

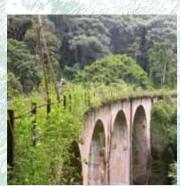
Forest Resources Assessment Working Paper 180

ERA 2015









Terms and Definitions



Forest Resources Assessment Working Paper 180

FRA 2015 TERMS AND DEFINITIONS

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Rome, 2012

The Forest Resources Assessment Programme

The Global Forest Resources Assessment (FRA) benefits greatly from the consistent use of clear terms and definitions. It is conducted once every five years with the next assessment scheduled for release in September 2015. This document supports the preparation of FRA 2015 Country Reports by National Correspondents as well as the understanding of the underlying basis for what is reported in the FRA.

We welcome any comments, questions or suggestions you might have on this Working Paper.

Sincerely,

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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, may 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.

This working paper includes the terms and definitions applied in the country reporting process for FRA 2015 and the CFRQ 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: www.fao.org/forestry/fra

Structure of the document

The terms are structured according to the eight general topics and 21 questions in the country reports (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 only make sense in the right context.

Definitions are provided for all terms and categories reported on in the country reports for FRA 2015 and CFRQ. In addition, a number of closely related general and additional terms are defined to further improve the understanding of the definitions.

TABLE 1
Topic I: FOREST AREA AND FOREST CHARACTERISTICS
Topic II: PRODUCTION
Topic III: PROTECTIVE FUNCTIONS AND SELECTIVE ECOSYSTEM SERVICES
Topic IV: BIODIVERSITY/ CONSERVATION
Topic V: DISTURBANCE AND FOREST DEGRADATION
Topic VI: MEASURING PROGRESS TOWARD SFM
Topic VII: ECONOMICS/ LIVELIHOODS
Topic VIII: LOOKING FORWARD

In order to provide a good overview and facilitate the search of terms, the terms are also compiled in an alphabetical index (see page 28).

All terms are printed in capital bold letters and the definitions are found immediately below the term in bold font. Note that an underlined term in a definition indicates that a definition is available for that particular term, elsewhere in the document. Most definitions are accompanied by explanatory notes.

EXAMPLE 1		
TERM, definition and explanatory notes		
TERM		
Definition		
Explanatory note(s)		

Terms, definitions and explanatory notes

1. FOREST AND OTHER WOODED LAND

TERM, definition and explanatory notes

FOREST

Land spanning more than 0.5 hectares with <u>trees</u> higher than 5 meters and a <u>canopy</u> <u>cover</u> 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.

- 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.
- 2. Includes areas with young trees that have not yet reached but which are expected to reach a canopy cover of at least 10 percent and tree height of 5 meters or more. 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 at least 10 percent and tree height of at least 5 meters.
- 6. Includes areas with mangroves in tidal zones, regardless whether this area is classified as land area or not.
- 7. Includes rubberwood, cork oak and Christmas tree plantations.
- 8. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met.
- <u>Excludes</u> 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 defined as "<u>Forest</u>", spanning more than 0.5 hectares; with <u>trees</u> higher than 5 meters and a <u>canopy cover</u> of 5-10 percent, or trees able to reach these thresholds; or with a combined cover of <u>shrubs</u>, 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.

or

- 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.
- 2. Includes areas with trees that will not reach a height of at least 5 meters and with a canopy cover of 10 percent or more, e.g. some alpine tree vegetation types, arid zone mangroves, etc.
- 3. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met.

OTHER LAND

All land that is not classified as <u>forest</u> or <u>other wooded land</u>.

Explanatory notes

- 4. Includes agricultural land, meadows and pastures, built-up areas, barren land, land under permanent ice, etc.
- 5. Includes all areas classified under the sub-category "Other land with tree cover".

OTHER LAND WITH TREE COVER (Sub-category)

Land considered as "<u>Other land</u>", that is predominantly agricultural or urban lands use and has patches of <u>tree</u> cover that span more than 0.5 hectares with a <u>canopy</u> <u>cover</u> of more than 10 percent of trees able to reach a height of 5 meters at maturity. It includes both <u>forest</u> and non-forest tree species.

- 1. The difference between Forest and Other land with tree cover is the land use criteria.
- 2. 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.
- 3. Includes tree stands in agricultural production systems, for example in fruit tree plantations and agroforestry systems when crops are grown under tree cover. Also includes tree plantations established mainly for other purposes than wood, such as oil palm plantations.
- 4. 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.

INLAND WATER BODIES

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

FOREST EXPANSION

Expansion of *forest* on land that, until then, was not defined as *forest*.

AFFORESTATION (Sub-category)

Establishment of <u>forest</u> through planting and/or deliberate seeding on land that, until then, was not classified as forest.

Explanatory note

1. Implies a transformation of land use from non-forest to forest.

NATURAL EXPANSION OF FOREST (Sub-category)

Expansion of <u>forest</u> through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).

Explanatory note

1. Implies a transformation of land use from non-forest to forest.

DEFORESTATION

The conversion of <u>forest</u> to other land use or the permanent reduction of the <u>tree</u> <u>canopy cover</u> below the minimum 10 percent threshold.

Explanatory notes

- 1. Deforestation implies the long-term or permanent loss of forest cover and implies transformation into another land use.
- 2. It includes areas of forest converted to agriculture, pasture, water reservoirs and urban areas. 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, unless logging is followed by the clearing of the remaining logged-over forest for the introduction of alternative land uses. Deforestation 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.

HUMAN INDUCED DEFORESTATION (Sub-category)

Human induced conversion of <u>forest</u> to other land use or the permanent reduction of the <u>tree canopy cover</u> below the minimum 10 percent threshold.

REFORESTATION

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

Explanatory notes

- 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.

ARTIFICIAL REFORESTATION (Sub-category)

Re-establishment of <u>forest</u> through planting and/or deliberate seeding on land already in forest land use.

2. NATURAL AND PLANTED FOREST

TERM, definition and explanatory notes

INTRODUCED SPECIES

A species, subspecies or lower taxon, 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).

NATURALIZED INTRODUCED SPECIES

<u>Other naturally regenerated forest</u> where the <u>tree</u> species are predominantly non-native and do not need human help to reproduce/maintain populations over time.

- 1. Includes introduced tree species that spread and multiply by natural regeneration and is well established and acclimatized for several years.
- 2. Specifically excludes invasive species.

PRIMARY FOREST

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

Explanatory note

1. 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 characteristics;
- 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.

OTHER NATURALLY REGENERATED FOREST

<u>Naturally regenerated forest</u> where there are clearly visible indications of human activities.

Explanatory notes

- 1. Includes selectively logged-over areas, areas regenerating following agricultural land use, areas recovering from human-induced fires, etc.
- 2. Includes forests where it is not possible to distinguish whether planted or naturally regenerated.
- 3. Includes forests with a mix of naturally regenerated trees and planted/seeded trees, and where the naturally regenerated trees are expected to constitute more than 50 percent of the growing stock at stand maturity.

OTHER NATURALLY REGENERATED FOREST OF INTRODUCED SPECIES (Sub-category)

Other naturally regenerated forest where the trees are predominantly of introduced species.

Explanatory note

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

OTHER NATURALLY REGENERATED FOREST OF NATURALIZED INTRODUCED SPECIES (Sub-sub-category)

Other <u>naturally regenerated forest</u> where the <u>trees</u> are predominantly of <u>naturalized</u> <u>introduced species</u>.

- 1. Includes introduced species that spread and multiply by natural regeneration and are well established, acclimatized for several years and constitute an integral part of a region's flora.
- 2. Specifically excludes invasive species.

PLANTED FOREST

<u>Forest</u> predominantly composed of <u>trees</u> 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.
- 3. Includes rubberwood, cork oak and Christmas tree plantations.
- 4. Excludes self-sown trees of introduced species.

PLANTED FOREST OF INTRODUCED SPECIES (Sub-category)

<u>Planted forest</u>, where the planted/seeded <u>trees</u> are predominantly of <u>introduced species</u>.

Explanatory note

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

MANGROVES

Area of <u>forest</u> and <u>other wooded</u> land with mangrove vegetation.

PLANTED MANGROVES (Sub-category)

Mangroves predominantly composed of trees established through planting.

3. STOCKS AND GROWTH RATES OF THE FORESTS

TERM, definition and explanatory notes

GROWING STOCK

Volume over bark of all living <u>trees</u> 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.

- 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 living trees that are lying on the ground.
- 3. <u>Excludes</u> smaller branches, twigs, foliage, flowers, seeds, and roots.

NET ANNUAL INCREMENT (NAI)

Average annual volume of gross increment over the given reference period less that of natural losses on all <u>trees</u>, measured to minimum diameters as defined for "<u>growing stock</u>".

ABOVE-GROUND BIOMASS

All living biomass above the soil including stem, stump, 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.

CARBON IN ABOVE-GROUND BIOMASS

Carbon in all living biomass above the soil, including stem, stump, 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, 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.

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 soil depth of 30 cm.

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.

4. FOREST PRODUCTION

TERM, definition and explanatory notes

PRIMARY DESIGNATED FUNCTION

The primary function or management objective assigned to a management unit either by legal prescription, documented decision of the landowner/manager, or evidence provided by documented studies of <u>forest</u> management practices and customary uses.

Explanatory notes

- 1. In order to be considered primary, the designated function should be significantly more important than other functions.
- 2. Nation-wide functions established in general clauses of national legislation or policies (e.g. "all forest land should be managed for production, conservation and social purposes") should not be considered as designations.

PRODUCTION FOREST

<u>Forest</u> area <u>designated primarily</u> for production of wood, fibre, bio-energy and/or <u>non-wood forest products</u>.

Explanatory note

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

MULTIPLE USE FOREST

<u>Forest</u> area <u>designated primarily</u> for more than one purpose and where none of these alone is considered as the predominant designated function.

- 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 function.
- 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 designated for multiple use.

NON-WOOD FOREST PRODUCT (NWFP)

Goods derived from <u>forests</u> 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 <u>forest</u> (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 <u>excludes</u> 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 <u>excludes</u> 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.

COMMERCIAL VALUE OF NON-WOOD FOREST PRODUCT (NWFP)

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

Explanatory note

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.

TOTAL WOOD REMOVALS

The total of industrial round wood removals and woodfuel removals.

INDUSTRIAL ROUND WOOD REMOVALS (Sub-category)

The wood removed for production of goods and services other than energy production (woodfuel).

- 1. The term "removal" differs from "felling" as it excludes trees that were felled but not removed.
- 2. It includes removals from fellings in earlier period and from trees killed or damaged by natural causes.

WOODFUEL REMOVALS (*Sub-category*)

The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

Explanatory notes

- 1. Includes all wood collected or removed for energy purposes, such as fuelwood, wood for charcoal production, harvesting residues, stumps, etc.
- 2. Includes removals from fellings in an earlier period and from trees killed or damaged by natural causes.
- 3. <u>Excludes</u> woodfuel which is produced as a by-product or residual matter from industrial processing of roundwood.

5. PROTECTION OF SOIL AND WATER AND SELECTIVE ECOSYSTEM SERVICES

TERM, definition and explanatory notes

PROTECTION OF SOIL AND WATER

Forest area designated or managed for protection of soil and water.

Explanatory notes

- 1. It may include areas that are primarily managed for other values such as timber production.
- 2. National or state legislation or regulations often provide for the protection of soil and water values through land use zoning or prescriptions in management plans or other mechanisms for best practices. Areas covered by such regulations and plans should be considered as designated or managed for protection of soil and water.

PROTECTION FOR PRODUCTION OF CLEAN WATER (Sub-category)

<u>Forest</u> area <u>primarily designated</u> or managed for water production, where most human uses are excluded or heavily modified to protect water quality.

Explanatory note

1. Recreation or harvesting of wood and non-wood forest products may sometimes be allowed, but with specific restrictions aimed at maintaining water quality and preventing soil erosion or other factors impacting on water quality.

PROTECTION FOR COASTAL STABILIZATION (Sub-category)

Forest area **primarily designated** or managed for coastal stabilization.

Explanatory note

1. It may include areas that have been afforested to stabilise coastal dune systems, or areas of mangrove or other types of coastal forests managed to protect coastal areas from storms, tsunamis or rising sea level.

PROTECTION FOR DESERTIFICATION CONTROL (Sub-category)

Forest area primarily designated or managed for desertification control.

Explanatory note

1. Other forms of forest use may be permitted but only under management prescriptions that aim to maintain forest cover and prevent desert expansion.

PROTECTION FOR AVALANCHE CONTROL (Sub-category)

<u>Forest</u> area <u>primarily designated</u> or managed to prevent the development or impact of avalanches on human life, assets or infrastructure.

PROTECTION FOR EROSION, FLOOD PROTECTION OR REDUCING FLOOD RISK *(Sub-category)*

<u>Forest</u> area <u>primarily designated</u> or managed for protecting communities or assets from the impacts of: erosion, riparian floods and landslides, or for providing flood plain services.

PROTECTION FOR OTHER SOIL AND WATER PROTECTION RELATED PURPOSES *(Sub-category)*

<u>Forest</u> areas <u>primarily designated</u> or managed for other <u>soil and water protection</u> related purposes.

Explanatory note

1. Countries should specify in comments what areas they have included in this category.

ECOSYSTEM SERVICES, CULTURAL OR SPIRITUAL VALUES

<u>Forest</u> area designated or managed for selected ecosystem services or cultural or spiritual values.

Explanatory note

1. These areas may overlap with other designation or management functions.

PUBLIC RECREATION (Sub-category)

Forest area designated or managed for public recreation.

- 1. Includes forest areas where recreational hunting or collection edible or non-timber forest products are allowed, but specifically excludes areas where these are collected for sale or subsistence.
- 2. Includes forest areas designated in management plans, or be provided for in national legislation that allows free access of the public to land for recreation, on public, private or communal lands.

CARBON STORAGE OR SEQUESTRATION (Sub-category)

Forest area primarily designated or managed for carbon storage or sequestration.

Explanatory note

1. Includes forest area under registered legal agreement for carbon through International arrangements such as: CDM or REDD+ pilot programmes or national-level legal agreements such as emissions trading or other forms of carbon services agreement or voluntary carbon market arrangements.

SPIRITUAL OR CULTURAL SERVICES (Sub-category)

Forest area primarily designated or managed for spiritual or cultural values.

Explanatory note

1. Includes temple forests or other religious areas, spirit forests, sacred areas, burial grounds, initiation areas, taboo areas or other forms of community spiritual or cultural practices.

6. FOREST AREA PROTECTED AND DESIGNATED FOR THE CONSERVATION ON BIODIVERSITY

TERM, definition and explanatory notes

CONSERVATION OF BIODIVERSIY

<u>Forest</u> area <u>designated primarily</u> for conservation of <u>biological diversity</u>. Includes but is not limited to areas designated for biodiversity conservation within the <u>protected</u> <u>areas</u>.

PROTECTED AREAS

Areas especially dedicated to the protection and maintenance of <u>biological diversity</u>, and of natural and associated cultural resources, and managed through legal or other effective means.

FOREST AREA WITHIN PROTECTED AREAS

<u>Forest</u> area within formally established <u>protected areas</u> independently of the purpose for which the <u>protected areas</u> were established.

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

7. WOODY INVASIVE SPECIES

TERM, definition and explanatory notes

INVASIVE SPECIES

Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health.

Explanatory note

1. The reporting is restricted to cover only the woody invasive species.

8. FOREST DAMAGE

TERM, definition and explanatory notes

NUMBER OF FIRES

Number of fires per year.

BURNED AREA

Area burned per year.

OUTBREAKS OF INSECTS

A detectable reduction in <u>forest</u> health caused by a sudden increase in numbers of harmful insects.

OUTBREAKS OF DISEASES

A detectable reduction in <u>forest</u> health caused by a sudden increase in numbers of harmful pathogens, such as bacteria, fungi, phytoplasma or virus.

SEVERE WEATHER EVENTS

Damage caused by severe weather events, such as snow, storm, drought, etc.

9. REDUCTION IN CANOPY COVER

TERM, definition and explanatory notes

REDUCTION IN CANOPY COVER

<u>Forest</u> that has undergone a reduction of <u>canopy cover</u> – of more than 20% over a 10 year period within the forest canopy cover range of 30-80% as detected by the MODIS VCF sensor.

10. FOREST POLICY AND REGULATORY FRAMEWORK SUPPORTING IMPLEMENTATION OF SFM?

TERM, definition and explanatory notes

POLICIES SUPPORTING SUSTAINABLE FOREST MANAGEMENT

Policies or strategies that explicitly encourage sustainable forest management.

LEGISLATIONANDREGULATIONSSUPPORTINGSUSTAINABLEFORESTMANAGEMENT

Legislation and regulations that govern and guide sustainable <u>forest</u> management, operations and use.

11. NATIONAL PLATFORM PROMOTING STAKEHOLDER PARTICIPATION IN FOREST POLICY

TERM, definition and explanatory notes

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 <u>forest policy</u>.

12. FOREST AREA INTENDED TO BE IN PERMANENT FOREST LAND USE

TERM, definition and explanatory notes

FOREST AREA INTENDED TO BE IN PERMANENT FOREST LAND USE

<u>Forest</u> area that is designated or expected to be retained as forest and is highly unlikely to be converted to other land use.

Explanatory note

1. It is recognized that forests held by private owners or communities may in some countries be retained or converted at the decision of the owner rather than at the discretion of the government. For these lands, the best estimate of permanent forest on these lands should be included with the plans for lands more directly controlled by national or sub-national governments.

PERMANENT FOREST ESTATE (Sub-category)

<u>Forest</u> area that is designated by law or regulation to be retained as forest and *may not* be converted to other land use.

Explanatory notes

- 1. If the PFE contains both forest and non-forest areas, the reporting should refer only to the forest area within the PFE.
- 2. Key difference in this sub-category from permanent forest land use is that land in this sub-category may not by law be converted to other land use.

13. MEASURING AND REPORTING PROGRESS TOWARDS SFM AT THE NATIONAL LEVEL

TERM, definition and explanatory notes

FORESTAREA MONITORED UNDER A NATIONAL FOREST MONITORING FRAMEWORK

<u>Forest</u> area monitored by a national monitoring framework or system(s) that provide measurement-based, periodic monitoring of forest extent and quality.

FOREST REPORTING AT NATIONAL SCALE

National reporting of <u>forest</u> extent and characteristics that includes some measure of progress toward sustainable forest management.

14. FOREST UNDER A FOREST MANAGEMENT PLAN AND MONITORING

TERM, definition and explanatory notes

FOREST AREA WITH MANAGEMENT PLAN

<u>Forest</u> area that has a long-term documented management plan, aiming at defined management goals, 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 must include adequate detail on operations planned for individual operational units (stands or compartments) but may also provide general strategies and activities planned to reach management goals.
- 3. Includes forest area in protected areas with management plan.

MANAGEMENT PLAN PRODUCTION (Sub-category)

Forest management plan mainly focused on production.

MANAGEMENT PLAN FOR CONSERVATION (Sub-category)

Forest management plan mainly focused on conservation.

MONITORING OF FOREST MANAGEMENT PLANS

Government monitoring of <u>forest</u> management plan implementation conducted through field visits or audits of forest management plan performance.

Explanatory note

1. Monitoring in this case means periodic observation/evaluation of plan implementation during the life of the plan. This monitoring assumes it takes place at a level appropriate to activities/practices specified in the plan.

15. STAKEHOLDER INVOLVEMENT IN MANAGEMENT DECISION MAKING FOR PUBLICLY OWNED FORESTS

TERM, definition and explanatory notes

STAKEHOLDER INVOLVEMENT

Stakeholder involvement is defined as significant inputs into at least one aspect of <u>forest</u> management at the operational level.

Explanatory note

1. Significant involvement includes active participation in planning through either participation in preparation of management plans, review of management plans or active participation in stakeholder meetings, participation in field operations or review of operations.

16. INDEPENDENTLY VERIFIED FOREST MANAGEMENT CERTIFICATION

TERM, definition and explanatory notes

FSC CERTIFICATION

Forest area certified under the Forest Stewardship Council certification scheme.

PEFC CERTIFICATION

<u>Forest</u> area certified under the Programme for the Endorsement of Forest Certification scheme.

OTHER INTERNATIONAL FOREST MANAGEMENT CERTIFICATION

Forest area certified under an international forest management certification scheme with published standards and is independently verified by a third-party, excluding FSC and PEFC certification.

CERTIFIED FOREST AREA USING A DOMESTIC FOREST MANAGEMENT CERTIFICATION SCHEME

<u>Forest</u> area certified under a forest management certification scheme with published standards that are nationally recognized and independently verified by a third-party.

- 1. Areas under different international certification should not be added together as they may overlap.
- 2. This refers only to forest management certifications and excludes areas covered only by chain of custody certification.

17. PUBLIC REVENUE COLLECTION AND EXPENDITURE

TERM, definition and explanatory notes

FOREST REVENUE

All government revenue collected from the domestic production and trade of <u>forest</u> products and services. For this purpose, revenue include:

Goods: roundwood; sawnwood; biomass; wood-based panels; pulp and paper; and <u>non-wood</u> <u>forest products</u>.

Services: including concession fees and royalties, stumpage payments, public timber sales revenue, taxes and charges based on <u>forest</u> area or yield, taxes on domestic trade and export of forest products, special levies on forestry activities and payments into forest-related funds, other miscellaneous inspection, licence and administrative fees levied by forest administration, permit and licence fees for recreation and other forest related activities.

Explanatory note

1. It <u>excludes</u>: taxes and charges generally collected from all individuals and enterprises (e.g. corporate taxes, payroll taxes, income taxes, land and property taxes, sales or value-added taxes); import taxes or duties levied on forest products; repayments of government loans to individuals and enterprises engaged in the production of forest products and services.

PUBLIC EXPENDITURE ON FORESTRY

All government expenditure on *forest* related activities.

Explanatory notes

- 1. Correspond to the total budget allocated and spent by all concerned institutions.
- 2. Include expenditures for administrative functions, reforestation funds, direct support to forest sector (e.g. grants and subsidies) and support to other institutions (e.g. training and research centres).
- 3. Exclude expenditures in publicly owned business entities.

18. OWNERSHIP AND MANAGEMENT RIGHTS OF FORESTS

TERM, definition and explanatory notes

FOREST OWNERSHIP

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

Explanatory note

1. 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.

PUBLIC OWNERSHIP

<u>Forest</u> owned by the State; or administrative units of the <u>Public Administration</u>; 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.

PUBLIC OWNERSHIP BY THE STATE AT NATIONAL LEVEL (Sub-category)

<u>Forest</u> owned by the State at the national scale; or by administrative units of the <u>Public</u> <u>Administration</u>; or by institutions or corporations owned by the Public Administration.

PUBLIC OWNERSHIP BY THE STATE AT SUB-NATIONAL GOVERNMENT SCALE (Sub-category)

<u>Forest</u> owned by the State at the sub-national government scale; or by administrative units of the <u>Public Administration</u>; or by institutions or corporations owned by the Public Administration.

PRIVATE OWNERSHIP

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

PRIVATE OWNERSHIP BY INDIVIDUALS (Sub-category)

Forest owned by individuals and families.

PRIVATE OWNERSHIP BY PRIVATE BUSINESS ENTITIES AND INSTITUTIONS (Sub-category)

<u>Forest</u> 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.

PRIVATE OWNERSHIP BY LOCAL, TRIBAL AND INDIGINEOUS COMMUNITIES *(Sub-category)*

<u>Forest</u> 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 notes

- 1. Indigenous and tribal people include:
- 2. 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.
- 3. 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.

UNKNOWN OWNERSHIP

<u>Forest</u> area where ownership is unknown, includes areas where ownership is unclear or disputed.

MANAGEMENT RIGHTS BY 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.

MANAGEMENT RIGHTS BY INDIVIDUALS / HOUSEHOLDS

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

MANAGEMENT RIGHTS BY PRIVATE COMPANIES

<u>Forest</u> 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.

MANAGEMENT RIGHTS BY COMMUNITIES

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

OTHER FORMS OF MANAGEMENT RIGHTS

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

19. EMPLOYMENT IN FORESTRY

TERM, definition and explanatory notes

FULL-TIME EQUIVALENTS (FTE)

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 <u>forests</u>. 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.

20. CONTRIBUTION OF FORESTRY TO GROSS DOMESTIC PRODUCT (GDP)

TERM, definition and explanatory notes

GROSS VALUE ADDED FROM FORESTRY (at basic prices)

This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

21. WHAT IS FOREST AREA LIKELY TO BE IN THE FUTURE?

TERM, definition and explanatory notes

GOVERNMENT TARGET/ASPIRATION FOR FOREST AREA

Government target/aspiration for *forest* area for a specific year.

FORESTS EARMARKED FOR CONVERSION

Forest area that is allocated/classified or scheduled to be converted to non-forest uses.

Additional terms and definitions

TERM, definition and explanatory notes

BIOLOGICAL DIVERSITY

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, among species and of ecosystems.

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. Cannot exceed 100 percent (also called crown closure or crown cover).

(IPCC. 2003. Good Practice Guidance for LULUCF - Glossary)

FOREST DEGRADATION

The reduction of the capacity of a *forest* to provide goods and services.

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 <u>forest</u> and <u>tree</u> resources for the benefit of society.

NATURALLY REGENERATED FOREST

Forest predominantly composed of <u>trees</u> established through natural regeneration.

- 1. In this context, predominantly means that the trees established through natural regeneration are expected to constitute more than 50 percent of the growing stock at maturity.
- 2. Includes coppice from trees established through natural regeneration.
- 3. Includes naturally regenerated trees of introduced species.

SHRUB

Woody perennial plant, generally more than 0.5 meters and less than 5 meters in height at 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 meters and 7 meters.

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.

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