



**Forestry Department**

Food and Agriculture Organization of the United Nations

**FRA 2000**

**TERMS AND DEFINITIONS**

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## **The Forest Resources Assessment Programme**

Forests are crucial for the well-being of humanity. They provide foundations for life on earth through ecological functions, by regulating the climate and water resources, and by serving as habitats for plants and animals. Forests also furnish a wide range of essential goods such as wood, food, fodder and medicines, in addition to opportunities for recreation, spiritual renewal and other services.

Today, forests are under pressure from expanding human populations, which frequently leads to the conversion or degradation of forests into unsustainable forms of land use. When forests are lost or severely degraded, their capacity to function as regulators of the environment is also lost, increasing flood and erosion hazards, reducing soil fertility, and contributing to the loss of plant and animal life. As a result, the sustainable provision of goods and services from forests is jeopardized.

FAO, at the request of the member nations and the world community, regularly monitors the world's forests through the Forest Resources Assessment Programme. The next report, the Global Forest Resources Assessment 2000 (FRA 2000), will review the forest situation by the end of the millennium. FRA 2000 will include country-level information based on existing forest inventory data, regional investigations of land-cover change processes, and a number of global studies focusing on the interaction between people and forests. The FRA 2000 report will be made public and distributed on the world wide web in the year 2000.

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# 1 Introduction

The Global Forest Resources Assessment 2000 (FRA 2000) will report on the state of the world's forests by the year 2000. The framework for the FRA 2000 was set by the Expert Consultation held in Kotka, Finland (Kotka III) in June 1996 (Nyyssönen & Ahti 1996). The objectives of the meeting were to agree on the FRA 2000 agenda and on how to respond to new information requirements for the year 2000 assessment.

This paper reflects considerable effort made to develop common terms and definitions that can be applied to forest resources assessment<sup>1</sup>. The process began in the Kotka III meeting, where a preliminary set of definitions was reviewed and edited by 32 experts from both developing and industrialized countries; and continued in the Team of Specialists meetings intended to harmonize definitions at the global level. In some cases compromises between, or adjustments of, existing terms has been necessary.

<u>FRA 2000 Information Content</u>
<b>LAND CLASSIFICATIONS</b>
Land cover (forest and other wooded land)
Protected areas
Land ownership
Ecological zones
Forest area for wood supply
<b>FOREST PARAMETERS</b>
Volume
Biomass
Felling and Removals
Non-wood forest products and forest services
<b>CHANGES</b>
Forest Cover
Forest Degradation
Forest Fires

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<sup>1</sup> The UN-ECE in Geneva, Switzerland has distributed a companion document for industrialized countries (UN-ECE/FAO 1997).

## 2. Land Classifications

### 2.1 Land cover

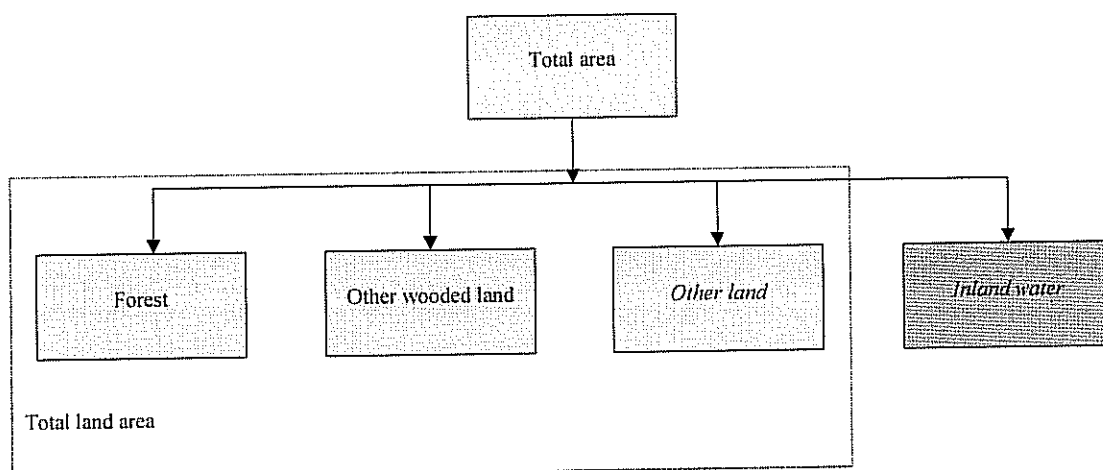
#### 2.1.1 General classification

A hierarchic scheme has been defined for classification of land cover. The scheme focuses on *forest* and *other wooded land* and does not distinguish sub-classes within, for instance, agricultural land. The general classification is defined below and in *Figure 1*. The sub-classes within *forest* and *other wooded land* are described in sections 2.1.2 and 2.1.3 respectively.

<u>Land cover class</u>	<u>Definition</u>
<b>Total area<sup>1</sup></b>	Total area (of country), including area under inland water bodies, but excluding offshore territorial waters.
<b>Forest</b>	<p>Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of 5 meters (m) at maturity <i>in situ</i>. May consist <u>either</u> of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; <u>or</u> 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.</p> <p><u>Includes:</u> forest nurseries and seed orchards that constitute an integral part of the forest; forest roads, cleared tracts, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific scientific, historical, cultural or spiritual interest; windbreaks and shelterbelts of trees with an area of more than 0.5 ha and width of more than 20 m; plantations primarily used for forestry purposes, including rubberwood plantations and cork oak stands.</p> <p><u>Excludes:</u> Land predominantly used for agricultural practices</p>
<b>Other wooded land</b>	Land either with a crown cover (or equivalent stocking level) of 5-10 percent of trees able to reach a height of 5 m at maturity <i>in situ</i> ; 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 <i>in situ</i> (e.g. dwarf or stunted trees); or with shrub or bush cover of more than 10 percent.
<b>Other land</b>	Land not classified as forest or other wooded land as defined above. Includes agricultural land, meadows and pastures, built-on areas, barren land, etc.
<b>Inland water</b>	Area occupied by major rivers, lakes and reservoirs.

<sup>1)</sup> The Total land area is defined as the Total area, but excluding Inland water.

Figure 1. Land classification, general level



Note: The definition of *forest* applied in FRA 2000 has a minimum crown cover requirement and may be quite different from a legal definition of forest (or forest land) (i.e. Legal definitions may designate an area to be forest under a Forest Act or Ordinance without regard to the actual presence of forest cover).

### 2.1.2 Forest

The general forest definition above refers both to *natural forests* and *forest plantations*. In most tropical and subtropical countries a clear distinction is made between these two categories, and for the purpose of the FRA 2000 this distinction is used as a first level of subdivision (Figure 2).

<b>Plantation</b>	<p>Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either:</p> <ul style="list-style-type: none"> <li>• of introduced species (all planted stands), or</li> <li>• intensively managed stands of indigenous species, which meet all the following criteria: one or two species at plantation, even age class, regular spacing.</li> </ul> <p>See also <i>afforestation</i> and <i>reforestation</i> in section 4.1.</p>
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Note Area statistics on forest plantations provided by countries should reflect the actual forest plantations resource, excluding replanting. **Replanting** is the re-establishment of planted trees, either because afforestation or reforestation failed, or tree crop was felled and regenerated. It is not an addition to the total plantation area.

<b>Natural forest</b>	<p>Natural forests are forests composed of indigenous trees, not planted by man. Or in other words forests excluding plantations. Natural forests are further classified using the following criteria:</p> <ul style="list-style-type: none"> <li>• forest formation (or type): closed/open</li> <li>• degree of human disturbance or modification</li> <li>• species composition.</li> </ul>
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### 2.1.3 Subdivisions of Natural forests

Forest formation: closed/open

<b>Closed forest</b>	<p>Formations where trees in the various storeys and the undergrowth cover a high proportion (&gt; 40 percent) of the ground and do not have a continuous dense grass layer (cf. The following definition). They are either managed or unmanaged forests, primary or in advanced state of reconstitution and may have been logged-over one or more times, having kept their characteristics of forest stands, possibly with modified structure and composition. Typical examples of tropical closed forest formations include tropical rainforest and mangrove forest.</p>
<b>Open forest</b>	<p>Formations with discontinuous tree layer but with a coverage of at least 10 percent and less than 40 percent. Generally there is a continuous grass layer allowing grazing and spreading of fires. (Examples are various forms of "cerrado", and "chaco" in Latin America, wooded savannas and woodlands in Africa).</p>

The division between *closed* and *open forest* is more ecological (referring to the climax vegetation of a particular location), than current physiognomic features, and thus not characterized only by the percentage crown cover. For instance, a rainforest, after logging, appear as open forest from the single criteria of crown cover. However, in this case, the forest should be classified as semi-natural closed forest rather than open forest, unless there are permanent changes in flora, fauna and soil condition. Such changes are generally due to repeated fire, grazing, etc., which maintain the forest in a sub-climax condition. Certain forest formations, e.g. Miombo woodland in Southern Africa, are on the threshold of closed and open formations, where the wetter types (northern distribution) could be classified as closed forest (according to crown closure) and the drier types in its southern distribution as open forest.

### Degree of human disturbance or modification

Three categories of natural forest are defined according to the degree of human disturbance or modification:

<b>Natural Forest undisturbed by man</b>	Forest which shows natural forest dynamics such as natural species 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 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.
<b>Natural Forest disturbed by man</b>	<u>Includes:</u> <ul style="list-style-type: none"><li>• logged over forests associated with various intensity of logging.</li><li>• various forms of secondary forests, resulting from logging or abandoned cultivation.</li></ul>
<b>Semi-natural forest</b>	Managed forests modified by man through silviculture and assisted regeneration.

### Forest composition by species groups

Closed forests are further distinguished according to their composition into the following types:

<b>Broadleaved forest</b>	Forest with a predominance (more than 75 percent of tree crown cover) of trees of broadleaved species.
<b>Coniferous forest</b>	Forest with a predominance (more than 75 percent of tree crown cover) of trees of coniferous species.
<b>Bamboo/Palms formations</b>	Forest on which more than 75% of the crown cover consists of tree species other than coniferous or broadleaved species (e.g. tree-form species of the bamboo, palm and fern families)
<b>Mixed forest</b>	Forest in which neither coniferous, nor broadleaved, nor palms, bamboos, account for more than 75 percent of the tree crown cover.

Open forests are distinguished into *broadleaved* and *coniferous* and *mixed*, using the same definitions that are applied to closed forests.

#### *2.1.4 Discussion on forest classification*

The FRA 2000 forest classification has the primary objective to allow standardized and comparable reporting on the world's forest and is not meant to replace existing national classifications. National inventories and the terms and definitions used by them have specific

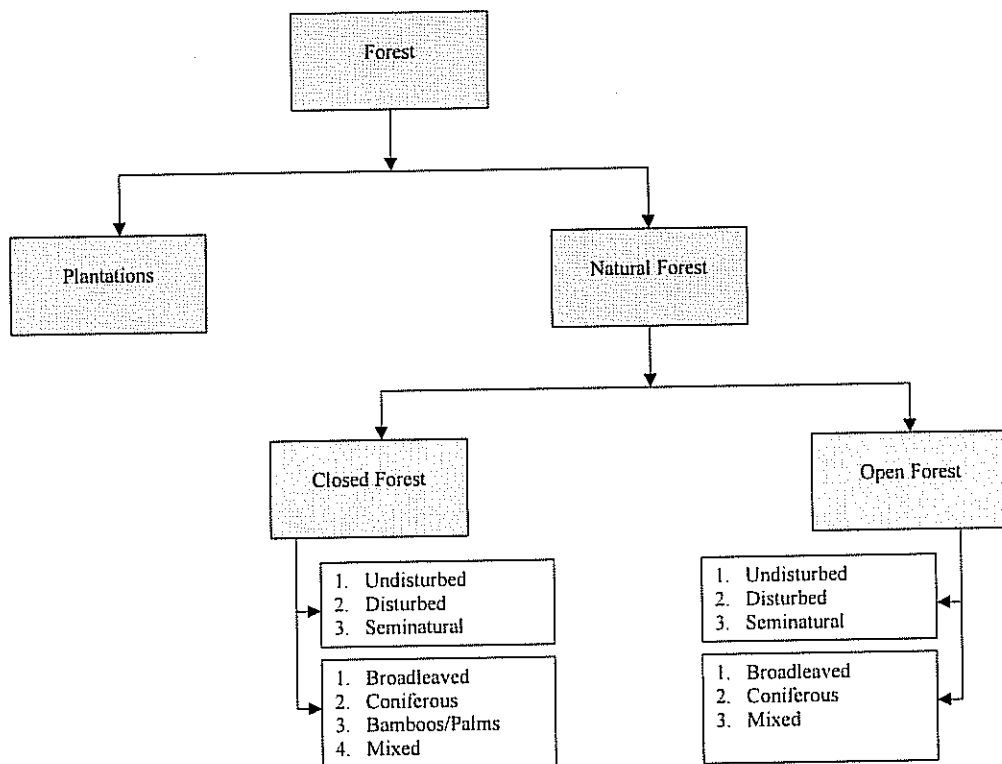


purposes and are geared to suit the country's ecological setting and/or functions and the use of the forests. In order to make the 2000 assessment process transparent, the country's classification and its relationship to the FRA 2000 classification will be reported.

Agreement on common classifications and definitions involves compromises. For example, the threshold of 40% crown cover to distinguish closed from open forest is frequently debated. During Kotka III, one non-governmental organization recommended a threshold of 70% crown cover for defining closed forests. However, it should be recalled that there is no single classification system that will serve and satisfy all needs. What is essential, is that the classification criteria are clear and can be applied objectively.

The FRA 2000 will attempt to report not only on the quantity of forest but also on the condition of forests. The latter aspect is reflected in the distinction between undisturbed natural forest, disturbed natural forest and semi-natural forest.

Figure 2. Forest classification



## 2.1.5 Other wooded land

*Other wooded land* includes shrubs for all countries and an additional category, forest fallow, which occurs only in developing countries. The two types of other wooded land are defined as follows.

Shrubs	Refer to vegetation types where the dominant woody elements are shrubs i.e. woody perennial plants, generally of more than 0.5 m and less than 5 m in height on maturity and without a definite crown. The height limits for trees and shrubs should be interpreted with flexibility, particularly the minimum tree and maximum shrub height, which may vary between 5 and 7 meters approximately.
Forest fallow system	Refers to all complexes of woody vegetation deriving from the clearing of natural forest for shifting agriculture. It consists of a mosaic of various reconstitution phases and includes patches of uncleared forests and agriculture fields, which cannot be realistically segregated and accounted for area-wise, especially from satellite imagery. Forest fallow system is an intermediate class between forest and non-forest land uses. Part of the area may have the appearance of a secondary forest. Even the part currently under cultivation sometimes has appearance of forest, due to presence of tree cover. Accurate separation between forest and forest fallow may not always be possible.

Excluded: 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".

Other wooded land is divided in *undisturbed* and *disturbed*, according to the definitions that are applied to natural forest. *Other wooded land undisturbed by man* typically includes natural shrub formations, i.e. thickets, bushes, shrubs. *Disturbed other wooded land* includes forest fallow systems and shrub formations deriving from the degradation of previous forest formations.

## 2.2 Protected areas

Following the Kotka III recommendations, the FRA 2000 will include information on areas with protection status within the general land cover classes (i) Forest and (ii) Other wooded land. Protected areas refer to areas designated for conservation by law or other regulations.

Within FRA 2000, the International Union for Conservation of Nature (IUCN) categories for nature protection (IUCN 1984) (below) will be used. The FRA 2000 will group these categories into two main classes:

1. *Strictly protected areas*, includes IUCN categories 1 and 2; and
2. *Protected areas with integrated management*, including IUCN categories 3, 4, 5 and 6.

IUCN categories for nature protection:

<u>Category</u>	<u>Definition</u>
<b>I - Strict nature reserve / wilderness area.</b>	<b>Protected area managed mainly for science or wilderness protection.</b> These areas possess some outstanding ecosystems, features and/or species of flora and fauna of national scientific importance, or they are representative of particular natural areas. They often contain fragile ecosystems or life forms, areas of important biological or geological diversity, or areas of particular importance to the conservation of genetic resources. Public access is generally not permitted. Natural processes are allowed to take place in the absence of any direct human interference, tourism and recreation. Ecological processes may include natural acts that alter the ecological system or physiographic features, such as naturally occurring fires, natural succession, insect or disease outbreaks, storms, earthquakes and the like, but necessarily excluding man-induced disturbances.
<b>II - National Park.</b>	<b>Protected area managed mainly for ecosystem protection and recreation.</b> National parks are relatively large areas, which contain representative samples of major natural regions, features or scenery, where plant and animal species, geomorphological sites, and habitats are of special scientific, educational and recreational interest. The area is managed and developed so as to sustain recreation and educational activities on a controlled basis. The area and visitors' use are managed at a level which maintains the area in a natural or semi-natural state.
<b>III - Natural monument.</b>	<b>Protected area managed mainly for conservation of specific natural features.</b> This category normally contains one or more natural features of outstanding national interest being protected because of their uniqueness or rarity. Size is not of great importance. The areas should be managed to remain relatively free of human disturbance, although they may have recreational and touristic value.
<b>IV - Habitat/species management area.</b>	<b>Protected area managed mainly for conservation through management intervention.</b> The areas covered may consist of nesting areas of colonial bird species, marshes or lakes, estuaries, forest or grassland habitats, or fish spawning or seagrass feeding beds for marine animals. The production of harvestable renewable resources may play a secondary role in the management of the area. The area may require habitat manipulation (mowing, sheep or cattle grazing, etc.).
<b>V - Protected landscape/ seascape.</b>	<b>Protected areas managed mainly for landscape/seascape conservation and recreation.</b> The diversity of areas falling into this category is very large. They include those whose landscapes possess special aesthetic qualities which are a result of the interaction of man and land or water, traditional practices associated with agriculture, grazing and fishing being dominant; and those that are primarily natural areas, such as coastline, lake or river shores, hilly or mountainous terrains, managed intensively by man for recreation and tourism.
<b>VI - Managed resource protection area.</b>	<b>Protected area managed for the sustainable use of natural ecosystems.</b> Normally covers extensive and relatively isolated and uninhabited areas having difficult access, or regions that are relatively sparsely populated but are under considerable pressure for colonization or greater utilization.

## 2.3 Land ownership

Land ownership classes for Forest and Other wooded land are defined below. Land ownership shall be reported for Forest area as a whole or by Natural Forest and Plantations respectively.

<u>Land ownership</u>	<u>Definition</u>
<b>Public ownership</b>	Belonging to State or other public bodies.
<b>State ownership</b>	Owned by national, state and regional governments or by government-owned corporations.
<b>Owned by other public institutions</b>	Belonging to cities, municipalities, villages and communes. Includes: any publicly owned forest and other wooded land not elsewhere specified.
<b>Owned by indigenous and tribal peoples</b>	<p>Owned by indigenous and tribal peoples in independent countries, defined as those who:</p> <ol style="list-style-type: none"> <li>1. are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at a time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions;</li> <li>2. are tribal peoples whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partly by their own customs or traditions or by special laws and regulations.</li> </ol> <p>For both categories (1) and (2) self-identification as indigenous or tribal shall be regarded as the fundamental criterion for determining the groups. (Source: ILO Convention No. 169 on "indigenous and tribal peoples").</p>
<b>Private ownership</b>	Forest and other wooded land owned by individuals, families, co-operatives or corporations engaged in agriculture or other occupations as well as forestry; private forest (wood-processing) industries; private corporations and other institutions (religious and educational institutions, pension or investment funds, etc.).
<b>Owned by individuals</b>	Forest and other wooded land owned by individuals and families, including those who have formed themselves into companies, including companies that combine forestry and agriculture (farm forests). Includes cases where owners do not live on or near their forest holdings (absentee owners).
<b>Owned by forest industries</b>	Forest and other wooded land owned by private forestry or wood-processing industries.
<b>Owned by other private institutions</b>	Forest and other wooded land owned by private corporations, co-operatives or institutions (religious, educational, pension or investment funds, nature conservation societies, etc.).

## 2.4 Ecological zones

FRA 2000 will analyze and report forest state and change by ecological zone. The classification is based on climatic factors and altitude, which to a large extent determine distribution of forest formations. Ecological zones shall be reported for *forest* area as a whole or by *natural forest* and *plantations* respectively.

The generated information will help to assess and analyze forest changes, i.e. impacts of deforestation or reforestation on ecosystem biological diversity, and the impacts of biomass changes on the carbon cycle

## 2.5 Forest area available for wood supply

The forest area that is inaccessible for wood supply due to (a) legal, (b) economic or (c) environmental restrictions should be identified. Work Group 3 in Kotka III preferred the wording *available for wood supply* rather than “available for wood production” as “production” could imply biological production (yield) rather than harvest or fellings, which was intended.

The definitions of the terms are as follows:

<b>Forest available for wood supply</b>	Forest where any legal, economic, or specific environmental restrictions do not have a significant impact on the supply of wood.  <u>Includes:</u> Areas where, although there are no such restrictions, harvesting is not taking place, for example areas included in long-term utilization plans or intentions.
<b>Forest not available for wood supply</b>	Forest where legal, economic or specific environmental restrictions prevent any significant supply of wood.  <u>Includes:</u> <ul style="list-style-type: none"><li>• Forest with legal restrictions or restrictions resulting from other political decisions, which totally exclude or severely limit wood supply, <i>inter alia</i> for reasons of environmental or biological diversity conservation, e.g. protection forest, national parks, nature reserves and other protected areas, such as those of special environmental, scientific, historical, cultural or spiritual interest;</li><li>• Forest where physical productivity or wood quality is too low or harvesting and transport costs are too high to warrant wood harvesting, apart from occasional cuttings for autoconsumption.</li></ul>

### 3. Forest Parameters

#### 3.1 Volume and biomass

Information on the volume and biomass of trees is important to indicate the role of forests in carbon storage. The growing stock volume of forest available for wood supply is also an important indicator of the forest's (economic) potential.

Volume and Biomass terms and definitions are:

<u>Term</u>	<u>Definition</u>
<b>Growing stock</b>	Stem volume of all living trees more than 10 cm diameter at breast height (or above buttresses if these are higher), over bark measured from stump to top of bole. <u>Excludes:</u> all branches
<b>Commercial growing stock</b>	Part of the growing stock, that consists of species considered as actually or potentially commercial under current local and international market conditions, at the reported reference diameter (d.b.h.). <u>Includes:</u> species which are currently not utilized, but potentially commercial having appropriate technological properties.  <u>Note:</u> When most species are merchantable, i.e. in the temperate and boreal zone, the commercial growing stock, in a given area or for a country, can be close to the total growing stock. In the tropics however, where only a fraction of all species are merchantable, it may be much smaller.
<b>Woody biomass</b>	The mass of the woody part (stem, bark, branches, twigs) of trees, alive and dead, shrubs and bushes. <u>Includes:</u> Above ground woody biomass, stumps and roots. <u>Excludes:</u> foliage, flowers and seeds.
<b>Above-ground woody biomass</b>	The above ground mass of the woody part (stem, bark, branches, twigs) of trees, alive or dead, shrubs and bushes, <u>excluding</u> stumps and roots, foliage, flowers and seeds.

#### Further discussion on volume and biomass

Volume and biomass were discussed at length during Kotka III. It was noted that attempts to obtain international agreement on standard minimum diameters for the measurement of growing stock have been unsuccessful so far. In the industrial (temperate and boreal) countries, 7 cm is the most commonly used minimum diameter, both for top and at breast height, some countries use the 0 cm, while 10 cm diameter is used in many developing countries. Accordingly the 10 cm diameter will be applied in the FRA 2000 assessment for developing countries for practical reasons.

Primary data on woody biomass are scarce, particularly in the tropics, and the available figures are generally derived from volume (growing stock) data, and refer to above ground biomass. Therefore the reported FRA 2000 tropical country figures will refer to the above ground woody biomass.

### 3.2 Fellings and removals

Information on *fellings* and *removals* is important to provide information on the volumes of wood being cut and harvested annually, as an indication of the wood utilization of the forest.

<b>Fellings</b>	<p>Average volume of all trees, living or dead, measured over bark to a minimum diameter of 10 cm (d.b.h.), that are felled during a given period (e.g. annually), whether or not they are removed from the forest or other wooded land.</p> <p><u>Includes:</u> silvicultural and pre-commercial thinnings and cleanings of trees more than 10 cm (d.b.h.) left in the forest, and natural losses of trees above 10 cm (d.b.h.).</p>
<b>Removals</b>	<p>(Annual) removals that generate revenue for the owner of the forest or other wooded land or trees outside the forest. They refer to "Volume Actually Commercialized" (VAC), i.e. volume under-bark actually cut and removed from the forest. This volume may include wood for industrial purposes (e.g. sawlogs, veneer logs, etc.) and for local domestic use (e.g. rural uses for construction).</p> <p><u>Includes:</u> removals during the given reference period of trees felled during an earlier period and removal of trees killed or damaged by natural causes (natural losses), e.g. fire, wind, insects and diseases.</p> <p><u>Excludes:</u> removals for fuelwood.</p> <p><u>Note:</u> Removals as defined above refer to <u>commercial removals</u>, i.e. harvested timber, both for industrial and local domestic uses. In many developing countries, removals for fuelwood make up a considerable part of the total harvested wood. However, data on fuelwood removals are generally scarce and/or unreliable, and need to be reported separately when national or local data are available.</p>

### 3.3 Non-wood forest products and forest services

The purpose of this section is to provide qualitative and, where available, quantitative information on the importance of the role of forest and other wooded land in providing non-wood forest products and certain social, cultural and environmental services.

The following categories can be distinguished:

<b>Non-wood forest products</b>	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.)
<b>Forest services</b>	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)



## 4. Changes

### 4.1 Forest cover changes

Three categories are distinguished concerning forest cover change, of which deforestation and forest plantations are usually reflected in the country forest statistics. Forest degradation, on the other hand, refers to a partial loss of forest cover which is not sufficient to change the classification from *forest* to other land cover classes, thus is not reflected in increases or decreases in forest area. However, degradation is an important process to assess, especially in relation to biomass and biological diversity changes.

<b>Deforestation</b>	Refers to change of land cover with depletion of tree crown cover to less than 10 percent. Changes within the forest class (e.g. from closed to open forest) which negatively affect the stand or site and, in particular, lower the production capacity, are termed forest degradation.
<b>Forest degradation</b>	Takes different forms, particularly in open forest formations, deriving mainly from human activities such as over-grazing, over-exploitation (for firewood or timber), repeated fires, or due to attacks by insects, diseases, plant parasites or other natural sources such as cyclones. In most cases, degradation does not show as a decrease in the area of woody vegetation but rather as a gradual reduction of biomass, changes in species composition and soil degradation. Unsustainable logging practices can contribute to degradation if the extraction of mature trees is not accompanied with their regeneration or if the use of heavy machinery causes soil compaction or loss of productive forest area.
<b>New plantations:</b>	
a) <b>Afforestation</b>	Artificial establishment of forest on lands which previously did not carry forest within living memory.
b) <b>Reforestation</b>	Artificial establishment of forest on lands which carried forest before.

### 4.2 Forest fire

This section is intended to provide information about the extent of fire damage and the average fire size in forest areas and to provide information on historical trends regarding fires.

<b>Forest fire</b>	Fire that breaks out and spreads on forest and other wooded land or which breaks out on other land and spreads to forest and other wooded land.  <u>Excludes:</u> Prescribed or controlled burning, usually with the purpose of reducing or eliminating the quantity of accumulated fuel on the ground.
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## 5. Additional terms

<u>Term</u>	<u>Definition</u>
<b>Broadleaved tree</b>	All trees classified botanically as <i>Angiospermae</i> . They are sometimes referred to as "non-coniferous" or "hardwoods".
<b>Coniferous tree</b>	All trees classified botanically as <i>Gymnospermae</i> . They are sometimes referred to as "softwoods".
<b>Endangered species</b>	Species classified by an objective process (e.g. national "Red Book") as being in IUCN categories "critically endangered" and "endangered". A species is considered to be a critically endangered when it is facing an extremely high risk of extinction in the wild in the immediate future. It is considered "endangered" when it is not critically endangered but is still facing a very high risk of extinction in the wild in the near future.
<b>Endemic species</b>	Species is endemic when found only in a certain strictly limited geographical region, i.e. restricted to a specified region or locality
<b>Indigenous tree species</b>	Tree species which have evolved in the same area, region or biotope where the forest stand is growing and are adapted to the specific ecological conditions predominant at the time of the establishment of the stand. May also be termed native species or autochthonous species.
<b>Introduced tree species</b>	Tree species occurring outside their natural vegetation zone, area or region. May also be termed non-indigenous species. <u>Includes</u> : Hybrids
<b>Managed forest / Other wooded land</b>	Forest and other wooded land that is managed in accordance with a formal or an informal plan applied regularly over a sufficiently long period (five years or more).
<b>Protection</b>	The function of forest/other wooded land 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. <u>Includes</u> : Protection against air and noise pollution.
<b>Tree</b>	A woody perennial with a single main stem, or in the case of coppice with several stems, having a more or less definite crown. <u>Includes</u> : bamboo's, palms and other woody plants meeting the above criterion.

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