

# Rewarding sinks projects under the CDM

**Erik Haites** explains the terms of the agreement reached in December's UN climate change negotiations on how afforestation and reforestation projects can be rewarded

**C**OP 9, the latest UN climate change conference, in December 2003 adopted modalities for afforestation and reforestation projects under the Kyoto Protocol's Clean Development Mechanism (CDM). The mandate was to develop modalities as similar as possible to those for other CDM projects while addressing the issues of non-permanence, additionality, leakage, uncertainties and socio-economic and environmental impacts associated with afforestation and reforestation projects.

Afforestation and reforestation projects cover all of the carbon pools – above-ground biomass, below-ground biomass, litter, dead wood and soil organic carbon – and greenhouse gas emissions on the project site. Project participants may exclude a carbon pool or emission source if they can document that the carbon in the excluded pool will increase or the emissions of the excluded source will decline. The excluded stock increases and emission reductions do not earn credits, but exclusion reduces the monitoring costs.

Credits are issued for the certified actual net removal, less the baseline change in carbon stocks, and less any leakage. The actual net removal is the net change in the carbon stocks of the selected carbon pools less any increase in greenhouse gas emissions within the project boundary due to the project. The baseline change in carbon stocks is the net change in the carbon stocks of the selected carbon pools that would have occurred in the absence of the project. Leakage is a measurable increase in greenhouse gas emissions outside the project boundary that is attributable to the project. Excluding 'positive' leakage

and on-site emissions in the baseline yields a conservative estimate of the net removals achieved.

The project developer can choose a crediting period of (a) a maximum of 20 years with up to two renewals or (b) a maximum of 30 years. To capture emissions associated with site preparation for the project, the crediting period must begin at the start of the project. The project developer can choose the date of the initial certification but must have the net removal certified at five-year intervals thereafter. Additionality, as with other CDM projects, is limited to environmental additionality.

Non-permanence is addressed by limiting the life of the certified emission reductions (CERs) issued for afforestation and reforestation projects. The project developers must choose to receive either temporary or long-term CERs for the net removals achieved:

- A temporary CER (tCER) expires at the end of the commitment period after the one during which it was issued.
- A long-term CER (ICER) expires at the end of the project's crediting period.

For the first commitment period, 2008–12, the Marrakech Accords limit the use of tCERs and ICERs by an Annex B Party to five times 1% of its base-year emissions.

A country that has accepted a binding target for its greenhouse gas emissions (an Annex B Party) that uses a tCER for compliance with its obligations for a commitment period, must replace it with a permanent Kyoto unit or an unexpired tCER in the next period. Permanent Kyoto units include: CERs; assigned amount units (AAUs) – the main currency of international emissions trading; emission reduction units (ERUs) – Kyoto credits arising from joint implementation projects; and removal units (RMUs) – credits generated by other carbon 'sinks' projects. Each time a project is certified, tCERs are issued for the net increase in carbon stocks since the start of the project. Thus, if the carbon stocks are maintained, the expired tCERs are replaced with new tCERs until the end of the crediting period.

After each certification, new ICERs corresponding to the increase in the carbon stocks since the previous certification are issued. If there has been a decrease in the carbon stocks since the previous certification, a corresponding fraction of the ICERs previously issued for that project must be replaced.

Failure to submit a certification report leads to a requirement to replace all outstanding ICERs for that project. Any ICERs outstanding at the end of the crediting period expire and must be replaced.

The main difference between tCERs and ICERs is the uncertainty for the Annex B Party that uses them for compliance. A country that uses tCERs knows all of them need to be replaced during the next commitment period. A country that uses ICERs does not know how many will need to be replaced unless it is the end of the project's crediting period. For other periods, the replacement requirement depends on maintenance of the project's carbon stocks. Insurance may be offered to cover this replacement risk.

The process for addressing socio-economic and environmental impacts is the same as that for the socio-economic impacts of other CDM projects. The project participants must submit documentation on the analysis of the socio-economic and environmental impacts, to the designated operational entity. Any impact assessment is subject to the requirements of the host country. Remedial measures or monitoring provisions from an impact assessment become part of the project description and monitoring plan. Implementation of such provisions is verified by the designated operational entity.

A process for development of simplified modalities for small-scale afforestation and reforestation projects by COP 10 was also agreed. Small-scale projects are those that are expected to result in net anthropogenic greenhouse gas removals by sinks of less than 8 ktCO<sub>2</sub> per year and are developed or implemented by low-income communities and individuals as determined by the host country.

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