

JOACHIM SCHNURR, MICHAEL DUTSCHKE and GERALD KAPP from GFA Terra Systems outline how quality assessments of forestry projects could give impetus for the generation of carbon credits

Waiting for the green light

In December 2003, COP 9 brought the sought-after decision on modalities for land use, land use change and forestry (LULUCF) projects under the Clean Development Mechanism, which is expected to pave the way for the implementation of forest climate projects (FCP) or sinks. However, the decision to exclude FCP from the first phase (2005–07) of the EU Emission Trading Scheme (ETS) dampened the expectations of many project developers and host countries for the rapid realisation of CDM sequestration projects. Nevertheless, the EU decision does not mean the final word for FCP.

Firstly, as LULUCF projects are valid CDM carbon mitigation options under the Kyoto Protocol, carbon credits from such projects will appear in international allowance markets after Kyoto has been ratified. Even if these credits are definitively disallowed from entering the EU ETS, every member state is free to use forestry credits for country compliance and to create a domestic system for the acquisition of forestry credits.

Secondly, many potential host countries are eager to implement FCPs. Urgently needed afforestation and reforestation schemes in these countries generally suffer from a lack of funding. Along with Official Development Assistance (ODA), carbon finance could be the solution for funding of respective national programmes. As Kyoto allows a much broader spectrum of FCP options under Joint Implementation (JI), environmentally desirable projects, such as conservation of natural forests, are feasible through carbon financing.

The case is different for the CDM, where ODA finance is subject to the non-diversion clause (see *Carbon Finance* April 2004, page 1). The OECD Development Assistance Committee has decided for its members not to acquire certified emission reductions (CERs) with ODA contributions, and to discount CER reflows like debt repayment in ODA statistics. Yet, the CDM Executive Board will have to decide on how to interpret the non-diversion rule, once an ODA co-financed project is submitted for registration. The Board, however, may refer the final say to COP 10 in December.

Thirdly, if European countries want to increase the use of renewable energy, as decided at the Bonn Conference in June 2004, the promotion of 'wood energy' will be an important part of this. A further extension of the concept of switching from fossil fuels to sustainably grown fuel wood largely depends on solving the sustainable wood supply problem. The potential demand and market for fuel-switch investments especially in the new EU member states is immense. For example, in Poland small district heating systems supply heat to more than 50% of private households. About 6,000 district heating systems in Poland – without taking into account industrial systems – run on outdated and inefficient coal-fired generation. Fuel wood afforestation of marginal agricultural areas could provide wood at prices that make wood energy competitive with fossil fuels, and at the same time create job opportunities in rural areas. The establishment and long-term management of fuel

wood plantations could be promoted by returns from the sale of carbon credits.

Finally, forests play a dominant role in climate change: positively by acting as a 'sink' for carbon, and negatively as a 'source' of carbon through deforestation, biomass decomposition or soil degradation after the loss of forest cover. Almost 25% of global annual emissions of carbon dioxide (CO₂) result from forest clearance, which makes it necessary to bring deforestation to a halt, and simultaneously expand forest coverage.

High-grade FCP in the EU ETS

The EU has opposed accounting land use against climate mitigation commitments for a long time. However, there are now only two or three opponents – Germany, UK and Denmark – against the use of FCPs. On the other hand, Finland and most of the southern European countries and the new member states are eager to make use of sustainable FCP. The vast majority of member states are dispassionate about the issue, with a tendency to accept the UN decisions that favour forestry as mitigation option. Yet, some influential NGOs, especially in northern Europe, are reluctant to allow sinks as a valid option for compliance.

What are needed are well-designed demonstration projects in order to convince politicians and the public to give up their depreciating attitude and prove FCPs' multiple benefit potential. In other words, the quality of FCP in environmental and social terms will play a major role in the acceptance of such projects by the public, and for approval by the respective governmental authorities in Annex I countries.

Several initiatives are under way to define high-grade FCPs. One is a study on high-quality FCPs currently being carried out by GFA Envest, on behalf of the German Ministry of Environment, Nature Protection and Nuclear Safety (BMU).

The German study started in early 2004 and aims to identify high-quality FCP, which could be acceptable to European governments within a wider climate protection framework. Furthermore, the study aims to provide research for the upcoming negotiations on the 2006 review of the EU Linking Directive. Other experience will be considered, with a special emphasis on the BioCarbon and Community Development Funds of the World Bank, and the Climate, Community & Biodiversity Alliance (CCBA).

All criteria developed in the study shall be applicable (a) for unilateral, bilateral and multilateral projects; (b) for domestic projects and those implemented abroad; (c) for small-scale as well as large-scale projects. Designated national agencies need an operational and transparent instrument to decide upon the acceptability of JI and CDM-project proposals. This is done in two-steps:

- In a preliminary screening the project developer is informed about the appropriateness of a proposed activity in its early state of development;
- During the approval procedure, project quality is assessed in detail. It is likely that the CCBA Standards (see below) will serve as a blueprint for this step.

For preliminary screening, a set of clearly defined decision criteria and indicators can be applied which also account for monitoring and verification of a project at a later stage. In order to specify such decision criteria, there is a need for a classification of the various FCP options.

Afforestation: This is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the promotion of natural seed sources. Agroforestry projects that fulfil the specified requirements are included.

Land Restoration: This is the direct human-induced conversion of non-forested land to forested land occurring on lands that did not contain forest on 31 December 1989. Agroforestry projects that fulfil the specified requirements are included. Rehabilitation is the re-establishment of natural forest on existing degraded forest land.

Carbon-Storage-Enhancement: All projects based on Forest Management options according to Article 3.4 Kyoto Protocol leading to biomass enrichment.

Forest Conservation: All projects based on protection and

Table 1: Generally acceptable and unacceptable FCP types – category: afforestation

GENERALLY ACCEPTABLE			
Project type	Project setup	Socio-economic impacts	Environmental impacts
Afforestation with native tree species	Only native species in mixed, semi-natural stands are used for afforestation of non-forested land	Employment generation; development of regional economy; availability of accessible cheap fuelwood, heat and/or electricity	Increased biodiversity; soil protection
Energy plantation	Afforestation of non-forested land with native or exotic, non-invasive fast-growing species for producing fuelwood, also in monocultures and with short rotation periods; Only in combination with bio-energy projects or as 'compensatory firewood plantations'	Employment generation; development of regional economy; availability of accessible cheap fuelwood, heat and/or electricity; technology transfer; capacity development	Conserved biodiversity (native species); improved air quality
Tree plantation (according to FSC* standards)	Afforestation of non-forested land with native and non-invasive exotic species for timber production, never in monocultures; share of native species at least 25% of plantation area	Employment generation; development of regional economy; availability of accessible cheap fuelwood, heat and/or electricity; technology transfer; capacity building	Plantation should not replace native ecosystems, such as grass lands or woodlands, if this leads to reduced biodiversity
Small-scale communal plantation (not according to FSC standards)	Community-based plantation of non-forested land with native and/or non-invasive exotic species even in monocultures or agro-forestry system for production of locally used products	Improved service availability; development of regional economy; equal distribution of project return	Plantation should not replace native ecosystems, such as grass lands or woodlands, if this leads to reduced biodiversity; soil protection
GENERALLY UNACCEPTABLE			
Project type	Projects may be rejected in case		
Afforestation with exotic tree species	Genetically modified species are used Exotic/fast-growing species are planted without serving as wood fuel for an attached bio-energy project A plantation with exotic/fast-growing species is established that does not fulfil FSC standards for plantations, and which is established by a commercial enterprise and not by a communal entity for serving as a compensatory plantation		
Reforestation of marginal areas with exotic tree species	Exotic species are used, and the reforestation measure does not take into account FSC standards for plantations		

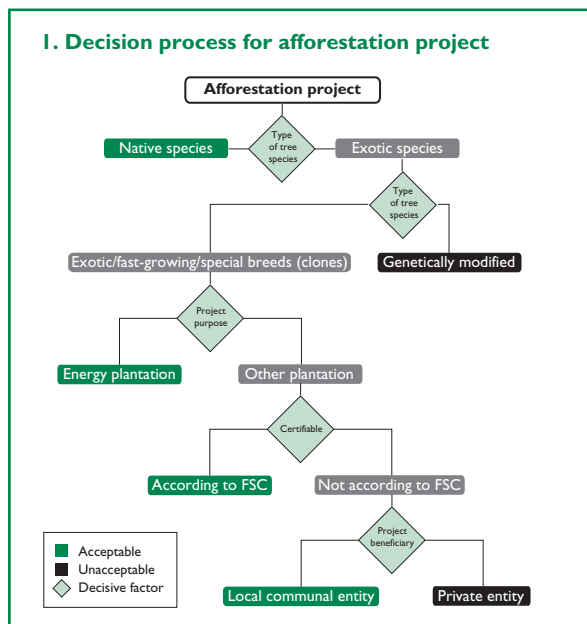
* Forest Stewardship Council (FSC) has developed a generic standard for sustainable forest management which is acknowledged by leading NGOs such as WWF and Greenpeace

degradation avoidance concepts aiming at conserving existing natural forest areas (not carbon stocks).

Obviously, one project may integrate several activity classes. In order to identify and assess project types, one standardised decision tree will be created for each category. Figure 1 shows an example of the decision process for the afforestation category.

Using a decision tree, project types are determined, together with their socio-economic and environmental impacts. Table 1 shows the acceptable and unacceptable criteria for afforestation projects.

While the German study will inform the government on screening criteria for climate forestry, an international alliance is seeking to globally implement a 'triple standard' for this type of climate mitigation. The CCBA is a consortium of international companies such as Intel, BP and SC Johnson; NGOs such as The Nature Conservancy and Conservation International; and a number of international research institutions (see box). Besides climate benefits, these standards are designed to assess the environmental and social values of FCPs (see *Carbon Finance* May 2004, page 4).



There are also basic requirements, which need to be fulfilled by high-grade FCP. First, it is essential that projects contribute to sustainable development in the host country. Additionally, projects have to make good social, economic and ecological sense. Positive social effects include employment opportunities, income generation or availability of cheap fuel wood, heat or electricity. Environmentally, projects should have a positive influence on biodiversity. Economically, FCP have to also pay off, both for an investor, and for the host country and its local stakeholders. Generally, as far as monitoring is concerned, all FCP need to be planned and implemented according to the Intergovernmental Panel on Climate Change Good Practice Guidance for land-use projects.

Conclusion

High-quality FCP will play an important role in the global strategy to combat climate change. Besides generating carbon credits, high-quality forestry will provide a positive public image. Green investment schemes or combining ODA with CDM for project finance would have the potential to reduce costs and country risk for private investors. Ideas for combining bio-energy and fuel production in energy plantations can reap double benefits:
 Generating CERs from renewable energy use is a smart way to insure against risks from expiring forestry CERs.
 An increasing amount of credits would be another one, together with fostering the concepts of renewable energy and decentralised energy supply in developing countries.

FCP could also provide the capital needed to help countries meet multiple international, national and local sustainable development goals: technology transfer; expansion of protected areas, poverty alleviation, and increased country capacity to adapt to and thus reduce vulnerability against climate change. There is a need to get concrete projects that generate multiple benefits on the ground, in order to prove land use critics wrong. Forestry is the sector where an integrated approach leads to benefits under all three multilateral environmental agreements.

The light for FCPs may not be green yet, but it has already switched from red to yellow. CF

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