Carbon Finance at the World Bank

"From Southern Africa to Latin America and from Bangladesh to Afghanistan, it is poor people who suffer most from climatic variability and environmental degradation. We may not be able to link all these changes directly with global climate change, but we know the pressure on the environment is serious and livelihoods are at risk."

Paul Wolfowitz
President
The World Bank Group

The Challenge for Development

Warren Evans is Director of Environment at the World Bank, and as such oversees the Carbon Finance activities of the Bank. He talks here about the challenge that climate change poses for development and the role of carbon finance within the World Bank:

With a world population expected to reach nine billion by the year 2050, 65% of which is expected to be in urban areas, increased consumption of energy, water, food, manufactured goods and services will pose tremendous challenges to the natural systems that support human life and development. High among the challenges is dealing with climate change. Given that the Earth's climate has already changed and that further change is inevitable, future climatic disruption needs to be mitigated by reducing greenhouse gas emissions at the same time that countries adapt to climate change.

Carbon Finance as a Tool for Emission Reductions

Carbon finance in the Bank has expanded from a prototype engagement in an emerging trade of emission reductions to an increasingly mainstream activity for supporting sustainable development.

In December 2005, the Board of Executive Directors of the World Bank endorsed a *Carbon Finance Approach* that aims primarily at enabling developing countries to participate actively in the growing carbon market. The approach for the future is focused on three inter-related objectives:

(i) To ensure that carbon finance contributes substantially to sustainable development, beyond its contribution to global environmental efforts;

(ii) To assist in building, sustaining and expanding the international market for carbon emission reductions and its institutional and administrative structure; and

(iii) To further strengthen the capacity of developing countries to benefit from the emerging carbon market for emission reduction credits.

One important element of the new approach is to ensure that smaller, poorer countries benefit from carbon market development. This is particularly true of Africa.

Putting Africa Front and Center

The World Bank sees a major part of its role in carbon finance as helping developing countries and the poorest areas of developing countries to access and benefit from carbon trade. Two World Bank managed carbon funds, the Community Development Carbon Fund and the BioCarbon Fund, specifically target poorer countries and, in the case of the BioCF, rural areas of developing countries.

There is a specific focus on Africa. Africa's economic development will increase its energy demand in the near future. At the same time the growth of Africa's agriculture puts new demands on its environment and natural resources. Carbon finance in conjunction with more traditional sources of finance can provide local benefits while making an important contribution to the global environment.

The carbon finance portfolio in Africa covers a diverse range of technologies. These include afforestation/reforestation of degraded land, bagasse cogeneration, waste management using composting or landfill gas capture, run-of-river hydropower and energy efficiency projects.

Currently, the World Bank has embarked upon capacity building initiatives in Senegal, Madagascar, Botswana and Nigeria. Other capacity building initiatives include client-executed Japan Policy and Human Resources Development Fund (PHRD) grants in Uganda and Mozambique.

At the November UN climate meeting in Nairobi, the International Emissions Trading Association (IETA) and CF-Assist (see page 20) are hosting a Carbon Finance Day 2006/Carbon Project Exhibition, in collaboration with the Kenyan Ministry of Environment and KenGen, the Kenyan power generation authority. This event is a forum for sellers of African CDM projects, to meet private sector and government buyers of greenhouse gas emission reductions. In addition, seminars are being held on diverse topics ranging from the state of the carbon market to project preparation and appropriate baseline methodologies for Africa CDM projects.

Carbon Finance at the World Bank *continued*

Scaling Up Carbon Finance

The *Carbon Finance Approach* also considered new instruments and facilities that would enable the Bank to scale up its carbon finance operations. It proposed an aggregating facility to pool funds for the purchase of emission reductions from large projects. Hence was born the Umbrella Carbon Facility.

The World Bank's Umbrella Carbon Facility (UCF) was established in December 2005. The facility will aggregate multiple sources of funding, including from some of the Bank's existing eight carbon funds and facilities, to purchase large volumes of carbon emission reductions from CDM and JI projects. The purchases will be made on behalf of governments and private companies that have contributed to specific tranches of the facility as they strive to meet their commitments under the Kyoto Protocol or the European Union's Emissions Trading Scheme. More than 75% of the money in the UCF's first tranche represents private capital.

Two Chinese private companies in Jiangsu Province in the People's Republic of China, Jiangsu Meilan Chemical Co. Ltd. and Changshu 3F Zhonghao New Chemicals Material Co. Ltd., have signed emission reductions purchase agreements with the first tranche of the UCF for the largest emission reductions transaction on record. These are two HFC-23 (Trifluoromethane) destruction projects to be located at the HCFC22 (Chlorodifluoromethane) manufacturing plants in these companies. HFC-23, a byproduct in the manufacturing process of HCFC22, is one of the most potent greenhouse gases with a global warming potential that is 11,700 times that of carbon dioxide. Through the €799 million ($1 billion) contract to purchase emission reductions from these projects, the two companies jointly are expected to reduce emissions of about 19 million tons of carbon dioxide equivalent annually.

China has created a Clean Development Mechanism Fund, through which revenues accruing to the government as a result of the sale of emission reductions will be used to support sustainable development activities. The government will retain 65% of all HFC-23 revenues for investing in projects and activities related to climate change. China's Clean Development Mechanism Fund is expected to finance climate mitigation projects in priority sectors such as energy efficiency, renewable energy and coal mine methane recovery and use.

HFC-23 emission reductions purchase agreement signing ceremony in Beijing, China in December 2005.

AAUs + Greening = Green Investment Schemes

The Bank is exploring how to implement Green Investment Schemes—how to 'green' assigned amount units (AAUs) of transition economies so that the outcome of any transactions will support sustainable development. An 'assigned amount' is the total amount of greenhouse gas that each ratifying country is allowed to emit during the first commitment period of the Kyoto Protocol (2008 to 2012).

Sustainable development through green investment schemes

For most countries with economies in transition, greenhouse gas emissions will remain below their Kyoto targets in 2008 to 2012. This potentially substantial 'headroom' can be sold as assigned amount units (AAUs) utilizing International Emissions Trading of the Kyoto Protocol.

AAU trading would be an additional and necessary avenue for the success of the Kyoto Protocol as CDM, JI and domestic policies and measures may not meet the demand for Kyoto compliance for some countries.

However, political acceptability of AAU trade is in question as it does not reduce emissions. Some governments in the European Union and Japan have indicated that they are only interested in AAUs if revenues are used to reduce greenhouse gas emissions and/or to generate other benefits. A green investment scheme (GIS) is a mechanism to ensure this. Successful implementation of green investment schemes would also help countries with economies in transition to move to a more sustainable development path.

A green investment scheme is neither a Kyoto requirement nor governed by UNFCCC. Therefore, credible schemes need to be designed—acceptable both to sellers and buyers. The World Bank is actively engaged in green investment scheme development in Bulgaria, Latvia and Ukraine and facilitating discussions between sellers and buyers.