The Community Development Carbon Fund

Making Carbon Finance Work for the Poor

The World Bank Community Development Carbon Fund (CDCF) resonates with three global themes: reducing poverty, mitigating climate change and promoting corporate social responsibility. Launched in March 2003, the CDCF aims to contribute to a more equitable regional distribution of carbon finance resources and to achieve social, environmental and economic benefits. In this aim, the CDCF purchases CDM compliant emission reductions (ERs) with a preference for small-scale projects, located in the poorest countries of the world and that provide direct or indirect community benefits.

Poor Country Focus

The CDCF strives to expand the reach of the market and extend the benefits of carbon finance to the poorest countries and poor communities that may otherwise find it difficult to attract carbon finance. With this in mind, the CDCF mandate is to invest at least 25% of Fund resources in green projects located in priority countries—countries designated as Least Developed Countries (LDCs) by the United Nations, or which are eligible for World Bank International Development Association loans.

As of January 2012, 61% of the Fund’s capital is allocated to the world’s poorest countries, including 10 projects located in LDCs (6 of which are registered), and 7 projects in sub-Saharan Africa.

Over the course of nine years, the CDCF has gained a wealth of knowledge and unique experience in developing carbon projects in the context of LDCs. The lessons learned from CDCF are now all the more relevant and of great value to the carbon market community given that only ERs from projects located in LDCs will be accepted in the third phase of the European Union Emissions Trading Scheme, for projects registered after December 31st, 2012. Moreover, the Fund’s unique co-benefits approach to carbon finance has sparked much interest in the context of the international climate change negotiations.

The CDCF strives to:

- Achieve “development plus carbon credits” by promoting projects that generate both CDM compliant emission reductions through clean technologies and measurable social, environmental and economic benefits for local poor communities
- Expand the reach of the carbon market by supporting small-scale projects in the poorest countries while working via local intermediaries (banks, micro-credit organizations and NGOs)
- Provide learning-by-doing by developing small-scale methodologies for CDM projects to expand the geographical reach and extend the benefits of CDM activity, particularly to poor areas that may otherwise be excluded from carbon finance
A Pioneering Fund

When the CDCF was established in 2003—two years before the ratification of the Kyoto Protocol—the carbon market was still in its infancy. The CDCF has been instrumental in pioneering small-scale projects, new CDM methodologies, and Programs of Activities (PoAs). One of the CDCF’s founding objectives was to act as a trailblazer for small-scale carbon finance initiatives. Currently 21 out of the 28 portfolio projects are classified as small-scale projects. Furthermore, the CDCF developed two approved methodologies, and originated a number of ‘firsts’: the first registered PoA in Africa, the first household efficient lighting project worldwide, the first brick-kiln project in the CDM and the first CER issuance in Nepal.

A Unique Fund

The CDCF is unique in that its projects measurably contribute to local community welfare through direct or indirect co-benefits. Such co-benefits are typically meant to arise from the project itself and include contributions to local employment and infrastructure, freeing up financial resources for households, and improving air quality and living conditions. In cases where there are limited or no identifiable benefits integral to the project, a separate Community Benefits Plan (CPB) is prepared in consultation with the identified beneficiary communities. These indirect benefits are typically financed by an additional price premium attached to each credit sold. Activities implemented under the CPBs benefit both men and women in identified communities. Examples of the types of goods and services provided by the CPB include access to social services and economic infrastructure such as rehabilitation of, and provision of equipment for schools or health clinics, capacity building and training workshops and micro-lending programs. The CDCF portfolio currently has 9 projects that provide direct community benefits and 19 projects that generate indirect benefits.

Community Benefit Key Categories

Improving local infrastructure
This category includes a range of activities such as construction of sewage facilities, potable water connections, construction and rehabilitation of local roads, renovations to local schools and health clinics, construction of parks, community centers etc. These benefits are typically provided as part of an additional CBP.

Improving access to clean energy for heating and cooking
These projects contribute to providing poor rural households with cleaner and more affordable energy solutions. They also contribute to decreasing the negative impact on health of using firewood or inefficient heating systems.

Improving livelihood and employment opportunities
CDCF projects seek to directly benefit the labor force employed in the industry by enhancing sector productivity, job security and increasing incomes. In many cases, employees benefit from year-long employment and equal pay for men and women, often in contrast to the traditional industry norm. Furthermore, most CDCF projects have some tangential impact on employment creation at the local level, as the construction, operation and maintenance of CDCF projects often entails the hiring of community residents.

Improving access to electricity and energy-efficient lighting
These projects include renewable energy projects (such as micro-hydro and solar) and energy efficient lighting programs that focus on the installation of compact fluorescent lamps. These projects typically provide direct benefits in the form of energy bill savings as well as increased economic activity, thanks to more reliable and brighter lighting.

As compared to other CDM projects, most CDCF projects are targeted towards communities with high levels of poverty. Currently 16 out of 28 projects (57%) are located in CDCF priority countries, and of this, almost half the projects are in Africa.

Project Examples

Nepal: Biogas Program
This CDM project aims to deploy 200,000 biogas digesters in households across Nepal to provide low-income rural households with a clean and efficient option for cooking.
heating and hot water. The digesters utilize the dung from farmers' livestock and domestic latrines to produce methane gas as the organic waste breaks down. The methane is then used as cooking fuel in biogas stoves built directly in the dwellings, displacing firewood and kerosene.

The project is part of the Nepalese government Biogas Support Programme, backed by World Bank lending. The project targets very poor, geographically isolated and socially marginalized groups in rural Nepal, who can neither access nor afford the use of modern cooking fuels such as propane. Key community benefits include reduced indoor pollution, enhanced agricultural productivity, reduced consumption of—and therefore expenditure on—firewood or fuel, improved sanitation, and time saved for women who are generally tasked with collecting firewood. One of the most significant impacts has been improving the health conditions of both women and children by reducing respiratory illnesses and other diseases associated with using traditional cook stoves. The project is being coordinated by the Alternative Energy Promotion Center. The project will reduce a total of about 1.4 million ERs over a period of 7 years.

**Bangladesh: Improving Kiln Efficiency in the Brick-Making Industry**

This project will introduce a new and more energy efficient technology for brick-making in Bangladesh. 20 new Hybrid Hoffman Kilns will reduce a total of 116,000 tCO₂e per year. The Industrial & Infrastructure Development Finance Company Ltd (IIDFCL) is implementing the project and bundling the 20 various entities. The revenues from the sale of the emission reductions will be shared between the IIDFCL and the kiln owners. The project is expected to help raise occupational health and safety standards in the sector, reducing the environmental burden of brick-making and improving labor practices. An added benefit will be all-year around employment given that these kilns will continue operating during the monsoon season. The CBP will specifically support the provision of ablution facilities, a small multi-purpose facility for providing first aid and regular primary health care, safety gear and appropriate clothing at each kiln. With modern equipment and mechanization of the brick-making industry, hard labor is reduced and working conditions are better, improving livelihoods and allowing women to be employed at wages similar to those of men.

**Uganda: Municipal Waste Compost Program**

This program aims to recover the organic matter from municipal solid waste and to use it for soil conditioning compost and plant growth. It also reduces methane emissions while using the organic waste matter as humus. As the initiative involves nine municipalities, it has been developed as a Programme of Activity. In total, about 900,000 emission reductions will be generated over a period of 10 years. The CBPs that are attached to each municipal solid waste composting facility include the construction of schools, latrine pits, health centers and roads; the provision of scholastic materials, energy saving stoves for households
to improve energy efficiency and to reduce inhaled smoke as well as the number of trees cut down; the establishment of training and education centers for agriculture, water and energy saving practices; and finally, improved water sources through the construction of wells, water storage tanks or rain water harvesting jars.

CDCF Lessons Learned

The CDCF successfully promotes a co-benefits approach to climate change by linking carbon finance to tangible poverty reduction and sustainable development outcomes. CDCF projects are appropriate vehicles for meeting the energy needs of poor and remote communities in developing countries and for promoting new and improved technologies. While what CDCF achieves globally is significant, the experience also shows us that more effort and innovation is required to fully harness the benefits of carbon finance for the poorest communities.

- Although carbon finance can provide a stable and recurrent source of revenues during the life of a project, it cannot bridge the capital investment financing gap—a critical stage for many projects in LDCs where access to capital is a well-documented barrier. Developing ways to front-load carbon revenues can increase the impact of carbon finance but requires innovative approaches and public support to mitigate the associated risks.
- Current CDM regulations impose unrealistic requirements on project entities in the poorest countries that result in high transaction costs and uncertainty regarding carbon revenues. A simplification is underway, with recent regulatory decisions that are helpful for very small projects in the poorest countries. More needs to be done to enhance the efficiency of the CDM. In particular standardized baselines for key technologies relevant to the poorest countries have the potential to dramatically reduce transaction costs and regulatory uncertainty. Selecting the proper level of data aggregation will help to create a carbon incentive, ensure that standardized baselines are representative of country circumstances, and preserve the environmental integrity of CERs.
- Programme of Activities have the potential to scale up the mitigation actions that can be achieved under the CDM, but additional clarification and simplification of rules, as well as support and training to coordinating and managing entities, are required.
- New CDM methodologies are needed for LDCs that take into account their need for growth in energy services, given the current significant unmet energy demand.
- Capacity-building activities should be further improved for poor (and especially rural) communities. Supporting policy and institutional frameworks to ensure scale and sustainability should be developed further.

The CDCF was created in 2003 and is now halfway through its lifespan. The World Bank will continue to support carbon finance in the poorest countries, building on these important lessons and experience of the CDCF to date.

### Comparing CDCF to CDM

- **Number of LDC projects (percent)**
  - CDCF Portfolio: 40%
  - CDM Portfolio: 35%

- **Number of Sub-Saharan, African projects (percent)**
  - CDCF Portfolio: 30%
  - CDM Portfolio: 25%

### CDCF Sector Distribution by Nominal Volume (tCO₂e)

- EE Industry: 28%
- EE Households: 15%
- EE Supply Side: 9%
- Methane avoidance: 9%
- Biomass energy: 7%
- Landfill gas: 5%
- EE Service: 5%
- Geothermal: 7%
- Hydro: 9%
- Solar: 2%