Clean Development Mechanism

Overview

CDM Briefs

Series No. 1

Background

Accelerating levels of greenhouse gases (GHGs) are becoming a significant international challenge, causing global warming and the resultant climate change. The longer it takes for us to act and mitigate GHG emissions, the greater the ultimate price tag will be. The risk of failure to avert dangerous climate change will also be greater. Therefore, a shift toward a low-carbon global economy is essential.

As developing member countries (DMCs) of the Asian Development Bank (ADB) begin to systematically address the low-carbon transition, the Clean Development Mechanism (CDM)—already at €8.3 billion ($12 billion) worth of transactions in the first half of 2011[1]—is one of the few areas that has an obvious upside to their operations. By tapping this CDM market, DMCs will be able to obtain additional resources needed to implement clean energy and other GHG mitigation projects once those projects are registered under the CDM.

The CDM allows emission reduction projects in developing countries to earn certified emission reductions (CERs), each equivalent to 1 ton of carbon dioxide (CO_2). CERs can be traded and sold, and used by industrialized countries to meet part of their emission reduction targets under the Kyoto Protocol. The CDM helps host countries achieve sustainable development and reduce emissions, while giving industrialized countries some flexibility in how they meet their emission targets.

For example, a CDM project activity might involve a rural electrification project using solar panels or the installation of wastewater treatment plants (Box 1).

Box 1: Typical Clean Development Mechanism Projects

- Energy—Renewable energy projects, such as hydropower, wind, solar, and biomass; energy efficiency measures, such as energy-savings lamps; and energy efficiency measures in industries
- Transport—Low-carbon transport, such as bus rapid transit and electric vehicles
- Urban—Methane recovery and utilization from wastewater and solid waste treatment
- Agriculture and natural resource management—Biogas and forestry

Operational since 2004, the CDM has already registered over 3,300 projects (about 81% from Asia and the Pacific) and is anticipated to produce over 2.0 billion tons of CO_2 equivalent of emission reductions until 2012 (http://cdm.unfccc.int). The CDM Executive Board (EB) oversees the mechanism.

Eligibility requirements

The basis for qualifying a project is summarized in the project design document and submitted to the CDM EB for registration. Each project must follow an existing approved methodology or, in the absence of one, a new methodology can be proposed to the CDM EB for approval.

Projects must qualify through a rigorous public registration and issuance process designed to ensure real, measurable, and verifiable emission reductions. GHG reductions should not be "business as usual" but should be additional to what

1 Point Carbon. 2011. *Carbon Market Monitor*. www.pointcarbon.com/research/carbonmarketresearch/monitor/

CMP ADB

would have occurred without the project. This key condition for qualifying a CDM project is termed as "additionality."

To qualify, projects must reduce GHGs, such as CO_2, methane, nitrous oxide, and others.

Projects must also result in real, long-term climate change benefits and contribute to the sustainable development of the host country. It is crucial to show that CDM revenue was a key consideration in the decision to go ahead with the project, also known as prior CDM consideration.

CDM and ADB synergies

Projects can access carbon finance by considering CDM as early as the feasibility stage of a conventional project cycle. The cost of developing a typical CDM project varies from $40,000 to $140,000, depending on factors such as project size, type, new methodology development, and others.

ADB loan projects can consider CDM most commonly during the project preparatory technical assistance stage. This way, the CDM project cycle can be incorporated within the ADB project cycle. It is, however, still possible to include CDM elements just before loan appraisal stage.

Substantial synergies exist between ADB's objectives of promoting sustainable growth and clean energy projects and the CDM's objectives. However, CDM is a complex process, with a 12–24 month timeline for development, and most DMCs are not equipped to harness CDM's benefits in a competitive way. Given these circumstances, ADB can play a critical role in helping DMCs realize CDM's potential and has already started the Carbon Market Program (Box 2).

CDM Briefs are prepared by the Technical Support Facility under the Carbon Market Program.

Box 2: The Carbon Market Program

The Carbon Market Program (CMP) is a value-added service extended to clean energy and greenhouse gas (GHG) mitigation projects in Asia and the Pacific that are suitable for financing by the Asian Development Bank (ADB). Through the CMP, ADB uses the carbon market as a tool and offers technical and financial services to developing member countries in conjunction with regular financing operations. The CMP boosts ADB's efforts to promote energy efficiency, renewable energy, and urban sanitation sector projects where carbon credit revenues can enhance project viability.

The CMP has three components:

- An up-front carbon cofinancing vehicle through the Asia Pacific Carbon Fund (purchases certified emission reductions up to 2012) and Future Carbon Fund (purchases certified emission reductions post-2012)
- Technical assistance to prepare and implement Clean Development Mechanism projects through the Technical Support Facility
- Marketing support for carbon credits through the Credit Marketing Facility

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