

## Annex 2

# Terms and definitions for the national reporting tables for FRA 2005

### FOREST AND OTHER WOODED LAND

#### Forest

Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.

Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 metres (m) in situ. Areas under reforestation that have not yet reached but are expected to reach a canopy cover of 10 percent and a tree height of 5 m are included, as are temporarily unstocked areas, resulting from human intervention or natural causes, which are expected to regenerate.

Includes: areas with bamboo and palms provided that height and canopy cover criteria are met; forest roads, 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, shelterbelts and corridors of trees with an area of more than 0.5 ha and width of more than 20 m; plantations primarily used for forestry or protective purposes, such as rubber-wood plantations and cork oak stands.

Excludes: tree stands in agricultural production systems, for example in fruit plantations and agroforestry systems. The term also excludes trees in urban parks and gardens.

**Other wooded land** Land not classified as forest, spanning more than 0.5 hectares; with trees higher than 5 m and a canopy cover of 5–10 percent, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.

**Other land** All land that is not classified as forest or other wooded land. Includes: agricultural land, meadows and pastures, built-up areas, barren land, etc.; areas classified under the subcategory ‘other land with tree cover’.

**Other land with tree cover** Land classified as other land, spanning more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 m at maturity.

Includes: groups of trees and scattered trees in agricultural landscapes, parks, gardens and around buildings, provided that the area, height and canopy cover criteria are met; includes tree plantations established mainly for other purposes than wood, such as fruit orchards.

### LAND AREA

#### Land area

Total country area excluding area under inland water bodies.

The definition of inland water bodies generally includes major rivers and lakes.

Validated data in this category are obtained mainly from the United Nations Statistics Division, New York. Possible variations in the data may be due to updating and revisions of the country data and not necessarily to any change of area.

**Inland water bodies** Inland water bodies generally include major rivers, lakes and water reservoirs.

## OWNERSHIP

**Private ownership** Land owned by individuals, families, private cooperatives, corporations, industries, private religious and educational institutions, pension or investment funds and other private institutions.

Private owners may be engaged in agriculture or other occupations including forestry.

**Public ownership** Land owned by the state (national, state and regional governments) or government-owned institutions or corporations or other public bodies including cities, municipalities and villages.

**Other ownership** Land that is classified neither as public ownership nor as private ownership. Includes: land for which ownership is not defined or unknown.

## DESIGNATED FUNCTIONS OF FOREST AND OTHER WOODED LAND

**Designated functions** For the purpose of FRA 2005, the designated function refers to the function or purpose assigned to a piece of land either by legal prescriptions or by decision of the landowner/manager. It applies to land classified as forest and as other wooded land.

**Conservation of biodiversity** Forest/other wooded land designated for conservation of biological diversity. Includes, but is not limited to, protected areas.

**Multiple purpose** Forest/other wooded land designated for any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of socio-cultural services, and where none of these alone can be considered as being significantly more important than the others.

**Primary function** A designated function is considered to be primary when it is significantly more important than other functions. This includes areas that are legally or voluntarily set aside for specific purposes.

The category 'multiple purpose' is considered a primary function when legal prescriptions and/or landowner decisions explicitly assign functions that correspond to two or more of the designation categories and where none of these is significantly more important than the others.

**Production** Forest/other wooded land designated for production and extraction of forest goods, including both wood and non-wood forest products (NWFPs).

**Protection of soil and water** Forest/other wooded land designated for protection of soil and water.

**Social services** Forest/other wooded land designated for the provision of social services. May include: recreation, tourism, education and/or conservation of cultural/spiritual sites.

**Total area with function** Total area where a specific function has been designated, regardless of whether it is primary or not.

The designation categories for total area with function are not exclusive. Hence, areas can be counted more than once, for example: areas with multiple purposes as primary function should be counted once for each specific function included in the multiple purposes; areas with a specific designated primary function should be counted more than once if other, less significant, functions have also been designated.

**Unknown function** Forest/other wooded land for which a specific function has not been designated or where the designated function is unknown.

### FOREST CHARACTERISTICS

**Modified natural forest/other wooded land** Forest/other wooded land of naturally regenerated native species where there are clearly visible indications of human activities.

Includes, but is not limited to: selectively logged-over areas, naturally regenerating areas following agricultural land use, areas recovering from human-induced fires, etc.; areas where it is not possible to distinguish whether the regeneration has been natural or assisted.

**Primary forest/other wooded land** Forest/other wooded land of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Includes: areas where collection of NWFPs occurs, provided the human impact is small. Some trees may have been removed.

**Productive plantation (in forest/other wooded land)** Forest/other wooded land of introduced species and in some cases native species, established through planting or seeding, mainly for production of wood or non-wood goods.

Includes: all stands of introduced species established for production of wood or non-wood goods.

May include: areas of native species characterized by few species, straight tree lines and/or even-aged stands.

**Protective plantation (in forest/other wooded land)** Forest/other wooded land of native or introduced species, established through planting or seeding mainly for provision of services.

Includes: all stands of introduced species established for provision of environmental services, such as soil and water protection, pest control and conservation of habitats of biological diversity; areas of native species characterized by few species, straight tree lines and even-aged stands.

**Semi-natural forest/other wooded land** Forest/other wooded land of native species, established through planting, seeding or assisted natural regeneration.

Includes: areas under intensive management where native species are used and deliberate efforts are made to increase/optimize the proportion of desirable species, thus leading to changes in the structure and composition of the forest. Naturally regenerated trees from other species than those planted/seeded may be present.

May include: areas with naturally regenerated trees of introduced species.

Includes: areas under intensive management where deliberate efforts, such as thinning or fertilizing, are made to improve or optimize desirable functions of the forest. These efforts may lead to changes in the structure and composition of the forest.

### GROWING STOCK

**Growing stock** Volume over bark of all living trees more than X cm in diameter at breast height (DBH). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.

The diameter is measured at 30 cm above the end of the buttresses if these are higher than 1 m.

Includes: windfallen living trees.

Excludes: Smaller branches, twigs, foliage, flowers, seeds and roots.

**Commercial growing stock** The part of the growing stock that is considered as commercial or potentially commercial under current market conditions (and with a diameter at breast height of Z cm or more).  
 Includes: all commercial and potentially commercial (merchantable) species for domestic and international markets.  
 Excludes: growing stock on areas where legal, economic or other specific restrictions prevent felling and removal of wood.  
 When most species are commercial, i.e. in the temperate and boreal zone, the commercial growing stock can be close to the total growing stock. On the other hand, when only a small fraction of all species are merchantable, it can be considerably smaller.

## BIOMASS

**Biomass** Organic material both above ground and below ground, and both living and dead, e.g., trees, crops, grasses, tree litter, roots, etc. Biomass includes the pool definition for above- and below-ground biomass.

**Above-ground biomass** All living biomass above the soil, including stem, stump, branches, bark, seeds and foliage.

Where the forest understorey is a relatively small component of the above-ground biomass, it is acceptable to exclude it, provided this is done in a consistent manner throughout the inventory time series.

**Below-ground biomass** All living biomass of live roots. Fine roots of less than (suggested) 2 mm diameter are sometimes excluded because these often cannot be distinguished empirically from soil organic matter or litter.

May include: the below-ground part of the stump.

**Dead-wood biomass** All non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.

## CARBON STOCK

**Carbon stock** The quantity of carbon in a 'pool', meaning a reservoir or system that has the capacity to accumulate or release carbon.

Examples of carbon pools are: living biomass (including above- and below-ground biomass); dead organic matter (including dead wood and litter); soils (soil organic matter). The units are mass.

**Carbon in above-ground biomass** Carbon in all living biomass above the soil, including stems, stump, branches, bark, seeds and foliage.

Where the forest understorey is a relatively small component of the above-ground biomass carbon pool, it is acceptable to exclude it, provided this is done in a consistent manner throughout the inventory time series.

**Carbon in below-ground biomass** Carbon in all living biomass of live roots.

Includes: the below-ground part of the stump.

Excludes: fine roots of less than 2 mm diameter because these often cannot be distinguished empirically from soil organic matter or litter.

**Carbon in dead-wood biomass** Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.

**Carbon in litter** Carbon in all non-living biomass with a diameter less than a minimum diameter chosen by the country, in various states of decomposition above the mineral or organic soil. This includes the litter, fomic and humic layers.

Includes: live fine roots of less than 2 mm (or other value chosen by the country as diameter limit for below-ground biomass), where they cannot be empirically distinguished from the litter.

**Soil carbon** Organic carbon in mineral and organic soils (including peat) to a specified depth chosen by the country and applied consistently through the time series.

Includes: live fine roots of less than 2 mm (or other value chosen by the country as diameter limit for below-ground biomass) with soil organic matter, where they cannot be distinguished from it empirically.

### **DISTURBANCES AFFECTING FOREST HEALTH AND VITALITY**

**Disturbances (affecting forest health and vitality)** A disturbance is defined as “an environmental fluctuation and destructive event that disturb forest health, structure, and/or change resources or physical environment at any given spatial or temporal scale”. Disturbances that affect health and vitality include biotic agents, such as insects and diseases, and abiotic agents, such as fire, pollution and extreme weather conditions (White and Pickett, 1985).

**Disturbance by diseases** Disturbance caused by diseases attributable to pathogens, such as bacteria, fungi, phytoplasmas or viruses.

**Disturbance by fire** Disturbance caused by wildfire, regardless of whether it broke out inside or outside the forest/other wooded land.

A wildfire is any unplanned and uncontrolled wildland fire that, regardless of ignition source, may require suppression response.

**Disturbance by insects** Disturbance caused by insect pests that are detrimental to tree health.

**Other disturbance** Disturbance caused by factors other than fire, insects or diseases.  
May include: areas affected by drought, flooding, windfalls, acid rain, etc.

### **THREATENED SPECIES**

**Endangered species** A taxon is endangered when the best available evidence indicates that it meets any of the criteria A to E specified for the endangered category of the IUCN red list and it is therefore considered to be facing a very high risk of extinction in the wild (IUCN, 2000).

**Critically endangered species** A taxon is critically endangered when the best available evidence indicates that it meets any of the criteria A to E for the critically endangered category of the IUCN red list and is therefore considered to be facing an extremely high risk of extinction in the wild.

**Vulnerable species** A taxon is vulnerable when the best available evidence indicates that it meets any of the criteria A to E for the vulnerable category of the IUCN red list and is therefore considered to be facing a high risk of extinction in the wild.

**Native species** A native species is one which naturally exists at a given location or in a particular ecosystem, i.e. it has not been moved there by humans (CBD, 2002, p.154).

The term native species is synonymous with indigenous species.

## WOOD AND NWFP REMOVAL

- Wood removal** The wood removed (volume of round wood over bark) for production of goods and services other than energy production (woodfuel).  
The term removal differs from fellings as it excludes felled trees left in the forest.  
Includes: removal from fellings in an earlier period and from trees killed or damaged by natural causes; removal by local people or owners for their own use.
- Woodfuel removal** The wood removed for energy production purposes, regardless of whether for industrial, commercial or domestic use.  
Includes: wood collected or removed directly from forest or other wooded land for energy purposes only and excludes woodfuel produced as a by-product or residual matter from the industrial processing of round wood; removal from fellings in an earlier period and from trees killed or damaged by natural causes; removal by local people or owners for their own use.
- Non-wood forest product removal** Annual removal of an NWFP from forest and other wooded land.

## VALUE OF WOOD AND NWFP REMOVAL

- Value of wood removal** Value of the wood removed for production of goods and services other than energy production (woodfuel).  
The value to be reported refers to the market value at the site of removal. Where values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be deducted. If the wood is removed for subsistence use, the value should be calculated based on local market price. The value should be reported excluding taxes.
- Value of woodfuel removal** Value of the wood removed for energy production purposes, regardless of whether for industrial, commercial or domestic use.  
The value to be reported refers to the market value at the site of removal. Where values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be deducted. If the wood is removed for subsistence use, the value should be calculated based on local market price. The value should be reported excluding taxes.
- Value of non-wood forest product removal** Value of the annual removal of primary NWFPs.  
The value to be reported refers to the market value at the site of removal. Values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be deducted. If the NWFP is removed for subsistence use, the value should be calculated based on local market price. The value should be reported excluding taxes.

## EMPLOYMENT

- Employment** Any type of work performed or services rendered under a contract of hire, written or oral, in exchange for wage or salary, in cash or in kind (based on definitions by ILO and the Employment Security Commission).

<b>Employment related to the primary production of goods</b>	<p>Employment in activities related to the primary production of goods, such as industrial roundwood, woodfuel and NWFPs.</p> <p>Includes: employment in direct productive activities such as planting, seeding, silviculture, logging, terrain transport, collection of NWFPs, including administrative and supervisory staff in companies that are engaged in such activities; employment in direct supporting activities to production of goods, such as plant production in nurseries, etc.; contractors working in activities as mentioned under the first item above, even if these are legally considered self-employed; employment in direct supervision of these activities by private and/or public entities.</p>
<b>Employment related to the provision of services</b>	<p>Employment in activities directly related to the provision of forest and woodland services.</p> <p>Includes: employment in activities such as forest-related ecotourism, establishment and management of protective plantations, guarding of national parks, etc., regardless of whether carried out by private or public entities; employment in direct supervision of these activities by private and/or public entities.</p>
<b>Employment in unspecified forestry activities</b>	<p>Employment in unspecified forestry activities related to the primary production of goods and/or the provision of forest services.</p>

