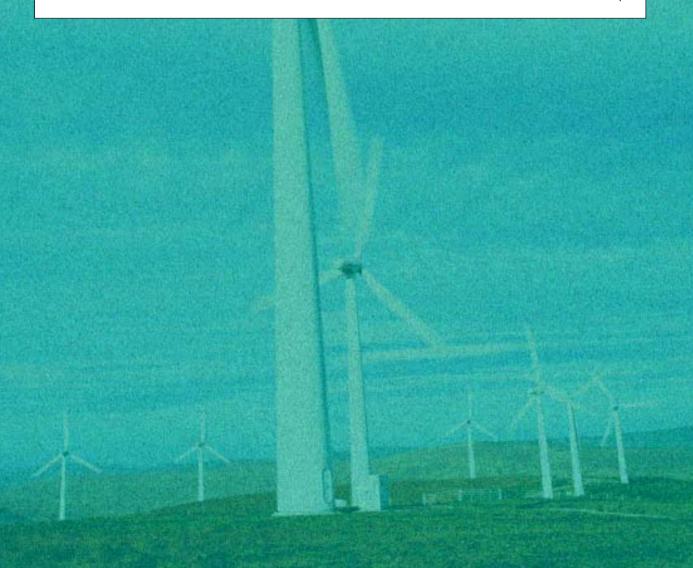




CARBON
FINANCE
at the
WORLD
BANK

"Continued global warming is in nobody's interest, but the simple facts of the matter are that developing countries will suffer the most damage, and their poor will be at an even greater disadvantage. I see the Bank's role in climate change as providing every opportunity to developing countries to benefit from the huge investment the OECD must make in reducing climate change."

James D. Wolfensohn, President, The World Bank Group





Dealing with the Threat of Climate Change

Committed to Reduce Carbon

The World Bank's carbon finance initiatives described in this pamphlet are part of a larger global effort to combat climate change. Many countries, states, cities, local governments, and responsible companies have taken action to reduce carbon emissions.

At the international level, the Kyoto Protocol, which was adopted under the UN Framework Convention on Climate Change (UNFCCC), commits industrialized countries to reduce their greenhouse gas emissions by an average of 5.2 percent below their 1990 levels in the period 2008-2012. Two of the flexibility mechanisms incorporated in the Protocol—the Clean Development Mechanism (CDM) and Joint Implementation (JI)—enable industrialized countries to meet some of their obligations through projects generating greenhouse gas emission reductions (ERs) in developing countries and economies in transition.

Public/Private Partnerships

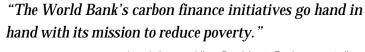
The World Bank's carbon finance business leverages public and private investment into such projects, significantly contributing to other World Bank Group efforts to mainstream climate mitigation and adaptation concerns in developing

countries and economies in transition. As part of its carbon finance business, the World Bank has also established a number of technical assistance facilities for capacity building and project preparation.

Carbon Emission Reductions as a Tool for Development

The private market for project-based emission reductions, still in an early stage, does not yet have significant volume, and the potential benefits have not reached many developing countries. The World Bank's carbon finance products help grow the market by extending and expanding carbon finance to both developing countries and economies in transition—linking private sector buyers of emission reductions with environmentally sound projects seeking financing. This helps to create an environment in which the private sector can more easily use their resources in support of climate–friendly and environmentally and socially responsible projects.





lan Johnson, Vice President, Environmentally and Socially Sustainable Development (ESSD), The World Bank



Prototype Carbon Fund

The Prototype Carbon Fund (PCF)

The World Bank Group has played a pioneering role in developing the market for emission reductions through the Prototype Carbon Fund. Operational since April 2000, the World Bank's first carbon fund is an innovative public/private partner-

ship aimed at mitigating climate change. The PCF's mission is to pioneer the market for project-based greenhouse gas emission reductions, while promoting sustainable development and offering a learning-by-doing opportunity to its stakeholders.

The PCF uses funds made available by companies and governments in projects designed to produce high quality greenhouse gas emission reductions, which PCF Participants may be able to use in compliance with their expected greenhouse gas reduction obliga-

tions. To date the primary focus of the majority of projects has been on renewable energy technologies—such as wind, small hydro, and bio-mass energy technology—that would not be viable without financial support from the PCF.



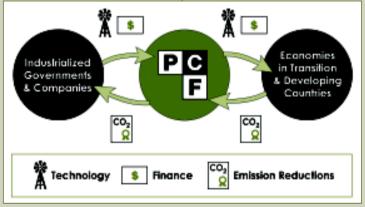
A Powerful Mechanism for Greenhouse Gas Reduction

Six governments and 17 companies—including power and oil companies from Japan and Europe, and leading global banks—all from industrialized countries, are contributing US\$180 million in funds to the

PCF, which currently has 41 projects under preparation.

To date, 29 projects with ER purchases totaling approximately US\$167 million have progressed to advanced stages. Twelve have been contracted. These include a West Nile hydropower project in Uganda, sustainable fuelwood and charcoal production for the pig iron industry in Minas Gerais, Brazil, afforestation on degraded agricultural land in Romania, a wind farm in Costa Rica, an energy efficiency project in the Czech

Republic, and solid waste management in Latvia. The 26 MW Chile Chacabuquito run-of-river hydroelectric project, commissioned on July 2, 2002, was the first PCF project to generate emission reductions.



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Netherlands CDM Facility

The Netherlands CDM Facility

In May 2002, the World Bank agreed to purchase greenhouse gas emission reductions on behalf of the Government of the Netherlands. This Facility purchases emission reductions from projects in developing countries under the Clean Development Mechanism (CDM) established by the Kyoto Protocol to the UN Framework Convention on Climate Change.

The Facility's initial target was to purchase 16 million tons of carbon dioxide equivalent (mtCO₂e) of emission reductions in the first two years of the agreement. The agreement has now been extended, with a firm commitment to purchase an additional five mtCO₂e by mid-2005. The agreement also allows for a further purchase of up to approximately 11 million tons of carbon dioxide equivalent.







Opportunities for Both Developed and Developing Countries

For developed countries, such as the Netherlands, the establishment of a Clean Development

Mechanism facility increases the range of options for complying with their Kyoto Protocol emission reduction requirements, while at the same time promoting sustainable development, capacity building, fostering of knowledge, and market creation.

The Netherlands CDM Facility provides an excellent opportunity for many more developing countries to compete in the emerging global carbon market and to gain invaluable experience, by undertaking their first commercial transactions for the purchase of emission reduction credits under the CDM.

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Community Development Carbon Fund

The Community Development Carbon Fund (CDCF)

The CDCF provides carbon finance to small-scale projects in least developed countries and poorer areas of the developing world. The World Bank initiated this public/private fund in collaboration with the International Emissions Trading Association (IETA) and the United Nations Climate Change Secretariat. Operational since July 2003, contributors to date include the governments of Austria, Canada, Italy, and the Netherlands, and private sector organizations such as Daiwa Securities, SMBC, Idemitsu Kosan, Nippon Oil, Okinawa Electric, BASF, KFW, ENDESA, and Swiss Re. The target size for the Fund is US\$100 million.

Carbon with a Human Face

Contributors to the Fund support projects that measurably benefit poor communities and their local environment and will receive in return verified, Kyoto compliant emission reductions from these projects. The Bank is committed to monitoring and independent documentation of the development benefits that come out of CDCF projects, combining these community development attributes with emission reductions to create 'development plus carbon,' and using financial innovation to improve the lives of the poor. Parallel resources from donors will be mobilized to support technical assistance and CDCF project preparation.

Contact info:

Evening the Odds

Many small-scale projects, such as mini- and microhydro, wind energy, small municipal and agricul-



tural waste projects, energy efficient appliances, clean transport, and agro-forestry projects, can benefit local communities as they abate greenhouse gas emissions. But proportionately higher business costs and risks in small and less developed countries put small-scale

projects at a disadvantage when competing for carbon finance, making them more likely to be bypassed by carbon investors.

Through the CDCF, the World Bank links private investors with community development projects. By working through local intermediaries, such as banks, micro-credit organizations, cooperatives, and NGOs, and by applying streamlined project procedures compatible with CDM requirements, the Community Development Carbon Fund will lower transaction costs and risks associated with small-scale projects.

"By delivering the benefits of carbon finance right down to the community level and to the farthest reaches of poorer countries, the CDCF will help the Parties to the Kyoto Protocol fulfill their ambition to have the CDM serve sustainable development."

> Ken Newcombe, Senior Manager, Carbon Finance Business, ESSD, The World Bank

BioCarbon Fund

The BioCarbon Fund

The BioCarbon Fund is a prototype fund to pilot projects that sequester and conserve greenhouse gases in forest and agro-ecosystems. The Fund will deliver cost-effective emission reductions, while promoting biodiversity conservation and sustainable land use.

Combating rural poverty and stabilizing rural economies are among the biggest challenges facing developing countries. By expanding markets for emission reductions in agriculture, forestry, and other land uses, there will be an unprecedented opportunity for poor small-holder farmers all over the developing world to earn income by sequestering or conserving carbon in a way that increases agricultural productivity, and puts their natural resource use on a sustainable footing.



Windows of Opportunity

Without initiatives such as the BioCarbon Fund, the poorest countries and the poorest peoples would have little opportunity to contribute to, and benefit from, the global imperative to reduce greenhouse gases in the atmosphere.

In November 2003, the World Bank opened the BioCarbon Fund for contributions. Like the PCF, it is a public/private initiative established as a trust fund administered by the World Bank. The target size of the Fund is US\$100 million.

The Fund will operate through two separate windows. The larger window will target projects that generate Kyoto-compatible emission reductions in both developing countries and in countries with economies in transition. A smaller window in developing countries will support land management projects with great development and adaptation potential that are currently excluded from the Kyoto Protocol. Such projects include improved forest and agricultural management, restoration of dryland areas and the conservation of threatened forest remnants. All projects will meet the same strict standards of quality control.



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Italian Carbon Fund

The Italian Carbon Fund

Early in 2004 the World Bank signed an agreement with the Ministry for the Environment and Territory of Italy to create a fund to purchase greenhouse gas emission reductions from projects in developing countries and countries with economies in transition that may be recognized under such mechanisms as the Kyoto Protocol's CDM and JI.

The Italian Carbon Fund has an initial contribution from the Government of Italy of US\$15 million. This amount is expected to increase over time, as the Fund opens to the participation of Italian private and public sector entities.



A Diversified Approach

The Italian Carbon Fund's project portfolio will be well diversified, supporting a wide range of technologies—including those relating to carbon sequestration—and activities in Central and South America, the Balkans, East Asia, the Mediterranean, and Middle East.



Italy has a large obligation to reduce its greenhouse gas emissions. This Fund provides one alternative for obtaining emission

reductions while at the same time helping developing countries to achieve sustainable development by leveraging substantial investments—including investment from the private sector in modern energy services and technologies.

As with other carbon funds facilitated by the World Bank, the income from payments by the participants in the fund will be used for project identification and preparation activities such as capacity-building, outreach and research—leading to the creation of supportive project approval systems in host countries.

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Technical Assistance Facilities

Technical Assistance Facilities

Research and experience to-date shows that the full engagement of developing countries in market mechanisms for greenhouse gas emission reduction and sequestration will only take place in the presence of local environments that support project identification, preparation, consideration and/or approval.

Consistent with its mission to catalyze the emergence and growth of market mechanisms for climate change mitigation and sustainable development, the World Bank, in parallel with its carbon funds, has established a number of technical assistance facilities for capacity building and project preparation.

CF-Assist

CF-Assist is both a technical assistance facility with its own donor constituency and work program as well as an umbrella program providing coordination and synergy for all World Bank activities in the area of technical assistance for carbon finance.

PCF*plus*

The PCF plus Program which supplements the work of the PCF in the areas of outreach and capacity building, and research and training, was initiated in November 2000. The objectives of the program are to build the capacity of host countries and PCF participants, to enhance the operations and activities of the PCF and its partners, and to promote the market for and quality of greenhouse gas projects and emission reductions by reducing risks and transaction costs. Training activities are now increasingly prominent. The PCF plus Fellowship Program provides hands-on training on carbon finance.

CDCF*plus*

CDCF plus provides project-specific support to small-scale projects in least developed countries and other poor developing countries. Consistent with international rules on the use of Official Development Assistance (ODA) in CDM project activities, this support will be limited to projects that are firstof-a-kind and have a high potential for replication. The focus of CDCF plus activities is on defraying some of the project preparation costs, including social and environmental due diligence, and feasibility studies for underlying projects. In addition, CDCFplus resources will also be used to help create a deal flow in CDCF priority countries, including by building and/or strengthening the capacity of project intermediaries in these countries and, to a lesser extent, providing support to establishing Designated National Authorities (DNAs).

BioCF*plus*

The BioCF plus program is being established on the model of CDCF plus to provide project-specific support to carbon sequestration projects in developing countries and economies in transition. The focus of this facility will be on defraying project preparation costs. BioCF plus resources will also be used to help create a deal flow in specific countries, including by building and/or strengthening the capacity of project intermediaries in these countries and, to a lesser extent, providing support to DNAs. As with CDCF plus, individual work programs will be discussed and agreed on with participants.

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Carbon Emission Reductions Begin at Home

The World Bank Staff Climate Protection Program

"For a challenge as daunting as climate change, it is critical that action be taken at every level. We at the World Bank have joined the ranks of those individuals and organizations who are showing leadership through voluntary action to reduce their carbon footprint."

Kristalina Georgieva, Director, Environment Department, The World Bank

A Corporate Commitment

The Bank took another major step forward in May 2003, by announcing the new Washington staff

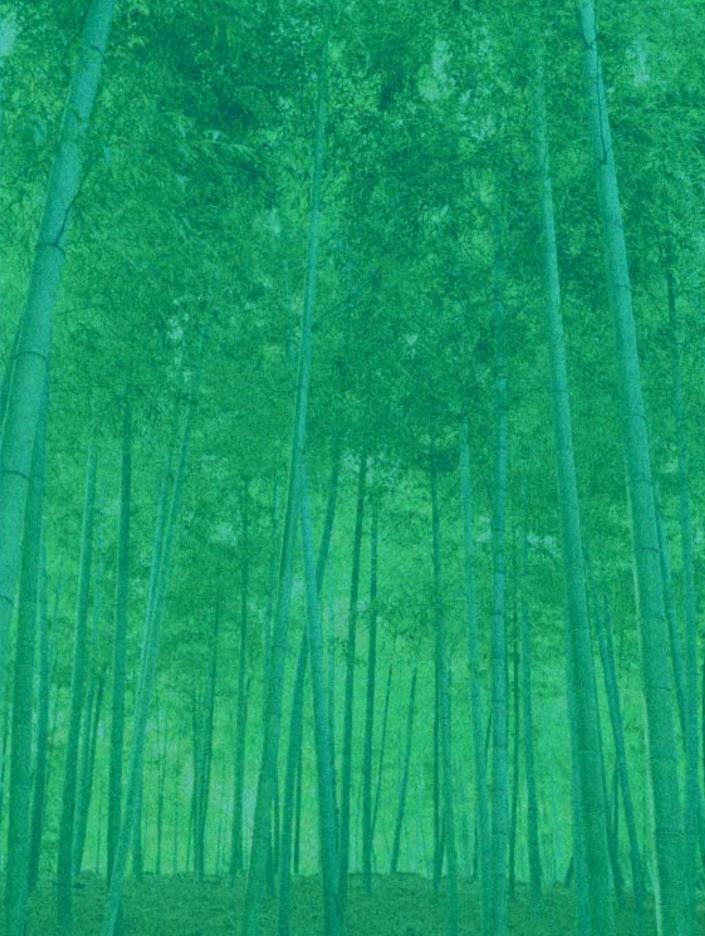
"Travel to Work" program to shrink
Bank staff's carbon footprint. The
program will offset the "Travel to
Work" carbon emissions of some 6000
Washington-based staff through an
annual payment to the World Bank
Staff Climate Protection Program;
encourage the use of public transit
through a monthly incentive; and
align parking rates closer to current
commercial rates.

Reducing Our Carbon Footprint

The World Bank is seeking to reduce its own carbon footprint. In a first move to deal with its carbon emissions—estimated at 203,700 tons CO₂ across the Bank and its field offices—the World Bank's Environmentally and Socially Sustainable Development (ESSD) vice presidency committed US\$30,000, to offset its carbon emissions for 2001. The money purchased carbon emission reductions from the Scolel Té project in Chiapas, Mexico, where small farmers in the poorest regions of the country are paid for increasing tree cover and sequestering soil carbon—generating alternative sources of income as they sequester carbon.

Count Me In!

World Bank staff have also responded to the climate change threat at an individual level. In April 2002, during ESSD Week/Sustainable Development Month at the World Bank, more than 554 Bank staff measured their personal carbon footprint, through a computer test created to determine their "lifestyle" CO, emissions. This included everything from the carbon dioxide that comes out of the tailpipe of their car to their personal air travel over the course of the year. In its first phase, more than 250 people registered for the World Bank Staff Climate Protection Program, pledging to reduce their carbon footprint to a sustainable level by reducing their own carbon output and by paying to offset their remaining surplus emissions.



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