



INTOSAI
Working Group
on Environmental
Auditing

SESSION 2.0

Understanding Forests

06/06/2012



LEARNING OBJECTIVES



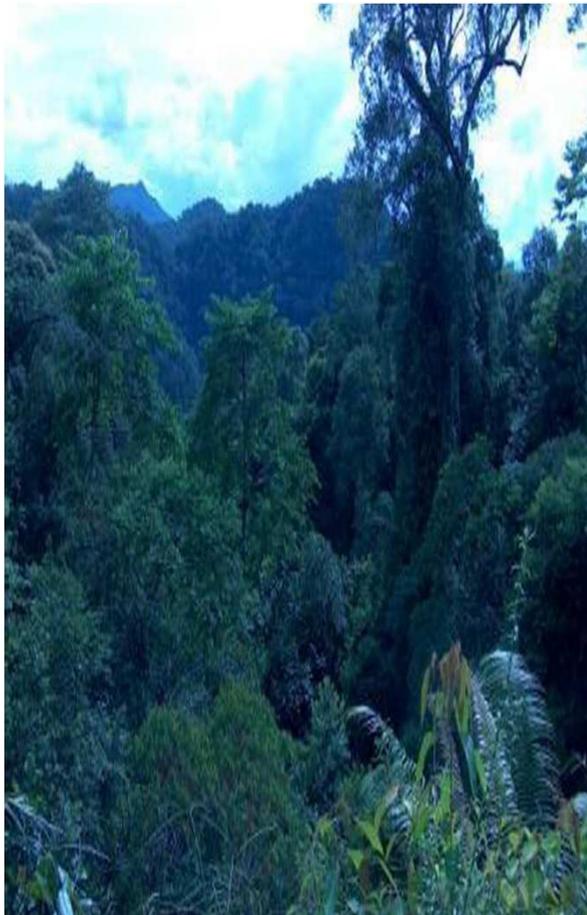
INTOSAI
Working Group
on Environmental
Auditing

2

By the end of this session participants will be able to explain importance of forests and to describe information necessary to develop the performance audit plan in forestry.



DEFINITIONS OF FOREST



The Food and Agriculture Organization (FAO) (2005)

- *Land > 0.5 hectares*
- *Trees > 5 meters*
- *Canopy cover > 10 %*
- *Or trees able to reach these thresholds in situ*
- *Exclude: land under agricultural or urban land use*

United Nations Framework Convention on Climate Change (UNFCCC, 2001)

- *Min. area of land of 0.5-1.0 hectares*
- *Tree crown cover (or equivalent stocking level) > 10-30%*
- *Trees minimum height of 2-5 meters at maturity in situ*



FOREST CATEGORIES



INTOSAI
Working Group
on Environmental
Auditing

4



- **Naturally regenerated forests.**
Forests established by natural regeneration without deliberate assistance from man. These included virgin forests and those regenerated by natural means.



- **Planted forests.**
Forests established by human intervention and/or management on the purpose of growing the forest.



FOREST CATEGORIES



Naturally regenerated forests			Planted forests			Trees outside forests
Primary	Modified natural	Semi-natural		Plantations		
		Assisted natural regeneration	Planted component	Productive	Protective	
native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed	of naturally regenerated native species where there are clearly visible indications of human activities	Silvicultural practices by intensive management, like: * weeding, * fertilizing, * thinning, * selective logging.	of native species, established through planting or seeding, intensively managed	of introduced and/or native species established through planting or seeding mainly for production of wood or non-wood goods	of introduced and/or native species, established through planting or seeding mainly for provision of services	Stands smaller than 0,5 ha; tree cover in agricultural land (agro forestry systems, home gardens, orchards); trees in urban environments; and scattered along roads and in landscapes

Source: FAO Forestry Paper: Global Forest Resources Assessment, (2005)



TYPES OF FOREST



FAO divides the world's forest into ecological zones within domains that have been determined on the basis of amount and distribution of rainfall and humidity. The domains are tropical, subtropical, temperate, and boreal, and are based on temperature variability throughout the year. These correspond largely with latitudes. Yet, types of forest may vary in every country and continents.

The FAO's seven types of forests, are:



Mountain forests



Tropical rain forests



Boreal coniferous forests



Mangrove



Temperate broadleaf deciduous forests



Tropical dry forests and woodlands



Subtropical dry forests

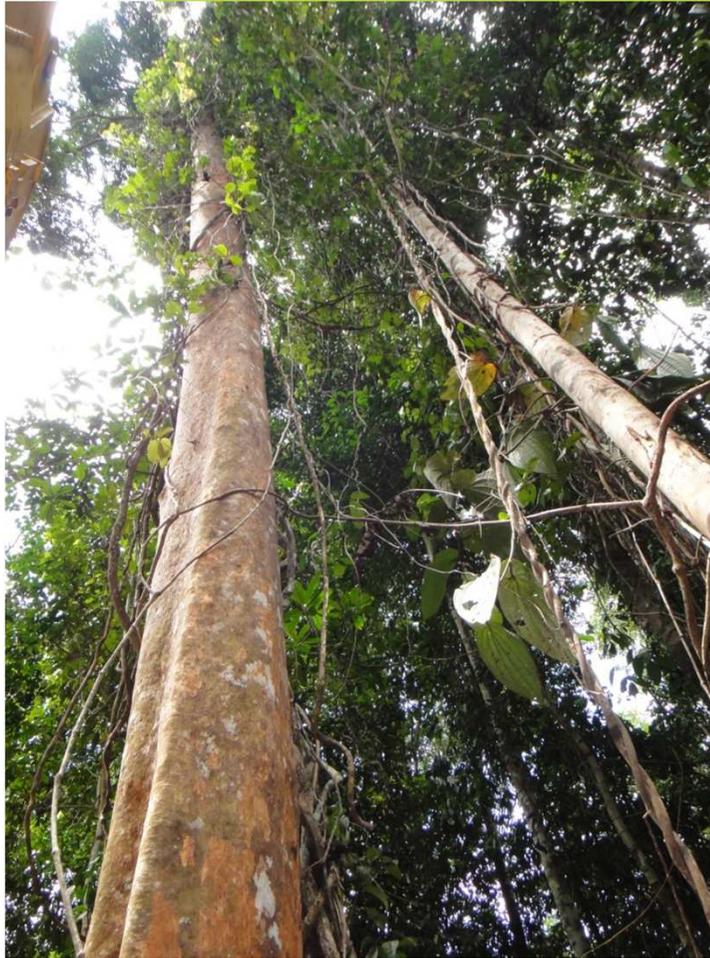


TYPES OF FOREST



INTOSAI
Working Group
on Environmental
Auditing

7



Based on dominant tree species and soil condition forests can be divided into more detailed forest types in a country. These qualitative differences determine as different habitats (*important for protective functions*) as different utility aspects (*important for productive functions*).





FUNCTIONS OF FOREST



1. Productive functions

Forests and trees outside the forests provide a wide range of wood and non-wood forest products (NWFP).



NWFP can be as economically important as or more than traditional wood products. Forest produces food and fodder, medicinal plants and animals, aromatics for perfumes and cosmetics, fibers for construction, craft and utensils, aso.

Variables related to the productive function of forests:

- area of forest and/or plantations designated for production;
- growing stock and commercial growing stock;
- removals of wood products;
- removals of NWFP.



FUNCTIONS OF FOREST



2. Protective functions

Although less than one third of the earth's surface is covered with forests, they are among the most notable storehouses of biological diversity on the land - they house over two-thirds of known terrestrial species.



Forests and trees outside the forests also contribute to moderate soil, hydrological and aquatic systems, maintain clean water (including healthy fish populations) and reduce risks and impacts of floods, avalanches, erosion and drought.

Forests are also connected with climate, on local, regional, and global level.



FUNCTIONS OF FOREST



INTOSAI
Working Group
on Environmental
Auditing

10

3. Socio-economics functions

Forest resources contribute to the overall economy as through employment, values generated through processing and marketing of forest products, energy, and trade and investment in the forest sector. They also host and protect sites



and landscapes of high cultural, spiritual or recreational value. This theme thus includes aspects of land tenure which is essential to the formulation of effective policies by governments, indigenous and community management systems, and traditional knowledge.



GAMES!



The type of Forest??
The characteristics??





MANGROVE



INTOSAI
Working Group
on Environmental
Auditing





- *Excellent! YOU WON THIS GAME!*





INTERNATIONAL FOREST INITIATIVES



INTOSAI
Working Group
on Environmental
Auditing

14

The importance of forests is recognized by many governments and non-government organizations in a range of sustainable forest management initiatives. Some examples:

International Tropical Timber Organization (ITTO)

- Developed guidelines on the conservation of biological diversity in tropical production forests (1993).
- Developed guidelines for the restoration, management and rehabilitation of degraded and secondary tropical forests (2002).

The Food and Agricultural Organisation (FAO)

- The model code of forest harvesting practice has been compiled to highlight the wide range of environmentally sound harvesting practices (1996).
- The governance principles for concessions and contracts in public forests compiles critical factors in balancing and safeguarding the public and private interest in forest management.

The Confederation of European Paper Industries (CEPI)

- Developed 6 principles for legal logging, A Code of Conduct for the Paper Industry” to combat illegal logging (2005).



INTERNATIONAL FOREST INITIATIVES



INTOSAI
Working Group
on Environmental
Auditing

15

Some examples of conventions connected with forestry, mainly to protect or conserve forests for their important ecological functions:

Convention on
International Trade in
Endangered Species
of Wild Fauna and
Flora (CITES)

The convention on
wetlands, signed in
Ramsar (Ramsar
Convention)

World Heritage
Convention

Convention on
Biological Diversity
(CBD)

United Nations
Framework
Convention on
Climate Change
(UNFCCC)

Kyoto Protocol



REGIONAL FOREST INITIATIVES



- The Treaty for Amazonian Co-operation is a collaboration among member countries in forestry in the Amazon watershed.

TCA



- Cooperation in forestry among its 14 member nations through Forestry Sector Policy.

The Southern African Development Community



- Strengthening ASEAN cooperation and joint approaches in addressing international and regional forestry issues

ASEAN 13



- It is an advisory body of the Central American Commission on Environment and Development (CCAD), to implement CCAD policies and strategies on the sustainable use of forest.

The Central American Council for Forests and Protected Areas



- Its purpose is to address common opportunities and threats related to forests and forestry.

Ministerial Conference on the Protection of Forests in Europe

