL 3.1   The forest management activities must assure the maintenance and/or the improvement of the forest resources in a framework of forest planning on a local level, also taking into consideration the general services guaranteed by the forest.

Indicator 3.1a Percentage of wooded area managed according to forest management plans or equivalent planning tools according to a regional set of rules in force or those undergoing revision.
For forest areas larger than 100 hectares, an instrument of company forest planning is necessary.
For forest areas smaller than 100 hectares, it is enough to:
Ensure the presence of general forest planning at a senior level; or
Guarantee the presence of a control system to maintain the forest area and preserve the overall consistency of the forests (PMPF - Regulatory guidelines and Forestry Police), or
Put into place an authorisation system for the interventions which are carried out (for example assignment documents, cutting projects, infrastructures etc).

Note 1 : Planning instruments are considered as such when they are subject to codified authorisation procedures, as set out in the legislation in force, which have been presented to the body which is competent to grant approval, when the norms provide for such approval.

Note 2: The term adoption refers to the beginning of the plan approval procedure. In the absence of a reply from the competent forestry administration, within 90 days of the presentation to the administration of the plan proposal or of the equivalent planning instrument, the plan is considered adopted.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Percentage of wooded area managed according to Forest management plans: _____%.
Percentage of wooded area managed according to equivalent planning tools: _____%.

CRITICAL THRESHOLD:
The percentage of wooded area managed according to forest management plans or equivalent management tools as stated by the regional/provincial set of rules in force or subjected to revision should be equal to 100%.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent planning tools at enterprise, inter-enterprise or at a higher planning level.

Indicator 3.1.b Contents of the local forest planning

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
References within the forest management plan, or in an equivalent company, inter-company level or on a senior management plan, regarding Indicator 3.1.a or in the current regulations, of guidelines concerning:

- Management objectives, the location (to be shown on maps) and description of resources to be managed and of areas for protective functions;
- Methods for undertaking silvicultural operations, considering grazing and rights of use, as well as management activities connected with the production of non-timber products and recreational services (when these activities occur in the area under consideration);
- Wood production capacity and its valuation;
- Directives for particular biotopes (even those indicated in indicator 4.7), rare or endangered species management (with reference to the document in which they are indicated);
- Protection of forest biodiversity;
- Preservation and, when necessary, increase of an adequate share of wood in decomposition in forest;
- Analysis of past phytosanitary events, settlement of activities for the treatment and silvicultural techniques in order to maximize the ecosystem resistance against parasitic attacks, meteorological events, and fires;
- Planning of methods and periods of forest silvicultural operations in young topsoils (thinning operations);
- Planning of natural renovation continuity over time;
- Identification of a range, as wide as possible, of products and services which are obtainable from the forest, identification of management directions for the consolidation of the production;
- Directives for single trees or forests with a high landscape value management;
- Maintaining of natural habitats for biodiversity;
- Establishing and maintaining of inventory and mapping of forest resources, adequate to local and national conditions
- Maintaining and increasing of health and vitality of forest and rehabilitating of degraded forest ecosystems, whenever this is possible by silvicultural means and by fighting the degradation causes
  Minimizing the degradation risk and the damages to the forest ecosystems

CRITICAL THRESHOLD:
Presence and respect of measurement parameters.

AREAS FOR IMPROVEMENT:
Supporting local forest planning through accurate and up-to-date inventories and mapping instruments.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent planning tools at company, inter-company or at a senior planning level.

GL 3.2 **The quality of forest management practices must be ensured, in order to maintain and improve the forest resources and to encourage a diversified output of goods and services over the long term.**

<u>Indicator 3.2.a</u> Quantity of forest products and services.

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:
Examples of forest products (wood, game, chestnuts, truffles, berries, honey, medicinal plants, cork, mushrooms, charcoal, Christmas trees) and of ecosystem services, if interests. Annual average quantity of timber production, divided into product types (sawlogs, firewood), over the last no. _____ years: _____
Number of annually issued picking/harvesting licences/permits for (indicate the applicable non-timber product) _____, over the last no. _____ years: _____.
Percentage of forest surface within the company allocated for game: _____.

AREAS FOR IMPROVEMENT:
Production of timber and non-timber benefits should not decrease over time, if compatible with the socio-economic and environmental protection conditions.
The collection of information on the goods and services produced by the forest, in planning and forestry administration at company and group organization level, must be enhanced.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Local forest inventory; forest management plan or equivalent tool at company, inter-company a or at a higher planning level; documents issued by the regional forest services; specific research and local studies; interviews; administrative company documentation; equivalent sources.

GL 3.3 **Harvesting levels of both timber and non-timber forest products must not exceed a rate that cannot be sustained in the long term and must not damage the renewal capacity and natural restoration of the goods themselves. For the harvesting of timber products in properties with an area over 100 hectares, the reference period for verification of sustainability is 10 years.**

<u>Indicator 3.3.a</u> Balance between the yield and harvesting of wood mass during the last no. _____ years: _____

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
In high forest:
Mean current annual increase --------------- m^3
Mean annual recovery achieved --------------- m^3.
In woodland managed as coppice:

Mean annual increase (or current annual mean) in t, m^3 or steric meter

Mean annual recovery ----------------- in t, m^3 or steric meter, or
Annual planned recovery achieved --------------------- in hectares

CRITICAL THRESHOLD:
For a given company property or a group of small properties within a territory, the following guidelines are valid:
In the case of high forests, the mean value between the current increase of wood mass and the achieved recovery must not be lower than 1, unless otherwise specified by the forest management plan as specified by the Indicators 3.1.a and 3.1.b, or by extraordinary cuts authorized on the basis of regional/provincial procedures.
Otherwise, the mean value of the ratio between the increase and mean average recovery must not be lower than 1.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Local forest inventories; forest management plan or equivalent tools at company, inter-company or at a senior planning level; documents issued by the regional forest services or equivalent sources.

GL 3.4   Forest growth operations and the exploitation of forest products must be carried out in appropriate manner and times so as not to reduce the productive capacity of the concerned forests and to favour techniques with a low environmental impact relating to the specific site conditions, also taking into consideration aesthetic aspects and all the services linked to the presence of the wood.

Indicator 3.4.a Removal of tree biomass

NORMATIVE INDICATOR

MEASURING PARAMETER:
Forest harvesting which includes the adoption of techniques that imply the removal of entire trees, including roots, from the forest (whole-tree-harvesting), are allowed, unless otherwise specified by planning instruments or by the cutting project or the assignment documents. Root extraction and removal are not permitted, unless there are exceptions motivated by phytosanitary emergencies or natural calamities.

CRITICAL THRESHOLD:
Presence of measurement parameter.

AREAS FOR IMPROVEMENT:
Utilisation of adult stands should be orientated towards techniques that allow the leaving of a certain amount of trees and debris (tree biomass), so as to favour the maintenance of the biogeochemical balance. In particular, brash (the smaller, younger branches) should be left as they contain a high mineral concentration.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Local forest inventories; specific studies and local case studies; interviews; documents issued by the regional forest services; equivalent sources.

Indicator 3.4.b Forest utilisation techniques

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETER:
The identification of strategies implemented to limit the environmental impact in forest eco-systems (e.g. the use of ecological fuels, the use of wide rubber-tyred machines, the use of cable cranes, the suspension of some uses in given periods, the increase of monumental and naturalistic aspects of the wood).

AREAS FOR IMPROVEMENT:
Intervention strategies with a low environmental impact must be consolidated over time.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Harvesting plans, forest restructuring plans; documents issued by the regional forest services;
specific and local case studies; interviews; equivalent sources.

3.5 The infrastructures like roads, bridges and skid tracks, have to be planned, built and maintained in such a way to guarantee an efficient goods and services distribution and to minimize the negative environmental impacts at the same time.

Indicator 3.5.a Density of forest road network

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Total length of forest roads (km/hectare)

CRITICALITY THRESHOLD
Presence of measurement parameter

AREAS FOR IMPROVEMENT:
Presence of a forest road plan. The forest road system must be compatible with an efficient utilisation of goods and services produced by the forest as well as with the hydro-geological balance, landscape, plant health and wildlife aspects of the concerned ecosystems.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest road plan, local forest inventory; technical and thematic maps, forest management plan or equivalent tools at company, inter company or at a senior planning level; specific studies and local cases of study; documents issued by the regional forest services, equivalent sources.

Indicator 3.5.b Characteristics of forest road system

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
The design of new forest roads should consider small-scale topographical features and must affect as little as possible of river beds and water courses, and the processes of erosion and the degrading of the soil.

Presence/ absence of a system for monitoring the condition and ensuring the maintenance of forest roads. Any such maintenance must minimise the negative impacts on the water table, water courses and the landscape.

CRITICAL THRESHOLD:
Presence of measurement parameters.

AREAS FOR IMPROVEMENT:
Presence of a forest road plan detailing the best methods for constructing and maintaining forest roads and tracks, considering both the impacts on the water table, water course and landscape and the use by the local operator(s).

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest road plan, local forest inventories; technical and thematic maps; forest management plans or equivalent tools at company, inter company or at a senior planning level; specific and local cases studies; documents issued by the regional forest services; equivalent sources.

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CRITERION 4
MAINTANANCE, CONSERVATION AND APPROPRIATE ENHANCEMENT OF BIOLOGICAL DIVERSITY IN FOREST ECOSYSTEMS

<u>Indicator 4.1.a</u> Proportion of annual area of natural regeneration related to the total area of regeneration.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Forest area of regeneration in hectares _____ of which _____ % is of natural regeneration and _____% is of felling and replanting.

CRITICAL THRESHOLD:
Forest area allocated for natural regeneration should be above 70 % of the total area allocated for regeneration.

AREAS FOR IMPROVEMENT:
Management models must tend to support and implement natural regeneration over the whole area ensuring the continuation of the woodland.
Artificial and artificially assisted regeneration, unless otherwise specified in the forest management plan, should be limited to instances where natural regeneration is not considered possible, due to disease or serious biotic and abiotic damage where restoration has not been possible. In such a case, native propagation material with certified or known provenance should be used.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Various types of forest management plans (at company, inter company or at a senior planning level). Direct controls; equivalent sources.

<u>Indicator 4.2.a</u> Differentiation between native and introduced species.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
 Species introduced ____ and their ___% compared to the stands referring to the number of plants or to the area size. (not applied to arboreal formations with native/introduced species for experimental purposes).

CRITICAL THRESHOLD:

Introduced/ allochthonous species in future forestation/reforestation must not cause an increase of the allochthonous species area superior at 5% during the validity period of the management plan. In any case introduced/ allochthonous species shall not exceed 30% of the entire company area, except for forest management plans or equivalent tool specific indications.

AREA OF IMPROVEMENT

For the planting of existing native species, the forest management must introduce gradual planting schemes which are ecologically compatible with the forest stand.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Various types of forest management plan (at company, inter-company or at a senior planning level), research and specific studies, inventories and forest maps, specific projects. Direct controls or equivalent sources.

Indicator 4.2.b Quality of propagation material.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Exclusive use of material of certified or known provenance

CRITICAL THRESHOLD: exclusive use of material of certified or known provenance.

AREAS FOR IMPROVEMENT: N/A

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Various types of forest management plans (company, inter-company or at a senior level). Direct controls. Specific projects or equivalent sources.

Indicator 4.2.c Maintenance of appropriate biological diversity in reforestations.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Continuous surface of monoculture reforestations.
Leaving bands of natural vegetation aimed at making plantation breaks with a continuous surface greater than 5 ha.
The safeguarding of trees, groups of trees or bands of shrub vegetation which may be pre-existing, and the adoption of appropriate interventions so as to favour growth and development.

CRITICAL THRESHOLD:
Surface area less than 5 continuous hectares.
Presence of bands of natural vegetation.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Various types of forest management plans (company, inter company or at a higher level). Direct controls. Specific projects or equivalent sources.

Indicator 4.3.a Change in the proportion of mixed forests composed of 2 or more species.
Indicator 4.3.b Change in the proportion of mixed forests which are not single-stratified.

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NORMATIVE INDICATORS

MEASUREMENT PARAMETERS:
Forest area covered with mixed forests (tree composition of 2 or more species) _____ha and percentage in comparison to the total forest area ____ %.
Forest area covered with forests which are not single-storied _____ha and percentage in comparison to the total forest area ____ %.

CRITICAL THRESHOLD:
Forest surface covered with forest types which are ecologically adapted to the site, according to composition and structure, should be more than 50% of the total area.

AREAS FOR IMPROVEMENT:
Improving the stand composition according to the most suitable forest type for the site, encouraging, when possible, mixed and multi-storied cultivation models, favouring rare species.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Various types of forest management plan (company, inter company or at a senior level)

GL 4.4   Infrastructures must be planned and constructed in such a manner that damage is minimised to ecosystems, especially to rare, fragile or representative ecosystems and genetic reserves. Threatened or other key species, and in particular their migration patterns, must be taken into consideration.

<u>Indicator 4.4.a</u> Directives and prescriptions on forest utilisation operations and building of infrastructures in rare, fragile or representative ecosystems, where these ecosystems are present.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Presence of directives and prescriptions on forest utilisation operations and building of infrastructures in rare, fragile or representative ecosystems, where these ecosystems are present, as they are identified in various adopted measures

CRITICAL THRESHOLD:
Presence of the measurement parameters.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent tool at company, inter company a or at a senior planning level, wildlife census existing at a national or local scale, specific studies, plant life surveys, references to literature related to the concerned determined forest types, equivalent sources.

GL 4.5   With due regard to management objectives, measures must be taken to balance the pressure of animal populations and grazing on forest regeneration and growth as well as on biodiversity. Measures must also be included for the

protection of rare, threatened and endangered species and for the safeguarding of their habitat and food species.

<u>Indicator 4.5.a</u> Monitoring and checking of damage due to the presence of wildlife populations.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Monitoring and controls of forest damage.

CRITICAL THRESHOLD:
Presence of the measurement parameters.

AREA OF IMPROVEMENT
Fine-tuning and improvement of the monitoring instruments.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent tools; direct controls or equivalent sources.

<u>Indicator 4.5.b</u> Grazing in forest of domestic animals.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Number of domestic animals grazing in forest per area unit (in UBA):_____
Number of months when the practice of grazing in the forest takes place _____

CRITICAL THRESHOLD:
Observance of regulations and of planning instruments.

AREAS FOR IMPROVEMENT:
Achieving a grazing pressure which is compatible with regeneration, functionality and diversity of forest ecosystems.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan at company, inter company or at a senior level.
Direct controls, or equivalent sources.

<u>Indicator 4.6.a</u> Dead, monumental, historical and rare tree species.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Dead, monumental, or rare species, indication of the species and estimation in number per surface unit:_____.
Presence of dead wood on the ground

CRITICAL THRESHOLD:
Leaving monumental trees, if present.
Leaving some of the rare species trees, if present.
Leaving dead trees or parts of them on the ground.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan at company, inter company or at a senior level. Environmental plans for natural parks or forest management plans, forest inventories
Databases of natural monuments, direct controls or equivalent sources.

Indicator 4.6.b Areas not subjected to harvesting.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Area with no forestry operations:_____ hectares

CRITICAL THRESHOLD:
Presence area with no forestry operations

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan at company, inter company or at a senior level, Environmental plans for natural parks or forest management plans.
Direct controls.

Indicator 4.7 Monumental forests and water sources (eg peat bog) presence and management.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Monumental forests and water sources presence registration. The management shall adopt techniques avoiding the monumental forests and water sources damage.

CRITICAL THRESHOLD:
 Presence of regulations or specific procedures for the areas which are described by the indicator.

AREAS FOR IMPROVEMENT:
Forest management should avoid the damage of of monumental woods and wetlands.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING
Forest management plan or equivalent tool at company, inter company level; specific studies or equivalent sources.

Indicator 4.8.a Cultivating, silvicultural and planning directives about forest utilisations.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Prescriptions regarding all silvicultural practices (thinning operations, logging and harvesting operations, and regard for all the phases of wood development) and methods for undertaking forest operations (stacking and extraction, refer to Indicator 5.2.c) within forest management plans or equivalent planning tools, in conformity with regional rules, and harvesting or forest restructuring projects.

CRITICAL THRESHOLD:
Presence of such regulations and their observance.

AREAS FOR IMPROVEMENT:
Not relevant.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING
Forest management plan at company, inter company or at a higher level. Direct controls. Harvesting or forest restructuring projects. General rules, local forest prescription – PMPF. Any other equivalent sources similar to those mentioned above.

Indicator 4.8.b: Safeguard of habitat and threatened species

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS
Presence of species which are rare, threatened or in danger of extinction.

CRITICAL THRESHOLD
Mapping (GIS) of Nature 2000 sites in which there are threatened habitats and species.

AREA OF IMPROVEMENT
Not relevant.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
NATURE 2000 NETWORK, specific studies on biodiversity

Indicator 4.8.c. Planning and silvicultural indications regarding forest uses in sensitive areas.

NORMATIVE INDICATOR

MEASUREMENT PARAMETRES
Regulations or intervention methods in the field of forest uses, so as to safeguard and protect rare species and their habitats (see Indicator 4.8.b)

CRITICAL THRESHOLD
The presence of these regulations and their observance.

AREA OF IMPROVEMENT

Not relevant

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent planning instruments. Cutting projects or projects of forest redevelopment. General regulations, PMPF. Any other source which is equivalent to those mentioned above.

CRITERION 5
MAINTENANCE AND APPROPRIATE ENHANCEMENT OF PROTECTIVE FUNCTIONS IN FOREST MANAGEMENT (PARTICULALRY CONCERNING SOIL PROTECTION AND WATER MANAGEMENT)

Indicator 5.1.a Availability of forest thematic maps which represent the main function of forests, particularly referring to the protective one.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Maps at a scale suitable for planning and management purposes, which illustrate the wooded areas that have a special role for soil and water resource protection, and/or are important for the direct protection of infrastructures.

CRITICAL THRESHOLD:
Presence of hydro-geological.- restriction map or another representation of the protective function of the wooded areas.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Maps for Forest management plans, at company and inter-company level, forest inventory, soil thematic maps, maps on hydro-geological damage, watershed plans, forest forms, etc. Any other equivalent source to those mentioned above.

Indicator 5.1.b Amount of forest area managed for protective purposes and its variation over time.

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:
Forest surface subjected to restriction due to protection purposes _____ hectares, its percentage regarding the total forest area _____

AREAS FOR IMPROVEMENT:
Implementation of monitoring instruments for the protective function of forests.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan at company, inter-company or at a senior planning level. Direct controls. Harvesting or forest restructuring projects, Any other equivalent source to those mentioned above.

Indicator 5.2.a: Silvicultural practices in coppices and high forests.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Width of clear cuts in coppices.
Clear cuts and soil cover in high forests.

CRITICAL THRESHOLD:
- In coppices located in areas where the average gradient of the slope is equal or greater than 80%, clear cuts are forbidden, except if specific alternative prescriptions are given by the approved forest management plan or equivalent planning tools. In coppices located in areas where the average slope is between 50% and 80%, clear fell areas should not exceed 2 ha on areas at high erosion risk, and 5 hectares in other cases.
On slopes where the average gradient is less than 50%, clear fell areas must not be above 10 hectares, except if specific alternative prescriptions are given by the approved management plan, or equivalent planning tools.

- In high forest stands, clear cutting is forbidden on an area greater than ½ of a hectare, except in instances when it is necessary for the natural regeneration of the woodland or, if specifically prescribed, by the approved forest management plan or equivalent planning/authorisation tools, or for the general health of the forest. Tree stand density should be higher than 50% of the density range that is typical for the forest type and silvicultural regime.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans or equivalent planning instruments in accordance with the regional/provincial regulations or equivalent sources (see Indicator 3.1.a).

Indicator 5.2.b Soil working in forest areas.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Evaluation of the nature of soil workings which have been carried out or removal of leaf litter and mould or turf.

CRITICAL THRESHOLD:
Soil working is not allowed throughout the forest, particularly the gathering of leaf litter, mould or turf. An exception may be permitted where provision for such removal is made in the forest management plan (Indicator 3.1.a) or interventions authorized on the basis of procedures which are in force.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans and equivalent tools at company, inter company or at a senior planning level. Local rules and regulations. Survey and recording of current practices. Any other equivalent source to those mentioned above.

Indicator 5.2.c Criteria for undertaking timber stacking and logging

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Prescriptions that govern methods of timber stacking and logging must take into consideration the need to avoid damage to soil, remaining standing trees and regeneration.

CRITICAL THRESHOLD:
Presence and observance of regulations that govern methods of timber stacking and logging must take into consideration the need to avoid damage to soil, remaining standing trees and regeneration.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans and equivalent tools at company, inter-company or at a senior planning level, local and regional regulations. Harvesting and forest restructuring projects, regulations and local plans, assignment documents or equivalent sources

Indicator 5.3.a: Silvicultural practices in protective forests

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Management directives aimed at maximizing protective function.

CRITICAL THRESHOLD:
Presence and observance of measurement parameter

AREAS FOR IMPROVEMENT:
Monitoring/recording of damaging events.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plans and equivalent tools at company, inter company or at a senior planning level, regional set of rules and regulations present at a local level, work programmes that are being currently undertaken or have been realized during the last ten years aimed at enhancing or integrating the protective efficiency of woodland.
Also refer to Indicator 3.5.b concerning forest roads.

CRITERION 6
MAINTENANCE OF OTHER SOCIO-ECONOMIC FUNCTIONS AND CONDITIONS

GL 6.1 Forest management planning must aim to respect the multiple functions of forests to society, have due regard to the role of forestry in rural development, and in particular consider new opportunities for employment in connection with the forest's socio-economic functions and with their active sustainable management.

Indicator 6.1.a Undertaking operations that have a positive direct and indirect occupational impact

DESCRIPTIVE INDICATOR

MEASURMEANT PARAMETERS:
Total number of forestry employees _____ and its variation during the last no. _____ years _____ %
Percentage of forestry employees temporarily engaged compared to permanent employees _____ %

Management, maintenance and investment interventions carried out under direct administration: annual working units.

Management, maintenance and investment interventions carried out by third parties: annual working units.

AREAS FOR IMPROVEMENT:
Presence of commercial promoting strategies for timber and no-timber products through initiatives that lead to the sale of more value-added products.
The research of methods to diversify and give stability to incomes and employment in forestry, also by association, integration at company level processes.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Interviews, public meetings, direct controls, budgets, insurance and social security declarations or equivalent sources.

Indicator 6.2.a System for the evaluation of the socio-economic functions of interest to the individual organisation and society, in general.

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:
Evaluation of the company's socio-economic functions, also regarding local society timber and non-timber production.

AREAS FOR IMPROVEMENT:
Consideration of non-commercial products and the direct use by the owners and those entitled to such use.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Specific studies, accounting, direct interview General and/or local set of reference rules, or equivalent sources

Indicator 6.3.a Evidence and protection of rights of ownership, possession agreements and other use practices, with particular consideration for the correct definition of property boundaries, the possible use rights and the definition of hereditary succession processes.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
Documentation and/or maps which show rights of ownership, rights of possession, or other use practices on the forest area.

CRITICAL THRESHOLD:
Presence and observance of directions reported in use-regulations for collective rights.

AREAS FOR IMPROVEMENT:
Complete cartography, as far as possible; particularly in the forest management plan or equivalent documents which clearly identifies forest areas in public or private ownership.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Property and lease contracts. Interviews, public meetings, direct controls.
Forest management plan, analogous documentation or equivalent sources.

Indicator 6.4.a Amount of forests accessible to public for recreational purposes.

DESCRIPTIVE INDICATOR

Note: Pursuant to the relevant Civil Code articles, all fenceless private and public properties are subject to the right of way.

MEASUREMENT PARAMETERS:
Surface area of forests accessible to public for recreational purposes _____ hectares and its % _____ compared to the total area

AREAS FOR IMPROVEMENT:
Presence of programmes aimed at improving accessibility, mapping of sites.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan. Interviews, public meetings, direct controls.

Indicator 6.5.a Forests with historical, cultural and spiritual significance

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:

List and verification of sites with historical, cultural and spiritual significance and their protection.

CRITICAL THRESHOLD:
Presence of measurement parameters and planned activities of protection.

AREAS FOR IMPROVEMENT:
Projects to acquire knowledge about historical, cultural and spiritual characteristics of the land; cartography of the sites.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Forest management plan. Interviews, public meetings, direct controls. Specific lists or registers.

<u>Indicator 6.6.a</u>   Management practices which have a social value.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
The organisation must register those management practices which have a social value while taking into account the various stakeholders linked to the forest property management.

CRITICAL THRESHOLD:
Presence of the measurement parameter.

AREA OF IMPROVEMENT
Evaluation of action(s) to be carried out so as to improve information and communication with those involved.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Interviews, direct controls, public meetings, or equivalent sources.

GL 6.7   Forest managers, contractors, employees and forest owners must be provided with sufficient information and encouraged to keep up to date through continuous training in relation to sustainable forest management.
Particular attention must be paid to the training, professional updating, informing and other social services of the workers and the local community. All those involved in the certification process (individual or as members of the GR or of the AR) must ensure that the activities and the operations of third parties conform to and are in accordance with the criteria and the indicators of the GFS.

<u>Indicator 6.7.a</u> Training and professional refresher courses

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:

Evidence and documentation showing professional updating of those responsible for forest management.

AREAS FOR IMPROVEMENT:
Increase in the number of participants attending the courses; special attention should be dedicated to training, professional updating, information and other social services addressed to workers and local communities.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Attendance certificates, certificates from courses, conferences or seminars, specialist journals or others.

Indicator 6.7.b Investment in professional training

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:
Average annual amount of investment in the field of professional training in the forest sector.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
National and/or regional forestry plan, regional forest programme
Rural development plan (EC Reg. 1257/99 and Reg.CE 1698/2005).
Specific company investments or equivalent sources.

Indicator 6.8.a Prevention of accidents within companies carrying out works on their own or subcontracting

NORMATIVE INDICATOR

Note
In Italy, there is a law in force regulating the aspects of workers' safety within work place (Dgls 81/2008).

MEASUREMENT PARAMETERS:
Wood management operations must be carried out in such a way as to protect the health and safety of the workers and any others who may be present.

CRITICAL THRESHOLD:
Use of the protective equipment in cases where this is necessary under regulations in force.
Indicate the presence of work sites, where this is necessary under regulations in force.

AREAS FOR IMPROVEMENT:
The extension of regulations for work carried out without having recourse to external specialized companies, and for companies purchasing the standing forest (with permission) for cutting the wood

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:

Direct controls, interviews, documentation analysis or equivalent sources.

<u>Indicator 6.8.b</u> Training courses concerning safety if relevant.

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
 Attendance at training and security training courses.

CRITICAL THRESHOLD:
Documentary evidence of sufficient training on security subject.

AREAS FOR IMPROVEMENT:
Skills and updating of personnel responsible for managing and for operators are taken into account and improved.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Recordings, attendance certificates.

<u>Indicator 6.8.c</u> Statistics regarding accidents.

DESCRIPTIVE INDICATOR

MEASUREMENT PARAMETERS:
Register number of accidents while working within the organisation and percent change during the last no. _____ years

CRITICAL THRESHOLD:
Presence of the register filled in every part.

AREAS FOR IMPROVEMENT:
Adoption of registers which are consistent with relevant Authorities registers.

EXAMPLES OF DATA SOURCES AND INFORMATION GATHERING:
Interviews.

<u>Indicator 6.9.a</u> Forest improvement fund allocation

NORMATIVE INDICATOR

MEASUREMENT PARAMETERS:
As a rule, part of the return from the sale of forest products by public properties is reinvested in works for the improvement of resources, to ensure the multiple functions of forest and, in activities and works aimed at maintaining forest capacity, to offer products and/or services of public interest.

CRITICAL THRESHOLD:
In public woods, at least 10% of the estimated return from the sale of forest products in

public woodland is reinvested in works to improve the forest-pastoral resources.

AREAS FOR IMPROVEMENT:
Within public properties, management it is necessary to increase this percentage.

SOURCES OF INFORMATION
Business accounts for the calendar year or equivalent sources.