



COMMUNITY DEVELOPMENT CARBON FUND

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ANNUAL REPORT 2004

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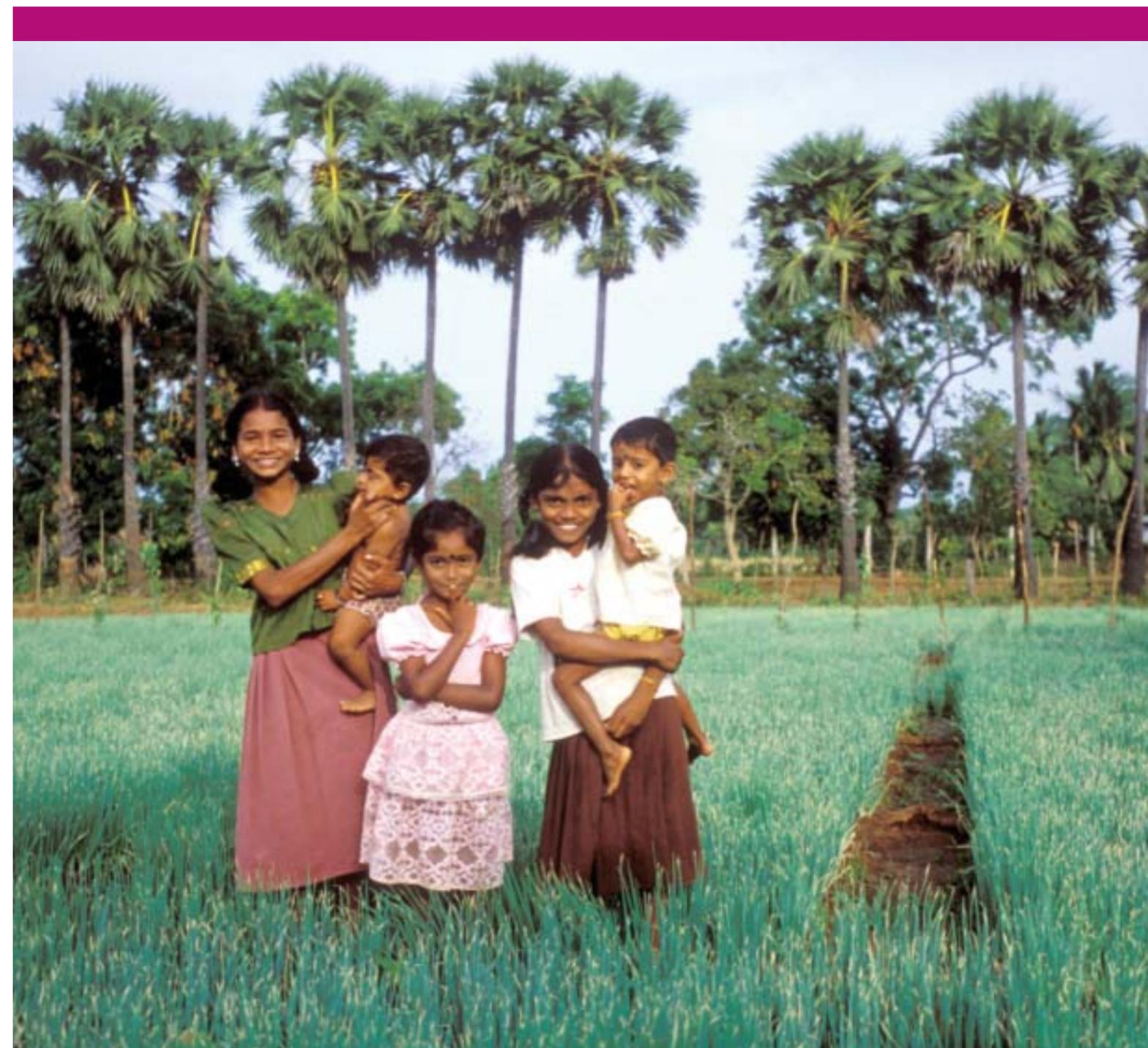
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This is the first annual report of the Community Development Carbon Fund (CDCF), covering the period from April 1, 2003 through September 30, 2004. The audited financial statements for fiscal year 2004 (July 1, 2003 to June 30, 2004) are included. An online version of this report is available on the CDCF website: www.carbonfinance.org

Notes: All \$ = U.S. dollars. 1 ton = 1000 kilograms (1 metric tonne). All greenhouse gas emission reductions are measured in tons of carbon dioxide equivalent (tCO₂e). This report is provided for informational purposes only. The CDCF is not a legal partnership. No warranties or representations are made as to the accuracy, reliability or completeness of any information herein.



COMMUNITY DEVELOPMENT

CARBON FUND (CDCF) OBJECTIVES:

Purchase greenhouse gas emission reductions from small-scale projects, which contribute to poverty reduction and help to improve the quality of life of local communities in the least developed countries as well as poor areas of developing countries;

Help build a market for emission reductions from small-scale projects, and expand the reach of carbon finance and the benefits of the Clean Development Mechanism (CDM) to developing countries that might otherwise be excluded;

Leverage sustainable development in developing countries using private capital from Organisation for Economic Cooperation and Development (OECD) countries; and

Share broadly the knowledge and experience gained in the development of the CDCF and from the implementation of projects.



LETTER FROM THE WORLD BANK



The Community Development Carbon Fund (CDCF) represents a unique opportunity to reduce human-induced greenhouse gas emissions that are a threat to global well-being, but it also generates clear development gains through the finance of clean technologies at the community level.

Payments for environmental services through innovative funds like the CDCF open new possibilities for environmentally responsible development. Addressing climate change impacts at the community level in least developed countries and the poor areas of developing countries, contributes to removing an additional obstacle to development. Using carbon finance provides new and additional resources over and above traditional development assistance and represents an innovative solution to promote sustainable solutions at the local level.

The carbon finance activities for development at the World Bank are aligned with the Bank's institutional mission of reducing poverty, but with the added advantage that they are based on fair trade of a new environmental commodity—carbon, or greenhouse gas emission reductions.

This is the first annual report of the CDCF. I am pleased at the progress that has been made. The CDCF has been adequately capitalized, and as you will read in this report is already demonstrating its ability to generate not just emission reductions but tangible community benefits.

The CDCF talks to the power of public/private partnerships. This fund demonstrates that companies are willing to pay a premium for development benefits for the poorest communities.

A handwritten signature in black ink that reads "Ian Johnson". The signature is written in a cursive, flowing style.

Ian Johnson
Vice President for Sustainable Development
The World Bank

LETTER FROM THE OUTGOING CDCF PARTICIPANTS' COMMITTEE CHAIR



When the CDCF will have achieved its goals we will all have witnessed an extraordinary feat: market forces—those shaping the recently kicked-off carbon market—will have helped to reduce poverty, stimulated corporate responsibility in the social sector and made a dent in the global effort to contain greenhouse gas emissions, thereby mitigating climate change. Achieving these goals, however, takes time, resources and preparation.

The fund's first year was dedicated to setting the CDCF soundly on its course, through crafting the tools and assembling the resources. On the resource side, the fund management team has been consolidated, additional staff have been seconded to the fund and the new fund relationship manager has joined. Marketing efforts have expanded the CDCF's participants' base and have identified partners who will support capacity building in Africa, so as to increase the impact of the CDCF's special effort on Africa. An operational handbook, criteria for identifying and evaluating community benefits and the financial model are among the salient operational instruments that were developed during the first year.

The fund portfolio is, however, the best achievement of this period. The US\$61 million project pipeline has an equitable geographical distribution and is constituted mainly of small-scale clean energy projects that are likely to produce measurable benefits for the poor communities where they will be implemented, while assuring the purchase of greenhouse gas emission reductions at a reasonable price. Although still relatively small, Africa's portion of the portfolio represents a significant success that will open the carbon market to some of the poorest countries. All in all, the portfolio development goals of the CDCF's first tranche—capitalization, project pipeline, funds placement, and cost to participants—have been met or surpassed.

The first year of the CDCF has therefore been a very good year, particularly if one considers the proportionally higher transaction costs associated with small-scale projects and the risky investment conditions that can exist in poorer countries. Although well set on the right path, in the next year the fund will have to further consolidate its governance, fine-tune the financial and operational arrangements, launch the projects, ensure measurable community benefits, contain project development and transaction costs, and maintain the established schedule of emission reductions delivery, while steadily increasing the CDCF's visibility and portfolio in Africa.

The carbon market is a reality now. Although uncertainties persist, the volume of trade is increasing and the CDCF is revealing itself as an excellent instrument for helping Annex I countries to fulfill their emission reduction commitments under the Kyoto Protocol while ensuring that the non-Annex I countries (that do not have large and rapidly growing energy and industrial sectors) will not be bypassed by carbon finance investments and will be given access to the carbon marketplace.

A handwritten signature in black ink, appearing to read "Laura Fassio Canuto". The signature is fluid and cursive.

Laura Fassio Canuto
Outgoing Chair of the Participants' Committee

LETTER FROM THE OUTGOING HOST COUNTRY COMMITTEE CHAIR



The main concerns of developing countries during the Kyoto Protocol negotiations were the lack of capacity to develop sound CDM project portfolios and the expected regional imbalance of projects, given the different levels of preparation shown by these countries during the Pilot Phase of the Activities Implemented Jointly program. These concerns placed the poorest countries in a disadvantaged position for CDM investment and gave small-scale projects an aura of unfeasibility because of their high transaction costs and less attractive direct carbon benefits.

The fact that simplified methodologies and procedures were established for smaller CDM projects, though a positive outcome of the 7th Conference of the Parties to the United Nations Framework Convention on Climate Change, did not ensure their immediate feasibility. Capacity building was still missing—especially in least developed countries—and potential investors were turning their attention to “more attractive alternatives” for carbon investment.

In the middle of this discouraging scenario, the Community Development Carbon Fund suddenly appeared. This new positive initiative launched by the World Bank, is offering poorer communities in developing countries the chance to obtain access to the benefits of the carbon market. The current CDCF project portfolio provides a clear picture of CDCF success during its first tranche, where projects are already being planned in some least developed nations in Africa. This is showing that the CDCF is capable of bringing into the carbon business those countries that had very few opportunities to participate in other carbon fund initiatives, thus making the CDM a reality for a larger number of developing countries. It also shows that small-scale projects can become attractive alternatives for the private sector. A second tranche of the fund will be initiated soon, which also provides an encouraging perspective for future participation in these types of certified project activities.

Besides the local capacity-building that should be embedded in every CDCF project preparation phase, the direct benefits of carbon assets and the feasibility of doing small-scale projects with lower transaction costs, the CDCF has a unique characteristic that allows measured indirect community benefits to be monetized. This feature allows for injecting more resources into a specific project, securing its sustainability over time and ensuring that poorer people will receive the community benefits declared by project proponents. To provide a sound basis for this to happen, monitoring indicators are being developed by the CDCF Advisory Group. A close collaboration with the Host Country Committee is deemed relevant to fulfill this task adequately, especially for the next tranches of the CDCF.

International institutions, including the World Bank, should continue their invaluable assistance to develop small-scale CDM projects in the poorest nations.

A handwritten signature in blue ink that reads "JP Searle". The signature is written in a cursive style and is positioned above a horizontal line that underlines the name.

Juan Pedro Searle
Host Country Steering Committee



Scientists predict that in the absence of global action to reduce human-caused greenhouse gas emissions, there will be an unprecedented rapid increase in the Earth's average global temperature, bringing with it an increase in extreme weather events, disruption of traditional cropping patterns, flooding of low-lying coastal zones, and the spread of vector-borne diseases such as malaria.

INTRODUCTION:

THE GLOBAL CONTEXT

In June 1992, over 180 countries at the “Earth Summit” in Rio de Janeiro adopted the United Nations Framework Convention on Climate Change (UNFCCC), a legal framework that mandates Parties to the Convention to start the process of stabilizing greenhouse gases like carbon dioxide, in the atmosphere. The Kyoto Protocol adopted under the UNFCCC in December 1997, commits industrialized country signatories (called “Annex I” countries) to reduce their greenhouse gas emissions by an average of 5.2 percent compared with 1990 emissions, in the period 2008-2012. In other words, annual Annex I emissions must be, on average, 950 million metric tons of carbon dioxide equivalent (tCO₂e) lower than 1990 emissions during the period 2008-2012. Under the Kyoto Protocol, Annex I countries may achieve these reductions either domestically or through three international market-based mechanisms:

- Joint Implementation (JI), or purchasing greenhouse gas emission reductions from projects in other Annex I countries;
- Clean Development Mechanism (CDM), or purchasing emission reductions from projects in developing countries; and
- Emissions trading among Annex I (industrialized) countries.

These mechanisms are predicated on the fact that greenhouse gases mix uniformly in the atmosphere, which makes it possible to reduce carbon emissions at any point on the Earth and have the same effect. Through the first two mechanisms, the Kyoto Protocol enables countries and companies in countries that have committed to reductions, to supplement their domestic efforts to reduce emissions by purchasing greenhouse gas emission reductions generated by projects in developing countries and in countries with economies in transition. These are countries where emissions can be reduced at lower cost, while contributing to sustainable development.



“The impact of climate change is already being felt. We are already seeing changes in water, changes in food, changes in our biodiversity, changes in sea level. And in the next one hundred years, these changes will be more profound. We could lose for example 20 percent of our agricultural productivity in Africa. We could potentially see tens of millions more cases of malaria. We could see sea level rise increase by another half meter. These effects are occurring now. They will be even more significant in the coming decades.”

**Bob Watson, Chief Scientist, The World Bank,
Former Chair of the Intergovernmental Panel on Climate Change**

THE IMPORTANCE OF THE CLEAN DEVELOPMENT MECHANISM

Helping developing countries achieve sustainable development is one of the objectives of the Clean Development Mechanism defined by the 1997 Kyoto Protocol. Seven years later the CDM is emerging as a significant contributor to the cleanup of urban solid waste and agricultural wastes and to rural and renewable energy supply in developing countries.

A Small Amount Can Make a Big Difference

Even at current market prices of US\$3-4 per ton of carbon dioxide equivalent, additional revenues from the sale of CDM greenhouse gas emission reductions can render advanced clean waste-to-energy conversion and waste recycling technology profitable and bankable in developing countries. This is demonstrated by landfill gas-to-energy projects which today account for 20 percent of the total emission reductions entering the carbon market, commanding second place after halofluorocarbons (HFC23) destruction. Biomass energy accounts for 12 percent of the emission reductions entering the carbon market. ("State and Trends of the Carbon Market", The World Bank, May 2004.)

At current market prices, the CDM can make only a small difference—an additional 0.5 percent to 2.5 percent in rates of return—to renewable energy (small wind, hydro, geothermal, solar). But even modest streams of carbon payments made in hard currency and assigned to lending banks, or kept in escrow, can mitigate country, currency convertibility and transfer risk, making the difference in reaching financial closure for a large number of projects worldwide.

The CDM is emerging as a new financial mechanism that can contribute significantly to addressing local issues such as environmental degradation, water shortage and lack of education facilities. Most projects undertaken by the CDCF directly benefit local communities and populations by providing energy to the un-served or the underserved. One example discussed later in this report is the Nepal Biogas project which will bring cleaner fuel for cooking and lighting into rural households, that currently depend on hard-to-collect fuel wood to even cook a meal.





A smaller number of projects, including some grid-connected renewable energy projects do not provide such benefits in a direct manner. For these projects, part of the payments for the emission reductions are devoted to the provision of benefits for communities or to addressing situations of social and environmental degradation.

Challenges to a Viable CDM

An emerging barrier for the CDM is uncertainty regarding the validity of emission reductions beyond 2012. Experience shows that a minimum of 10 years of revenues from emission reductions at current market prices are usually required to influence project financing and enable CDM-eligible projects to proceed to implementation. Given project lead times of three to five years, more and more CDM projects will result in only a few years worth of emission reductions being available by the end of the Kyoto Protocol's First Commitment Period in 2012. This problem is somewhat mitigated in the CDCF given that smaller projects enjoy shorter lead times.

A related problem is the cost of CDM project development. Even with the use of streamlined procedures available for small-scale projects, financial models developed for the CDCF indicate a breakeven price-volume threshold of about 40,000 tons of carbon dioxide equivalent a year at a purchase price of \$4.50 per ton. Below this threshold, project development costs become unsustainable unless subsumed by parallel financing such as that provided by the World Bank and other development agencies.

Despite the steady growth of the carbon market over the past three years, four countries (India, Brazil, Chile, and Indonesia) today represent two-thirds of the supply of greenhouse gas emission reductions in terms of volume. Increased concentration of CDM flows to a limited number of countries continues to leave the least developed countries and Africa essentially bypassed, raising concerns about the long-term distribution of the benefits of the CDM. It is likely that the CDCF will account for a good part of the projects implemented in these disadvantaged countries.

But despite these formidable challenges the CDM offers something that is seldom seen in the developing world—private sector dollars flowing for sustainable development, where they have never gone before.

It is encouraging to see that developments under the CDCF and the CDM show that they can become mutually reinforcing. The CDM is an innovative mechanism, which aims at mobilizing resources, mainly from private sources, for promoting sustainable development in developing countries. A CDM project, which reduces greenhouse gas emissions or absorbs them through afforestation and reforestation activities, can sell credits and thus provide much needed resources for local development.

In order to make the CDM an attractive option for small-scale projects, simplified modalities and procedures were developed by the CDM Executive Board so that transaction costs would be as low as possible.

Such simplified methodologies are available for 14 categories, such as renewable energy, energy efficiency improvement, agriculture, switching of fossil fuels, methane recovery. A simplified project design document can be used to facilitate the submission of small-scale projects. Very small projects can be bundled and still qualify as a small-scale CDM project.

Using these provisions, projects such as those being developed under the CDCF may be eligible as small-scale CDM projects. Community-level projects could benefit in particular from the possibility of the bundling.

Joke Waller-Hunter
Executive Secretary, United Nations
Framework Convention on Climate
Change (UNFCCC)



THE MAKING OF THE CDCF

The Community Development Carbon Fund evolved from a proposal by the Secretariat of the United Nations Framework Convention on Climate Change and the International Emissions Trading Association (IETA) that the Bank address the special needs of small and least developed countries that want to benefit from the emerging carbon market through a fund mechanism, by building on its experience with the pioneer Prototype Carbon Fund (PCF). The CDCF is designed to provide communities in developing countries, and in particular least developed countries, with an opportunity to benefit from new investments in renewable energy and clean technology that aim to reduce greenhouse gas emissions and mitigate the effects of climate change. The fund purchases emission reductions from projects that, among other criteria, meet the regulatory requirements of the Clean Development Mechanism.

Many small-scale projects, such as mini- and micro-hydro, wind energy, small municipal and agricultural waste projects, energy efficient end-use appliances and manufacturing processes, clean transport and biomass fuel projects, can benefit local communities as they abate greenhouse gas emissions. However, proportionately higher business costs and risks in less developed countries put small-scale projects at a disadvantage when competing for carbon finance, and they are therefore likely to be bypassed by carbon investors.

Through the CDCF, the World Bank links potential carbon purchasers with community development projects. By working through local intermediaries such as financial institutions, micro-credit institutions, cooperatives, and non-governmental organizations, while also applying stream-lined project procedures compatible with small-scale CDM projects, the CDCF seeks to lower transaction costs and risks associated with small-scale projects.

Like other World Bank managed carbon funds, the CDCF is a World Bank-administered trust fund. The fund purchases emission reductions from carbon-reducing projects and pays on delivery of the verified emission reductions. The fund's participants receive a pro-rata share of those emission reductions in exchange for their financial contribution. Eventually those emission reductions may be eligible under the Kyoto Protocol and used towards mandatory or voluntary greenhouse gas reduction commitments under Kyoto or other regimes.

“Market mechanisms for combating climate change operate in a purely regulatory environment. As opposed to other markets, greenhouse gas credits have no intrinsic value—it is only conferred upon them by governments as agents of society. Greenhouse gas markets need a societal license to operate. Only by demonstrating that such approaches can benefit ALL members of society, and not be limited to those that are within the normal flow of financial movements and benefit from investments, can this license be secured and continuously renewed.

IETA has worked with the World Bank's Carbon Finance team to develop and implement the CDCF as we feel that it fulfills a number of critical functions.

First and foremost it combats climate change in an effective and efficient manner. The CDCF will ensure that greenhouse gases are reduced in activities that would not be dealt with by other efforts. This is important because we must mobilize sectors and attend to every aspect if we are to successfully address this global issue. This is an area where business will typically be less equipped to operate well, and collaboration with the World Bank provides an excellent instrument for engagement.

CDCF will also contribute to the second goal of the CDM by contributing to sustainable development as it improves the life of small communities in developing countries. IETA and its members are strongly supportive of this aspect of the CDM and feel that the CDCF provides a unique opportunity to participate.

Andrei Marcu
Executive Director, International
Emissions Trading Association (IETA)

..... CDCF HIGHLIGHTS OF 2003-2004:

Since the establishment of the CDCF on March 25, 2003, the following achievements can be noted as of September 30, 2004.

- The capitalization of the CDCF stands at \$47 million. The CDCF continues to be the fund of choice for governments and corporations wishing to acquire emission reductions at reasonable cost while sharing in the objective of extending the benefits of carbon finance to the least developed countries.
- The fund management approved carbon finance documents (CFD's) for eight projects for further development. These projects represent a commitment of \$16.8 million for 3.6 million tons of carbon dioxide equivalent emission reductions.
- The technological distribution of the current CDCF pipeline is highly diversified, comprising energy efficiency, biogas, wind power, biomass and bagasse, municipal solid waste, and small hydro projects.





- The CDCF is making progress in its efforts to invest at least 25 percent of its assets in projects located in least developed countries and other poorer developing countries with a population of less than 75 million. These priority countries—Ethiopia, Guyana, Honduras, Kenya, Moldova, Mongolia, Nepal, Tanzania and Uganda—account for 50 percent of the Project Idea Notes (PINs) cleared for further development.
- To ensure an adequate representation of Sub-Saharan African countries in the CDCF portfolio, a program of action named “Special Effort on Africa” is underway to identify and develop a viable CDM project pipeline under a variety of development initiatives including the World Bank Group’s project investment activities. As a result, eight of the 29 projects in the CDCF pipeline today are located in the following Sub-Saharan African countries: Ethiopia, Kenya, Tanzania and Uganda.
- Under the guidance of the CDCF Advisory Group, there has been substantial progress towards making operational the requirement that all CDCF projects improve measurably the welfare of poor communities in host countries. Typically, these benefits are integral to the projects, for example electrification of additional poor households. Sometimes they result when the CDCF allocates a portion of the carbon emission reductions payments to provide goods and/or services to benefit the local community or communities that have geographical, cultural or historical association with the project site or project-utilized resources. Examples of the types of facilities and services, which may be included in CDCF projects, include electrification, schools, health clinics and potable water.

Community Benefits for CDCF Projects

The Biogas Support Project in Nepal will provide sustainable energy for cooking and other needs to poor and low-income farmers through household biogas units. Additionally it will lead to overall improvement of family health and sanitation, while creating employment and business opportunities for skilled workers and small enterprises. The Fly Ash Bricks Project in India will introduce proven adapted techniques and technology to replace traditional kilns that use substantial quantities of coal and firewood in brick production. This will dramatically improve worker’s health and create employment for skilled construction workers. Revenue from the Landfill Gas Recovery Project in Olavarría, Argentina, will build a potable water distribution network and a solar water heating system in the nearby village of Espigas. Potable water will be distributed by pipeline to local households, the kindergarten, school, hospital and other public facilities.



WORKING TOGETHER: A SHARED VISION

WHO IS THE CDCF?

GOVERNMENT OF AUSTRIA



Under the Kyoto Protocol and based on the “EU Burden-Sharing” Agreement, Austria is committed to reduce its emissions of greenhouse gases by 13 percent during the commitment period 2008 – 2012 compared to the 1990 base year level. In order to close the gap between this commitment and the actual emissions, the Austrian National Climate Strategy defines domestic policies and measures, and also provides for the implementation of the project-based Flexible Mechanisms of the Kyoto Protocol. As JI and CDM projects will play an important role in fulfilling Austria’s Kyoto target, the Austrian Government started the Austrian JI/CDM Program in 2003, to enable it to purchase emission reduction units from mitigation projects and invest in carbon funds.

The Austrian Government welcomes the approach of the CDCF, providing communities in developing countries and in particular least developed countries with an opportunity to benefit from new investments in clean technologies that aim to reduce greenhouse gas emissions. Furthermore the CDCF will only purchase verified emission reductions from projects that improve the quality of life in local communities. In 2003 Austria joined the CDCF with a view to purchase verified emission reductions from “high-quality” projects especially from least developed countries, additional to the project portfolio within the Austrian JI/CDM Program.

Within the CDCF Austria is represented by Kommunalkredit Public Consulting GmbH. Kommunalkredit Public Consulting (KPC) is in charge of Austria’s JI/CDM program management and acts on behalf of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. KPC specializes in the management of support and consultancy programs in fields like climate change, energy, water management and development cooperation.*

GOVERNMENT OF CANADA



The Government of Canada is committed to addressing the problem of global climate change, and as a sign of this commitment, ratified the Kyoto Protocol in December 2002. As part of its effort to address climate change, the Government created Canada’s CDM and JI Office, housed within Foreign Affairs Canada. The Office helps to facilitate Canadian participation in the Kyoto Mechanisms by providing financial and technical support to Canadian entities and supporting capacity building in host countries.

The positive benefits of Canada’s participation in the Prototype Carbon Fund have been broadened through its participation in the CDCF since the fund was launched. Canada’s participation in the fund takes place through the CDM & JI Office.

Similar to the PCF, the CDCF applies a learning by doing approach that will result in high quality, practical experience for dissemination to Canadian companies. In addition to gains through project-related experience, Canada and Canadian companies will also benefit from capacity-building efforts conducted under the fund, such as the development of local intermediaries, the growth of market opportunities in less developed countries, and valuable experience in developing small-scale projects particularly in poorer regions such as Africa.*

GOVERNMENT OF ITALY



In the last decade, the Italian Government has adopted a robust approach to address the challenge of meeting Italy's emission reduction targets under the Kyoto Protocol. In 1998 a national plan was adopted that envisages increased energy efficiency and renewable energy use, enhancement of domestic "carbon sinks", and reduction of fuel for transport and of energy use for industry and household. The Kyoto Protocol Ratification Law, approved by the Italian Parliament in June 2002, foresees full use of the Clean Development Mechanism and Joint Implementation to achieve emission reduction targets in a cost-effective manner while promoting sustainable development. Through the Ministry for the Environment and Territory, the leading agency for climate change policies, Italy is also fully engaged in the European Union's Emissions Trading Scheme.

Italy has seized the opportunity to demonstrate its commitment to greenhouse gas emission reductions, as well as to sustainable development worldwide. Italy in fact has been a founding supporter of the CDCF, which it sees as an efficient mechanism for extending the reach of carbon finance and the Clean Development Mechanism to developing countries that would otherwise be potentially excluded from their benefits. In addition, the Italian Carbon Fund, established at the World Bank to assist Italian businesses to reduce the costs of achieving their emission reductions commitments while supporting developing countries through purchasing emission reductions generated by development projects that meet the CDM, JI and EU regulatory requirements, became operational in March 2004.*

GOVERNMENT OF THE NETHERLANDS



The Dutch Government is fully committed to contribute to the reduction of global warming. It also recognizes however that such reduction can only be achieved through internationally agreed efforts and instruments. One of the relevant instruments is the CDM. Since the objectives of the CDM serve the interests of all parties concerned in a very balanced way, the Dutch Government has put much effort into the application and implementation of the CDM. The objective is to purchase some 67 million tons of carbon dioxide equivalent through a government financed program on CDM. In addition, other approaches, e.g. JI and Emissions Trading, are supported and applied. This is consistent with early Dutch participation in the Prototype Carbon Fund.

Being an early mover on the CDM, the Dutch government is able to gain and share much experience with this instrument. Cooperation with experienced organizations, like the World Bank and other banks, has contributed to the learning process of implementation. This has shown that, due to the initial relatively high transaction costs, potential small-scale CDM projects are rarely contracted, and a continent like Africa seems to miss most CDM opportunities. This is not consistent with one of the three major objectives of the CDM—a contribution to sustainable development. Since the CDCF was explicitly developed to fill this gap, the Dutch Government is glad to have joined the CDCF and again share its experience with all parties involved.*

BASF has implemented sustainable development through its strategy “BASF 2015”. The company sees this as a long-term competitive advantage to achieve BASF’s goal to remain the world’s leading chemical company. The aim is to combine economic success with both environmental protection and social responsibility.

This is why BASF specifically supports the CDCF, since the CDCF is not only focusing on greenhouse gas mitigation projects, but on projects that result in environmental protection and development. Only small-scale environmental projects are funded that achieve tangible benefits for local communities—many of them in least developed countries. Furthermore, by supporting the CDCF, BASF wanted to emphasize its stance on the mechanisms of the Kyoto Protocol. Finally, BASF sees the fund as an excellent opportunity to acquaint itself with the complex mechanisms of global greenhouse gas trading through BASF’s active membership, while gaining emission reductions for use in the European Union Emissions Trading Scheme.

Independent of BASF’s commitment to the CDCF, the company has the goal to reduce its greenhouse gas emissions per metric ton of sales product by 10 percent by the year 2012, as compared with 2002. Between 1990 and 2002, BASF reduced greenhouse gas emissions by 38 percent in absolute terms and reduced greenhouse gas emissions per metric ton of sales product by 61 percent. BASF hopes the first tranche of the CDCF will be a successful pilot and a role model for further successor funds. BASF is proud to be among the first companies to develop and implement this unique fund.*

DAIWA SECURITIES SMBC PRINCIPAL INVESTMENTS CO. LTD.

Daiwa Securities SMBC Principal Investments Co. Ltd. (DSPI), a subsidiary of Daiwa Securities SMBC Co. Ltd., one of the major Japanese investment banks, has provided and mediated risk money and revitalized the Japanese economy through investing in non-performing loans, real estate, and private equity and by creating various kinds of funds since 1998. Through the great partnerships with various institutes in Japan established by Daiwa Securities Group and Sumitomo Mitsui Financial Group, DSPI provides the best support strategy to increase enterprise value and to access external funds.

In recognition of the direct and indirect implications of climate change on our economic activities, DSPI expects to become an intermediary of a future carbon finance market through its outstanding expertise in the capital market. To meet such an expectation, DSPI has deepened its understanding of carbon-related financing business, and strengthened its commitments to carbon project financing. Participating in the World Bank Community Development Carbon Fund provides DSPI opportunities to accumulate expertise in carbon projects and financing mechanisms, which helps DSPI to have a positive role in the evolving carbon market.*

ELECTRICIDADE DE PORTUGAL (EDP)



EDP's activities are centered on the electricity and gas sectors within the Iberian Peninsula. EDP is the largest electricity company in Portugal and the third largest in the Iberian Peninsula. EDP Group is also involved in the Brazilian electricity sector and has smallholdings in electricity companies operating in other markets. In Portugal, EDP is also active in the fixed telecommunications and information technology sectors, and provides laboratory and engineering services.

For EDP having a power generation portfolio that upholds the value of environmental sustainability is one of the pillars of its corporate strategy. Therefore for EDP, participating in the CDCF is a unique opportunity to take part in an initiative that supports sustainable development in some of the areas of the world that are most in need, and that at the same time, contributes to EDP's compliance with the new European Emissions Trading Scheme.*

ENDESA



Endesa is the largest operator in the Spanish electricity industry and the leading private electricity multinational in Latin America. In addition, it has a significant presence in the South European electricity market, particularly in Italy. In total, it operates in the electricity markets of 11 countries on three continents.

Endesa engages mainly in the generation, transmission, distribution and supply of electricity. The Company also operates in the gas industry, in other energy industries (mainly cogeneration and renewable energies), in the telecommunications industry and in other service industries, which contribute value to its core business. Its shares are listed on the Spanish Stock Exchanges, on the New York Stock Exchange in the form of American Depositary Receipts (ADR), and on the Off-shore Stock Exchange of Santiago de Chile.

Endesa understands the concept of sustainability as the integration—in fulfilment of its corporate purpose—of a responsible attitude towards the environments in which it operates and the efficient use of resources, so that its activity is compatible with environmental protection, and the creation of wealth and well-being for those who invest in it, work in it, or use its services.

As part of its Strategic Plan for the Environment and Sustainable Development, Endesa participates in various types of initiatives and activities dealing with climate change, one of the most important being its participation in the Community Development Carbon Fund. On one hand, the CDCF helps Endesa to achieve its emission reduction commitments and on the other hand, Endesa is happy to help foster an international investment framework which promotes the development of CDM projects which contribute to the economic and social development of the least advantaged communities.*

IDEMITSU KOSAN CO., LTD.



Founded in 1911, Idemitsu Kosan is a Japanese energy company mainly in the petroleum refining and marketing business. Through its activities, Idemitsu has been making efforts to improve the total efficiency of energy processing and its use. In the conduct of business, it has placed great importance on mutual coexistence with society at large. To achieve that, Idemitsu has striven for efficiency improvement in all its business activities: production, transport and sale of petroleum, coal and other fossil fuels. So too has it always taken the initiative in developing and disseminating environmentally-friendly products and services.

As for measures against global warming, Idemitsu promotes energy conservation in every field and utilizes the accumulated know-how and technologies for the reduction of greenhouse gas emissions. Further, participation in the CDCF has created an additional dimension and additional value for the company through the joint work with other participants and the World Bank toward poverty alleviation and sustainable development. Idemitsu hopes that the CDCF contributes to environmental and social responsibility, as well as the development of the global carbon market through CDM activities in various communities.*

KREDITANSTALT FÜR WIEDERAUFBAU (KfW)



KfW was founded in 1948 and is owned by the Federal Government of Germany and the Federal German States. The activities of the KfW Group are focused on the domestic promotion of small and medium-sized enterprises, home finance and housing modernization, protection of the environment and of the climate, export and project finance as well as on the promotion of developing and transition countries. With a balance sheet exceeding €314 billion in 2003, the KfW Group is among the ten largest banks in Germany.

The KfW Bank is committed to protect the environment and the climate by offering a broad range of promotional programs to finance respective investments. Recently, KfW also launched the KfW Carbon Fund, which is designed as a purchase program for cost-effective emission certificates to be used by affected companies in the framework of the European Union Emissions Trading Scheme. The CDCF participation provides a unique opportunity to benefit from the vast experience and the leading role the World Bank's Carbon Finance Business has acquired in this challenging new field of activities.*

NIPPON OIL CORPORATION



Nippon Oil Corporation is one of Japan's leading oil companies as well as a comprehensive energy enterprise.

Nippon Oil Corporation has created a new Nippon Oil Environmental Vision since harmony with the global environment is essential to sustainable business activity. The vision consists of three concepts: as a comprehensive energy company to help create a sustainable society, to develop new energy technology and to provide energy and products that are environmentally friendly.

The basic idea of the CDCF meets with Nippon Oil's environmental vision in that the CDCF focuses on renewable energy and clean technology, which reduce greenhouse gas emissions, targeting developing countries and aiming to achieve sustainable development.

The Environmental Vision of Nippon Oil can be partly realized through the implementation of the CDCF. Furthermore, Nippon Oil Corporation will endeavor to achieve sustainable development through what is learned from the CDCF such as dissemination of renewable energy, clean technology and sustainable development systems in developing countries.*



THE OKINAWA ELECTRIC POWER COMPANY, INC

One of Japan's ten electric power utility companies, The Okinawa Electric Power Company, Inc. (OEPC) supplies power throughout Okinawa Prefecture, an island chain located at the southernmost tip of the Japanese archipelago with a population of approximately 1.3 million. The company supplies power to 39 inhabited islands scattered over a wide area measuring approximately 400 kilometers from north to south and 1,000 kilometers from east to west. Current generating capacity is 1.9 million kilowatts, and the power sales in fiscal year 2003 amounted to 7.2 billion kilowatt hours.

Based on the premises provided in its Environmental Preservation Action Plan, OEPC actively implements environmental preservation measures in all of its departments and power stations. All of OEPC's 1,500 personnel have made an effort to meet this responsibility through their daily activities.

In an effort to reduce the environmental burden, OEPC has endeavored to improve the efficiency of power stations. OEPC is also promoting the development and introduction of technology for new energy systems, such as wind power and solar power.

In addition to the construction of the LNG-fueled Yoshinoura Thermal Power Plant as part of OEPC's initiative to reduce carbon dioxide emissions, participation in the CDCF is a countermeasure OEPC can take proactively against global warming.*



STATOIL ASA

Statoil is an integrated oil and gas company headquartered in Stavanger, Norway with about 19,000 employees in 28 countries. In 2003, it produced an average of 1.1 million barrels of oil equivalent per day—92 percent from the Norwegian continental shelf. Statoil is one of the largest net crude exporters in the world, a leading supplier of natural gas to Europe and a major retail brand in Scandinavia and the Baltic states.

Statoil's greenhouse gas emission reduction strategy involves cost-effective emission cuts in its operations, participation in emissions trading from 2005, and project-based mechanisms as specified in the Kyoto Protocol. Statoil is a member of the World Bank's Gas Flaring Reduction Partnership, which aims to reduce gas flaring worldwide. Statoil seeks to develop its leading position in subsurface injection and storage of carbon dioxide into an industrial business opportunity, capitalizing on its carbon dioxide sequestration at the Sleipner field in the North Sea.

Statoil is now building the first export facility for liquefied natural gas (LNG) in Norway and Europe. Natural gas deep beneath the Barents Sea will be piped ashore, cooled down and shipped by special carrier to Spain and the United States. Shipment starts in 2006, and will continue for more than 20 years. Carbon dioxide captured from the natural gas stream will be returned to the offshore field through a 143-kilometer pipeline and injected and stored in a separate geological formation. A total of 700,000 tons will be stored annually.

Despite major technological efforts to reduce greenhouse gas emissions, Statoil's activities are growing and will likely make the company a significant buyer of emissions credits. Statoil's participation in the Prototype Carbon Fund was based on a wish to contribute to implementation of the Kyoto Mechanisms to the benefit of the development of non-Annex I countries and to enable Statoil to meet obligations for greenhouse gas emission limitations cost-effectively. Statoil sees its investment in the CDCF as an interesting combination of achieving CDM credits while at the same time contributing to social and economic development as part of its social investment engagements in developing countries.*

SWISS RE



Swiss Re is the world's second largest reinsurer with more than 70 offices in 30 countries. The company provides financial and (re)insurance products through its three divisions: property-casualty; life and health; and financial services.

Swiss Re believes awareness of a company's impact on its surroundings, and adaptive as well as precautionary steps taken to lessen this impact, will lead to better bottom-line results. It is a pioneer in identifying and integrating risk and capital management with sustainability issues.

Acting on and communicating the issues surrounding climate change is at the heart of the Swiss Re strategy. For instance, in 2001, the company created Greenhouse Gas Risk Solutions which is tasked with determining where, when and how Swiss Re can play a role in facilitating emission reductions through (re)insurance and investment products to facilitate emission reductions and renewable energy.

Swiss Re is complementing its business activities with an internal emission reductions program by becoming greenhouse gas neutral within 10 years. To achieve this goal Swiss Re has implemented a target to reduce its own emissions by 15 percent. The remainder will be offset through the company's investment in the World Bank's Community Development Carbon Fund. The CDCF offers us a credible option to offset Swiss Re's own emissions footprint in a timely and cost efficient manner.*

*This information was provided by the participants of the CDCF, and with the exception of minor editorial changes, is reproduced in the same form in which it was provided. The views and opinions expressed in these pages are those of the participant providing the information, and do not represent the views and opinions of the World Bank or the Trustee. Neither the World Bank, nor the Trustee take any responsibility for the information contained, or the representations made in these pages.

WHY THE WORLD BANK IS INVOLVED IN THE CDCF

Climate change threatens to disrupt the weakest economies and disadvantage the most vulnerable people. Those with the least resources and the least capacity to cope—the poor of the developing world—will be hardest hit. Extreme weather events are already wreaking havoc in developing countries. For example, in late summer 2004 an unusually high number of hurricanes and tropical storms devastated the Caribbean islands. This included tropical storm Jeanne in Haiti, which killed 2,500, affected 300,000, uprooted cultivated crops, destroyed lowland agricultural fields, and drowned most of the livestock. On the other side of the world, in Bangladesh, the worst rains in 50 years resulted in floods covering half of the country, killing more than 760 people, and directly affecting more than 35 million people. More than a million children were made vulnerable to the risk of illness or death due to acute malnutrition.

Global climate change and increased climate variability are undermining the ability of developing countries to sustain the development gains made over the last decades. As an organization whose mission is poverty reduction and sustainable development, the World Bank must be a leader in combating climate change because of the devastating effects global warming and accompanying disruptive weather patterns will have on the world's poor. Helping to develop a global market for greenhouse gas emission reductions through investment in clean energy technology and sustainable agriculture and forestry—in return for reasonably priced carbon emission reductions—is key to the success of climate change mitigation efforts.

In its work on the Prototype Carbon Fund and the Netherlands Clean Development Mechanism Facility, the World Bank identified weaknesses in the emerging carbon market. First, the World Bank has found that the private sector has generally avoided least developed countries as places to acquire emission reductions to fulfill its commitments under domestic emission reduction obligations and emissions trading regimes. Second, the Bank has found that a large number of poorer developing countries can only deliver small projects since they generally do not have large and rapidly growing energy and industrial sectors that would generate large-scale clean energy projects. The high transaction costs and high risks involved in delivering carbon from small-scale projects means that most of the smaller and poorer of the Bank's client countries are unlikely to benefit from the catalytic investment effect of carbon finance.

To address these issues, on March 25, 2003, in collaboration with the United Nations Climate Change Secretariat and the International Emissions Trading Association, (IETA) the World Bank established the CDCF. Over the course of its life, the CDCF will develop diversified portfolios of projects across the developing world, in that way not only minimizing risk for participants but also opening the carbon market to a larger part of the developing world.



HOST COUNTRIES: SHARING THE BENEFITS OF THE CARBON MARKET

CHINA: Lu Xuedu, Director, Ministry of Science and Technology of China, Incoming Host Country Committee Chair

“The Community Development Carbon Fund can be a very important instrument to integrate climate change concerns into poverty alleviation strategies. It is anticipated that through its projects, the CDCF will, on the one hand, help promote social and economic development in poor communities with the introduction of financial resources, advanced technologies and sustainable production practices. On the other hand, it will also help mitigate greenhouse gas emissions that poor communities now produce through traditional development by consuming fossil fuels.”

According to the United Nations poverty line, more than 200 million Chinese are living in poverty—most of them in poor communities in the rural and mountain areas of Western China. These communities continually face the problem of lack of money and lack of environmentally sound technologies. But there are many opportunities to develop small-scale CDM projects such as wind power, solar energy, biomass and micro-hydropower which would not only generate emission reductions but also produce economic benefits and therefore improve the living standards of these poor communities. The CDCF could be instrumental in helping to encourage and lead huge investment in these emission reduction projects and communities.

With close cooperation between the Chinese Government and the World Bank, and also with the active participation of local stakeholders such as enterprises, non-governmental organizations and the local people, CDCF projects will help provide a bright and prosperous future to the poor communities of China.”

INDONESIA: Yani Witjaksono, Board Member Yayasan Bina Usaha Lingkungan, Member CDCF Advisory Group

“Indonesia’s ratification of the Kyoto Protocol and qualification for the Clean Development Mechanism creates a major opportunity to attract foreign and domestic investment in related projects. Renewable energy and energy efficiency as well as projects which reduce global greenhouse gas emissions, will benefit from the CDM and become more viable.”

The CDM will help achieve one of Indonesia’s priority Millennium Development Goals: rural electrification and the supply of affordable electricity to the 20 percent of households without electricity and to the 110 million poor people in the country. Reduction in greenhouse gas emissions is also of prime importance to Indonesia, an archipelago nation that is highly susceptible to the adverse effects of climate change.

Implementation of renewable energy projects in rural areas is also expected to create new industries, skills and a substantial number of jobs. This will help alleviate the country’s chronic 40 million unemployment problem and population shift to urban centers. With the right institutional support, the CDM will thus result in increased foreign and domestic investment in Indonesia, in a manner that will benefit all areas especially those with high poverty and low growth.

The CDCF will open up carbon finance to Indonesian rural communities, resulting in increased investment and sustainable development at the local level. The projects made possible by the CDCF will utilize unused or under-used local resources to help alleviate rural poverty, unemployment and boost economic growth. They will also increase the level of electrification and will build a skilled workforce in rural areas. Anticipated local environmental benefits are reduced deforestation and improved air and water quality.”





KENYA: Emily Ojoo Massawa, Coordinator Climate Change Enabling Activities, National Environment Management Authority of Kenya, Member CDCF Advisort Group

“In July 2004, I made a visit to the Mount Kenya region where one of our proposed projects under the CDCF, Tea Sector Energy Efficiency, is located. You may be aware that the results of studies and monitoring on our snow-capped mountains—such as Mount Kenya—have shown an alarming reduction in the number of glaciers. This is being attributed to climate change. Most of the rivers coursing through Kenya, especially the ones where major development projects are located, rely for their flow on the melting snow and, of course, rainfall in the catchments in these snowcapped areas. The community mentioned in the Tea Project Idea Note, fully appreciates the role of forests in the climate system, but they must also have food on the table.”

This CDCF project is going to encompass both objectives—it will contribute towards poverty alleviation and hence sustainable development; and, there is going to be an added revenue stream from sustainable forestry. The forestry component is a definite plus for the climate system.

I just want to add that the people are highly sensitized to the project and are raring to go forward—in fact they told me that “the project should have come yesterday”. So there you have it: this is an excellent opportunity to show-case private sector investment in a poor country to improve environmental management.”

NEPAL: Dr. Shankar Sharma, Vice Chairman, National Planning Commission, His Majesty's Government of Nepal.

“Next to hydropower, biogas has emerged as a major source of renewable energy in Nepal, providing affordable energy to poor rural households. Nepal’s planned biogas program, supported by the CDCF, will extend the provision of biogas to an additional 162,000 rural households during the 10th Five Year Plan period. This program will add 371 megawatts equivalent to Nepal’s energy production, while supporting the 10th Five Year Plan objective of reducing rural poverty, and bring some \$2.4 million in hard- currency carbon revenues annually to the country to support investments in clean renewable energy. His Majesty’s Government of Nepal is committed to the goal of reducing global greenhouse gas emissions and has initiated the process of national ratification of the Kyoto Protocol. ”

COLOMBIA: Martha Patricia Castillo, Chief, Colombian Climate Change Mitigation Office

“The development, design and practice of the CDCF initiative represents a great opportunity for developing countries. It allows the promotion of small-scale activities that can generate significant social and environmental benefits for the rural communities that undertake them. Under the current economic conditions of the Latin American region, such an initiative becomes extremely attractive for our country. Through the carbon market, small-scale projects can access new financial resources that would rarely be available from other sources, as a result restraining or even impeding the development of such projects. Therefore, taking the opportunities the carbon market offers to our countries could end up as positive opportunities for the sustainable development of the region.”



CDCF PERFORMANCE



2003-2004

OVERVIEW: CDCF ADVISORY GROUP ANNUAL REVIEW— REPORT FROM THE CHAIR



Michael Zammit Cutajar
Chair, Advisory Group
to the CDCF

The CDCF Advisory Group is composed of up to 10 independent experts appointed in their personal capacity by the World Bank—the Fund’s Trustee—and includes a representative of the International Emissions Trading Association, one of the initiators of the CDCF. In the interest of coordination, the group also includes observers nominated by the participants in the fund and the Host Country Committee, while its chair observes the work of the Participants’ Committee.

The Community Development Carbon Fund seeks to deliver community benefits to poor people in developing countries. This special vocation distinguishes the fund from other ventures that provide resources to carbon-saving projects. It also raises the performance standard for the fund’s management, requiring it to satisfy additional criteria for selecting and executing projects.

The integrity of the management’s efforts to surmount this challenge is buttressed by the work of an Advisory Group drawn from different stakeholder groups—government, business, civil society—and geographical regions. This group was envisaged by the fund’s constituent instrument as a source of independent and public advice on the implementation of the fund and its effectiveness in meeting community development objectives. The Advisory Group started its work in July 2003. It has so far focused on the application of project portfolio criteria that favor geographical diversity and on procedures for ensuring “community benefits”—benefits corresponding to the development needs of host communities. It has also reviewed the capacity development and outreach efforts undertaken by the fund’s management, with a special focus on Africa. And it is gearing up to advise on possible criteria for the fund’s second tranche.

The Advisory Group is required to prepare an annual review and to make it publicly available. Its first review was completed in June 2004 and is available at <http://www.carbonfinance.org>. Here are some of its main points:

Portfolio development: Project development is at an early stage. By end of June 2004, the first 20 project ideas approved for further consideration all conformed to small-scale criteria and mostly aimed to improve access to energy for poor communities. Their location indicates tentatively that the target of placing at least 25 percent of the fund’s assets in least-developed countries and other poor developing countries is achievable. However, the risk of concentration on large, populous developing countries is already evident; the 10 percent portfolio limit per country has to be kept in view. The share of Sub-Saharan Africa in the emerging portfolio is low and needs to be boosted. A distributional target for this region could be considered for the second tranche.

Forestry projects: The initial portfolio does not include any afforestation or reforestation projects. It is felt that there is a large potential for such projects, which can be particularly attractive for poor, rural communities such as are typical of Sub-Saharan Africa and could thus help boost that region's share of the portfolio. The adoption by the Conference of the Parties to the UNFCCC of criteria for such projects in the CDM removes an obstacle to their inclusion in the CDCF, up to the agreed portfolio limit of 10 percent. The CDCF participants would have to approve the inclusion of such projects.

Community benefits: Specialized expertise from the World Bank is helping to fashion cost-effective procedures to determine and verify community benefits. Management has been urged to keep these procedures simple and speedy, especially when robust potential for standard and predictable benefits (e.g. energy, health, jobs, woman/child welfare) can be discerned in advance. Early and thorough consultation with beneficiary communities or their representatives is emphasized, in particular to determine ancillary benefits that are to be funded out of project returns and to counteract possible negative effects of projects on traditional occupations.

Capacity development and outreach to Africa: The long-term competitive success of the CDCF will depend on the availability of national capacities to formulate, bundle and manage projects and create carbon assets for sale. There is a pressing need to strengthen such capacities in Sub-Saharan Africa. The World Bank's regular activities could be tapped more effectively for project ideas (e.g. for rural energy development), and awareness of the potential of the carbon market should be promoted beyond the environmental community in host countries to engage lead actors in poverty reduction and rural development. The fund's management has an encouraging array of capacity building and outreach activities under way, through *CDCFplus* and various *ad hoc* partnerships with national institutions, United Nations programs and foundations. These activities need to be coordinated, and any Official Development Assistance funds used need to be isolated from the purchase of emission reductions through the CDCF.

Business plan and prospects: The \$47 million raised since operations began is a promising start in an uncertain market. Doubling this amount within the current year is an ambitious and welcome target. On this basis, the fund can hope to achieve its growth target, and look forward to launching the second tranche of the fund in 2005.

In seeking faster growth for the CDCF, based on the experience of this first year, a course will have to be steered between lowering costs by scaling up the fund's operations and maintaining the focus of the fund on its core constituency: communities of poor people in developing countries. Finding the right balance between efficiency and equity—the essence of sustainable development—will be a test of the ingenuity of all involved.

The future work of the Advisory Group would be greatly enhanced by public feedback, in particular from people and organizations that are familiar with the locations and circumstances in which CDCF projects are located. Such feedback may be addressed to me at mzc@waldonet.net.mt.



CDCF PORTFOLIO STATUS

PROJECTS CLEARED BY THE CDCF FUND MANAGEMENT UNIT (AS OF SEPTEMBER 30, 2004)

Country/Project Name **Project Description**

Negotiations in Progress for Emission Reductions Purchase Agreements (ERPAs)

Honduras: La Esperanza Hydro Install 12.7 megawatt run-of-river hydropower plant

Argentina: Olavarría Landfill Gas Recovery Capture and destroy methane generated at Olavarría municipal landfill

Nepal: Biogas program Commercially install 162,000 household biogas plants using animal waste in rural Nepal between 2004 and 2009

India: FaL-G Brick and Block: Micro Industrial Plants Establish 200 brick production units based on FaL-G technology to save energy and reduce nitrous oxide emissions

Carbon Finance Documents Approved

India: Karnataka Municipal Water Pumping Improvements Reduce the energy required for water service delivery in six municipalities in the State of Karnataka in Southern India

Guyana: Skeldon Sugar Modernization Use bagasse as fuel for a sugar factory with high thermal efficiency and export excess electricity to the national grid

Colombia: Rio Frio Wastewater Management Collect methane for power generation and reduce nitrous oxide from waste water treatment plant of Rio Frio

India: Vertical Shalf Brick Kiln Cluster project Use energy efficient technology for fired clay brick production (save 30 percent in coal consumption through stable firing characteristics of the kiln)

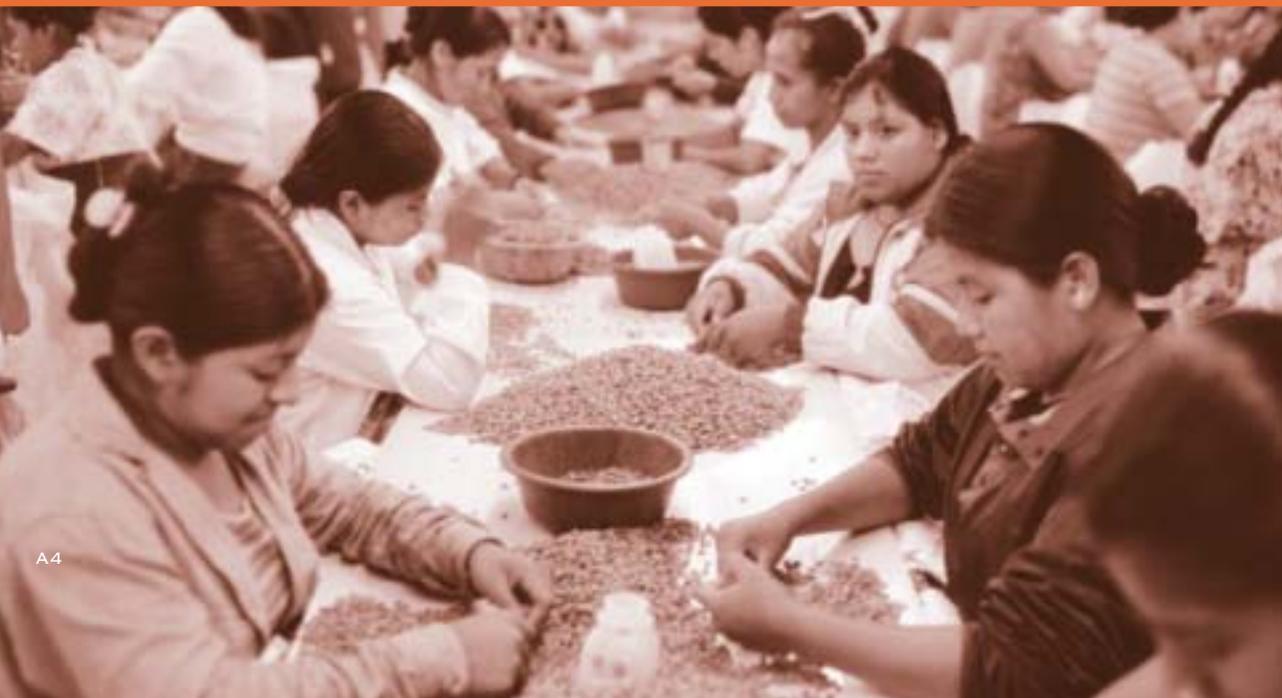
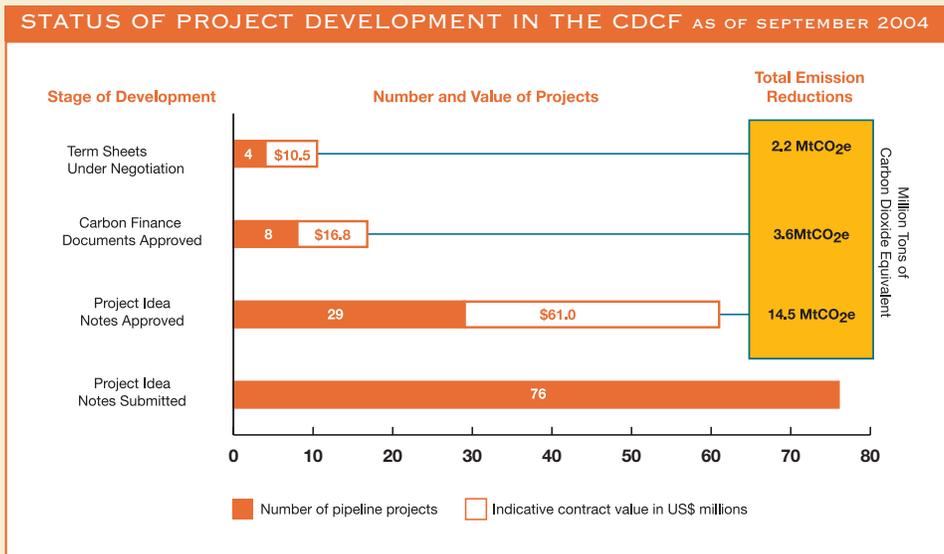


Community Benefits	CDCF Contract in million US\$	CDCF ERPA ERs tCO ₂ e	Total Project ERs tCO ₂ e
Improved electricity service for the town of La Esperanza (around 10,000 inhabitants) allowing for: 24 hours a day reliable, high quality supply. Electrification of the community of Santa Anita by end of 2007 and at least a \$12,000 contribution to electrify another community of 450 people. Support to other communities to apply for rural electrification grants. Full time employment for at least 70 local residents during the project construction phase and at least 20 during operational phase	1.4	310,000	339,091
Reduction of gastrointestinal disease with provision of potable water to the village of Espigas, about 80 kilometers from Olavarria and under the jurisdiction of the Olavarria municipality	0.6	131,000	131,314
Improved health from reduction in kitchen smoke; provision of latrines attached to biogas plants; and reduced incidence of medical problems such as eye infections, respiratory disease, cough, diarrhea, dysentery and parasites	4.5	1,000,000	5,265,000
Creation of year-round stable employment at FaL-G sites, compared with seasonal work (up to eight months per year) at clay brick kiln sites	4.0	800,000	1,000,000
Through better management of water and energy resources by water utilities, improved and expanded access to clean water, and more reliable services to consumers	1.3	250,000	450,000
Reliable and increased power supply to help existing businesses and potentially draw new business to the area. Currently unsupplied local residents will benefit from power supply	2.2	479,255	479,255
A program to improve health conditions (including sexually transmitted diseases and HIV/AIDS), and employment among the poorest youth	1.8	360,000	361,000
Year-round operation to permit more stable employment. Training requirement enables workers to improve their skills. Part of carbon revenue together with workers' savings to be invested to provide community benefits such as life and health insurance, or infrastructure such as hand pumps for water supply	1.2	230,000	326,138



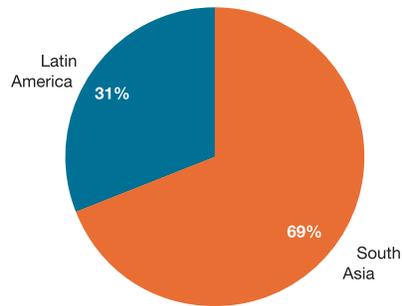
CDCF PORTFOLIO DEVELOPMENT

As of the end of September 2004, the fund management unit reviewed and approved 29 Project Idea Notes (PINs). Of these 29 projects, eight have an approved Carbon Finance Document (CFD) representing in total about 3.6 million tons of carbon dioxide equivalent emission reductions and a potential financial commitment from the fund of \$16.8 million. Term sheets are being negotiated for four projects, for emission reductions purchases of 2.2 million tons of carbon dioxide equivalent, with a contract value of \$10.5 million.



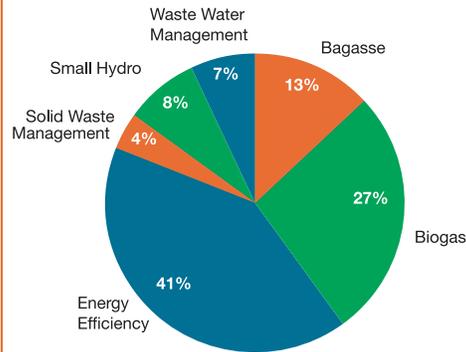
GEOGRAPHICAL DISTRIBUTION OF CDCF PORTFOLIO

Total Approx. US\$16.8 million as of September 2004



TECHNOLOGICAL DISTRIBUTION OF CDCF PORTFOLIO

Total Approx. US\$16.8 million as of September 2004



Geographical Distribution of the projects is dominated by Latin America and South Asia. Experience in fiscal year 2004 shows that underlying projects in CDCF priority countries often suffer due to a weak business environment, a problem compounded for small-scale projects. Project developers often seek underlying finance on soft terms or from donor agencies but such project assistance typically takes several years to put together. Recognizing the challenges, the fund management unit is actively utilizing CDCF*plus* and CF-Assist to address the problem of market development in CDCF priority countries. To ensure an adequate representation of Sub-Saharan African countries in the CDCF portfolio, in fiscal year 2004 the fund management unit launched a special effort on Africa which promotes synergy among, and channels resources for, project development from several initiatives under implementation or planned by the World Bank and other agencies and programs. This effort appears to be yielding results and the fund management unit expects to see better geographical diversity in the CDCF portfolio in the coming year.

Technological Distribution. The CDCF portfolio is diverse and covers a wide range of technologies and applications that fit with the needs of an unprivileged community's daily life. Bagasse-based cogeneration and small hydro projects are included due to their economic attractiveness and substantial community benefits in specific instances. In contrast to the significant share of the projects in the Prototype Carbon Fund portfolio, methane recovery from solid waste projects are less represented in the CDCF. Low density of population in rural areas results in scattered disposal of waste, making methane recovery unattractive. However, biogas projects based on animal waste management present a great opportunity for rural communities to create a clean and affordable energy source, to relieve substantial workload from women, and to reduce deforestation from unsustainable fuel wood collection and consumption.



CDCF ASSET CREATION

A global consensus emerged in the late 1990s that small-scale CDM projects are particularly desirable because they deliver sustainable development benefits, are often environmentally attractive in their own right, and constitute the only development option in many rural areas and poor countries. This is reflected in the 2001 Marrakesh Accords that contain special provisions for small-scale projects. Subsequently, in order to reduce the associated transaction costs and to fast-track small-scale CDM projects, the CDM Executive Board approved simplified methodologies that cover many categories of small-scale projects, which are included in the CDCF portfolio. Project developers must apply such methodologies in order to create the carbon assets and generate emission reductions from small-scale projects that can be used for compliance with their Kyoto Protocol obligations. Project developers can propose modifications or alternative methodologies to the CDM Executive Board in case the approved methodologies are not well tailored to their project. The interpretation and application of the simplified methodologies and the development of new methodologies for small-scale projects is therefore an essential step in the CDCF's carbon asset creation process.

Creating the Carbon Asset

The carbon asset refers to the verified greenhouse gas emission reductions that a project generates when its emissions are compared to the emissions in a baseline scenario. The baseline scenario describes the situation that would prevail without the CDM project. The baseline scenario and the associated emissions are determined by applying an approved baseline methodology. The Kyoto Protocol has established an Executive Board to oversee the CDM and to approve methodologies for baseline determination, monitoring and calculation of emission reductions.

Three overall types of small-scale CDM projects exist: renewable energy projects, energy efficiency projects, and *other projects*. To be eligible as a small-scale CDM project, renewable energy projects may not exceed 15 megawatts of rated capacity; the energy savings from energy efficiency projects may not exceed 15 gigawatt hours per year; and *other projects* may not emit more than 15,000 tons of direct carbon dioxide equivalent emissions annually. A number of more specific

project categories have been defined within these three overall project types. Fourteen project categories have so far been identified and defined in more precise terms, but more may follow in the future, especially in the third project type dealing with *other projects*.

The simplification of small-scale projects concerns, in particular, the baseline scenario determination, the monitoring requirements, and the use of predefined emission factors. For instance, standardized carbon dioxide emission factors have been developed for diesel generators, which can be used by renewable energy projects that displace generation from diesel generators in off-grid areas. Similarly, a 'combined margin approach' has been developed for renewable energy projects displacing electricity from grid-based thermal power stations. Leakage effects of projects can be ignored in most cases, but in order to pass the mandatory additionality test it should be convincingly demonstrated that the project is faced with one or more barriers due to, for instance, investment, technology, prevailing practice, or institutional matters, and therefore would not otherwise be implemented.

Building on the World Bank's Contribution to the CDM

The World Bank's Carbon Finance Business (CFB) is a major contributor to the implementation of the CDM and contributes, through sharing of its experience, to the decisions by the UNFCCC Parties and the CDM Executive Board on a wide range of issues:

- The concept of simplified methodologies for small-scale projects was piloted and proposed by the World Bank in the discussions leading up to the Marrakesh Accords;
- The CFB has developed and submitted to the CDM Executive Board several notes on methodological issues in relation to the approved simplified methodologies, which raise critical issues and propose solutions;
- The CFB has regularly commented on draft papers and positions produced by the Methodology Panel and shared significant insights with the regulator on how it sees the development of the regulatory framework for the CDM; and
- The CFB has systematically brought issues to the attention of the UNFCCC Parties and the CDM Executive Board that it considers of major importance for the proper functioning of the CDM market, for instance on the question of early start projects, authorization of project participants, and modalities and procedures for afforestation and reforestation projects.

Showcasing Methodologies through CDCF Projects

Since 2004, the regulatory system for validation and registration of small-scale projects is in place, and the CDCF has submitted the first projects applying the approved small-scale methodologies to designated operational entities for validation. The first set of submissions will be important test cases of the emerging regulatory framework for the CDM and will provide key insight into the ways in which it will shape future asset creation. Based on the experience gained, the CDCF will make detailed suggestions for institutional design improvements and further development of methodologies.

The CDCF project portfolio and projects at the early-development stage showcase a considerable range of baseline methodologies and ways of implementing projects. Some projects, such as the Olavaria project in Argentina, which falls under the category of *other projects*, will collect and flare landfill gas that would otherwise have been emitted into the atmosphere. Because landfill operators in developing countries are often not required to prevent venting of landfill gas, and in addition have no financial incentive to do so, and since it is feasible to monitor the captured amount of gas, asset creation and emissions estimation are rather straightforward for this project type. Such projects fit well with the approved simplified methodology for this project category. This is also true for the La Esperanza project, which is a 12.7 megawatt run-of-river plant in Honduras. This small-scale CDM renewable energy project will displace carbon dioxide emissions from thermal power plants that would otherwise deliver power to the national electricity grid. The PCF asset creation experience in the case of three small-scale hydro projects in Mexico—Chilatán, Benito Juárez, and Trojes—confirms this.

In addition to these more conventional types of projects, the CDCF strives to increase the diversity of methodologies to broaden the range of carbon assets and facilitate the access of poorer groups and countries to the global carbon market. Examples are projects that generate greenhouse gas emission reductions through changing industrial processes that are widely adopted by small-scale enterprises in developing countries. The FaL-G project in India will introduce a less greenhouse gas-intensive type of brick into the market that will displace the traditional kiln baked clay brick. (see page 31)

Another important type of project mitigates greenhouse gas emissions in connection with energy use at the level of households in rural areas in the developing world. The Nepal Biogas Support Program is an example (see page 34). One project at the early-development stage, the Rio Frio project in Colombia, is designed to reduce at the same time nitrous oxide, methane, and carbon dioxide emissions through modernization of a wastewater treatment plant and installation of a small co-generation plant. This project could have a significant demonstration effect by showing the potential for greenhouse gas emission reductions from wastewater treatment plants in developing countries.

The FaL-G project and the Nepal Biogas Support Program project both have project components and features that will require some revision or modification of the simplified methodologies. The FaL-G project does not fit any of the existing simplified methodologies as the project is not simply an energy efficiency project but involves a complete process change. In case of significant revisions or modifications, the designated operational entity will present these to the CDM Executive Board for its consideration and approval. The World Bank's Carbon Finance Business is also preparing other methodologies to be added to the existing catalogue of small-scale methodologies. Some of the issues may entail some risk for the portfolio, and the fund management unit will stay abreast of the international regulatory process and the decisions of the regulator in order to reduce such risks. Importantly, in 2004 the CDM Executive Board will establish a technical working group, which will review as well as develop new small-scale methodologies. This will hopefully expedite attempts to further streamline and simplify the rules for small-scale projects.



CDCF TRANSACTION STRUCTURING AND RISK MANAGEMENT

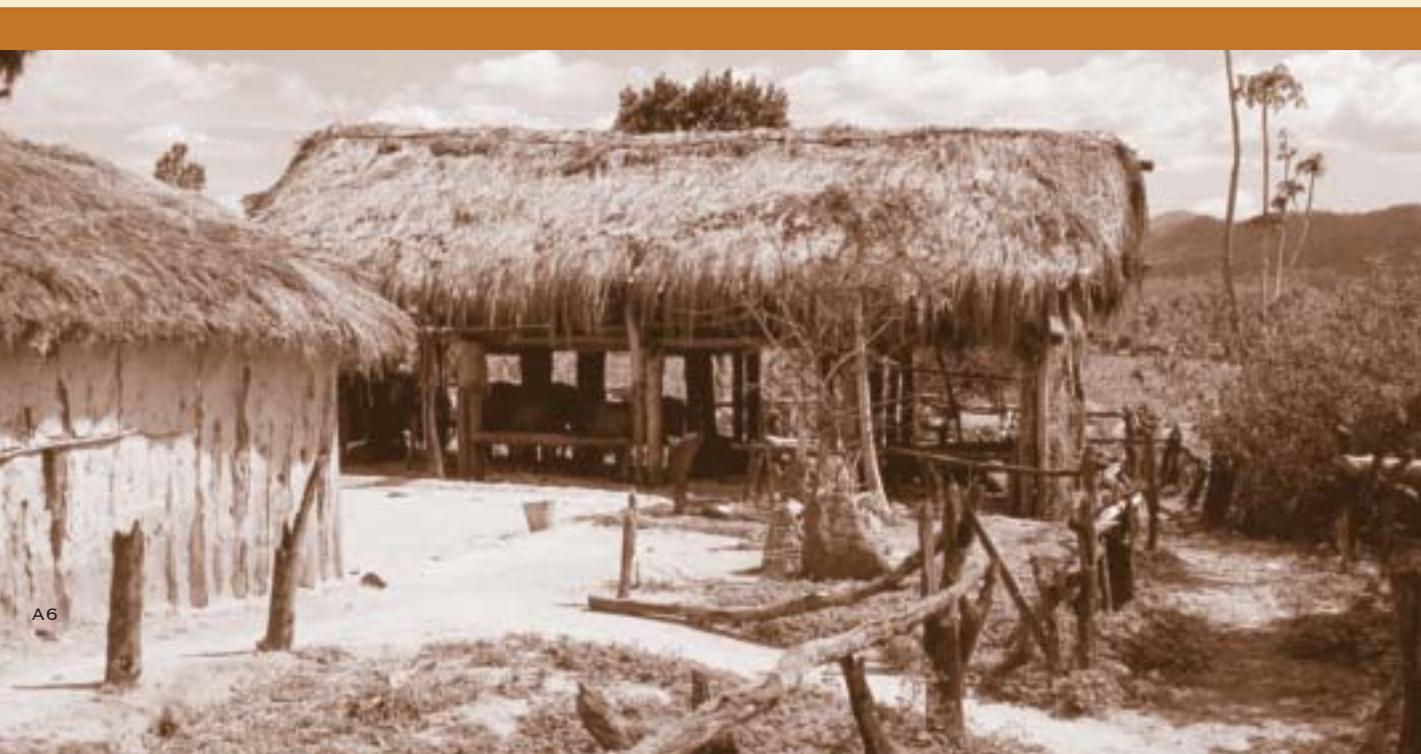
The CDCF is designed to provide communities in the poorest countries the opportunity to benefit from the CDM—communities that have been bypassed by the carbon market up until now. The private sector's reluctance to invest in community-based small-scale CDM projects in particular (and CDM projects in general) stems in part from the significant risks investors face, including:

- Project risks inherent to the underlying project and technology;
- Country risks inherent to investment in the host country;
- Baseline risks related to the eligibility of emission reductions to become certified emission reductions (CERs), which can be used for compliance purposes under the Kyoto Protocol; and
- Price risk related to the market for emission reductions/certified emission reductions.

To address these concerns, the fund management unit has developed and implemented a range of tools and techniques for systematically evaluating risk, structuring transactions to mitigate and assign risk, and managing risk across the CDCF portfolio.¹ These policies and procedures, drawn from best practice in the financial sector, include comprehensive risk assessment through the project cycle to identify the nature and extent of risks, including:

- Technical, financial, economic, social and environmental appraisal of candidate projects in accordance with World Bank operational policies;
- Monitoring the Kyoto Protocol process and trends in the emission reductions market;
- Applying rigorous validation and verification processes;
- Financial engineering and structuring of transactions to mitigate and assign elements of risk to the parties best able to assume them;
- Use of call options to manage the risk of non-delivery of emission reductions;
- Pricing transactions to reflect risk—with input from key brokers and other market participants; and
- Portfolio risk management tools to mitigate specific risk and hedge systematic risk.

1. Procedures for risk assessment, sharing and mitigation are discussed in "Financial Risk Assessment and Mitigation; Risk-based Structuring and Pricing." PCF Implementation Note No. 7, available at www.prototypecarbonfund.org, which have been adopted by the fund management unit for CDCF.



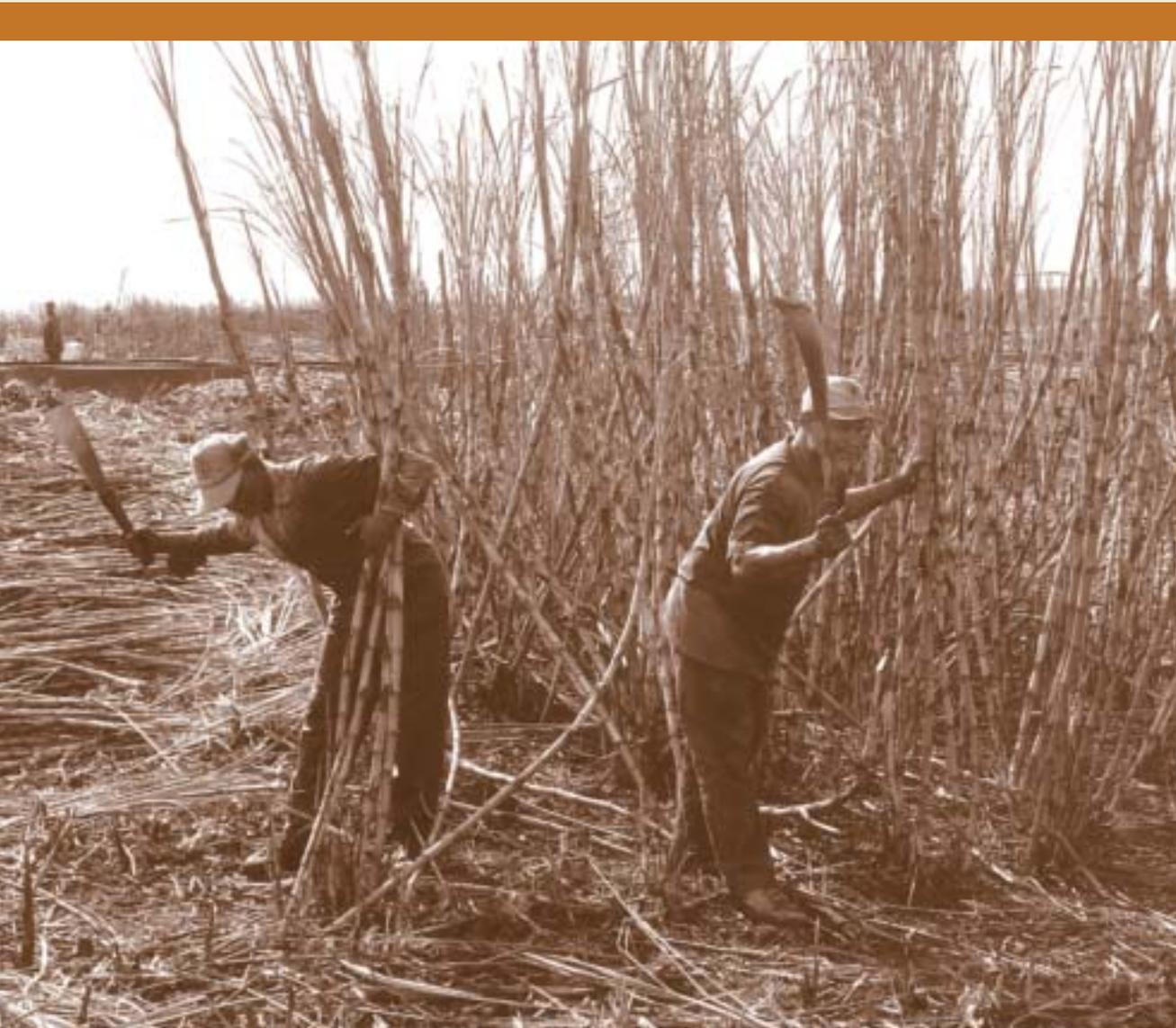
These efforts have enhanced the fund management unit's ability to structure and price transactions in a way that shares benefits and risks among buyers, sellers and financiers.

Looking Ahead

In the coming year, the fund management unit will examine alternatives for mitigating credit risk in projects where the CDCF pays in advance for emission reductions to be delivered under emission reductions purchase agreements. Such upfront financing has been requested by several project sponsors—notably to help finance investment expected to yield community benefits. Various tools exist for managing these risks:

- Structuring remedies under the emission reductions purchase agreement if a project does not deliver the committed volume of emission reductions;
- Setting milestones within the emission reductions purchase agreement as conditions of disbursement;
- Purchasing call options on other projects to ensure that the CDCF can recommit funds that are freed up if counterparties fail to deliver emission reductions as expected.

As the portfolio develops, and with the guidance of the CDCF participants, the fund management unit will implement a set of portfolio risk monitoring tools that will enable it to better manage risk and help the participants monitor progress in the portfolio.



CDCF FINANCIAL PERFORMANCE

In fiscal year 2004, the CDCF successfully completed its first full year of operation. The main focus of the first year has been on developing a solid project pipeline, establishing streamlined processes that would efficiently address the needs of small projects and on further increasing the capital base.

The fund has been successful in developing a broad project pipeline and processing projects through the early stages of project preparation. The fund management unit streamlined its administrative processes to accommodate specific needs of small-scale projects and established a basis to keep project preparation costs at the lowest possible levels. The fund has also been very active in pursuing new participants in terms of the number of presentations, contacts, and time invested in prospective relationships.

The CDCF has successfully estimated its year end contribution levels and the level of draw-downs has been set at \$117,722 per \$1 million contributed, resulting in total sources of funds received from participants of \$4.3 million. On the costs side, the fund has spent fewer resources than expected. Despite a larger than expected fund marketing effort the administrative expenses have stayed at the budgeted level. Project preparation costs were dramatically lower, partly due to conservative budgeting, and partly due to the fact that projects required more time to develop. There were no disbursements in fiscal year 2004 and the fund development costs were reimbursed to the World Bank at the planned level. During the year no items arose that would require employment of planned contingency funds. The enclosed table summarizes the main items:

CDCF - Fiscal Year 2004 - Summary of Uses of Funds

	Budget	Actual
Administrative Expenses	903	906
Project Preparation Expenses	2,215	663
Disbursements & ER Purchases	100	0
Reimbursement of fund development costs	1,000	1,000
Contingencies	432	0
Total Uses	4,650	2,569

In the coming year, the CDCF will focus on developing an even broader project pipeline to support the growing subscription base. Individual projects will be advanced from early stages to reach the signed emission reductions purchase agreement stage and fund marketing will focus on expanding the capital base and closing the first subscription window.



CAPTURING AND DISSEMINATING LEARNING

SHARING KNOWLEDGE

Sharing knowledge is fundamental to ensuring that learning takes place and the widest possible stakeholder groups can understand and provide feedback on what is being done by the CDCF. Additionally, in order to ensure that all actors are able to take full advantage of tapping into the global carbon market, the fund management unit strives to disseminate its first-hand knowledge of the evolving regulatory framework as part of the UNFCCC's intergovernmental process and the recent European Union's Emission Trading Scheme (EU-ETS). Below are the knowledge-sharing tools that have been utilized by the CDCF in 2003 and 2004.

CDCF Website (<http://carbonfinance.org/cdcf>)

The CDCF has made full use of the Internet for storing and accessing key transactional and business documents by CDCF participants and other stakeholders in the CDM. The website has been significantly improved and continues to evolve to provide in-depth information to the general public on issues concerning climate change and sustainable development. It highlights the innovative and unique approach the CDCF offers to address these global issues. An added private domain component was established as part of the website for CDCF participants to gain access to non-public documents, such as confidential information on projects, contracts, progress reports, and business plans.

Help Desk

In its commitment to ensure the widest possible awareness and transparency to the external audience, the CDCF is making full use of the help desk established in 2002 as part of the Carbon Finance Business operations. Over the last two years, the World Bank's Carbon Finance Business has become one of the standard references and primary sources of information for actors in the carbon market all over the world. In the past year, the Help Desk has responded to an average of 65 requests for information per month.



Intern and Fellowship Programs

The CDCF strives to ensure host country stakeholder involvement and capacity building by supporting a number of internships for intermediaries, government representatives and local non-governmental organizations (NGOs). Interns observe the fund management unit's daily operations to learn specific aspects of carbon asset creation and management (duration is from several days to several months). Additionally, the Carbon Finance Business has supported three-month fellowships for government representatives from Bolivia, Chile, Senegal, and Uganda. A two-year secondment of staff from Idemitsu Kosan Co., Ltd., was facilitated.

Training and Capacity Building Programs

The CDCF participates fully in all initiatives undertaken by the Carbon Finance Business to fulfill its commitment to sharing knowledge and capacity building. In 2003-2004, the Carbon Finance Business held a number of public training seminars on carbon finance organized together with the World Bank Institute. Additionally, various seminars, workshops and debriefings, as well as comprehensive upstream workshops and/or pre-negotiation workshops, were held. The CDCF held six training seminars on small-scale methodologies for practitioners and decision-makers in developing countries.

The CDCF is supported by *CDCFplus*, a facility to support the flow of projects from least developed countries and other poor developing countries. *CDCFplus* identifies, trains and contracts local and regional project developers to prepare and develop carbon projects. *CDCFplus* may also fill the gaps in project preparation financing for quality projects in these countries.

CDCF at Carbon Expo 2004

The CDCF booth and presentations were prominently featured at Carbon Expo 2004, the first global carbon trade fair held in Cologne, Germany in June. Carbon Expo, organized by the World Bank's Carbon Finance Business in collaboration with IETA and Koelnmesse, was attended by over 700 participants and will be held again in May of 2005. (www.carbonexpo.com)





MAKING A DIFFERENCE IN PEOPLE'S LIVES

PARTNERING FOR AFRICA

The Context

African countries recognize that carbon finance is an important instrument to address climate change, a threat to which their people and development are highly vulnerable. While contributing little towards the build-up of atmospheric greenhouse gas concentrations, the least developed countries of Africa are likely to be among the hardest hit by the impacts of climate change.

Carbon finance presents an opportunity to leverage and complement private sector investment and to access finance and technology for key sectors that have suffered from under-investment, such as energy, water, transportation, and sanitation. It likewise presents an opportunity to galvanize public-private partnerships, such as the CDCF, to enhance the livelihoods of poor communities. At the same time, Africa is promising territory for agricultural, forestry, bio-energy, and sustainable land management activities, to address the climate change agenda.

Key national, regional and international initiatives also recognize that carbon finance can help promote African development priorities. For example, the Environmental Action Plan of the New Partnership for Africa's Development (NEPAD) initiative² makes specific mention of the need to foster CDM projects. In addition to having an indirect impact on several Millennium Development Goals (MDGs), carbon finance projects could make important direct contributions to MDG #7, improving environmental sustainability.

2. United Nations Environment Programme Framework Action Plan for the Environment Initiative of the New Partnership for Africa's Development (NEPAD). UNEP/GEF/MSP/NEPAD/SC.3/2, 14-15.





The Market

While a number of buyers have expressed interest in doing business in Africa, finding quality investments—and related carbon assets—is challenging. Many perceive the risks of investing in Africa as being too high and the level of institutional preparedness too low. Some are less aware of the types of opportunities offered. At the same time, interest in non-recourse project finance investment has waned. As a result, the carbon market has largely bypassed potential transactions in Africa, particularly in the least developed countries. “Hands on” experience with the project cycle and emerging UNFCCC and domestic project approval procedures has been limited—a major handicap, since the experience gained through the first deal in a particular sector or country is unrivaled.

CDCF Approach to Carbon Finance Transactions in Africa

CDCF guidelines and criteria appear suitable for African countries, since they are oriented toward smaller-scale, CDM-eligible projects. Yet the commitment to bring additional projects in Africa to financial closure is hampered by the fact that many countries cannot borrow on capital markets. The strategic approach has therefore been to prioritize potential transactions that leverage World Bank operations and concessional lending.

CDCF opportunities are currently being identified in Ethiopia, Mozambique, Senegal, Uganda, and Zambia. These are mainly linked to World Bank operations in the energy, urban waste management, and rural development sectors. A good example is the Uganda Energy for Rural Transformation project, under which the Bank extended a \$49 million credit to support, promote and leverage resources for rural electrification. The Africa Energy team is working with the Uganda Rural Electrification Agency (REA) and the Private Sector Foundation (PSF) to help developers generate and supply electricity to rural customers on attractive terms, including screening for incremental carbon finance opportunities. One of the lessons learned through the Uganda project and other activities in the Africa region is that ingenuity and the blending of a variety of financial instruments is the only way to bring transactions to closure. Transparent criteria and rules that make project selection a rational, independent process is also critical.

Towards a New Partnership

A consensus has emerged that a special effort to ensure an equitable sharing of the benefits of carbon finance will be required in Africa. The effort—a partnership among African countries, regional and international organizations, donors, and civil society—would support “learning-by-doing” opportunities in up to a dozen Sub-Saharan African countries organized around specific transactions. The partnership aims to identify and build the capacity of effective intermediaries that can reduce transaction costs, and to increase dialogue among NGO, private sector and public sector stakeholders in devising policies, institutional frameworks, market access strategies, and CDM project portfolios. The partnership would also extend the cooperation forged through other programs, generating synergies while fostering knowledge sharing and best practice transfer.

The partnership would draw on a toolbox of different instruments. These each have relative advantages and suitability to assist countries at various stages of preparedness. The following are currently being employed in the Africa region to support carbon finance market development:

World Bank/UNEP CDCF Partnership Program

This partnership among the World Bank, United Nations Environment Programme (UNEP), and the UN Foundation will build the capacity of intermediaries, government agencies, and supporting institutions and will support local NGOs and entrepreneurs to appraise, develop, and transact CDM projects in Africa. One of the key outputs of this program is the development of quality Project Idea Notes and Carbon Finance Documents. The program is slated to run from the end of 2004 to the end of 2006. Coverage of activities will initially cover three countries, with likely expansion. The partnership builds upon the networks developed through the Africa Rural Energy Enterprise Development (A-REED) Program.

Japan Policy & Human Resources Development Fund/Climate Change Initiative (PHRD)

The Japan Policy and Human Resources Development (PHRD) Climate Change Initiative supports Bank clients to assess climate vulnerability, pilot greenhouse gas mitigation activities, and build capacity to integrate climate change considerations into sustainable development policy. The Africa Region is supporting the implementation of PHRD grants in Kenya, Uganda, Senegal, and South Africa, with additional programs under development. These support training, workshops, technical assistance, legal and policy advice, and other capacity building activities that improve the administration of carbon finance transactions, strengthen partnerships between the public and private sectors, improve upstream project preparation, and facilitate their marketing and investment promotion.

World Bank-Government of France Partnership

The Government of France, through its Agence Française de Développement/FFEM, has tentatively pledged €2 million to support the development of a new Africa-focused carbon finance partnership. The initiative is structured in two phases: a six-month preparation phase, followed by a five-year active implementation phase, with a core focus on facilitating CDM project development and the development of sub-regional and sector-specific feasibility studies. Although the entire region will benefit from the program, activities will primarily focus on a dozen countries; additionally, francophone countries will be given preference in assistance.

GEF Pilot Facility to Remove Barriers to Financing Sustainable Infrastructure in Africa

This GEF-supported program under development would establish a facility to defray the up-front costs of project preparation for sustainable infrastructure and climate mitigation projects, thereby generating synergies with carbon finance transactions. The facility would mitigate the risk borne by lenders and project sponsors, yet aim to be partially self-sustaining.





OLAVARRÍA, ARGENTINA: LANDFILL GAS RECOVERY PROJECT

The Project

The town of Olavarría, with a population of about 100,000, is located in the Province of Buenos Aires, 350 kilometers southwest of the capital city of Buenos Aires in Argentina. To dispose of the town's solid waste, its Municipality commissioned a sanitary landfill in 1999 and contracted a private concessionaire to operate and maintain it for 30 years. Five years later, to help improve overall solid waste management practices and to address the remaining environmental problems associated with waste disposal—such as odor and contamination of groundwater—the Municipality embarked on a new project to recover the gases emitted by the landfill. This new project aims to capture and destroy the landfill gases through flaring, and is only the second such project to be implemented in Argentina. An active collection system will be installed at the landfill that will consist of gas extraction wells, collection piping, mechanical blowers, landfill gas condensate and flare systems, as well as a monitoring and control system. The resulting reductions in landfill gas emissions will be monitored, verified, certified and sold as verified emission reductions to the Community Development Carbon Fund.

Clean Water for a Local Community

Part of the income from the sales of the verified emission reductions generated through the capture and flaring of methane, will be used by the Municipality of Olavarría to install a safe and reliable distribution system for potable water in the rural village of Espigas, 80 kilometers from Olavarría. Extensive consultations were held with the communities under the jurisdiction of the Municipality of Olavarría, as a result of which the distribution of potable water in Espigas was found to be the most pressing need,



The recent economic crisis, and particularly the peso depreciation, led to a sharp reduction in Argentina's gross domestic product per capita—from \$8,210 in 1998 to about \$2,700 in 2002. Thus whereas Argentina used to be the richest country in the Latin America region, it now ranks among the low/middle income countries.

Although Argentina's economy has stabilized, and production and employment are recovering from recent recession, 55 percent of the population is living in poverty. The number of extreme poor is twice the country's pre-crisis level.

with the highest impact on the well-being of the community. Right now, 80 percent of the 550 villagers use manual pumps to get water from shallow, contaminated wells, and only 20 percent can afford to pay the \$10 a month required to buy bottled water transported by truck from Olavarría. The only doctor serving the Espigas Hospital, Dr. José Nicanor Carlos Seclen (second from right), says *"The gastrointestinal diseases resulting from contaminated water are the biggest health problem facing the village population, affecting particularly the young and the elderly, even to the point of stunting the growth of young children."*



The new water distribution system will consist of two 60 meter deep wells, submersible electrical water pumps, two 50 cubic meter storage tanks, 4000 meters of pipe network to carry the water by gravity from the tank throughout the village, water monitoring equipment and a treatment plant. When completed in 2005, the system will serve 150 households, a kindergarten (34 children), an elementary school (125 students), a high school (119 students), a hospital with 40 beds, a social and sports club, and a cultural center. Residents will pay a monthly user fee of about \$2.50.

In addition to the water distribution network, the project will also support a pilot solar water heating system. Solar water heating equipment will be installed at the elementary school and one of the high schools to provide hot water for the students and teachers. This high school includes a dormitory where students from the surrounding rural areas reside.



Additional Economic Benefits of the Olavarría Project

As well as addressing health issues and local as well as global environmental problems, the project will deliver economic benefits to the local community through the creation of new jobs during the construction, operation and maintenance stages of the landfill gas recovery plant. It will also be possible to use the captured landfill gas, which is a renewable energy resource, in future economic enterprises such as the generation of electricity or direct utilization of the gas in industry or for heating. Perhaps the most important additional benefit of this project is its demonstration effect, with effective solid waste management practices replicated in other towns in Argentina.

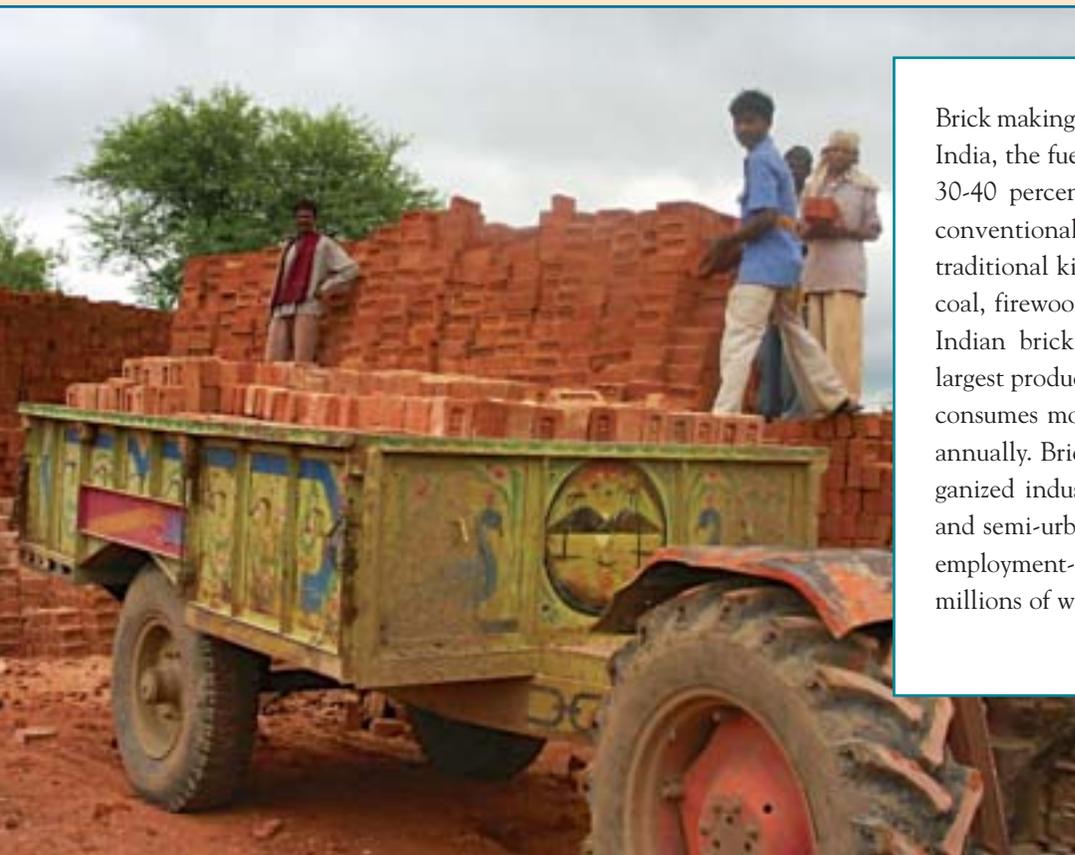


CONSTRUCTION SECTOR PROJECTS IN INDIA: REPLACING TRADITIONAL CLAY BRICK KILNS WITH ADVANCED TECHNOLOGIES

Housing is one of the key issues in a rapidly growing and urbanizing India. Efforts are being made by both the public and private sectors to supply adequate shelter for the population. The challenge is to provide higher quality housing using construction materials that can be produced in a socially, environmentally and economically sustainable way.

In India, clay bricks have been extensively used for centuries and are the predominant construction material even today. Current demand is over 100 billion bricks a year. The suppliers range from industrialized modern manufacturers to old-fashioned small-scale operators. Many of them earn a living from the same activity as their ancestors, and have limited opportunity to improve their productivity or standard of living. Workers in the clay brick industry in India are not well organized and live in poor conditions with little support to improve their lives.

Carbon finance through the CDCF may help to change all that. Two CDCF projects will promote technologies that may help revolutionize the building industry, one which utilizes a more environmentally sound kiln, and the other which replaces clay brick with fly ash bricks for construction.



Brick making is an energy intensive process. In India, the fuel costs alone account for almost 30-40 percent of the production cost. The conventional practice of firing clay bricks in traditional kilns consumes large quantities of coal, firewood, and other biomass fuels. The Indian brick industry which is the second largest producer in the world, next to China, consumes more than 24 million tons of coal annually. Brick making is a traditional, unorganized industry, generally confined to rural and semi-urban areas. It is one of the largest employment-generating industries, employing millions of workers.

VSBK: VERTICAL SHAFT BRICK KILN CLUSTER PROJECT

Using traditional kilns to manufacture bricks results in adverse impacts on the environment. The coal burned in the kilns causes pollutants like suspended particulate matter, nitrous oxide and sulfur dioxide. In addition, the baking process consumes energy in an inefficient manner, causing carbon dioxide and nitrous oxide emissions from the sites.

This project will utilize a vertical shaft brick kiln (VSBK), which is an ideal alternative kiln for clay brick producers. The VSBK technology, which was introduced into India from China by the project sponsor, was adapted to suit Indian conditions and environmental regulations and is a viable alternative for small-scale brick manufacturing in developing countries. The process involves an efficient high-energy method of firing bricks, with energy savings of more than 50 percent compared to traditional brick firing methods. The VSBK process will also reduce carbon dioxide emissions by about 36,000 tons a year from 100 operations sites in Madhya Pradesh and other states.

The VSBK technology offers advantages in terms of short firing cycles, incorporation of internal fuel, energy savings and uniform quality of fired bricks. Further and higher savings of energy and improved environmental performance may be possible through training the brick workers, fire masters and brick entrepreneurs. In addition, experience with a number of commercial VSBK kilns, which have been running for the last few years, shows that the more productive the operation becomes, the bigger the improvement in both working conditions and quality of life of the workers.

Carbon Finance Gives the Edge to the Technology

In spite of its advantages, introducing VSBK is not an easy task. The brick industry is a decentralized production activity. Most of the processes involved in brick-making employ low technology levels and archaic techniques. Small kiln owners tend to be risk adverse and reluctant to make the initial investment in a new technology, such as VSBK.



Carbon finance helps the kiln operators to get past the barrier—additional revenue streams from greenhouse gas emission reductions lowers the hurdles of initial investment. The project sponsor, Technology and Action for Rural Advancement (TARA), will act as a “single service window” to support entrepreneurs in responding to the needs of the entire brick producing community. Skilled and stable work opportunities will be created at cleaner production sites, becoming an initial step to improve the clay brick industry.



Community Benefits from VSBK

Besides the environmental benefits, the VSBK technology means the possibility of year-round employment for the workers, as it is not affected by the monsoon-rains, as are the traditional kilns. In addition, Development Alternatives, an Indian NGO, intends to organize self-help groups among the workers and their families and to contribute a portion of the carbon revenue to these groups. This will be in addition to what the group members themselves contribute, and these funds will be available to use to undertake small-scale projects such as drinking water wells and improved cooking stoves.

One such group that the project will contribute to consists of the wives of traditional bricklayers. They have created a self-help group that saves money and lends it to each other for their personal needs. The women also raise money for their lending scheme by making and selling food snacks and incense sticks (as seen in the photo).



FAL-G BRICK AND BLOCK: MICRO INDUSTRIAL PLANTS

The manufacture of clay bricks in the traditional way results in heavy environmental damage. Clay-brick manufacturing using typical kilns is also very energy intensive—200 tons of coal is used in sintering every one million bricks. The government of India has already committed to banning clay bricks in urban centers; however, without a technological solution that is economical for traditional brick producers, it is difficult to enforce the commitment and replace common practice in the sector.

The FaL-G project aims to replace burnt clay brick with fly ash brick in the construction sector. Fly ash, the key ingredient of FaL-G technology, is a byproduct from coal power plants and abundantly available in India. Fly ash is mixed with two other ingredients: lime, which is a byproduct of the acetylene industry and gypsum from chemical plants. This blending recipe is a revolutionary invention, as this technology does not require a sintering process in brick production. Hence in order to get the strength of the FaL-G bricks, no energy is required and consequently no greenhouse gases are emitted.

Many government departments, including the Central Public Works Department (CPWD) and state housing agencies, use FaL-G bricks. Today, even with more than 1,200 FaL-G brick making units operating in Andhra Pradesh and other states throughout India, brick production from FaL-G operators is still a small fraction compared to that of clay brick producers—2 million FaL-G bricks a year versus a hundred billion clay bricks a year.

With the help of carbon financing from the CDCF, the FaL-G project will bundle about 200 very small sector units and replace clay bricks with FaL-G brick production, with expected carbon emission reductions of 100,000 tons per year. Creating stable job opportunities is another feature of this project. In the case of clay brick operations, rain will damage the unbaked brick, before the sintering process, so production is halted during the rainy season. FaL-G technology, on the other hand, is not affected by rain, ensuring year round work. The use of industrial by-products, avoidance of energy use, conservation of natural resources and stabilized employment opportunity are important factors in achieving sustainable development. CDCF will help support these activities through this project.



GUYANA: THE SKELDON SUGAR MODERNIZATION PROJECT

The Skeldon Sugar Modernization Project (SSMP) is located in the Berbice region of Guyana. The colony of Berbice was settled by the Dutch in 1752, and was officially ceded to the United Kingdom in 1814 (later becoming part of what was known as British Guiana). Following the abolition of slavery in 1834, thousands of indentured laborers were brought to Guyana to replace the slaves on the sugarcane plantations, mainly from India but also from Portugal and China. The descendants of these workers continue to live and work in the Berbice region, and will be primary beneficiaries of a more stable electricity supply and the additional employment provided by this CDCF-supported project: the first Carbon Finance Business project using bagasse as fuel to produce electrical power for internal needs, and for sale to the national grid in the process known as co-generation.

Fortunately, Guyana's unique climate enables a two-season sugar cane harvesting cycle, allowing bagasse to be fed into a cogeneration facility year round. As a result, there is a constant flow of electricity to the grid, which also provides a stable revenue stream to the troubled sugar industry.



The modern sugar factory to be constructed on the Skeldon Sugar Estate will produce Very High Pol (VHP) raw sugar (high quality raw sugar that is in great demand on the international market); the bagasse will be used to generate an average of 10 megawatts of electricity delivering approximately 77 gigawatt hours a year, to start. If the supply of sugar cane and bagasse grows, and if the demand for electricity rises, then more electric power could be produced as needed. The proposed project will

Bagasse: from Refuse to Fuel

Bagasse is the matted cellulose fiber residue from sugar cane that has been processed in a sugar mill. Previously, bagasse was seen as garbage and burned as solid waste. However as the cost of fuel oil, natural gas and electricity has increased, bagasse has come to be regarded as a fuel, rather than as refuse.

Situated on the northern coast of South America, Guyana is the only English-speaking country on the continent. With an area about the size of the United Kingdom and a population of less than one million, Guyana is sparsely populated. Around 90 percent of the population lives along the coastal belt. The interior of the country contains pristine tropical forests and extensive mineral deposits. The incidence of poverty, at 35 percent of the population, is among the highest in the Western Hemisphere. Most of the rural poor are self-employed in agriculture or work as manual laborers. Sugar is the most important primary product in Guyana's traditional sector (including rice, bauxite, gold and timber). It contributes 16 percent of the country's gross domestic product and 23 percent of export earnings. The sugar industry is the biggest corporate contributor to public revenue; it also directly employs 25,000 people or about 10 percent of Guyana's labor force.

displace the use of light fuel oil and heavy fuel oil in diesel engine driven generators operated by Guyana Power and Light Company. The CDCF intends to purchase emission reductions of 500,000 tons of carbon dioxide equivalent over a ten-year period.

This project will benefit the local community in numerous ways:

- **Improvement in power supply.** Currently there are 5,000 to 10,000 people in the region without access to electricity. In addition to providing access for these consumers, the local commercial and industrial sectors will benefit from the more reliable power supply.
- **Increased employment opportunities for three groups.** These include farmers that grow and supply sugar cane externally, workers that work in the expanded company-owned plantation, and business-related suppliers and vendors. The existing sugar cane area will be expanded and cane supply will come from the existing estate (expanded from 4,800 to 9,300 hectares) and from private farmers' holdings (expanded from 300 to 4,165 hectares) who will cultivate cane exclusively for sale to Guyana Sugar Corporation (GUYSUCO), the project sponsor.

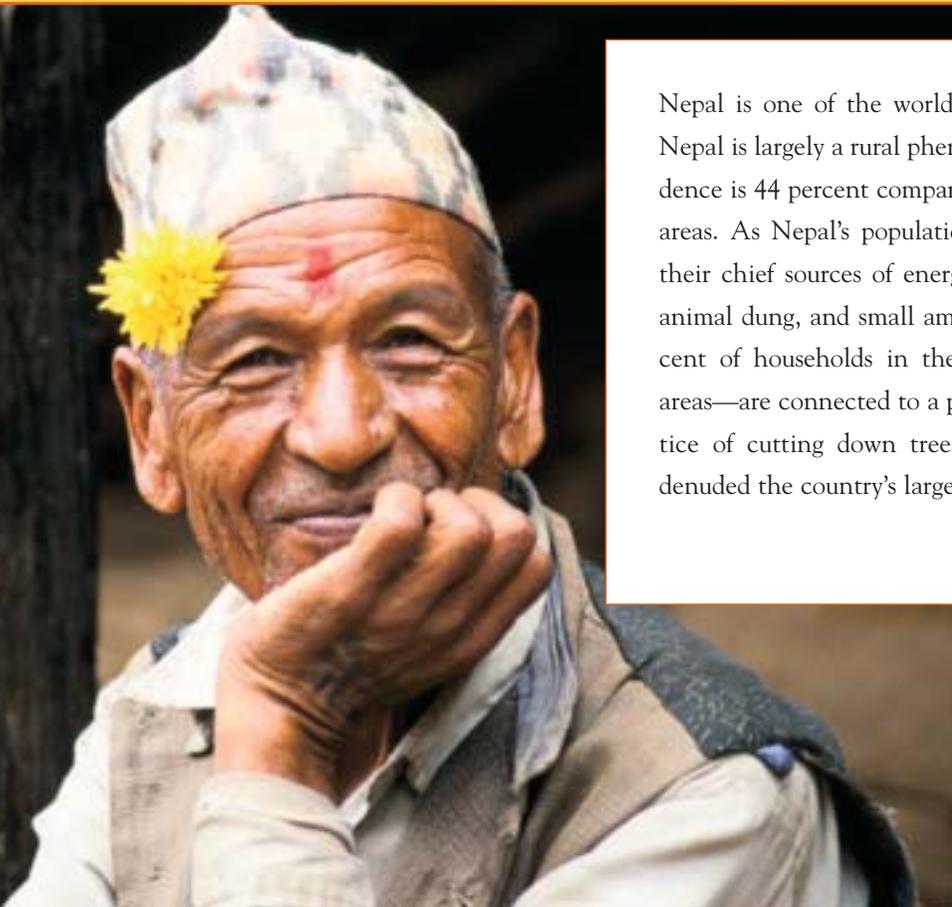




NEPAL: BIOGAS PROJECT

Nepal is a small land-locked country with a population of 23 million people, more than 90 percent of whom live in rural areas, and rely on agriculture for their livelihoods. Nepal is one of the world's very low-income countries—in 2004 per-capita income was \$240. Only 10 percent of households are connected to the power grid, and per-capita energy consumption is low. In rural areas, most energy used comes from traditional fuel sources such as fuel wood and animal dung. The dependence on fuel wood has contributed greatly to deforestation, resulting in a scarcity of fuel wood. Fossil fuels such as kerosene are expensive for many rural people. The villagers, in particular women, often spend hours collecting fuel wood simply to cook a proper meal each day.

The Biogas Project aims to promote biogas use as a commercially viable, market-oriented industry in Nepal by bringing clean renewable energy for cooking and lighting to rural households. Between 2004 and 2009, the project will install 162,000 quality-controlled, small-sized biogas plants in the Terai, Hill and Mountain regions of Nepal. The estimated useful life of a biogas plant is 20-years and its rate of successful operation has been 97 percent.



Nepal is one of the world's poorest countries. Poverty in Nepal is largely a rural phenomenon: the rural poverty incidence is 44 percent compared to about 23 percent in urban areas. As Nepal's population largely relies on agriculture, their chief sources of energy are fuel wood, crop residues, animal dung, and small amounts of charcoal. Only 10 percent of households in the country—almost all in urban areas—are connected to a power grid. The traditional practice of cutting down trees without replanting them has denuded the country's large forest resource base.

The provision of a subsidy has been a key element in making these biogas plants accessible to poor households. With subsidy funding and management support from the Alternative Energy Promotion Center, His Majesty's Government of Nepal, the German Government/Kreditanstalt für Wiederaufbau (KfW) and the Netherlands Development Organization, the Biogas Support Program has been able to implement the biogas program with rigorous quality control. The carbon finance revenue from the CDCF will reduce the dependence on large government and external donor subsidies, and help expand the biogas installations to more remote and poorer areas of Nepal.



These biogas plants displace the fuel sources traditionally used for cooking—fuel wood, kerosene, and agricultural waste—and introduce a proper treatment of animal and human waste as well as producing a high quality organic fertilizer. Each biogas plant can reduce 4.6 tons of carbon dioxide equivalent annually. The project will generate approximately 5.3 million tons of emission reductions during the crediting period of 10 years, with delivery starting in 2005. The CDCF expects to purchase a minimum of one million tons of carbon dioxide equivalent emission reductions, with the potential of additional purchases.

The technology is indigenous, simple, and reliable. A major household benefit is the reduction in time and energy spent by women and children to collect fuel wood for cooking. Now, village women have more time to engage in other income generating and social activities. As a result of reduced fuel wood consumption, the nearby forests will be conserved too. With the attachment of latrines to biogas plants, rural households will have better sanitation. Potential employment will add more than 15,000 people-years for skilled people in the construction, maintenance, marketing and financing of biogas plants. The use of biogas means negligible smoke, hence better family health. Moreover, the residual biological slurry from the biogas plants can be used as superior organic fertilizers to enhance agricultural yields. In many households, the biogas is also used to provide indoor lighting, replacing kerosene lamps.



“The new stove is cleaner, faster and more reliable. Before, smoke used to irritate my eyes, and nose and lungs, and I had less energy. Now I don’t have any of these problems. Before I used to spend three hours preparing a meal. With the new stove I spend half that time. Now I can use that extra time to do other things at home.”

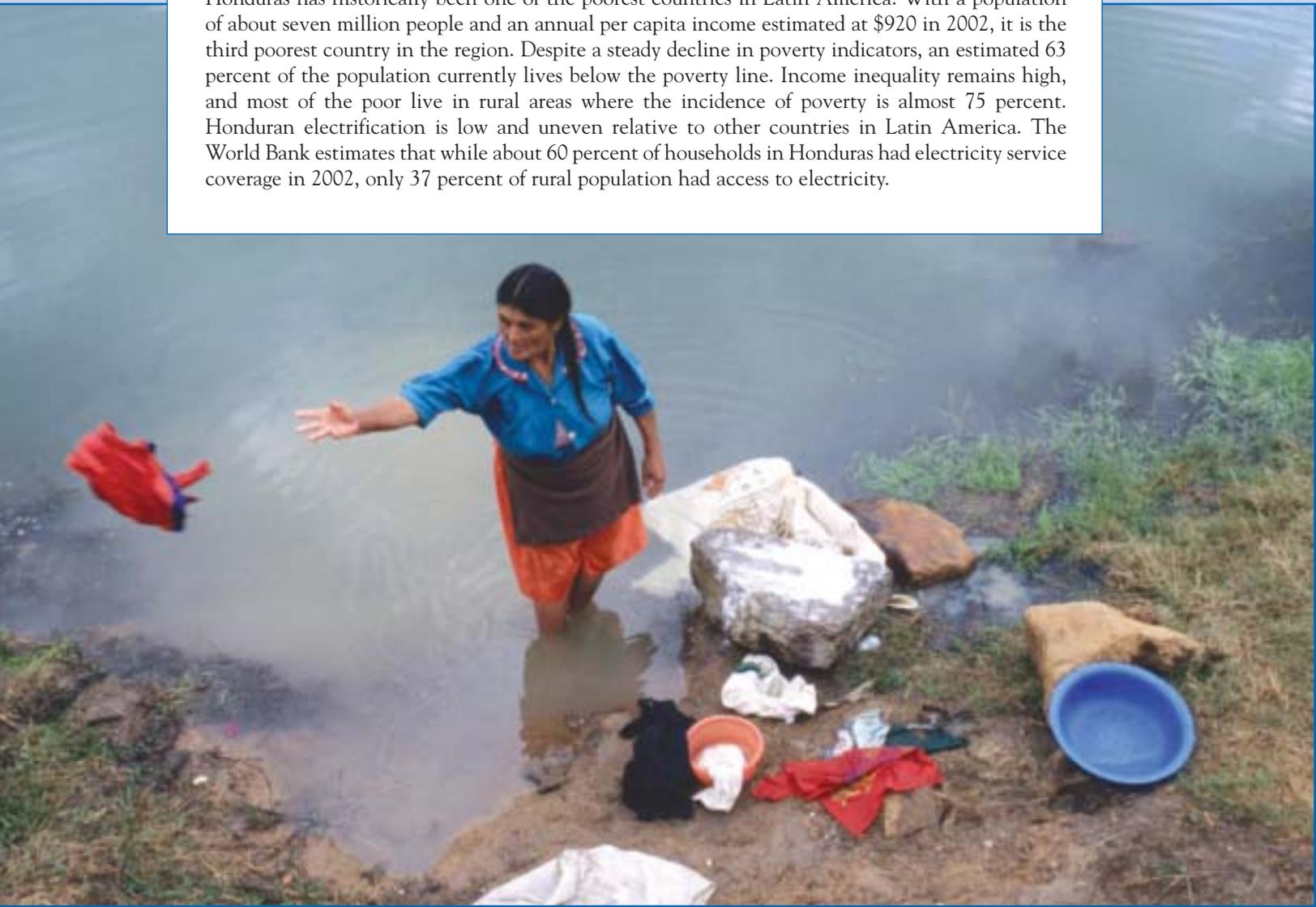
—Punyadumari Sanjel, age 70



HONDURAS: LA ESPERANZA HYDROPOWER PROJECT

The implementation of the La Esperanza hydropower project in a remote and mountainous rural area of Honduras will lead to great changes in the surrounding communities. The electric power generated by this 12.7 megawatt daily containment/ run-of-river hydro project will for the first time guarantee a reliable and steady supply of electricity to the town of La Esperanza and many of the surrounding communities, totaling about 40,000 people. The old abandoned hydro plant site has been recovered, the first stage of the project has been constructed, and all of the new generation capacity will be in place by the end of 2005.

Honduras has historically been one of the poorest countries in Latin America. With a population of about seven million people and an annual per capita income estimated at \$920 in 2002, it is the third poorest country in the region. Despite a steady decline in poverty indicators, an estimated 63 percent of the population currently lives below the poverty line. Income inequality remains high, and most of the poor live in rural areas where the incidence of poverty is almost 75 percent. Honduran electrification is low and uneven relative to other countries in Latin America. The World Bank estimates that while about 60 percent of households in Honduras had electricity service coverage in 2002, only 37 percent of rural population had access to electricity.



“The job that CISA has given me, has benefited me a lot, because at my age of 65 years old, there are few opportunities for me to work. I have been an employee for two years. In that time I was able to finish the construction of my house, I began the construction of another small house for one of my sons and for the first time in my life I could open a savings accounts in the bank.”
—Mr. Justino Mejia, Environment Employee CISA; resident of Santa Anita

Added Community Benefits

Thanks to the project, small businesses are finally able to install three phase motors and other machinery that would have previously burned out due to voltage variation or would have been a useless investment given the lack of reliable electricity supply. The new situation is expected to lead to important new economic activity in La Esperanza. Other important benefits will also flow from the project. A nearby community with about 250 inhabitants, currently without electricity, will be electrified by the project company Consorcio de Inversiones S.A. (CISA). CISA will also invest in another electrification project for a community of about 450 people and help other communities to apply for funding to design and implement additional electrification projects. In its construction phase, La Esperanza has provided badly needed employment and on-the-job skills training to the people of the surrounding communities, and will continue to permanently employ 20-30 local people, providing them and their families a much-improved standard of living. Local communities are very supportive of the project and eight of them have signed a cooperation agreement with CISA to plant about 25,000 seedlings a year and gradually reforest degraded watershed areas around the site. All these benefits will be monitored as part of the agreement between CISA and the CDCF.



The project and its many benefits are supported by the income from the sale of 310,000 tons of carbon dioxide emission reductions to the CDCF. Additional sales are expected from a total of 720,000 tons of carbon dioxide equivalent emission reductions generated by the project during the 21 year CDM crediting period.

Esla Vasquez is a 38 year-old member of the community of Santa Anita who can now make a living by selling food to CISA's employees. With the regular income she has from the food she provides to company workers, and the money and time she will save when she has electricity in her house, Elsa can now dare to dream of growing her business:

“I consider that having electricity in our home will save us lots of money. Right now I spend 80 Lempiras a month buying candles and 360 Lempiras to buy firewood for cooking; also I will benefit because I could start a small business—a grocery store.”

—Mrs. Esla Vasquez, Rural Electrification Beneficiary,
Community of Santa Anita

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PHOTO GALLERY



FINANCIAL STATEMENT

INDEPENDENT AUDITORS' REPORT



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INDEPENDENT AUDITORS' REPORT

To: International Bank for Reconstruction and Development as
Administrator for the Community Development Carbon Fund

We have audited the accompanying statement of cash receipts, disbursements and fund balance of the Community Development Carbon Fund as of June 30, 2004 and for the period from March 25, 2003 (date of inception) to June 30, 2004. This financial statement is the responsibility of the Trust Fund administrator's management. Our responsibility is to express an opinion on this financial statement based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and International Standards on Auditing. Those standards require that we plan and perform our audit to obtain reasonable assurance about whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As described in Note 2 to the financial statement, this financial statement was prepared on the cash receipts and disbursements basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America. This financial statement is not intended to be a presentation in conformity with accounting principles generally accepted in the United States of America or International Financial Reporting Standards.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the fund balance of Community Development Carbon Fund, at June 30, 2004 and its cash receipts and disbursements for the period from May 25, 2003 (date of inception) to June 30, 2004 on the basis of accounting described in Note 2 to the financial statement.

Deloitte & Touche LLP

September 25, 2004

Member of
Deloitte Touche Tohmatsu

FINANCIAL STATEMENT

STATEMENT OF CASH RECEIPTS, DISBURSEMENTS AND FUND BALANCE

Expressed in U.S. dollars

**March 25, 2003
(inception) to
June 30, 2004**

Receipts

Contributions	
Public Sector Participants (Note 1)	\$ 2,295,545
Private Sector Participants (Note 1)	2,060,112
Total contributions	<u>4,355,657</u>
Investment income (Note 2)	14,532
Total receipts	<u>4,370,189</u>

Disbursements

Reimbursements to Trustee for development costs (Notes 2 and 3)	1,000,000
Project preparation costs (Note 2)	662,535
Administration expenses (Note 2)	906,204
Total disbursements	<u>2,568,739</u>

Excess of receipts over disbursements 1,801,450

Fund balance, beginning of period —

Fund balance, end of period **\$ 1,801,450**

Fund balance consists of:
 Cash and investments \$ 1,801,450

The accompanying notes are an integral part of this financial statement.

Notes to Financial Statement June 30, 2004

Note 1 - Organization and Operations:

The Community Development Carbon Fund (the Fund) was established on March 25, 2003 by the International Bank for Reconstruction and Development (IBRD) as a mechanism to provide resources to projects which are intended to deliver measurable benefits to communities and their local environments as well as to generate greenhouse gas emission reductions likely to be recognized under the United Nations Framework Convention on Climate Change and its Kyoto Protocol. The Fund is administered by the IBRD as Trustee. The strategic objectives of the Fund are: (1) to provide funding through emission reduction (ER) transactions in order

to facilitate the generation of greenhouse gas (GHG) emission reductions from small-scale projects which reduce poverty and improve the quality of life of local communities in developing countries including in particular least developed countries, (2) to stimulate private capital flows for sustainable development, in accordance with the Plan of Implementation concluded at the World Summit on Sustainable Development in Johannesburg and (3) to disseminate broadly the knowledge gained by the Trustee in the development of the Fund and the implementation of projects.

Participants purchase an interest in the Fund by signing agreements (Participation Agreements). As of June 30, 2004, four Public Sector Participants and eight Private Sector Participants had purchased an interest in the Fund by signing Participation Agreements with a total commitment of US\$39.5 million. Participants provide their contributions either through the delivery of an unconditional promissory note made payable to the Trustee upon demand, or through advance payments to a separate holding trust fund account managed by IBRD as Trustee. As of June 30, 2004, Participants' commitments and cash contributions paid by Participants to the Fund are as follows:

FINANCIAL STATEMENT

Note 1 - Organization and Operations (continued)

Expressed in U.S. dollars

Public Sector Participants	Participants' commitment as of June 30, 2004	Amounts paid to the Fund as of June 30, 2004
Austria	\$ 5,000,000	\$ 588,608
Canada	2,500,000 ¹	294,304 ²
Italy	7,000,000 ¹	824,051 ²
Netherlands	5,000,000	588,582
Total Public Sector Participants	\$ 19,500,000	\$ 2,295,545
Private Sector Participants	Participants' commitment as of June 30, 2004	Amounts paid to the Fund as of June 30, 2004
BASF Aktiengesellschaft	\$ 2,500,000	\$ 294,304
Daiwa Securities SMBC Principal Investment Co., Ltd.	2,500,000	294,304
Endesa, S.A.	2,500,000	294,304
Idemitsu Kosan Co., Ltd.	2,500,000	294,288
KfW	2,500,000	-
Nippon Oil Corporation	2,500,000	294,304
Okinawa Electric Power Company, Inc.	2,500,000	294,304
Swiss Reinsurance Company	2,500,000	294,304
Total Private Sector Participants	\$ 20,000,000	\$ 2,060,112
Total all Participants	\$ 39,500,000	\$ 4,355,657

1. These amounts were fully contributed through advance payments to a separate holding trust fund account.

2. These amounts were transferred from a holding trust fund account to the Fund.

Note 2 - Summary of Significant Accounting and Related Policies:

Basis of Accounting - The accompanying financial statement has been prepared on the cash receipts and disbursements basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles. Under the cash receipts and disbursements basis of accounting, receipts are recorded when collected rather than when pledged, and disbursements are recorded when paid rather than when incurred. Transactions recorded in periods subsequent to the reporting period, including reimbursement of disbursements deemed by management not to be eligible in accordance with the relevant trust fund agreements, whether these transactions relate to the reporting period or to prior periods, are reported in the Statement of Cash Receipts, Disbursements and Fund Balance in the period the cash transaction occurs.

Investment Income

IBRD invests and reinvests the funds pending their disbursement. Investment income is credited to, and used exclusively for the purposes of, the Fund.

Project Disbursements

Project disbursements paid by the Trustee in currencies other than the reporting currency are translated at the rates of exchange on the transaction dates. Transaction gains or losses, if any, are borne by the Trustee.

Reimbursements to Trustee for development costs

The Fund will reimburse the Trustee for all costs and expenses incurred by IBRD prior to the closing date, the last date on which the Trustee will receive Participation Agreements, in relation to the development of the Fund.

Project preparation costs

The Fund reimburses the Trustee for all costs and expenses during each project's preparation, including the appraisal, selection and supervision of projects.

Administration expenses

The Fund reimburses the Trustee for all costs and expenses incurred in the administration of the Fund.

Note 3 - Reimbursements to Trustee for Development Costs:

The total amount of development costs is US\$1,216,651. The remaining balance of US\$216,651 will be reimbursed by the Fund to Trustee in two installments over the next two fiscal years.

Note 4 - Project Disbursements:

For the period from inception to June 30, 2004, no project disbursements were paid by the Fund.

GLOSSARY

Activities Implemented Jointly:

The Activities Implemented Jointly program was established by the Parties to the UNFCCC to promote investment in project activities that sequester, mitigate, or avoid greenhouse gas emissions and that are implemented jointly among Annex I Parties or between Annex I and non-Annex I Parties. The program ended in 2002.

Additionality:

According to the Kyoto Protocol, greenhouse gas emission reductions generated by CDM and JI project activities must be additional to those that otherwise would occur. Additionality is established when there is a positive difference between the emissions that occur in the baseline scenario, and the emissions that occur in the proposed project.

Advisory Group:

The committee of experts established by the trustee to provide advice to the trustee on the implementation of the fund, the effectiveness of each tranche, the procedures for verifying and certifying local community benefits, proposed budgets and business plans, project selection and portfolio criteria and community development objectives.

Afforestation:

The process of establishing and growing forests on bare or cultivated land, which had not been forested in recent history.

Annex I Countries:

The countries listed in Annex I of the UNFCCC and, when appropriate, in Annex B of the Kyoto Protocol.

Assigned Amount Units:

The quota of Annex I Parties' permissible emissions under the Kyoto Protocol.

Baseline:

The emission of greenhouse gases that would occur without the contemplated policy intervention or project activity.

Carbon Asset:

The potential of greenhouse gas emission reductions that a project is able to generate and sell.

Carbon Finance:

Resources provided to projects generating (or expected to generate) greenhouse gas (or carbon) emission reductions in the form of the purchase of such emission reductions.

Carbon Dioxide Equivalent:

The universal unit of measurement used to indicate the global warming potential of each of the six greenhouse gases. Carbon dioxide—a naturally occurring gas that is a byproduct of burning fossil fuels and biomass, land-use changes, and other industrial processes—is the reference gas against which the other greenhouse gases are measured.

CDCFplus:

The CDCF technical assistance and capacity building facility which aims to mobilize donor resources from governments, foundations and corporations to build local capacity to develop the necessary infrastructure to prepare projects.

Certification:

In relation to:

(a) Emission reductions – is the written assurance by an independent third party or Operational Entity that, during a specific time period, a project achieved the reductions in emissions by sources or the removal of greenhouse gases by sinks as certified.

(b) Local community benefits – is the written assurance by an independent third party or Operational Entity that the local community benefits identified in the project agreement were achieved.

Certified Emission Reductions:

A unit of greenhouse gas emission reductions issued pursuant to the Clean Development Mechanism of the Kyoto Protocol, and measured in metric tons of carbon dioxide equivalent.

CF-Assist:

The World Bank's technical assistance program for carbon finance. This program will provide the umbrella ensuring coordination among the various technical assistance initiatives of the World Bank in the area of carbon finance.

Clean Development Mechanism:

The mechanism provided by Article 12 of the Kyoto Protocol, designed to assist developing countries in achieving sustainable development by permitting industrialized countries to finance projects for reducing greenhouse gas emissions in developing countries and receive credit for doing so.

Clean Development Mechanism Executive Board:

The committee established pursuant to the UNFCCC to supervise and monitor the implementation of Article 12 of the Kyoto Protocol.

Conference of Parties:

The meeting of parties to the United Nations Framework Convention on Climate Change.

Emission Reductions:

The measurable reduction of release of greenhouse gases into the atmosphere from a specified activity or over a specified area, and a specified period of time.

Emission Reductions Purchase Agreement:

Agreement which governs the purchase and sale of emission reductions.

Fund Management Unit:

Unit headed by the CDCF fund manager. It is responsible for the day-to-day operations of the fund.

Fund Manager:

The World Bank staff member selected by the President of the World Bank to head the Carbon Finance Business.

Greenhouse Gases:

These are the gases that are responsible for climate change and global warming. The six gases listed in Annex A of the Kyoto Protocol are carbon dioxide, methane, and nitrous oxide, as well as hydrofluoro-carbons, perfluorocarbons, and sulfur hexafluoride.

High Quality Emission Reductions:

Emission reductions of a sufficient quality so that, in the opinion of the World Bank, at the time a project is selected and designed, there will be a strong likelihood, to the extent it can be assessed, that CDCF participants may be able to apply their share of emission reductions for the purpose of satisfying the requirements of the UNFCCC, relevant to international agreements, or applicable national legislation.

Host Country:

The country where an emission reductions project is physically located.

Host Country Committee:

The committee known as the Carbon Finance Host Country Committee established by the World Bank for the purpose of facilitating interaction between the host countries and the Bank in relation to the development and operation of CDM projects.

Joint Implementation:

Mechanism provided by Article 6 of the Kyoto Protocol, whereby a country included in Annex I of the UNFCCC and the Kyoto Protocol may acquire emission reduction units when it helps to finance projects that reduce net emissions in another industrialized country (including countries with economies in transition).

Kyoto Protocol:

Adopted at the 3rd Conference of the Parties to the United Nations Convention on Climate Change held in Kyoto, Japan in December 1997, the Kyoto Protocol commits industrialized country signatories to reduce their greenhouse gas emissions by an average of 5.2 percent compared with 1990 emissions, in the period 2008-2012. In other words, annual Annex I emissions must be, on average, 950 million metric tons of carbon dioxide equivalent lower than 1990 emissions during the period 2008-2012.

Least Developed Countries:

For the purpose of the fund, least developed countries are defined as countries listed in the World Bank's International Development Association (IDA) list of countries, countries commonly referred to as "IDA blend," with a population of less than 75 million; or, countries designated as least developed countries by the United Nations.

Local Community Benefits:

Local community benefits means identifiable and quantifiable improvements in the quality of life of a local group of people who are identified by the trustee and the project entity as in the vicinity of, or affected by a CDCF project.

Marrakesh Accords:

The set of rules agreed to by the Parties to the UNFCCC at the occasion of their 7th Session, which provides additional implementation guidelines for the CDM.

Monitoring Plan:

A set of requirements for monitoring and verification of emission reductions achieved by a project.

Operational Entity:

An independent entity, accredited by the CDM Executive Board, which validates CDM project activities, and verifies and certifies emission reductions generated by such projects.

Participants:

Contributors to the CDCF.

Participants' Committee:

A committee established by the trustee for a tranche with membership and role as defined in the CDCF Instrument.

Project Concept Note:

A brief description of a project prepared by the project proponent entity or intermediary.

Project Design Document:

A project-specific document required under the CDM rules which would enable the Operational Entity to determine whether the project (i) has been approved by the parties involved in a project, (ii) would result in reductions of greenhouse gas emissions that are additional, (iii) has an appropriate baseline and monitoring plan.

Project Idea Note:

A note prepared by a project proponent regarding a project proposed for CDCF. The Project Idea Note is set forth in a format provided by the CDCF.

Reforestation:

This process increases the capacity of the land to sequester carbon by replanting forest biomass in areas where forests have been previously harvested.

Registration:

The formal acceptance by the CDM Executive Board of a validated project as a CDM project activity.

Small-Scale Projects:

Projects which are compatible with the definition of "Small-Scale CDM Project activities" set out in decision 17/CP.7. of the Conference of Parties to the UNFCCC.

Tranche:

Means a tranche of the CDCF into which participants pay their contributions, with the first tranche representing contributions received by participants between the first opening date and the first closing date.

Trustee:

The World Bank, acting not in its individual or personal capacity but solely in its capacity as trustee of the fund.

United Nations Framework Convention on Climate Change:

The international legal framework adopted in June 1992 at the Rio Earth Summit to address climate change. It commits the Parties to the UNFCCC to stabilize human-induced greenhouse gas emissions at levels that would prevent dangerous manmade interference with the climate system. In December 1997, the Parties to the UNFCCC adopted the Kyoto Protocol.

Validation:

The assessment of a project's Project Design Document, which describes its design, including its baseline and monitoring plan, by an independent third party, before the implementation of the project against the requirements of the CDM.

Verification:

The periodic independent review and ex post determination by an independent third party of:

(a) the monitored emission reductions that have occurred as a result of a registered CDM project activity during the verification period; and/or

(b) the local community benefits that have accrued during the relevant verification period.

Verification Report:

A report prepared by an Operational Entity, or by another independent third party, pursuant to a verification, which reports the findings of the verification process, including the amount of reductions in emission of greenhouse gases that were generated.

LIST OF ACRONYMS

BASF	Badische Anilin & Soda Fabrik	FMU	Fund Management Unit
BioCF	BioCarbon Fund	FONAM	Fondo Nacional del Ambiente
CABEL	Central American Bank for Economic Integration	GEF	Global Environment Facility
CDCF	Community Development Carbon Fund	GHG	Greenhouse gases
CDM	Clean Development Mechanism	HFC ₂₃	Trifluoromethane
CF-Assist	Carbon Finance Assist Program	IBRD	International Bank for Reconstruction and Development
CFB	Carbon Finance Business	IDA	International Development Association
CFD	Carbon Finance Document	IETA	International Emissions Trading Association
COP	Conference of the Parties to the UNFCCC	JI	Joint Implementation
DSPI	Daiwa Securities SMBC Principal Investments Co. Ltd.	KFW	Kreditanstalt fuer Wiederaufbau
ER	Emission Reduction	KPC	Kommunalkredit Public Consulting
ERPA	Emission Reduction Purchase Agreement	LNG	Liquefied natural gas
EU	European Union	MDG	Millennium Development Goal
EU-ETS	European Union's Emission Trading Scheme	MtCO _{2e}	Metric tons of carbon dioxide equivalent
FaL-G	Fly ash-lime-gypsum	NCDMF	Netherlands Clean Development Mechanism Facility