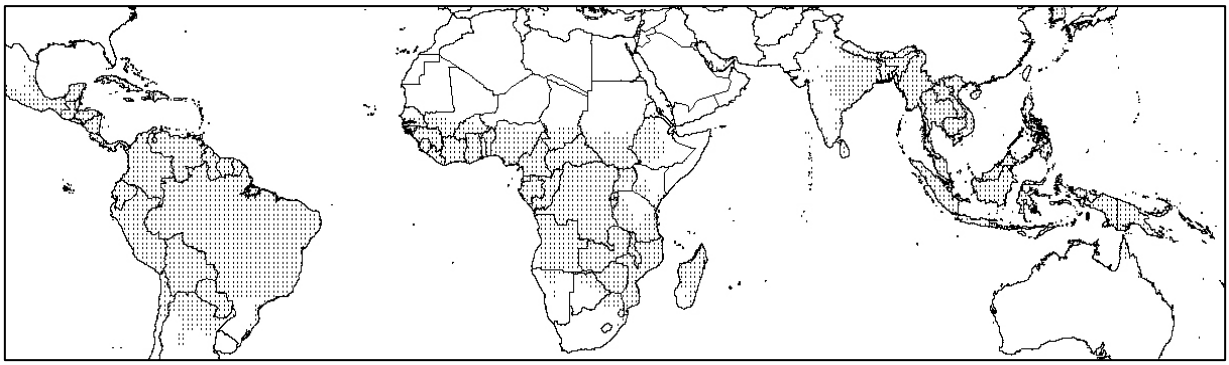
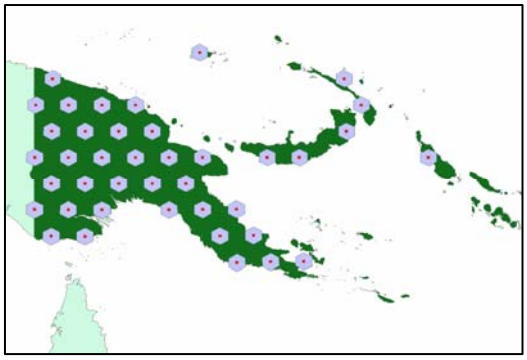
12th Conference of Parties of the UN Framework Convention on Climate Change

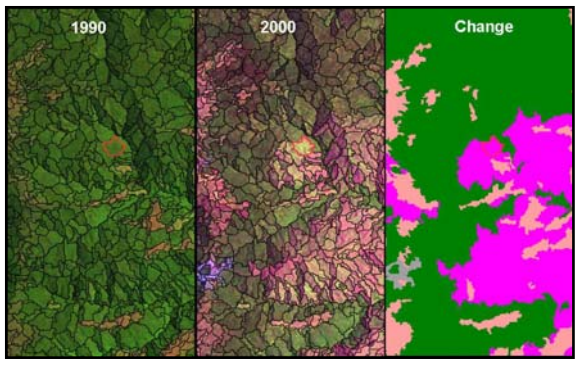
*The Italian Ministry for the Environment, Land and Sea has the pleasure to announce:*

**A side-event held on Thursday, 09 November 2006**
**13:15-14:45**
**ICRAF building - The Acacia Room**

# Reducing emissions from deforestation: Estimating forest conversion rates from global to national scales using the TREES-3 method








## Agenda and Speakers

***13:15 – 13:20*** *Welcome address*
by Dr. **Antonio Lumicisi,** Ministry for the Environment, Land and Sea, Italy

***13:20 – 13:40*** *The TREES-3 approach: the potential of Earth Observation data for monitoring forest areas at global to regional levels* by Dr. **Frédéric Achard** & Dr. **Hugh Eva**, JRC

***13:40 – 14:00*** *TREES-3 Case studies – The Congo basin, Papua New Guinea and Costa Rica*
by Dr. **Danilo Mollicone**, MPI & Dr. **Hugh Eva**, JRC

***14:00 – 14:20*** *Forest monitoring – a ground based approach*
by Dr. **Edward Nir,** Forest Research Institute of PNG & Dr. **Danilo Mollicone**, MPI

***14:20 – 14:40*** *Conclusions & Discussions*

*Lunch buffet and refreshments will be served at the end of the side-event*

## Executive Summary

The side-event is organised jointly by the European Commission's Joint Research Centre, Ispra, Italy (JRC) and the Max Planck Institute for Biogeochemistry, Jena, Germany (MPI) with support of the Department for Environment and Conservation and Forest Research Institute of Papua New Guinea (DEC & FRI).

After a welcome address by the Ministry for the Environment, Land and Sea of the Italian Government, the side-event will be organised along four main parts:

Part 1. The TREES-3 approach - the potential of Earth Observation data for monitoring forest areas at global to regional levels.

The TREES project was originally launched by the JRC and the European Space Agency in 1991 to monitor changes in forest cover in the tropics. TREES is now entering its third phase, the purpose of which is to reduce uncertainties in global estimates of forest area change using earth Observation techniques and with focus on the Tropics. The TREES project is working closely with the FAO's Forest Resource Assessment program, so as to finalise the methods for producing continental forest conversion rates employing a sampling scheme.

This presentation will outline what appropriate satellite databases are available for measuring global and national levels of deforestation between 1990 and 2000. For continental and global statistics, sampling schemes are seen as providing rapid and robust figures at economically feasible levels. Developments in image processing techniques, now allow us to follow the 'fate' of any particular land parcel through time, documenting its transition between land cover types.

Part 2. Case studies – The Congo basin, Papua New Guinea and Costa Rica

To demonstrate the flexibility of the global sampling system, three examples of how the TREES-3 approach can be implemented in practice and how the continental sampling scheme can be intensified to produce results at the regional and the national level will be shown. At the regional level, forest area changes for the Congo basin were estimated between 1990 and 2000. A sample of circa 600 sites was used for determining forest change. Methods for compensating for 'missing data' (i.e. cloud cover) are discussed. For national levels, we take two different examples, one large country and one small country. In each of these cases we demonstrate the problems to be faced and options for resolving them. In the first case, Papua New Guinea, we show how the regional sampling scheme can be intensified to produce results at the national level. For smaller countries, e.g. Costa Rica, a wall-to-wall approach is taken. In all cases, the role of field knowledge is deemed essential for viable results.

Part 3. Forest monitoring – a ground based approach

While our capacities for monitoring forest area changes are mature, can the same be said for measuring changes in stand biomass of different forests? The Department for Environment and Conservation together with the Forest Research Institute of Papua New Guinea present their findings from a set of over 100 ground sample sites, where timber volume has been monitored over 10 years. How these point data can be used at national level is discussed.

Part 4. A summary of current status and future requirements in the context of the UNFCCC will be presented as conclusions to open the discussion.