



MINISTERIAL CONFERENCE ON THE
PROTECTION OF FORESTS IN EUROPE

**RELEVANT DEFINITIONS USED
FOR THE IMPROVED PAN-EUROPEAN INDICATORS
FOR SUSTAINABLE FOREST MANAGEMENT**

LIAISON UNIT VIENNA

Marxergasse 2, A-1030 Vienna – Austria, Tel: +43 1 710 77 02, Fax: +43 1 710 77 02 13
E-mail: liaison.unit@lu-vienna.at <http://www.mcpfe.org>

Content

| | |
|---|---|
| Abiotic | 4 |
| Afforestation..... | 4 |
| Age class | 4 |
| Age class distribution..... | 4 |
| Biological diversity | 4 |
| Biotic | 4 |
| Carbon stock | 4 |
| Criterion | 4 |
| Critically endangered | 4 |
| Damage to forest..... | 4 |
| Forest/other wooded land with damage from unidentifiable causes..... | 5 |
| Primarily damaged by fire..... | 5 |
| Primarily damaged by insects and disease | 5 |
| Primarily damaged by storm, wind, snow or other identifiable abiotic factors..... | 5 |
| Primarily damaged by wildlife and grazing..... | 5 |
| Primarily damaged from known local pollution sources | 5 |
| Deadwood..... | 5 |
| Defoliation..... | 5 |
| Defoliation classes..... | 5 |
| Diameter class..... | 5 |
| Diameter distribution..... | 6 |
| Ecosystem | 6 |
| Forest ecosystem | 6 |
| Education..... | 6 |
| Educational categories | 6 |
| Forest worker..... | 6 |
| Forest worker, skilled..... | 6 |
| Forest worker, unskilled..... | 6 |
| Forest technician | 6 |
| Manager..... | 6 |
| Forest engineer..... | 6 |
| Endangered | 7 |
| Erosion..... | 7 |
| Eutrophication..... | 7 |
| Even-aged (high forest)..... | 7 |
| Exports..... | 7 |
| Extinct in the wild | 7 |
| Fellings | 7 |
| Annual fellings | 7 |
| Forest..... | 7 |
| Forest available for wood supply | 8 |
| Forest/other wooded land undisturbed by man | 8 |
| Forestry..... | 8 |
| Section A: Agriculture, hunting and forestry | 8 |
| Group 02.0: Forestry, logging and related services | 8 |
| Forest sector..... | 9 |
| Section A: Agriculture, hunting and forestry | 9 |
| Group 02.0: Forestry, logging and related services | 9 |
| Section D: Manufacturing | 9 |
| Subsection DD: Manufacture of wood and articles in wood..... | 9 |
| Subsection DE: Manufacture of paper and paper products | 9 |
| Forest services | 9 |

| | |
|---|----|
| Forest species | 9 |
| Forest types | 9 |
| Genetic resources | 9 |
| Gene conservation..... | 9 |
| Ex-situ conservation | 9 |
| In-situ conservation..... | 10 |
| Gross domestic product..... | 10 |
| Gross capital formation..... | 10 |
| Gross fixed capital formation | 10 |
| Growing stock | 10 |
| Hazard | 10 |
| Holding..... | 11 |
| Imports..... | 11 |
| Indicator | 11 |
| Infrastructure | 11 |
| Introduced tree species | 11 |
| Alien species..... | 11 |
| Invasive alien species | 11 |
| Job characteristics | 11 |
| Contractor | 11 |
| Legal right of access..... | 12 |
| Management plan or equivalent | 12 |
| Forest management plans | 12 |
| Equivalents | 12 |
| MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe | 12 |
| Main Management Objective Biodiversity “No Active Intervention” | 12 |
| Main Management Objective Biodiversity “Minimum Intervention” | 12 |
| Main Management Objective Biodiversity “Conservation Through Active Management” | 13 |
| Main Management Objective “Protection of Landscapes and Specific Natural Elements” | 13 |
| Main Management Objective “Protective Functions” | 13 |
| National forest programme | 13 |
| Net annual increment..... | 14 |
| Gross annual increment..... | 14 |
| Net revenue | 14 |
| Non-wood forest products | 14 |
| Occupational accident | 14 |
| Occupational disease | 14 |
| Other wooded land | 14 |
| Ownership categories | 15 |
| Private ownership (in) | 15 |
| Public ownership (in) | 15 |
| Paper and paperboard..... | 15 |
| Plantation(s)..... | 15 |
| Protection..... | 15 |
| Public participation..... | 15 |
| Recovered paper | 16 |
| Recreation | 16 |
| Recreational forest..... | 16 |
| Reference period | 16 |
| Regeneration | 16 |
| Natural regeneration | 16 |
| Natural regeneration enhanced by planting..... | 16 |
| Regeneration by planting and seeding | 16 |

| | |
|--|----|
| Coppice sprouting..... | 16 |
| Roundwood..... | 16 |
| Seed collection stand..... | 17 |
| Semi-natural forest/other wooded land..... | 17 |
| Soil..... | 17 |
| Forest soil..... | 17 |
| Soil nitrification and acidity..... | 17 |
| Stand..... | 17 |
| Even-aged stand..... | 17 |
| Uneven-aged stand..... | 17 |
| Sustainable forest management..... | 17 |
| Tree..... | 18 |
| Uneven-aged (high) forest..... | 18 |
| Volume..... | 18 |
| Standing volume..... | 18 |
| Vulnerable..... | 18 |
| Wood..... | 18 |
| Wood consumption..... | 18 |
| Wood resources..... | 18 |
| Wood fuel (including wood for charcoal)..... | 18 |
| Chips and particles..... | 19 |
| Wood residues..... | 19 |
| Woody biomass..... | 19 |
| Above-stump woody biomass..... | 19 |
| Stumps and roots..... | 19 |
| References..... | 20 |

Abiotic

- 1) Not biotic.
- 2) Nonliving, e.g.: **abiotic damage** = damage caused by non-living agents (snow, storms, etc.) (EFI Forest Glossary, 2001).

Afforestation

Artificial establishment of forest on land which previously did not carry forest within living memory (FRA 2000).

Age class

Any interval into which the age range of trees, forests, stands, or forest types is divided for classification, e.g. 1, 5, 10 or 20 year age classes, as used in inventory or management (IUFRO, 2000).

Age class distribution

The area and/or proportionate representation of different age classes in a forest (IUFRO, 2000).

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 part; this includes diversity within species, between species and of ecosystems (CBD, 1992).

Biotic

- 1) Of or relating to life; especially: caused or produced by living beings.
- 2) Living. Living organisms make up the biotic parts of ecosystems, e.g.: **biotic damage** = damage caused by living organisms (fungi, insects etc.) (EFI Forest Glossary, 2001).

Carbon stock

The absolute quantity of carbon held within a pool at a specific time (IPCC, 2001).

Criterion

Criteria characterise or define the essential elements or set of conditions or processes by which sustainable forest management may be assessed (MCPFE, 1998b).

Critically endangered

A taxon is critically endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E of IUCN (1998) on page I and li (IUCN, 1998).

Damage to forest

Disturbance to the forest which may be caused by biotic or abiotic agents, resulting in death, or a significant loss of vitality, productivity or value of trees and other components of the forest ecosystem (TBFRA 2000).

Forest/other wooded land with damage from unidentifiable causes

Forest/other wooded land with damage the cause of which is unknown or could be a combination of a number of agents (TBFRA 2000).

Primarily damaged by fire

Forest and other wooded land, the vegetation on which, including the trees, has been wholly or largely destroyed by fire (TBFRA 2000).

Primarily damaged by insects and disease

Forest and other wooded land where insect attack or disease has been identified as the primary cause of damage (TBFRA 2000).

Primarily damaged by storm, wind, snow or other identifiable abiotic factors

Forest and other wooded land on which the trees have been felled or damaged by storm, wind, snow or other abiotic factors such as avalanches, landslides or flooding (TBFRA 2000).

Primarily damaged by wildlife and grazing

Forest and other wooded land where damage has been caused by wildlife or grazing by domestic animals. Includes: Grazing or browsing of young plants, preventing or delaying the establishment or regeneration of the stand (TBFRA 2000).

Primarily damaged from known local pollution sources

Forest and other wooded land where damage can be attributed with reasonable certainty to pollutant deposition from an identified local source or sources (TBFRA 2000).

Deadwood

Any piece(s) of dead woody material, e.g., dead boles, limbs, and large root masses, on the ground in forest stands or in streams (IUFRO, 2000).

Defoliation

The crown condition is assessed in terms of defoliation. This parameter describes the lack of foliage for each sample tree (UNECE/EC, 2002)

Defoliation classes

The extent of visually assessed defoliation of trees, as developed by the International Co-operative Programme (ICP Forests) of the Executive Committee for the Convention on Long-range Transboundary Air Pollution in Europe. Damage classes are from 0 to 4, as follows (TBFRA 2000):

| <u>Class</u> | <u>Needle/Leaf loss</u> | <u>Degree of defoliation</u> |
|--------------|-------------------------|------------------------------|
| 0 | up to and including 10% | none |
| 1 | 10 to 25 % | slight (warning stage) |
| 2 | 25 to 60 % | moderate |
| 3 | > 60 to < 100 % | severe |
| 4 | 100% | dead |

Diameter class

Any of the intervals into which the range of stem diameters of trees or logs is divided for classification and use. Also the trees or logs falling into such an interval (IUFRO, 2000).

Diameter distribution

The manner in which the trees in a stand are distributed over diameter classes (IUFRO, 2000).

Ecosystem

A complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (CBD, 1992).

Forest ecosystem

A forest ecosystem is a dynamic complex of plant, animal, and micro-organism communities, and their abiotic environment interacting as a functional unit, where the presence of trees is essential. Humans, with their cultural, economic, and environmental needs are an integral part of many forest ecosystems (AD HOC Technical Expert Group on Forest Biological Diversity, convened by the Secretariat of the CBD to prepare a report for SBSTTA-7, 2001).

Education

Activities which aim at providing knowledge and developing a sense of values and an understanding of principles applicable in all walks of life, rather than at imparting knowledge and skills relating to only a limited field of occupational activity (FAO/ECE/ILO, 1996).

Educational categories**Forest worker**

A person engaged in practical work associated with silviculture, harvesting of forest products and other forest operations (FAO/ECE/ILO, 1996).

Forest worker, skilled

A skilled forest worker has acquired full qualifications for a whole range of practical activities in forestry (FAO/ECE/ILO, 1996).

Forest worker, unskilled

A unskilled forest worker has received a few hours or days of instruction to perform a simple job, e.g. manual tree planting (FAO/ECE/ILO, 1996).

Forest technician

A person specially trained to carry out work requiring a level of technical and supervisory skills beyond the level of foreman (or forest guard) but below that of a university graduate in forestry (FAO/ECE/ILO, 1996).

Manager

A person appointed and legally responsible for the management and technical direction of all part of a forestry enterprise.

Forest engineer

A forest engineer is as a rule a university graduate in forestry, in some countries a forest technician trained to a higher level (FAO/ECE/ILO, 1996).

Endangered

A taxon is endangered when it is not critically endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the criteria A to E of IUCN (1998) on page li (IUCN, 1998).

Erosion

Erosion is a natural geological phenomenon resulting from removal of soil particles by water or wind, transporting them elsewhere. However, some human activities can dramatically increase erosion rates. Serious erosion is generally irreversible (Commission of the European Communities, 2002)

Eutrophication

Anthropogenic caused build-up of nutrients that causes natural nutrient imbalance in an ecosystem and may alter its structure (German Federal Environmental Agency, 1996).

Even-aged (high forest)

High forest in which the predominant proportion of the trees falls into the same age class, generally resulting in a single storey forest (TBFRA 2000).

Exports

Products of domestic origin or manufacture shipped out of the country. It includes re-exports. It excludes "in-transit" shipments. It is reported in cubic metres of solid volume or metric tonnes and values are normally recorded as free-on-board (i.e. FOB) (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Extinct in the wild

A taxon is extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxons's life cycle and life form (IUCN, 1998).

Fellings**Annual fellings**

Average annual standing volume of all trees, living or dead, measured overbark to a minimum diameter of 0 cm (d.b.h.) that are felled during the given reference period, including the volume of trees or parts of trees that are not removed from the forest, other wooded land or other felling site. Includes: silvicultural and pre-commercial thinnings and cleanings left in the forest; and natural losses that are recovered (harvested) (TBFRA 2000).

Forest

Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 ha. The trees should be able to reach a minimum height of 5 m at maturity in situ. May consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or of open forest formations with a

continuous vegetation cover in which tree crown cover exceeds 10 percent. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of 10 percent or tree height of 5 m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural causes but which are expected to revert to forest. Includes: Forest nurseries and seed orchards that constitute an integral part of the forest; forest roads, cleared tracts, firebreaks and other small open areas within the forest; forest in national parks, nature reserves and other protected areas such as those of special environmental, scientific, historical, cultural or spiritual interest; windbreaks and shelterbelts of trees with an area of more than 0.5 ha and a width of more than 20 m. Rubberwood plantations and cork oak stands are included. Excludes: Land predominantly used for agricultural practices (TBFRA 2000).

Forest available for wood supply

Forest where any legal, economic, or specific environmental restrictions do not have a significant impact on the supply of wood. Includes: areas where, although there are no such restrictions, harvesting is not taking place, for example areas included in long-term utilisation plans or intentions (TBFRA 2000).

Forest/other wooded land undisturbed by man

Forest/other wooded land which shows natural forest dynamics, such as natural tree composition, occurrence of dead wood, natural age structure and natural regeneration processes, the area of which is large enough to maintain its natural characteristics and where there has been no known significant human intervention or where the last significant human intervention was long enough ago to have allowed the natural species composition and processes to have become re-established (TBFRA 2000).

Forestry

Includes the following ISIC/NACE¹ category (02):

Section A: Agriculture, hunting and forestry

Group 02.0: Forestry, logging and related services

¹ ISIC = International standard industrial classification of all economic activities.

NACE= General industrial classification of economic activities within the European communities (Nomenclature générale des activités économiques dans les communautés Européennes).

Forest sector

Includes the following ISIC/NACE categories (02, 20, 21):

Section A: Agriculture, hunting and forestry

Group 02.0: Forestry, logging and related services

Section D: Manufacturing

Subsection DD: Manufacture of wood and articles in wood

Class 20.1: Sawmilling, planing, impregnation of wood

Class 20.2: Manufacture of wood panels:

Class 20.3: Manufacture of builders' carpentry and joinery

Class 20.4: Manufacture of wooden containers

Class 20.5: Manufacture of miscellaneous products of wood and cork, basketwork

Subsection DE: Manufacture of paper and paper products

Class 21.1: Manufacture of pulp, paper and paperboard

Class 21.2: Manufacture of articles of paper or paperboard

Forest services

Forest services comprise:

- Protection (against soil erosion by air or water, avalanches, mud and rock slides, flooding, air pollution, noise, etc:).
- Social and economic values (e.g. hunting and fishing, other leisure activities, including recreation, sport and tourism).
- Aesthetic, cultural, historical, spiritual and scientific values (including landscape and amenity) (FRA 2000).

Forest species

A forest species is a species that is dependent on a forest for part or all of its day to day living requirements, or for its reproductive requirements. Therefore, an animal species may be considered a forest species even if it does not live most of its life in a forest. (AD HOC Technical Expert Group on Forest Biological Diversity, convened by the Secretariat of the CBD to prepare a report for SBSTTA-7, 2001).

Forest types

Forest types are classified as follows, based on EUNIS Top Level and TBFRA 2000:

- Broadleaved woodland
- Coniferous woodland
- Mixed broadleaved and coniferous woodland
- Other wooded land

Genetic resources

Genetic resources means genetic material of actual or potential value (CBD, 1992)

Gene conservation

Ex-situ conservation

The conservation of components of biological diversity outside their natural habitats (CBD, 1992).

In-situ conservation

In-situ conservation means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties (CBD, 1992).

Gross domestic product

Gross domestic product at purchasers' prices is the sum of the gross value added by all resident and non-resident producers in the economy plus any taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. The industrial origin of value added is determined by the International Standard Industrial Classification (ISIC), rev.2 (The World Bank, 1998).

Gross capital formation

Based on the European System of Accounts (ESA, 1995) gross capital formation (Code: P.5), consists of:

- gross fixed capital formation (Code P.51)
- changes in inventories (Code P.52) and
- acquisitions less disposals of valuables (Code P.53)

Gross fixed capital formation

Gross fixed capital formation (GFCF) (Code P.51) consists of resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets realised by the productive activity of producer or institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in processes of production for more than one year.

The following types of GFCF may be distinguished according to ESA (1995):

- (1) Acquisitions less disposals of tangible assets: dwellings, buildings, machinery and cultivated assets ,e.g. trees and livestock;
- (2) Acquisitions less disposals of intangible assets: mineral exploration, computer software, etc.;
- (3) Major improvements to tangible non-produced assets, in particular those pertaining to land (though the acquisition of non-produced assets is not included);
- (4) Costs associated with the transfers of ownership of non-produced assets, like land and patented assets.

Growing stock

The living tree component of the standing volume (TBFRA 2000).

Hazard

A hazard is a state that may result in an undesired event, the cause of risk. Hazard can apply to the probability of tree mortality or damage by an insect or disease and also represents material or fuel that will ignite and burn (BC Forest Service, 1997).

Holding

One or more parcels of forest and other wooded land which constitute a single unit from the point of view of management or utilisation. For State-owned forest and other wooded land a holding may be defined as the area forming a major management unit administered by a senior official, .e.g. a Regional Forestry Officer. For forest and other wooded land that is owned publicly, other than by the State, or owned by large-scale forest owners, e.g. forest industries, a holding may constitute a number of separated properties which are, however, managed according to one corporate strategy. Under any category of ownership, other than State-owned, one holding may be the property of one or several owners (TBFRA 2000).

 Imports

Products imported for domestic consumption or processing shipped into a country. It includes imports for re-export. It excludes "In-transit" shipments. It is reported in cubic metres of solid volume or metric tonnes and values normally include cost, insurance and freight (i.e. CIF) (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

 Indicator

The indicators show changes over time for each criterion and demonstrate the progress made towards its specified objective (MCPFE, 1998a).

 Infrastructure

The technical installations and social facilities which are required to provide for the basic needs of the population and the economic development of a territory (UBA, 1995).

 Introduced tree species

(synonyms: non-indigenous species, exotic species)

Tree species occurring outside their natural vegetation zone, area or region. Includes: Hybrids (TBFRA 2000).

 Alien species

Alien or alien species refers to a species, subspecies or lower taxon, introduced outside its normal past or present normal distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce (UNEP/CBD/COP/6/18/Add.1/Rev.1 26 March 2002).

 Invasive alien species

Invasive alien species refers to an alien species whose introduction and spread threaten ecosystems, habitats or species with socio-cultural, economic and/or environmental harm, and/or harm to human health (UNEP/CBD/COP/6/18/Add.1/Rev.1 26 March 2002).

 Job characteristics **Contractor**

A person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill for the safe performance of specific work. The competent authorities may define appropriate criteria for the designation of such persons and may determine the duties to be assigned to them (ILO, 1998).

Legal right of access

Where the public are legally entitled to visit forest and other wooded land, whether publicly owned or owned by third parties. Some activities by the visiting public may however be forbidden or restricted (TBFRA 2000).

Management plan or equivalent

A written scheme of forest management, aiming at defined management goals, which is periodically revised. These include:

Forest management plans

Information (in the form of text, maps, tables and graphs) collected during (periodic) forest inventories at operational forest units level (stands, compartments), and operations planned for individual stands or compartments to reach the management goals (MCPFE 2002).

Equivalents

Information collected on forest area, at forest management or aggregated forest management unit level (forest blocks, farms, enterprises, watersheds, municipalities, or wider units), and strategies/management activities planned to reach the management or development goals (MCPFE 2002).

MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe (MCPFE 2002b)

| MCPFE Classes | | EEA | IUCN |
|---|---|------------|-------------|
| 1: Main Management Objective "Biodiversity" | 1.1: "No Active Intervention" | A | I |
| | 1.2: "Minimum Intervention" | A | II |
| | 1.3: "Conservation Through Active Management" | A | IV |
| 2: Main Management Objective "Protection of Landscapes and Specific Natural Elements" | | B | III, V, VI |
| 3: Main Management Objective "Protective Functions" | | (B) | n.a. |

Main Management Objective Biodiversity "No Active Intervention"

(MCPFE Class 1.1)

- The main management objective is biodiversity
- No active, direct human intervention is taking place
- Activities other than limited public access and non-destructive research not detrimental to the management objective are prevented in the protected area

Main Management Objective Biodiversity "Minimum Intervention"

(MCPFE Class 1.2)

- The main management objective is biodiversity
- Human intervention is limited to a minimum
- Activities other than listed below are prevented in the protected area:
 - Ungulate/game control

- Control of diseases/insect outbreaks²
- Public access
- Fire intervention
- Non-destructive research not detrimental to the management objective
- Subsistence resource use³

Main Management Objective Biodiversity “Conservation Through Active Management”

(MCPFE Class 1.3)

- The main management objective is biodiversity
- A management with active interventions directed to achieve the specific conservation goal of the protected area is taking place
- Any resource extraction, harvesting, silvicultural measures detrimental to the management objective as well as other activities negatively affecting the conservation goal are prevented in the protected area

Main Management Objective “Protection of Landscapes and Specific Natural Elements”

(MCPFE Class 2)

- Interventions are clearly directed to achieve the management goals landscape diversity, cultural, aesthetic, spiritual and historical values, recreation, specific natural elements
- The use of forest resources is restricted
- A clear long-term commitment and an explicit designation as specific protection regime defining a limited area is existing
- Activities negatively affecting characteristics of landscapes or/and specific natural elements mentioned are prevented in the protected area

Main Management Objective “Protective Functions”

(MCPFE Class 3)

- The management is clearly directed to protect soil and its properties or water quality and quantity or other forest ecosystem functions, or to protect infrastructure and managed natural resources against natural hazards
- Forests and other wooded lands are explicitly designated to fulfil protective functions in management plans or other legally authorised equivalents
- Any operation negatively affecting soil or water or the ability to protect other ecosystem functions, or the ability to protect infrastructure and managed natural resources against natural hazards is prevented

National forest programme

A national forest programme constitutes a participatory, holistic, inter-sectoral and iterative process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level in order to proceed towards sustainable forest management as defined in Helsinki Resolution H1, and to contribute to sustainable development. It is based on national sovereignty and long term high level political commitment, supportive to the development of human and institutional capacity, and characterised by procedural and specific elements and

² In case of expected large diseases/insect outbreaks control measures using biological methods are allowed provided that no other adequate control possibilities in buffer zones are feasible.

³ Subsistence resource use to cover the needs of indigenous people and local communities, in so far as it will not adversely affect the objectives of management.

principles (as described in the “MCPFE Approach to National Forest Programmes in Europe”, MCPFE, 2002a).

Net annual increment

Average annual volume over the given reference period of gross increment less that of natural losses on all trees to a minimum diameter of 0 cm (d.b.h.) (TBFRA 2000).

Gross annual increment

Average annual volume of increment over the reference period of all trees, measured to a minimum diameter breast height (d.b.h.) of 0 centimetres (cm). Includes: The increment on trees which have been felled or die during the reference period (TBFRA 2000).

Net revenue

The net revenue of forest enterprises includes all sources of income of the forest owner directly related to forestry, including subsidies, excluding taxes (MCPFE, 2002).

Non-wood forest products

Non-wood forest products comprise:

- Products for human consumption: food, beverages, medicinal plants, and extracts (e.g. fruits, berries, nuts, honey, game meats, mushrooms, etc.
- Fodder and forage (grazing, range).
- Other non-wood products: (e.g. cork, resin, tannins, industrial extracts, wool and skins, hunting trophies, Christmas trees, decorative foliage, mosses and ferns, essential and cosmetic oils, etc.) (FRA 2000).

Occupational accident

An occurrence arising out of or in the course of work which results in:

- (a) fatal occupational injury
- (b) non-fatal occupational injury (ILO, 1998).

Occupational disease

A disease contracted as a result of an exposure to risk factors arising from work activity (ILO, 1998).

Other wooded land

Land either with a tree crown cover (or equivalent stocking level) of 5-10 percent of trees able to reach a height of 5 m at maturity in situ; or a crown cover (or equivalent stocking level) of more than 10 percent of trees not able to reach a height of 5 m at maturity in situ (e.g. dwarf or stunted trees) and shrub or bush cover. Excludes: Areas having the tree, shrub or bush cover specified above but of less than 0.5 ha and width of 20 m, which are classed under “other land”; Land predominantly used for agricultural practices (TBFRA 2000).

EFI Forest Glossary (2001) enlarges this definition by ‘forest fallow and shrubs’.

Ownership categories

Private ownership (in)

Forest/other wooded land owned by individuals, families, co-operatives and corporations which may be engaged in agriculture or other occupations as well as forestry; private forest enterprises and industries; private corporations and other institutions (religious and educational institutions, pension and investment funds, nature conservation societies, etc) (TBFRA 2000).

Public ownership (in)

Forest/other wooded land belonging to the State or other public bodies (TBFRA 2000).

Paper and paperboard

The paper and paperboard category is an aggregate category. In the production and trade statistics, it represents the sum of: graphic papers; sanitary and household papers; packaging materials and other paper and paperboard. Products in this category are generally manufactured in strips or rolls of a width exceeding 15 cm (36 cm for HS 48.13 and 48.19) or in rectangular sheets with one side exceeding 36 cm and the other exceeding 15 cm in the unfolded state. It excludes manufactured paper products such as boxes, cartons, books and magazines, etc. It is reported in metric tonnes (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Plantation(s)

Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either:

- of introduced species (all planted stands), or
- intensively managed stands of indigenous species which meet all the following criteria:
one or two species at plantation, even age class, regular spacing.

Excludes: Stands which were established as plantations but which have been without intensive management for a significant period of time. These should be considered semi-natural (TBFRA 2000).

Protection

The function of forest and OWL in providing protection of soil against erosion by water or wind, prevention of desertification, the reduction of risk of avalanches and rock or mud slides; and in conserving, protecting and regulating the quantity and quality of water supply, including the prevention of flooding. Includes: Protection against air and noise pollution (TBFRA 2000).

Protective forest

See MCPFE 2002b: MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe.

Public participation

Public participation is a voluntary process whereby people, individually or through organised groups, can exchange information, express opinions and articulate interests, and have the potential to influence decisions or the outcome of the matter at hand (ILO, 2000).

Recovered paper

Waste and scraps of paper or paperboard that have been collected for re-use as a raw material for the manufacture of paper and paperboard. It includes paper and paperboard that has been used for its original purpose and residues from paper and paperboard production. It is reported in metric tonnes (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Recreation

Any physical or psychological revitalisation through the voluntary pursuit of leisure time. Forest recreation includes the use and enjoyment of a forest or wildland setting, including heritage landmarks, developed facilities, and other biophysical features (BC Forest Service, 1997).

Recreational forest

A forest managed primarily to provide recreational opportunities (IUFRO 2000).

Reference period

The year or years during which the national forest inventory or other method of collection of the data reported in the forest resources assessment was carried out (TBFRA 2000).

Regeneration

Re-establishment of a forest stand by natural or artificial means following the removal of the previous stand by felling or as a result of natural causes, e.g. fire or storm (TBFRA 2000).

Natural regeneration

Re-establishment of a forest stand by natural means, i.e. by natural seeding or vegetative regeneration. It may be assisted by human intervention, e.g. by scarification or fencing to protect against wildlife damage or domestic animal grazing (TBFRA 2000).

Natural regeneration enhanced by planting

Natural regeneration which has been combined with artificial planting or seeding, either to ensure satisfactory restocking with the naturally regenerated species or to increase species diversity (TBFRA 2000).

Regeneration by planting and seeding

The act of establishing a forest stand (e.g. plantation) or re-establishing a forest stand by artificial means, either by planting of seedlings or by scattering seed. The material used may be of indigenous or introduced origin. Planting and seeding may take place on forest, other wooded land or other land (TBFRA 2000).

Coppice sprouting

The regrowth from coppice stools after the previous stand has been cut (TBFRA 2000).

Roundwood

All roundwood felled or otherwise harvested and removed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the period, calendar year or forest year. It includes all wood removed with or without bark, including wood removed in its

round form, or split, roughly squared or in other form (e.g. branches, roots, stumps and burls (where these are harvested) and wood that is roughly shaped or pointed. It is an aggregate comprising wood fuel, including wood for charcoal and industrial roundwood (wood in the rough). It is reported in cubic metres solid volume underbark (i.e. excluding bark) (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Seed collection stand

Selected seed source that fulfils certain requirements. As a rule the stand should be autochthonous or its origin must be known, and above all it should be superior to average stands. On occasion, non-indigenous stands showing excellent features are also chosen. Seed collection stands are accepted and registered by the national authority (EFI Forest Glossary, 2001).

Semi-natural forest/other wooded land

Forest/other wooded land which is neither “forest/other wooded land undisturbed by man” nor “plantation” as defined separately (TBFRA 2000).

Soil

The top layer of the earth's crust. It is formed by mineral particles, organic matter, water, air and living organisms (ISO, 1996)

Forest soil

Soil, with characteristics resulting from, or emphasised by, tree cover (IUFRO 2000).

Soil nutrification and acidity

Changes in nutrient balance and acidity over the past 10 years (pH/CEC/C/N ratio) in humus and top soil (-20 cm) level using ICP Forests and its definitions (Vanmechelen et al., 1998).

Stand

A community of trees possessing sufficient uniformity in composition, age, arrangement or condition to be distinguishable from the forest or other growth on adjoining areas, thus forming a temporary silvicultural or management entity (IUFRO, 2000).

Even-aged stand

A stand or forest type, in which no or relatively small age differences exist among individual trees within it, usually less than 20% of rotation length (IUFRO, 2000).

Uneven-aged stand

Consisting of trees of a range of age classes, with age differences which are significant in relation to the stand structure management and rotation length (IUFRO, 2000).

Sustainable forest management

Sustainable management means the stewardship and use of forests and forest lands in such a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems (MCPFE, 1993).

Tree

A woody perennial with a single main stem or, in the case of coppice, with several stems, having a more or less definite crown. Includes: Bamboos, palms and other woody plants meeting the above criterion (TBFRA 2000).

Uneven-aged (high) forest

High forest in which there is a mixture of different age classes. Usually, the trees can not be separated into different storeys (TBFRA 2000).

Volume**Standing volume**

Volume of standing trees, living or dead, above-stump measured overbark to top (0 cm). Includes all trees with diameter over 0 cm (d.b.h.) Includes: Tops of stems, large branches; dead trees lying on the ground which can still be used for fibre or fuel. Excludes: Small branches, twigs and foliage (TBFRA 2000).

Vulnerable

A taxon is vulnerable when it is not critically endangered or endangered but is facing a high risk of extinction in the wild in the medium-near future, as defined by any of the criteria A to E of IUCN (1998) on page lii (IUCN, 1998).

Wood

All roundwood felled or otherwise harvested and removed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the period, calendar year or forest year. It includes all wood removed with or without bark, including wood removed in its round form, or split, roughly squared or in other form (e.g. branches, roots, stumps and burls (where these are harvested) and wood that is roughly shaped or pointed. It is an aggregate comprising wood fuel, including wood for charcoal and industrial roundwood (wood in the rough). It is reported in cubic metres solid volume underbark (i.e. excluding bark) (Joint FAO/ECE/Eurostat/ITTO Questionnaire).

Wood consumption

The use of timber and/or wood through utilisation and burning (IUFRO, 2000).

Wood resources

According to the Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire (2001) "wood resources" are defined as the sum of the following items:

Wood fuel (including wood for charcoal)

Roundwood that will be used as fuel for purposes such as cooking, heating or power production. It includes wood harvested from main stems, branches and other parts of trees (where these are harvested for fuel) and wood that will be used for charcoal production (e.g. in pit kilns and portable ovens). The volume of roundwood used in charcoal production is estimated by using a factor of 6.0 to convert from the weight (mt) of charcoal produced to the solid volume (m³) of roundwood used in production. It also includes wood chips to be used for fuel that are made directly (i.e. in the forest)

from roundwood. It excludes wood charcoal. It is reported in cubic metres solid volume underbark (i.e. excluding bark) (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Chips and particles

Wood that has been deliberately reduced to small pieces during the manufacture of other wood products and is suitable for pulping, for particle board and fibreboard production, for use as a fuel, or for other purposes. It excludes wood chips made directly (i.e. in the forest) from roundwood (i.e. already counted as pulpwood, round and split). It is reported in cubic metres solid volume excluding bark (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Wood residues

The volume of roundwood that is left over after the production of forest products in the forest processing industry (i.e. forest processing residues) and that has not been reduced to chips or particles. It includes sawmill rejects, slabs, edgings and trimmings, veneer log cores, veneer rejects, sawdust, residues from carpentry and joinery production, etc. It excludes wood chips made either directly (i.e. in the forest) from roundwood or made from residues (i.e. already counted as pulpwood, round and split or wood chips and particles). It is reported in cubic metres solid volume excluding bark (Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire, 2001).

Woody biomass

The mass of the woody parts (wood, bark, branches, twigs, stumps and roots) of trees, alive and dead, shrubs and bushes, measured to a minimum diameter of 0 mm (d.b.h.). Includes: Above-stump woody biomass, and stumps and roots. Excludes: Foliage (TBFRA 2000).

Above-stump woody biomass

The mass of the woody part (stem, bark, branches, twigs) of trees, alive or dead, shrubs and bushes, excluding stumps and roots (TBFRA 2000).

Stumps and roots

Parts of the whole tree volume, which exclude the volume of the above-stump woody biomass. The height of the stump is taken to be that at which the tree would be cut under normal felling practices in that country or region. Excludes: Small roots (TBFRA 2000).

References

- Ad hoc Technical Expert Group on Forest Biological Diversity (2001). Convened by the Secretariat of the CBD to prepare a report for SBSTTA-7.
- BC Forest Service (1997): Glossary of Forestry Terms. Available at www.for.gov.bc.ca/PAB/PUBLCTNS/GLOSSARY/glossary.htm
- CBD (Convention on Biological Diversity) (1992): Convention on Biological Diversity.
- Commission of the European Communities (2002): Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions. Towards a Thematic Strategy for Soil Protection. COM (2002) 179 final. Brussels.
- EFI Forest Glossary (2001): EFI Forest Glossary -Terms and Definitions. EFI Internal Report.
- ESA (European System of National Accounts) (1995): ESA95 manual on government deficit and debt. Eurostat. Luxembourg.
- FAO (2001): State of the World's Forests 2001. FAO. Rome, 2001. Available at <http://www.fao.org/forestry/fo/sofo/SOFO2001/sofo2001-e.stm>
- FAO/ECE/ILO (1996): Professions, Skills and Training in Forestry. Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training. Berne.
- FRA 2000: Global Forest Resources Assessment 2000. Main Report. FAO Forestry Paper 140. FAO, Rome.
- ILO (1998): Safety and health in forestry work: An ILO code of practice. International Labour Office, Geneva
- ILO (2000): Public Participation in Forestry in Europe and North America. FAO/ECE/ILO Team of Specialists on Participation in Forestry. Sectoral Working Paper 163. International Labour Office, Geneva.
- IPCC (2001): IPCC Special Report on Land Use, Land-Use Change And Forestry. Available at http://www.grida.no/climate/ipcc/land_use/index.htm
- ISO (International Standards Organisation) (1996): 11074-1. 01.08.1996.
- IUCN (1994): Guidelines for Protected Area Management Categories. IUCN.
- IUCN (1998): 1997 IUCN Red List of Threatened Plants. IUCN.
- IUFRO (2000): Terminology of Forest Management. Terms and Definitions in English. IUFRO World Series Vol. 9-en. IUFRO Secretariat Vienna. (Or: SilvaTerm Database. Available at <http://iufro.boku.ac.at/iufro/silvavoc/svdatabase.htm>).
- Joint UNECE/FAO/Eurostat/ITTO Forest Sector Questionnaire (2001). Definitions. Timber Section. UNECE Trade Division. Geneva.
- MCPFE (1993): Ministerial Conference on the Protection of Forests in Europe, 16-17 June 1993 in Helsinki, Documents.

- MCPFE (1998a): Third Ministerial Conference on the Protection of Forests in Europe. Follow-up Reports on the Ministerial Conferences on the Protection of Forests in Europe. Volume II. Liaison Unit in Lisbon (Ed.).
- MCPFE (1998b): Third Ministerial Conference on the Protection of Forests in Europe. General declaration and resolutions adopted. Resolution L 2. Liaison Unit in Lisbon (Ed.).
- MCPFE (2002a): MCPFE Approach to National Forest Programmes in Europe as adopted by the MCPFE Expert Level Meeting, 7-8 October 2002, Vienna, Austria.
- MCPFE (2002b): MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe as adopted by the MCPFE Expert Level Meeting, 10-11 June 2002, Vienna, Austria
- TBFRA 2000 (Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand) (2000): Main Report. United Nations. New York and Geneva.
- The World Bank (1998): World Development Indicators. Washington, D.C.
- UBA (Umweltbundesamt) (1995): Glossary of Environmental Terms for Urban and Regional Planners. UBA. Berlin.
- UNECE/EC (2002): The Condition of Forests in Europe. 2002 Executive Report. Geneva and Brussels.
- German Federal Environmental Agency (1996): Manual on Methodologies and Criteria for Mapping Critical Levels/Loads and geographical areas where they are exceeded. UBA-Texte 71/96
- Vanmechelen, L., Groenemans, R., Van Ranst, E. (1997): Forest Soil Condition in Europe. Technical Report. Ministry of the Flemish Community, EC and UNECE, Brussels, Geneva.