A mechanism to account for carbon effects of avoiding forest conversion

Several countries have proposed that forest conservation in developing countries should be compensated under the United Nations Framework Convention on Climate Change (UNFCCC) (see preceding article). Any mechanism for accounting the carbon effects of avoiding forest conversion needs to reflect the amount of carbon that would be maintained in the forest by avoiding forest conversion. Therefore the UNFCCC forest definition, which currently lacks parameters for differentiating between levels of carbon stocks, must be differentiated to make it possible to account for changes in forest carbon stocks, for example through forest degradation. The mechanism must also include measurable criteria and baselines, and must be possible to apply consistently everywhere.

At the eleventh Conference of the Parties (COP-11) of UNFCCC, held in Montreal, Canada in December 2005, the Joint Research Centre of the European Commission (JRC) presented a proposal on how to account for avoided forest conversion. It divides the land-use category into two subcategories, intact and non-intact forests. Three potential types of forest conversion are defined:

- from intact forest to other land use;
- from non-intact forest to other land use;
- from intact forest to non-intact forest.

Avoided forest conversion is defined as the reduction of the conversion rates below a baseline for each potential change to be set up at the global and country levels. The proposed carbon accounting system would mainly rely on forest area and forest area changes as input data. Additional data on biomass and carbon stocks and changes in specific forest types would be needed for greater accuracy.

Intact forests can be delineated from satellite imagery, and with current satellite sensors forest conversion rates can be measured at the national and global scales, making it possible to implement the proposed accounting system.

The full proposal is available online at: www-gem.jrc.it/tem/EU_development_policy/activities/kyoto_support.htm

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Figure: types of forest carbon stock changes considered in the JRC proposal