

VOLUNTARY PAPERS OF MAJOR INTEREST TO THE DELIBERATIONS (LEVEL 2)

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Monitoring the sustainable development of Canada's forests from space: the EOSD project

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In support of national and international reporting requirements, the Canadian Forest Service, in partnership with the Canadian Space Agency, is using space-based, earth observation technologies to support the monitoring of sustainable development of Canada's forests through an initiative called Earth Observation for Sustainable Development of Forests (EOSD). This project will assist in the implementation of Canada's international obligations in relation to climate change and sustainable forest management.

The current priority of EOSD is mapping circa-year 2000 land cover in the forested areas of Canada, in partnership with the provinces, territories, universities and industry. These maps are scheduled for completion in 2006. A longer-term goal of EOSD is to produce maps of forest change, biomass and land cover on a five- to ten-year cycle. An important component of EOSD is research directed at fulfilling these long-term goals. Research is focusing on developing, improving and automating procedures for land cover, change monitoring, and biomass measurements.

In addition to thematic maps, products generated in this programme will include data, methods and systems that will be freely available and distributed via the internet. These products will be an integral component of Canada's National Forest Information System, which is a new forest measuring and monitoring system that will help the public and interested organizations understand the composition, distribution and dynamics of Canada's forests.

original - 0640

Canada's national forest inventory: monitoring the sustainability of Canada's forests

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Canada's current National Forest Inventory is a periodic compilation of existing inventory material from across the country. While this approach has many advantages, it lacks information about the nature and rate of changes to

the resource, and does not permit projections or forecasts. Being a compilation of inventories undertaken at different dates, the current national forest inventory cannot reflect the current state of the forests and therefore cannot serve as a satisfactory baseline for monitoring change. The current format of Canada's National Forest Inventory has served its purpose by providing national statistical compilations and reporting. To meet new demands, Canada is adopting a new National Forest Inventory design. This consists of a plot-based system of permanent observational units located on a national grid. The objective of the new design is to assess and monitor the extent, state and sustainability of Canada's forests in a timely and accurate manner. Details of Canada's National Forest Inventory are described.

original - **0943**

Review of sustainability of forest resources under Global Forest Resource Assessment 2005

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Most of the international forest-related international processes have an implicit or explicit goal to review the status of sustainability of forest resources in a holistic manner in each of the countries they span. However, lack of a conceptual framework to integrate multidimensional and multiscale information may have constrained their progress towards this goal. The Forest Resource Assessment programme, led by FAO, plans to take this challenge during its mid-term Global Forest Resource Assessment (GFRA) planned for 2005 by designing it to review the sustainability of forest resources using "Criteria" that are common among various "Criteria and Indicator" processes at regional and international levels.

This paper briefly describes this journey on the way to reviewing the sustainability of forest resources. It briefly spans the rationale, framework, methods, expected outcomes, partnerships and role of countries on way to GFRA 2005. In doing so it deals with concepts of forest capital, goods, flows, sustainability, equity and integrity. It presents spatial and functional boundaries conceived under global forest resource assessment (FRA) as well as their link to various international processes for monitoring progress towards sustainable forest management (SFM). The holistic multidimensional assessment proposed under GFRA 2005 may provide the missing link between information generated by forest assessments and its use in the development of national forest policies and programmes including enhanced support to sustainable livelihoods and better participation of civil society. It may also help to reduce the reporting burden of countries as well as help international processes looking for validated, harmonized and compatible national information.