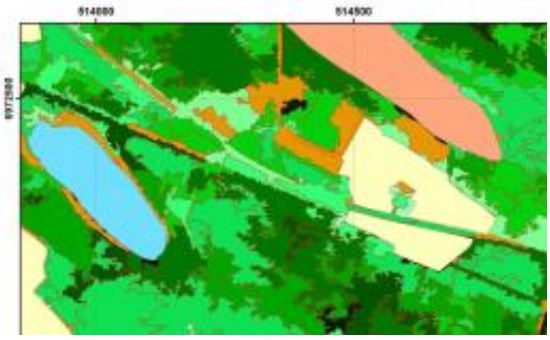
Novel services for tropical forest monitoring with satellite

November 30 2010



Forest biomass map of very high resolution satellite data (photo: VTT)

A consortium led by VTT Technical Research Centre of Finland is developing methods for monitoring tropical forests using satellite data in a project funded by the 7th Framework Programme of the European Commission. The objective of the ReCover project is to develop beyond the state-of-the-art service capabilities currently supporting the United Nations REDD programme which is fighting deforestation and forest degradation in the tropical region.

Although REDD will probably not be officially accepted at the climate conference in Cancun, several REDD-related activities are already under way in the tropical region.

The methods to be developed in the ReCover project will combine lower

resolution but full area coverage optical and radar satellite imagery with a sample of very high resolution satellite data and ground data. The very high resolution imagery, with an accuracy reaching to 0.5 metres, particularly supports monitoring of degradation and increases the general reliability of the results.

The study areas of the ReCover project are in Mexico, Guyana, Brazil, Central Africa and the Fiji Islands. For each of the study sites a local user is closely involved in the method development. The consortium has nine research and industrial partners, of which three are outside Europe.

The leading idea behind REDD is that countries that are willing to reduce emissions from deforestation will be financially compensated for doing so. The REDD process requires a monitoring system in which satellite imagery will have a key role. Monitoring of forest degradation introduces particular challenges for the monitoring system.

The ReCover project started in November 2010 and will last three years. Its total budget is about EUR 3.5 million.

Provided by VTT Technical Research Centre of Finland