CHAPTER 4:

Simplified Procedures for Small-Scale Projects

The Clean Development Mechanism is potentially a way to foster sustainable development in the host countries. It can direct investments to appropriate clean energy projects that can strengthen the livelihoods of people in rural communities. However, the CDM's potential in this regard could be undermined by the high transaction costs associated with small-scale and community-based projects relative to the likely return on investments. These types of projects are, nevertheless, extremely important from the perspective of creating greater developmental equity. This chapter discusses some of the strategies that could reduce transaction costs for small-scale projects, including:

THE HIGH COST OF CO₂ MITIGATION AND SMALL-SCALE PROJECTS

REDUCING TRANSACTION COSTS

- Streamlined procedures
- Reduced governance costs and fees
- Bundling
- Standardized baselines

SIMPLIFIED PROJECT DESIGN DOCUMENT

- Project description
- Baseline methodology and calculation
- Crediting period
- Monitoring plan
- **Environmental impacts**
- Stakeholder comments
- Validation, registration, verification and certification

Box 4.1: Defining small-scale projects

Box 4.2: Eligible small-scale project

categories

CHAPTER 4: SIMPLIFIED PROCEDURES FOR SMALL-SCALE PROJECTS

Expanding the energy services available to the rural poor throughout the developing world is one of the central challenges of sustainable development, one that UNDP has been actively involved in for years. The Clean Development Mechanism is potentially a way to assist in this by directing investments to appropriate energy technologies that can strengthen the livelihoods of people in rural communities. However, the CDM's potential in this regard could be undermined by the high transaction costs associated with small-scale and communitybased development projects relative to the likely return on investments. Nevertheless, these projects are extremely important from the perspective of creating greater developmental equity. This chapter discusses this issue and strategies to keep transaction costs down (see also chapter 5).

Transaction costs associated with developing small-scale projects under the CDM are high relative to the direct emissions benefits that may be available. These projects, while clearly appropriate from a sustainable development standpoint and positive in terms of the net reduction of greenhouse gas emissions, are challenging to transact in the marketplace, due to a combination of perceived risk factors and lack of economies of scale. The CDM Executive Board has made efforts to reduce the transaction costs for small-scale projects by introducing scaled registration costs and streamlined procedures. These procedures are only beginning to be

tested and initial experience indicates that significant fixed costs remain, including those associated with legal work, validation and verification. Initial transactions tend to demonstrate a high fixed cost element, and low variable cost ratio. It is expected that learning-by-doing capacity development may lead to reducing this differential.

THE HIGH COST OF CO₂ MITIGATION AND SMALL-SCALE PROJECTS

In the fourth quarter of 2001, UNDP carried out an assessment of selected small-scale projects to determine their potential for CDM participation. The assessment unequivocally concluded that although small-scale projects have a significant 'rural development' component that is not entirely captured in the objective of reducing greenhouse gas emissions, they are expensive in terms of cost per unit of CO₂ offsets. This high cost per unit of CO₂ mitigation is related to:

- Type of technological intervention (methane projects tend to be economically most attractive and new renewables tend to be the most expensive);
- Off-grid projects are more expensive than on-grid projects;
- Projects in rural areas are more expensive than projects in urban areas; and
- Projects in Africa are more expensive than elsewhere in the world.

BOX 4.1: DEFINING SMALL-SCALE PROJECTS

The Marrakech Accords have defined small-scale CDM projects as:

- Renewable energy project activities with a maximum output capacity equivalent of up to 15 megawatts;
- Energy efficiency improvement project activities which reduce energy consumption by up to the equivalent of 15 gigawatt hours per year; and
- Other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15,000 kilotons of CO₂ equivalent per year.

Unless sustainable development remains a high priority, supported by existing and new institutional mechanisms and creative steps to include the multiple development aspects of small-scale projects, the current CDM situation could evolve towards a concentration of projects in limited middle-income countries with a preponderance of methane-capture and utilization projects. In the absence of simplified procedures and modalities for evaluation of small projects, the competitive position of many small-scale and community level energy projects will be undermined because of their ability to provide fewer credits.

The CDM Executive Board recognizes this equity issue in the implementation of CDM and is taking

action to decrease the transaction costs faced by small-scale projects. Streamlined procedures have been developed to allow these projects to go through a simplified process, thereby reducing their transaction costs. Some of the procedures that have been simplified include:

- Bundling of several similar, small-scale projects to reduce costs and increase the efficiency of the process;
- Simplified project design document;
- Streamlined baseline methodologies;
- Simplified monitoring plans; and
- One operational entity to undertake monitoring, verification and certification.

Since Marrakech, the CDM Executive Board has nominated a Small Scale Panel that is responsible for

TYPE 1: RENEWABLE ENERGY PROJECTS:	PRACTICAL EXAMPLES
Electricity generation by end-user	Solar home systems, solar water pumps, wind battery chargers,
	pico-hydro, combined heat and power.
Mechanical energy for the user	Wind or solar powered pumps, water and windmills.
Thermal energy for the user	Solar thermal water heaters and dryers, solar cookers, biomass
	cogeneration systems for heat and electricity.
Renewable electricity generation	Photovoltaics, hydro, wave, wind, geothermal, and biomass supply
for grid connection	that is fed to the grid.
Supply side energy efficiency improvements – transmission and distribution	Upgrade of voltage on transmission line, expansion of a distribution system.
TYPE 2: ENERGY EFFICIENCY	
Supply side energy efficiency	
	Energy efficiency improvements of power stations and
improvements - generation	heating plants, co-generation.
Demand side energy efficiency programmes	Adoption of energy efficiency equipment – lamps, ballasts,
for specific technologies	refrigerators, motors, fans, A/C, appliances.
Energy efficiency and fuel switching measures for industrial facilities	Efficient motors, fuel switching, efficiency measures for
Energy efficiency and fuel switching	industrial processes. Technical energy efficiency measures such as insulation and
	fuel switching (oil to gas).
measures for buildings	idei Switching (on to gas).
TVDE 2. ENERGY EFFICIENCY	
TYPE 2: ENERGY EFFICIENCY	No information yet
	No information yet
TYPE 2: ENERGY EFFICIENCY Agriculture Switching fossil fuels	In existing generation applications.
Agriculture	

overseeing this process and making recommendations. The small-scale procedures described here have been approved by the panel, and it will be the responsibility of the Executive Board to consider changes to existing requirements and documentation.

Small-scale CDM project activities follow the basic stages of the regular CDM project cycle. However, in order to reduce transaction costs, some modalities and procedures are simplified for small-scale CDM projects, including:

- Projects and project portfolios can be bundled at the following stages – project design document, validation, registration, monitoring, verification and certification. The total size of the bundled projects must remain within the definition of small-scale projects.
- Reduced requirements for a project design document;
- Simplified baseline methodologies;
- Simplified monitoring plans and requirements; and
- The same designated operational entity can undertake validation, verification and certification.

In order to use these simplified procedures a proposed project must meet the eligibility requirements (see box 3.1). The proposed project activity should not be a debundled component of a larger project and should preferably conform to one of the project categories listed in box 4.2.

If a project is not listed, a new activity category or revision to a methodology can be prepared and submitted to the Executive Board for consideration. Although similar across activities, the simplified baseline methodologies are described by category.

REDUCING TRANSACTION COSTS

The number of CDM projects that go forward will be determined partly by the magnitude of transaction costs associated with the project development. This is particularly pertinent to small-scale projects. The following aspects of the process can have a significant impact on reducing the project development costs.

Streamlined procedures

As discussed previously, streamlined procedures have been developed and approved by the CDM Executive Board. See below for more information about how the project design document has been modified.

Reduced governance costs and fees

Governance costs can be incurred at the national and international levels. At the international level the CDM executive board has already approved a tiered cost approach for registering small projects. (The fee is currently \$5,000 per year for projects with less than 15,000 tons of CO2 emissions.) In the tiered approach, some costs are scaled according to ability and willingness to pay. Clearer guidance at the international level is also needed to assess the impact of costs pertaining to the ongoing verification and certification procedures on project viability. Streamlined verification processes, for example through sampling (for smaller projects and project bundles), and also reduced needs for on site verification (favouring remote verification) will contribute considerably to lower transaction costs for the small scale projects.

Bundling

Similar small-scale projects can be bundled into one CDM project. This means that baseline development, monitoring plan, host country approvals and validations will apply to all projects in the bundle, resulting in reduced costs from greater economy of scale. While bundling has not been specifically mentioned for larger projects, it may also be applicable to them. This would however depend on the project circumstances and would have to be assessed on a case-by-case basis.

Standardized baselines

Another significant development is the development and approval of standardized baselines for small-scale projects. Project developers in recognized sectors may save themselves time and effort by using these baselines. Such top down baselines may be extremely valuable in sectors likely to see similar projects and will be of great benefit to smaller project developers. Candidate sectors include:

- On and off-grid electricity;
- Animal manure management (for biogas purposes);
- Afforestation and reforestation;
- Transport fuel switches; and
- Energy efficiency projects.

SIMPLIFIED PROJECT DESIGN DOCUMENT

The project design document for small-scale projects has been simplified as follows:

Project description

This section is virtually identical to that for larger projects, except that the project type and category should be selected from the above list of eligible projects. No explanation is required concerning why the reductions would not occur in the absence of the project. This section should confirm that the project is not a 'debundled' portion of a larger project.

Similar small-scale projects can be bundled into one CDM project.

Baseline methodology and calculation

This section is also similar to that for larger projects, with the exception that the baseline methodology choice is based on simplified methodologies by project category. Moreover, for some project categories a predefined baseline can be applied. The UNFCCC/CDM site on baseline methodologies for small-scale projects' may be helpful in deciding if a suggested baseline is applicable to the proposed project.

In the section asking for evidence that the project is additional, a list of possible choices is provided. The barriers that would have prevented the project from happening include:

- Investment barrier a financially more viable project would have been selected that would emit more greenhouse gas;
- Technological barrier a less advanced technology with lower risks would have been selected and led to higher emissions;
- Barrier due to prevailing practices existing regulatory or policy requirements would have led to selecting a technology that emits more; and
- Other barriers these are left up to the project developer but may include institutional barriers, limited information, or lack of managerial resources, organi-

zational capacity, financial resources or capacity to absorb technologies – all of which can lead to higher greenhouse gas emissions.

For small-scale projects, the project boundary is limited to the physical project activity. If the project displaces energy supplied by external sources the project will earn CERs from those sources. The issue of leakage will only be considered for biomass projects.

Crediting period

This section is exactly the same for large and small-scale projects: three, seven-year crediting periods or one non-renewable period of ten years.

Monitoring plan

The simplified methodologies for monitoring can be found under each project category on the CDM website. A solar home system project, for example, is required to complete an annual check of all systems or a sample thereof to ensure that all systems are still operating, or if appropriate, to meter the electricity generation. An efficiency improvement at a power station is required to measure energy savings by calculating the energy content of the fuel used by the generating unit and the energy content of the electricity or steam produced by the unit. A standard emissions coefficient is also required.

The requirements of the monitoring plan within the simplified project design document are significantly reduced since emissions outside the project boundary need not be monitored.

Environmental impacts

A copy of the impacts on the environment if any, should be attached only if required by the host country.

Stakeholder comments

The format for this section is exactly the same as the in the project design document for larger projects.

Validation, registration, verification and certification

Once the small-scale project design document is completed it can be submitted to an operational entity for validation. The designated operational entity must verify the following:

■ The participation requirements of the CDM modalities

¹ http://cdm.unfccc.int/pac/howto/SmallScalePA/ssclistmeth.pdf

In the case of small-scale projects, the same operational entity may be used for both verification and certification of CERs.

and procedures have been met;

- Comments from stakeholders have been invited and a summary provided;
- Environmental impacts, if required by host party, are included;
- Project will reduce emissions of greenhouse gas;
- Project fits within selected project category;
- Project conforms to all procedures not replaced by the simplified procedures.

The designated operational entity must solicit comments over a 30-day period after which time the validation can be confirmed or denied. If approved, the designated operational entity shall register the project with the CDM Executive Board.

The agreed to monitoring plan shall be executed and submitted to the designated operational entity. In the case of small-scale projects, the same operational entity may be used for both verification and certification of CERs. Finally, the Executive Board will issue the verified CERs.

Additional information is available at http://cdm.unfccc.int/pac/howto/SmallScalePA/index.html.