

Global Land Cover Observations: International Strategies and Implementation

Martin Herold, Christiane Schmullius

ESA - GOFC-GOLD

m.h@uni-jena.de

Reliable observations of the terrestrial environment are of crucial importance to understanding climate change and its impacts, to sustainable economic development, natural resources management, conservation, biodiversity and a scientific understanding of ecosystems and biogeochemical cycling. The need for sustained, harmonized, and validated earth observation products is endorsed in several international conventions and treaties, i.e. in UNCED's Agenda 21, UNFCCC and the Kyoto protocol, the World Summit on Sustainable Development (WSSD) in Johannesburg 2002 and the related Group of Earth Observations (GEO) formed in 2003 that has evolved to a Global Earth Observation System of Systems (GEOSS), as well as, the GCOS implementation plan calling on land cover (COP10 – December 2004). These developments aim at long term goals but have to start and evolve from an international cooperation and consensus building efforts, both in on the strategic level and in implementation activities. GOFC-GOLD initiatives (GLOBAL OBSERVATIONS OF FOREST COVER AND LAND DYNAMICS) as panel of GTOS (GLOBAL TERRESTRIAL OBSERVING SYSTEM) brings together key participants and stake-holders involved in global land cover observations. The objective is to provide a platform for presentation and discussions on current and planned activities including developments on the political programmes, international strategic frameworks as well as related implementation initiatives. Communication and cooperation between the multifaceted (though individually limited) experiences and efforts are essential to approach the issues as concerted initiatives. Different aspects of global land cover datasets will be addressed including limitations and challenges of global land cover mapping with respect to compatibility and comparability, and insufficient accuracy assessment that currently hinders a variety of applications.