THE GEO FOREST CARBON TRACKING TASK: GOALS AND PROGRESS TO-DATE

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The Group on Earth Observations (GEO) established the forest carbon tracking (FCT) task in 2008 as part of its GEO 2009-2011 Work Plan [1]. This task [2] is to provide operational support to countries wishing to establish a national system for forest monitoring and carbon reporting. The FCT initiative will facilitate access to long-term satellite, airborne and in situ data, provide the associated analysis and prediction tools, and create the appropriate framework and technical standards for a global network of national forest carbon tracking systems. The task follows the guidelines set out by the United Nations Framework Convention on Climate Change (UNFCCC). Its outputs will be available to support interested countries in their efforts to implement the Convention. The task is being carried out by a partnership of GEO member governments, key UN bodies, space agencies, the science community and the private sector. This initiative will pave the way for countries to establish national forest monitoring, verification and reporting systems as part of a global network via eight main actions:

• Obtain a commitment from CEOS member space agencies to provide continuous optical and radar satellite data, and the tools and training suitable for wall-to-wall forest carbon tracking.

• Guide countries on methods for satellite data processing and tools and standards for producing verified forest information products, such as annual mid-resolution (<50m) wall-to wall time series for forest change assessments and information on areas undergoing forest degradation.

• Develop guidance documents for ground measurements that link forest inventories, remote-sensing data and carbon models.

• Evaluate and agree on validation procedures and accuracy assessment for the remote sensing of forested areas and for carbon stock estimates.

• Establish a growing network of ‘National Demonstrator’ countries, initially from the three major tropical forest regions: Southeast Asia, Africa and South America.

• Raise awareness of progress and demonstrations as inputs to UNFCCC and other major international events, making clear the policy implications of the new technical capabilities.
• Create a coordinated network of processing facilities that will ensure established standards are used and that countries are supported with the processing of key data products.
• Based on the successful implementation, demonstration and political acceptance of the system, assign operational responsibility for its coordination and operation to an appropriate international body or agency.

Building capacity to establish efficient and sustained forest monitoring and carbon accounting system in developing countries is critical. It requires support for methods and procedures, institutional development, international reporting technical assistance, training and educational programmes. The FCT task aims to quickly move from being a 'technical capability demonstration' to being an active support mechanism for the establishment of operational forest MRV systems in the following years through the complementary assistance of donor countries, UN bodies, NGOs and technical expert panels currently involved in related capacity building activities.

Australia, Brazil, Cameroon, Guyana, Indonesia, Mexico, Colombia and Tanzania are already taking part in the task as 'National Demonstrators', and others have expressed interest in playing this role from 2010 onwards. The development of human and technical capacity in the countries involved is a critical component of the task, as an increasing number of tropical forest countries are expected to become part of the GEO network and to eventually contribute to a Global Forest and Carbon Monitoring System.

The development of the GEO FCT task is being led by governments with a strong interest in forest carbon monitoring: Australia, Canada, Japan and Norway. The Committee on Earth Observation Satellites (CEOS) and the UN Food and Agriculture Organization (FAO) are two other lead partners, while institutions in GEO member countries, Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD) and the EC Joint Research Centre play important roles. CEOS has committed resources from the world's space agencies to provide a coordinated contribution to the task with the European Space Agency (ESA) ensuring the coordination of CEOS inputs to the task. National space agencies engaged to date are Brazil, Canada,

Germany, India, Italy, Japan and the USA. Seven governments have agreed to cooperate as ‘National Demonstrators’ for the project in 2009-2010.

Bibliography:

[1] Group on Earth Observations 2009-2011 Work Plan: http://www.earthobservations.org/documents/work%20plan/geo_wp0911_rev2_091210.pdf

[2] GEO Forest Carbon Tasksheet (2009) http://www.earthobservations.org/documents/tasksheets/latest/CL-09-03b.pdf