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THE GLOBAL FOREST RESOURCES ASSESSMENT 2010

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FAO has carried out global forest resources assessments at 5- to 10-year intervals since 1946. The latest assessment (FRA 2005) covered 229 countries and territories and involved more than 800 people, including officially nominated national correspondents and their teams in 172 countries.

FRA DATA RELEVANCE

The FRA reports are the main authoritative source of global data on forest resources, and are widely used by countries and international processes for policy development and implementation.

In particular, FRA data are used for monitoring progress towards the Millennium Development Goals, by the international environmental conventions (UNFCCC, UNCCD and CBD), the United Nations Forum on Forests (UNFF) and the International Tropical Timber Organization (ITTO).

The next assessment (FRA 2010) is specifically designed to cover the forest-related information needs for monitoring progress towards the 2010 Biodiversity Target, the Global Objectives on Forests of the UNFF and the Millennium Development Goals.

REMOTE SENSING SURVEY

As part of the Global Forest Resources Assessment 2010, FAO, its member countries and partners will undertake a global remote sensing survey of forests. This survey is aimed at substantially improving the knowledge on land use change dynamics over time, including deforestation, afforestation and natural expansion of forests. This effort constitutes the core framework for the implementation of the GEOSS global forest monitoring task (AG-06-04).

The survey will be based primarily on the use of available Landsat imagery, but will incorporate auxiliary information, including other remote sensing images and the results from existing and past field inventories. A systematic sampling design will be used based on each longitude and latitude intersect, with a reduced intensity above 60° N due to the curvature of the Earth.

The assessment will cover the whole land surface of the Earth and will consist of approximately 13 500 samples, of which about 9 000 samples are outside deserts and areas with permanent ice. The area covered at each sample site is 10 km × 10 km (with a 5-km buffer zone), providing a sampling intensity of about one percent of the global land surface.

For each sample plot, four Landsat images —

Land cover change analysis will be undertaken on 13 500 sample blocks of 10km x 10km. 239 subsets have been identified by the FRA 2010-Remote Sensing Survey project to test alternative methodologies of forest classification and change analysis (example from Bazil is shown above)

FAO and partner organizations are leading an ambitious global remote sensing survey of forests in collaboration with countries

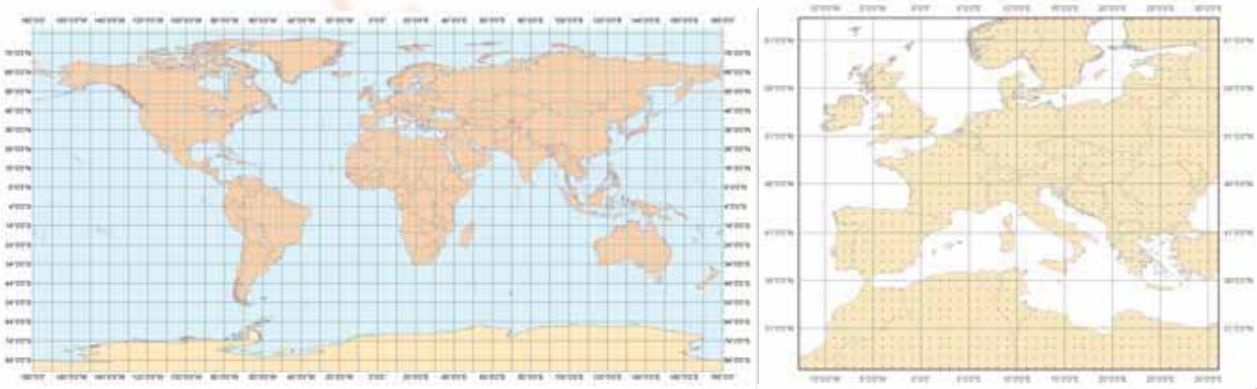
dating from around 1975, 1990, 2000 and 2005 — will be interpreted and classified, and a change matrix prepared providing quantitative information on the magnitude of different land use change processes.

DATA VALIDATION AND CAPACITY BUILDING

FAO and its partner organizations will make rectified and pre-processed imagery available through an online information gateway, and will develop the necessary training material and a suite of tools to aid the interpretation process. The interpretation of the imagery and the development of the change matrices will be undertaken by national teams, thus making the best use of local knowledge and existing information while facilitating transfer of technology and capacity building in forest monitoring where needed. This initiative is expected to form a pilot project for the establishment or strengthening of national land cover and land use monitoring systems in many developing countries.

IMPLEMENTATION PARTNERSHIP

An informal implementation partnership has been established with FAO (the Forestry Department and the Environmental Assessment and Management Unit, which includes GTOS), the EU Joint Research Centre (the TREES 3 programme and FOREST Europe) and South Dakota State University (USA) as the lead organizations. Other key partners include NASA, US Forest Service (USFS), USGS, GLCN, GOFC-GOLD and Jena University (Germany). Additional partners are welcome.



The sampling design of the FRA 2010 Remote Sensing Survey

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