



Food and Agriculture
Organization of the
United Nations

Global Forest Resources Assessment 2020

Terms and Definitions

FRA 2020



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FRA 2020

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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Global Forest Resources Assessment

FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946. The recent Global Forest Resources Assessments (FRA) have been produced every five years in an attempt to provide consistent approach to describing the world's forests and how they are changing.

During this period, the scope of FRA has evolved from timber-focused inventories to more holistic assessments that seek to respond to increasing information needs related to all of the aspects of sustainable forest management. At the same time, countries role in the FRA data collection process has been strengthened and the country reports developed by the National Correspondents, their alternates and other national contributors have become the cornerstone of the process.

FRA 2020 reporting has been adapted both in terms of scope and reporting periodicity to better respond to recent development in the international forest policy arena, such as the Agenda 2030 for Sustainable Development, United Nations Strategic Plan for Forests 2017-2030 (UNSPF) and the Paris agreement. Furthermore, the reporting content has been streamlined and a new on-line reporting Platform developed, to make the reporting more efficient and to decrease countries' reporting burden. All these changes have been made with the support of international experts consulted during the Seventh Expert Consultation on FRA, held in Joensuu, Finland in June 2017.

This document intends to support the FRA 2020 National Correspondents in their work of coordinating the preparation of the FRA 2020 Country Reports by providing a comprehensive list of terms and definitions as well as explanatory notes for FRA 2020 reporting variables.

The Global Forest Resources Assessment process is coordinated by the Forestry Department at FAO headquarters in Rome. The contact person is:

Anssi Pekkarinen
Senior Forestry Officer
FAO Forestry Department
Viale delle Terme di Caracalla
Rome 00153, Italy

E-mail: Anssi.Pekkarinen@fao.org

Readers can also use the following e-mail address: fra@fao.org

More information on the Global Forest Resources Assessment can be found at:
<http://www.fao.org/forest-resources-assessment/en/>

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Introduction

FAO has been coordinating global forest resources assessments every five to ten years since 1946. The assessments have to a great extent contributed to the improvement of concepts, definitions and methods related to forest resources assessments.

Strong efforts have been made to harmonize and streamline reporting with other international forest-related processes e.g. within the framework of the Collaborative Partnership on Forest (CPF), as well as with the partner organizations of the Collaborative Forest Resources Questionnaire (CFRQ) and the scientific community, all in order to harmonize and improve forest related definitions and reduce reporting burden on countries. The core definitions build on earlier global assessments to ensure comparability over time. Whenever new definitions are introduced or old definitions modified this is done taking into consideration recommendations from experts in various fora.

Variations in definitions, however minor, will increase the risk of inconsistency in reporting over time. High importance is thus given to ensure the continuity of the definitions as applied in previous assessments in order to allow consistency of data over time whenever possible.

The global definitions are in a sense compromises and their application is subject to interpretation. Reducing national classifications to a set of global classes is a challenge and sometimes assumptions and approximations must be made.

In order to compare and combine data from different sources, it is important to use statistics that are collected using comparable terminology, definitions and measurement units. This working paper includes the terms and definitions applied in the country reporting process for FRA 2020 and should be regarded as an authoritative document on the terms and definitions. The working paper can be used in meetings and training at all levels aiming to build national capacity for forest resources assessment and reporting in general.

For more details on FRA Programme, please see: <http://www.fao.org/forest-resources-assessment/en/>

STRUCTURE OF THE DOCUMENT

The terms and definitions are structured according to the FRA 2020 country report's seven main reporting tables (Table 1). The underlying rationale for this is that the context in which the definition is placed is of great importance for the understanding of the definition. Further, the definitions often build on each other and should therefore be displayed in the right context.

Definitions are provided for all terms and categories of the country reports. In addition, definitions for a number of closely related general and supplementary terms are provided.

Table 1. FRA 2020 structure of country reports

1 FOREST EXTENT, CHARACTERISTICS AND CHANGES

- 1a Extent of forest and other wooded land
- 1b Forest characteristics
- 1c Annual forest expansion, deforestation and net change
- 1d Annual reforestation
- 1e Specific forest categories
- 1f Other land with tree cover

2 FOREST GROWING STOCK, BIOMASS AND CARBON

- 2a Growing stock
- 2b Growing stock composition
- 2c Biomass stock
- 2d Carbon stock

3 FOREST DESIGNATION AND MANAGEMENT

- 3a Designated management objective
- 3b Forest area within protected areas and forest area with long-term management plans

4 FOREST OWNERSHIP AND MANAGEMENT RIGHTS

- 4a Forest ownership
- 4b Management rights of public forests

5 FOREST DISTURBANCES

- 5a Disturbances
- 5b Area affected by fire
- 5c Degraded forest

6 FOREST POLICY AND LEGISLATION

- 6a Policies, legislation and national platform for stakeholder participation in forest policy
- 6b Area of permanent forest estate

7 EMPLOYMENT, EDUCATION AND NWFP

- 7a Employment in forestry and logging
- 7b Graduation of students in forest-related education
- 7c Non Wood Forest Products

8 ADDITIONAL TERMS AND DEFINITIONS

All terms are printed in capital **BOLD LETTERS** and the definitions are found immediately below the term in **bold** font (Example 1). Note that an underlined term indicates that a definition is available for that particular term. Most definitions are accompanied by explanatory notes to facilitate consistent interpretation of the definitions.

Example 1.

<p>TERM</p> <p>Definition</p> <p><i>Explanatory note(s)</i></p>

1 FOREST EXTENT AND CHANGES

1a EXTENT OF FOREST AND OTHER WOODED LAND

FOREST

Land spanning more than 0.5 hectares with trees higher than 5 meters 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.

Explanatory notes

1. 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 meters *in situ*.
2. Includes areas with young trees that have not yet reached but which are expected to reach a canopy cover of 10 percent and tree height of 5 meters. It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within 5 years. Local conditions may, in exceptional cases, justify that a longer time frame is used.
3. Includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific environmental, scientific, historical, cultural or spiritual interest.
4. Includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 hectares and width of more than 20 meters.
5. Includes abandoned shifting cultivation land with a regeneration of trees that have, or are expected to reach, a canopy cover of 10 percent and tree height of 5 meters.
6. Includes areas with mangroves in tidal zones, regardless whether this area is classified as land area or not.
7. Includes rubber-wood, cork oak and Christmas tree plantations.
8. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met.
9. Includes areas outside the legally designated forest land which meet the definition of “forest”.
10. Excludes tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems when crops are grown under tree cover. Note: Some agroforestry systems such as the “Taungya” system where crops are grown only during the first years of the forest rotation should be classified as forest.

OTHER WOODED LAND

Land not classified as “Forest”, spanning more than 0.5 hectares; with trees higher than 5 meters 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.

Explanatory notes

1. The definition above has two options:
 - The canopy cover of trees is between 5 and 10 percent; trees should be higher than 5 meters or able to reach 5 meters *in situ*.

or
2. The canopy cover of trees is less than 5 percent but the combined cover of shrubs, bushes and trees is more than 10 percent. Includes areas of shrubs and bushes where no trees are present.
 - Includes areas with trees that will not reach a height of 5 meters *in situ* and with a canopy cover of 10 percent or more, e.g. some alpine tree vegetation types, arid zone mangroves, etc.

OTHER LAND

All land that is not classified as “**Forest**” or “**Other wooded land**”.

Explanatory notes

1. For the purpose of reporting to FRA, the “Other land” is calculated by subtracting the area of forest and other wooded land from the total land area (as maintained by FAOSTAT).
2. Includes agricultural land, meadows and pastures, built-up areas, barren land, land under permanent ice, etc.
3. Includes all areas classified under the sub-category “Other land with tree cover”.

1b FOREST CHARACTERISTICS

NATURALLY REGENERATING FOREST

Forest predominantly composed of trees established through natural regeneration.

Explanatory notes

1. Includes forests for which it is not possible to distinguish whether planted or naturally regenerated.
2. Includes forests with a mix of naturally regenerated native tree species and planted/seeded trees, and where the naturally regenerated trees are expected to constitute the major part of the growing stock at stand maturity.
3. Includes coppice from trees originally established through natural regeneration.
4. Includes naturally regenerated trees of introduced species.

PLANTED FOREST

Forest predominantly composed of trees established through planting and/or deliberate seeding.

Explanatory notes

1. In this context, predominantly means that the planted/seeded trees are expected to constitute more than 50 percent of the growing stock at maturity.
2. Includes coppice from trees that were originally planted or seeded.

PLANTATION FOREST

Planted Forest that is intensively managed and meet ALL the following criteria at planting and stand maturity: one or two species, even age class, and regular spacing.

Explanatory notes

1. Specifically includes: short rotation plantation for wood, fibre and energy.
2. Specifically excludes: forest planted for protection or ecosystem restoration.
3. Specifically excludes: Forest established through planting or seeding which at stand maturity resembles or will resemble naturally regenerating forest.

OTHER PLANTED FOREST

Planted forest which is not classified as plantation forest.

1c ANNUAL FOREST EXPANSION, DEFORESTATION AND NET CHANGE

FOREST EXPANSION

Expansion of **forest** on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest.

AFFORESTATION (Sub-category of FOREST EXPANSION)

Establishment of **forest** through planting and/or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest.

NATURAL EXPANSION OF FOREST (Sub-category of FOREST EXPANSION)

Expansion of **forest** through natural succession on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest (e.g. forest succession on land previously used for agriculture).

DEFORESTATION

The conversion of **forest** to other land use independently whether human-induced or not.

Explanatory notes

1. Includes permanent reduction of the tree canopy cover below the minimum 10 percent threshold.
2. It includes areas of forest converted to agriculture, pasture, water reservoirs, mining and urban areas.
3. The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures.
4. The term also includes areas where, for example, the impact of disturbance, over-utilization or changing environmental conditions affects the forest to an extent that it cannot sustain a canopy cover above the 10 percent threshold.

NET CHANGE (forest area)

Explanatory note

1. The “Forest area net change” is the difference in forest area between two FRA reference years. The net change can be either positive (gain), negative (loss) or zero (no change).

1d ANNUAL REFORESTATION

REFORESTATION

Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.

Explanatory note

- 1. Implies no change of land use.
- 2. Includes planting/seeding of temporarily unstocked forest areas as well as planting/seeding of areas with forest cover.
- 3. Includes coppice from trees that were originally planted or seeded.
- 4. Excludes natural regeneration of forest.

1e SPECIFIC FOREST CATEGORIES

BAMBOOS

Forest area with predominant bamboo vegetation.

Explanatory note

- 1. In this context, predominantly means that the planted/seeded trees are expected to constitute more than 50 percent of the growing stock at maturity.

MANGROVES

Forest and other wooded land with mangrove vegetation.

TEMPORARILY UNSTOCKED AND/OR RECENTLY REGENERATED FOREST

Forest area which is temporarily unstocked or with trees shorter than 1.3 meters that have not yet reached but are expected to reach a canopy cover of at least 10 percent and tree height of at least 5 meters.

Explanatory notes

- 1. Includes forest areas that are temporarily unstocked due to clear-cutting as part of forest management practice or natural disasters, and which are expected to be regenerated within 5 years. Local conditions may, in exceptional cases, justify that a longer time frame is used.
- 2. Includes areas converted from other land use and with trees shorter than 1.3 meters.
- 3. Includes failed plantations.

PRIMARY FOREST

Naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Explanatory notes

1. Includes both pristine and managed forests that meet the definition.
2. Includes forests where indigenous peoples engage in traditional forest stewardship activities that meet the definition.
3. Includes forest with visible signs of abiotic damages (such as storm, snow, drought, fire) and biotic damages (such as insects, pests and diseases).
4. Excludes forests where hunting, poaching, trapping or gathering have caused significant native species loss or disturbance to ecological processes.
5. Some key characteristics of primary forests are:
 - they show natural forest dynamics, such as natural tree species composition, occurrence of dead wood, natural age structure and natural regeneration processes;
 - the area is large enough to maintain its natural ecological processes;
 - there has been no known significant human intervention or the last significant human intervention was long enough ago to have allowed the natural species composition and processes to have become re-established.

1f 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 meters at maturity.

Explanatory notes

1. Land use is the key criteria for distinguishing between forest and other land with tree cover.
2. Specifically includes: palms (oil, coconut, dates, etc), tree orchards (fruit, nuts, olive, etc), agroforestry and trees in urban settings.
3. Includes groups of trees and scattered trees (e.g. trees outside forest) in agricultural landscapes, parks, gardens and around buildings, provided that area, height and canopy cover criteria are met.
4. Includes tree stands in agricultural production systems, such as fruit tree plantations/orchards. In these cases the height threshold can be lower than 5 meters.
5. Includes agroforestry systems when crops are grown under tree cover and tree plantations established mainly for other purposes than wood, such as oil palm plantations.
6. The different sub-categories of “other land with tree cover” are exclusive and area reported under one sub-category should not be reported for any other sub-categories.
7. Excludes scattered trees with a canopy cover less than 10 percent, small groups of trees covering less than 0.5 hectares and tree lines less than 20 meters wide.

Sub-categories of **OTHER LAND WITH TREE COVER**

PALMS

“Other land with tree cover” predominantly composed of palms for production of oil, coconuts or dates.

TREE ORCHARDS

“Other land with tree cover” predominantly composed of trees for production of fruits, nuts, or olives.

AGROFORESTRY

“Other land with tree cover” with temporary agricultural crops and/or pastures/animals.

Explanatory notes

1. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met.
2. Includes agrisilvicultural, silvopastoral and agrosilvopastoral systems.

TREES IN URBAN SETTINGS

“Other land with tree cover” such as: urban parks, alleys and gardens.

2 FOREST GROWING STOCK, BIOMASS AND CARBON

2a GROWING STOCK

GROWING STOCK

Volume over bark of all living trees with a minimum diameter of 10 cm at breast height (or above buttress if these are higher). Includes the stem from ground level up to a top diameter of 0 cm, excluding branches.

Explanatory notes

1. Diameter breast height refers to diameter over bark measured at a height of 1.3 m above ground level, or above buttresses, if these are higher.
2. Includes laying living trees.
3. Excludes branches, twigs, foliage, flowers, seeds, and roots.

2b GROWING STOCK COMPOSITION

NATIVE TREE SPECIES (Supplementary term)

A tree species occurring within its natural range (past or present) and dispersal potential (i.e. within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).

Explanatory note

1. If the species occurs naturally within the country borders it is considered native for the entire country.

INTRODUCED TREE SPECIES (Supplementary term)

A tree species occurring outside its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).

Explanatory notes

1. If the species occurs naturally within the country borders it is considered native for the entire country.
2. Naturally regenerated forest of introduced tree species should be considered as “introduced” up to 250 years from the date of original introduction. Beyond 250 years, the species can be considered naturalized.

2c BIOMASS STOCK

ABOVE-GROUND BIOMASS

All biomass of living vegetation, both woody and herbaceous, above the soil including stems, stumps, branches, bark, seeds, and foliage.

Explanatory note

1. In cases where forest understorey is a relatively small component of the aboveground biomass carbon pool, it is acceptable to exclude it, provided this is done in a consistent manner throughout the inventory time series.

BELOW-GROUND BIOMASS

All biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.

Explanatory notes

1. Includes the below-ground part of the stump.
2. The country may use another threshold value than 2 mm for fine roots, but in such a case the threshold value used must be documented.

DEAD WOOD

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.

Explanatory note

1. The country may use another threshold value than 10 cm, but in such a case the threshold value used must be documented.

2d CARBON STOCK

CARBON IN ABOVE-GROUND BIOMASS

Carbon in all living biomass above the soil, including stems, stumps, branches, bark, seeds, and foliage.

Explanatory note

1. In cases where forest understorey is a relatively small component of the aboveground biomass carbon pool, it is acceptable to exclude it, provided this is done in a consistent manner throughout the time series.

CARBON IN BELOW-GROUND BIOMASS

Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded, because these often cannot be distinguished empirically from soil organic matter or litter.

Explanatory notes

1. Includes the below-ground part of the stump.
2. The country may use another threshold value than 2 mm for fine roots, but in such a case the threshold value used must be documented.

CARBON IN DEAD WOOD

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 down to 2 mm, and stumps larger than or equal to 10 cm in diameter.

Explanatory note

1. The country may use other threshold values, but in such a case the threshold value used must be documented.

CARBON IN LITTER

Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm), lying dead in various states of decomposition above the mineral or organic soil.

Explanatory note

1. Fine roots of less than 2 mm (or other value chosen by the country as diameter limit for below-ground biomass) above the mineral or organic soil are included in the litter where they cannot be distinguished from it empirically.

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.

Explanatory note

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

3 FOREST DESIGNATION AND MANAGEMENT

3a DESIGNATED MANAGEMENT OBJECTIVE

TOTAL AREA WITH DESIGNATED MANAGEMENT OBJECTIVE

The total area managed for a specific objective.

Explanatory note

1. Management objectives are not exclusive. Hence, areas can be counted more than once e.g. :
 - a) Areas where the management objective is multiple use should be counted once for each specific management objective included in the multiple use.
 - b) Areas with primary management objective can be counted more than once if other management objectives have been considered.

PRIMARY DESIGNATED MANAGEMENT OBJECTIVE

The primary designated management objective assigned to a management unit.

Explanatory notes

1. In order to be considered primary, the management objective should be significantly more important than other management objectives.
2. Primary management objectives are exclusive and area reported under one primary management objective should not be reported for any other primary management objectives.
3. Nation-wide general management objectives established in national legislation or policies (such as e.g. “*all forest land should be managed for production, conservation and social purposes*”) should not be considered as management objectives in this context.

PRODUCTION

Forest where the management objective is production of wood, fibre, bio-energy and/or non wood forest products.

Explanatory note

1. Includes areas for subsistence collection of wood and/or non wood forest products.

PROTECTION OF SOIL AND WATER

Forest where the management objective is protection of soil and water.

Explanatory notes

1. Harvesting of wood and non-wood forest products may (sometimes) be allowed, but with specific restrictions aimed at maintaining the tree cover and not damaging the vegetation that protects the soil.
2. National legislation may stipulate that buffer zones should be maintained along rivers and may restrict wood harvesting on slopes exceeding certain steepness. Such areas should be considered as designated for protection of soil and water.
3. Includes forest areas managed for combating desertification and protection of infrastructure against avalanche and land slides.

CONSERVATION OF BIODIVERSITY

Forest where the management objective is conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas.

Explanatory note

1. Includes wildlife reserves, High Conservation Values, key habitats and forest designated or managed for wildlife habitat protection.

SOCIAL SERVICES

Forest where the management objective is social services.

Explanatory notes

1. Includes services such as: recreation, tourism, education, research and/or conservation of cultural/spiritual sites.
2. Excludes areas for subsistence collection of wood and/or non-wood forest products.

MULTIPLE USE

Forest where the management objective is a combination of several purposes and where none of them is significantly more important than the other.

Explanatory notes

1. Includes any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of social services and where none of these alone is considered as the predominant management objective.
2. Clauses in national legislation or policies stating an overarching objective of multiple use (such as e.g. “*all forest land should be managed for production, conservation and social purposes*”) should not generally be considered as primary management objective in this context.

OTHER

Forest where the management objective is other than production, protection, conservation, social services or multiple use.

Explanatory note

1. Countries should specify in comments to the table what areas they have included in this category (e.g. *forest area designated for carbon sequestration*).

NONE/UNKNOWN

Forest with no or unknown primary management objective.

3b FOREST AREA WITHIN LEGALLY ESTABLISHED PROTECTED AREAS AND FOREST AREA WITH LONG-TERM FOREST MANAGEMENT PLANS

FOREST AREA WITHIN LEGALLY ESTABLISHED PROTECTED AREAS

Forest area within formally established protected areas independently of the purpose for which the protected areas were established.

Explanatory notes

1. Includes IUCN Categories I – IV.
2. Excludes IUCN Categories V – VI.

FOREST AREA WITH LONG-TERM FOREST MANAGEMENT PLAN

Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.

Explanatory notes

1. A forest area with management plan may refer to forest management unit level or aggregated forest management unit level (forest blocks, farms, enterprises, watersheds, municipalities, or wider units).
2. A management plan may include details on operations planned for individual operational units (stands or compartments) but may also be limited to provide general strategies and activities planned to reach the management goals.
3. Includes forest area in protected areas with management plan.
4. Includes continuously updated management plans.

PROTECTED AREAS (Sub-category of FOREST AREA WITH LONG-TERM FOREST MANAGEMENT PLAN)

Forest area within protected areas that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.

4 FOREST OWNERSHIP AND MANAGEMENT RIGHTS

4a FOREST OWNERSHIP

FOREST OWNERSHIP (Supplementary term)

Generally refers to the legal right to freely and exclusively use, control, transfer, or otherwise benefit from a forest. Ownership can be acquired through transfers such as sales, donations, and inheritance.

Explanatory note

1. For this reporting table, forest ownership refers to the ownership of the trees growing on land classified as forest, regardless of whether or not the ownership of these trees coincides with the ownership of the land itself.

PRIVATE OWNERSHIP

Forest owned by individuals, families, communities, private co-operatives, corporations and other business entities, religious and private educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.

Sub-categories of PRIVATE OWNERSHIP

INDIVIDUALS

Forest owned by individuals and families.

PRIVATE BUSINESS ENTITIES AND INSTITUTIONS

Forest owned by private corporations, co-operatives, companies and other business entities, as well as private organizations such as NGOs, nature conservation associations, and private religious and educational institutions, etc.

Explanatory note

1. Includes both profit and non-profit entities and institutions.

LOCAL, TRIBAL AND INDIGENOUS COMMUNITIES

Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area or forest owned by communities of indigenous or tribal people. The community members are co-owners that share exclusive rights and duties and benefits contribute to the community development.

Explanatory note

1. Indigenous and tribal people include:
 - People regarded as indigenous on account of their descent from the population 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 their own social, economic, cultural and political institutions.
 - Tribal people 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.

PUBLIC OWNERSHIP

Forest owned by the State; or administrative units of the Public Administration; or by institutions or corporations owned by the Public Administration.

Explanatory notes

1. Includes all the hierarchical levels of Public Administration within a country, e.g. State, Province and Municipality.
2. Shareholder corporations that are partially State-owned, are considered as under public ownership when the State holds a majority of the shares.
3. Public ownership may exclude the possibility to transfer.

OTHER TYPES OF OWNERSHIP/UNKNOWN

Other kinds of ownership arrangements not covered by public or private ownership or forest area where ownership is unknown.

Explanatory note

1. Includes areas where ownership is unclear or disputed.

4b MANAGEMENT RIGHTS OF PUBLIC FORESTS

MANAGEMENT RIGHTS OF PUBLIC FORESTS (Supplementary term)

Refers to the right to manage and use publicly owned forests for a specific period of time.

Explanatory notes

1. Generally includes agreements that regulate not only the right to harvest or collect products, but also the responsibility to manage the forest for long-term benefits.
2. Generally excludes harvesting licences, permits and rights to collect non wood forest products when such use rights are not linked to a long-term forest management responsibility.

PUBLIC ADMINISTRATION

The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.

INDIVIDUALS

Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.

PRIVATE BUSINESS ENTITIES AND INSTITUTIONS

Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities, private co-operatives, private non-profit institutions and associations, etc., through long-term leases or management agreements.

LOCAL, TRIBAL AND INDIGENOUS COMMUNITIES

Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.

OTHER FORMS OF MANAGEMENT RIGHTS

Forests for which the transfer of management rights does not belong to any of the categories mentioned above.

5 FOREST DISTURBANCES

5a DISTURBANCES

DISTURBANCE

Damage caused by any factor (biotic or abiotic) that adversely affects the vigor and productivity of the forest and which is not a direct result of human activities.

Explanatory note

- 1. For the purpose of this reporting table, disturbances exclude forest fires as these are reported on in a separate table.

DISTURBANCE BY INSECTS

Disturbance caused by insect pests.

DISTURBANCE BY DISEASES

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

DISTURBANCES BY SEVERE WEATHER EVENTS

Disturbances caused by abiotic factors, such as snow, storm, droughts, etc.

5b AREA AFFECTED BY FIRE

BURNED AREA

Land area affected by fire.

FOREST (Sub-category of LAND AREA AFFECTED BY FIRE)

Forest area affected by fire.

5c DEGRADED FOREST

DEGRADED FOREST

To be defined by the country.

Explanatory note

1. Countries should document definition or description of degraded forest and provide information on how this data is being collected.

6 FOREST POLICY AND LEGISLATION

6a POLICIES, LEGISLATION AND NATIONAL PLATFORM FOR STAKEHOLDER PARTICIPATION IN FOREST POLICY

POLICIES SUPPORTING SUSTAINABLE FOREST MANAGEMENT

Policies or strategies that explicitly encourage sustainable forest management.

LEGISLATION AND/OR REGULATIONS SUPPORTING SUSTAINABLE FOREST MANAGEMENT

Legislation and regulations that govern and guide sustainable forest management, operations and use.

NATIONAL STAKEHOLDER PLATFORM

A recognized procedure that a broad range of stakeholders can use to provide opinions, suggestions, analysis, recommendations and other input into the development of national forest policy.

TRACEABILITY SYSTEM FOR WOOD PRODUCTS

A system that provides the ability to trace the origin, location and movement of wood products by means of recorded identifications. This involves two main aspects: (1) identification of the product by marking, and (2) the recording of data on movement and location of the product all the way along the production, processing and distribution chain.

6b AREA OF PERMANENT FOREST ESTATE

PERMANENT FOREST ESTATE

Forest area that is designated to be retained as forest and may not be converted to other land use.

Explanatory note

- 1. If the PFE contains both forest and non-forest areas, the reporting should refer only to the forest area within the PFE.

7 EMPLOYMENT, EDUCATION AND NWFP

7a EMPLOYMENT IN FORESTRY AND LOGGING

FULL-TIME EQUIVALENTS (FTE) (Supplementary term)

A measurement equal to one person working full-time during a specified reference period.

Explanatory note

1. One fulltime employee counts as one FTE, and two half-time employees also count as one FTE.

EMPLOYMENT IN FORESTRY AND LOGGING

Employment in activities related to production of goods derived from forests. This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

Explanatory note

1. The detailed structure and explanatory notes of activity A02 can be found at:
<http://unstats.un.org/unsd/cr/registry/isic-4.asp> .

SILVICULTURE AND OTHER FORESTRY ACTIVITIES (Sub-category of EMPLOYMENT IN FORESTRY AND LOGGING)

This class includes employment in silviculture and other forestry activities.

Explanatory notes

1. The class includes:
 - growing of standing timber: planting, replanting, transplanting, thinning and conserving of forests and timber tracts
 - growing of coppice, pulpwood and fire wood
 - operation of forest tree nurseries
2. The class excludes:
 - growing of Christmas trees
 - operation of tree nurseries
 - gathering of wild growing non wood forest products
 - production of wood chips and particles

LOGGING (Sub-category of **EMPLOYMENT IN FORESTRY AND LOGGING**)

This class includes employment in logging and the output of this activity can take the form of logs, chips or fire wood.

Explanatory notes

1. The class includes:
 - production of roundwood for forest-based manufacturing industries
 - production of roundwood used in an unprocessed form such as pit-props, fence posts and utility poles
 - gathering and production of fire wood
 - production of charcoal in the forest (using traditional methods)
 - The output of this activity can take the form of logs, chips or fire wood
2. The class excludes:
 - growing of Christmas trees
 - growing of standing timber: planting, replanting, transplanting, thinning and conserving of forests and timber tracts
 - gathering of wild growing non-wood forest products
 - production of wood chips and particles, not associated with logging
 - production of charcoal through distillation of wood

GATHERING OF NON WOOD FOREST PRODUCTS (Sub-category of **EMPLOYMENT IN FORESTRY AND LOGGING**)

This class includes employment in the gathering of non wood forest products.

Explanatory notes

1. The class includes:
 - Gathering of wild growing materials such as
 - mushrooms, truffles
 - berries
 - nuts
 - balata and other rubber-like gums
 - cork
 - lac and resins
 - balsams
 - vegetable hair
 - eelgrass
 - acorns, horse chestnuts
 - mosses and lichens
2. The class excludes:
 - managed production of any of these products (except growing of cork trees)
 - growing of mushrooms or truffles
 - growing of berries or nuts
 - gathering of fire wood

EMPLOYMENT IN SUPPORT SERVICES TO FORESTRY (Sub-category of **EMPLOYMENT IN FORSTRY AND LOGGING**)

This class includes employment in carrying out part of the forestry operation on a fee or contract basis.

Explanatory notes

1. The class includes:
 - Forestry service activities such as
 - forestry inventories
 - forest management consulting services
 - timber evaluation
 - forest fire fighting and protection
 - forest pest control
 - Logging service activities such as
 - transport of logs with in the forest
2. The class excludes:
 - operation of forest tree nurseries

7b GRADUATION OF STUDENTS IN FOREST-RELATED EDUCATION

FOREST-RELATED EDUCATION (Supplementary term)

Post-secondary education programme with focus on forests and related subjects.

DOCTORAL DEGREE

University (or equivalent) education with a total duration of about 8 years.

Explanatory notes

1. Corresponds to the second stage of the tertiary education (ISCED 8 level <http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf>).
2. It typically requires the submission of a thesis or dissertation of publishable quality which is the product of original research and represents a significant contribution to knowledge.
3. Usually two to three years of post-graduate studies after a master's degree.

MASTER'S DEGREE

University (or equivalent) education with a total duration of about 5 years.

Explanatory notes

1. Corresponds to the first stage of tertiary education (ISCED 7 level <http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf>).
2. Usually two years of post-graduate studies after a bachelor's degree.

BACHELOR'S DEGREE

University (or equivalent) education with a duration of about 3 years.

Explanatory note

1. Corresponds to post-secondary non tertiary education (ISCED 6 level <http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf>).

TECHNICIAN CERTIFICATE / DIPLOMA

Qualification issued from a technical education institution consisting of 1 to 3 years post-secondary education.

7c NON WOOD FOREST PRODUCTS REMOVALS AND VALUE

NON WOOD FOREST PRODUCT

Goods derived from forests that are tangible and physical objects of biological origin other than wood.

Explanatory notes

1. Generally includes non-wood plant and animal products collected from areas defined as forest (see definition of forest).
2. Specifically includes the following regardless of whether from natural forests or plantations:
 - gum arabic, rubber/latex and resin;
 - Christmas trees, cork, bamboo and rattan.
3. Generally excludes products collected in tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations and agroforestry systems when crops are grown under tree cover.
4. Specifically excludes the following:
 - woody raw materials and products, such as chips, charcoal, fuelwood and wood used for tools, household equipment and carvings;
 - grazing in the forest;
 - fish and shellfish.

VALUE OF NON WOOD FOREST PRODUCTS

For the purpose of reporting on this variable, value is defined as the commercial market value at the forest gate.

Explanatory notes

1. If values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be subtracted whenever possible.
2. Commercial value refers to actual market value and potential value of both marketed and non-marketed products.

8 ADDITIONAL TERMS AND DEFINITIONS

CANOPY COVER

The percentage of the ground covered by a vertical projection of the outermost perimeter of the natural spread of the foliage of plants.

Explanatory notes

1. Cannot exceed 100 percent.
2. Also called crown closure or crown cover.

FOREST POLICY

A set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest for the benefit of society.

SHRUB

Woody perennial plant, generally more than 0.5 meters and less than 5 meters in height at maturity and without a single main stem and definite crown.

SUSTAINABLE FOREST MANAGEMENT

A dynamic and evolving concept, [that] is intended to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations.

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.

Explanatory note

1. Includes bamboos, palms, and other woody plants meeting the above criteria.