

# DESIGN AND DEVELOPMENT OF A CARBON PROJECT

Before starting a carbon project it is important to keep several points in mind. Designing and developing a carbon project takes a long time, requires a lot of technical expertise and considerable financial resources for the initial set-up. There are ten steps to be run through to develop a carbon project of which the first five are simple checks, whether the project idea is feasible and should be pursued. The last five steps have to be taken together with a project developer who thinks that the project is viable.

1. **Type and scope of project:** A clear idea of where and which type of project needs to be developed, i.e. afforestation, reforestation, improved farming techniques (soil carbon sequestration), renewable energy project, avoided deforestation.
2. **Resources check:** One needs to be aware that a significant amount of time and money needs to be invested to develop a carbon project. Analyse why it would be attractive to engage in undertaking a carbon sequestration project and what are the driving motivations?
3. **Project group:** Farmers/villagers need to be identified who want to participate and have land or forest which can qualify for the project type determined in step 1. The project boundary (geographically) has to be established. The project area needs to be big enough to generate enough emission reductions to qualify for a carbon project: for a REDD project the minimum project size area is around 30-40,000 ha and for an A/R project 10,000 ha (pers. comment, D. Kloss, Terra Global Capital, 2009). Small-scale A/R CDM projects must result in GHG removals of less than 16,000 t CO<sub>2</sub> per year. In addition, **clear land-use and tenure rights** are essential.
4. **Institutional back-up:** To organise, aggregate and represent farmers, an institution is required, such as a community based organization, farmer cooperative, NGO etc., which is trusted by the project participants. It should have a robust and transparent institutional set up. In addition it is of advantage if the institution has some expertise on carbon project development, carbon measurements and accounting (see Box 5) and business plan development.
5. **Funding:** Develop a business plan which takes into account all costs and benefits of the project. Ensure sufficient funding for the initial set-up of the project. With the information gathered in the first 5 steps a Project Idea Note (PIN) should be developed which can be used for step six.



## BOX 5

**CARBON ACCOUNTING MODELS**

- **Ex-ante Appraisal carbon-balance tool (FAO):** to calculate the emissions and uptake of carbon by the project. [www.fao.org/tc/rome2007initiative/ex-act-carbon-tool/en](http://www.fao.org/tc/rome2007initiative/ex-act-carbon-tool/en).
- **Rapid Carbon Stock Appraisal (RaCSA) (ICRAF):** to assess landscape carbon stocks. [www.worldagroforestry.org/sea/projects/tulsea/inrmtools/RaCSA](http://www.worldagroforestry.org/sea/projects/tulsea/inrmtools/RaCSA).

6. **Identification of project developer:** In collaboration with the institution a project developer has to be selected who can assist with the formulation of the project. The project developer is responsible for preparing it for the market. This can be either the back-up institution (step 4) if they have sufficient experience or a specialised project developer company (some examples: EcoSecurities [www.ecosecurities.com](http://www.ecosecurities.com); EcoPositive [www.ep-project-finance.co.uk](http://www.ep-project-finance.co.uk); ec carbon [www.eccarbon.com](http://www.eccarbon.com); Terra Global Capital [www.terraglobalcapital.com](http://www.terraglobalcapital.com); Carbon Neutral Company [www.carbonneutral.com](http://www.carbonneutral.com)), or the World Bank Carbon Finance Unit (<http://go.worldbank.org/269AQO1BC0>).
7. **Further steps with project developer:** From the different available standards (see Annex 2), the appropriate one has to be selected, market demand assessed, costs & revenues calculated and a commercialisation strategy developed. The project developer should start to select potential credit purchasers.
8. **Project planning/development:** The baseline and methodology need to be selected. Projects must use approved methodologies to calculate emission reductions. The project's chance of being registered and the likelihood of more rapid project preparation increases by using approved methodologies. Developing new methodologies can be resource- and time-intensive and may not be justified for smaller projects. Assess additionality, leakage and permanence and estimate the full GHG inventory of the emissions and uptake of the project. All this information will be assembled in a Carbon Project Document.
9. **Validation:** The project developer determines a third party certifier (accredited by a specific carbon standard) who will review the Carbon Project Document. It is important for the project to be validated to ensure the transparency of the project design.
10. **Registration:** The VERs of the validated project are kept in a Registry on behalf of the owner until they are bought.

The **time frame** for developing a carbon project which needs to be taken into account is approximately 12 months until the project is validated (Step 1 until 9) and 1.5 months for the registration (Step 10).



*Rainforest in Congo, Photo by ©FAO/Giulio Napoletano.*

ENCOFOR has developed a **toolkit** for the design of sustainable CDM forest projects and provides a variety of tools, manuals and checklists: [www.joanneum.at/encofor/index.html](http://www.joanneum.at/encofor/index.html).

An overview on “**Forest Carbon Accounting: Overview & Principles**” written by Charlene Watson and supported by UNEP can be found under: [www.undp.org/climatechange/carbon-finance/Docs/Forest%20Carbon%20Accounting%20-%20Overview%20&%20Principles.pdf](http://www.undp.org/climatechange/carbon-finance/Docs/Forest%20Carbon%20Accounting%20-%20Overview%20&%20Principles.pdf).

The Global Mechanism has published “The Climate Change Mitigation and Adaptation Information Toolkit” to which the “**Mitigation to Climate Change and Sustainable Land management**” step-by-step guidelines to developing GHG mitigation activities and accessing carbon finance to support UNCCD implementation belongs: [http://global-mechanism.org/about-us/kb/publicationscurrent?document\\_detail=1&url=/dynamic/documents/document\\_file/ccesinfokit\\_web-1-1.pdf](http://global-mechanism.org/about-us/kb/publicationscurrent?document_detail=1&url=/dynamic/documents/document_file/ccesinfokit_web-1-1.pdf).

The guidebook “**Bringing Forest Carbon Projects to the Market**” instructs project developers and financiers on how to develop and bring to market profitable forest carbon projects. It has been assembled by ONF International, UNEP DTIE, UNEP Risoe Centre, AFD and the BioCarbon Fund of the World Bank and can be found at: [www.unep.fr/energy/activities/forest\\_carbon/index.htm](http://www.unep.fr/energy/activities/forest_carbon/index.htm).