

## **QUESTIONS AND ANSWERS: The World Bank and Carbon Finance**

### **1. Why has climate change become a development issue?**

Climate change threatens to disrupt the weakest economies and disadvantage the poorest people in developing countries. Those with the least resources and the least capacity to cope—the poor of the developing world will be hardest hit. The United Nations Intergovernmental Panel on Climate Change (IPCC) estimates that the steady warming of the earth's surface temperature will lead to:

- Decrease in the quantity and quality of water in many arid and semi-arid areas, and decrease in the likelihood of making clean water available to the more than one billion people that already experience severe water shortages;
- Decrease in the reliability of hydropower and plantation biomass, where energy supplies are already unreliable;
- Increase in the incidence of vector-borne diseases (e.g., malaria and dengue), water-borne diseases (e.g., cholera), and malnutrition throughout the tropics and sub-tropics, where millions of lives are lost every year;
- Decrease in agricultural productivity in the tropics and sub-tropics. In particular, parts of Africa would be under additional stress, where an estimated loss of 10-30% of cereal production during the next several decades would make it even more difficult to attain the Millennium Development Goals (MDGs) of halving hunger by 2015;
- Increase in the loss of species and degradation of key ecosystems such as coral reefs, which play a critical role in the economy of some developing countries;
- Displacement of tens of millions of people in low-lying areas;
- Increased threat in national and regional security because of the loss of natural resources and the potential flow of environmental refugees;
- For low-lying areas in the world, the threat of climate change is a matter of survival. In the absence of concerted global action on climate change, the IPCC estimates that the sea level could rise by one meter over the next century, which would have the following consequences:
  - In countries with significant low-lying areas, coastal communities would be severely threatened. For example, 17% of the land area of Bangladesh would be lost and tens of millions of people displaced.
  - The survival of low-lying small island states would be in doubt, in particular for the many island states in the Indian and Pacific Ocean and Caribbean that are only a few meters above sea level.

### **2. Which countries are engaged in the Kyoto Protocol?**

With the entry into force of the Kyoto Protocol on February 16, 2005, more than 157 countries agree to work together to fight global climate change. The thirty six industrialized countries that ratified the Protocol agree to put in place policies and measures to collectively reduce 5.2 percent of their emissions in 2008-2012 as measured against 1990 levels. To meet this binding commitment, industrialized countries have the option to reduce part of their emissions domestically, and they can also purchase

emission reductions from developing countries (through the Clean Development Mechanism), or from countries with economies in transition (EITs) (through Joint Implementation or International Emissions Trading).

The Kyoto Protocol fulfills the commitment made by one hundred and eighty six countries under the UN Framework Convention on Climate Change (UNFCCC) that industrialized countries – who are responsible for the vast majority of emissions that cause climate change – should take the first steps towards sustainable energy consumption, use of clean technologies and sustainable land management practices, which are needed to mitigate the impacts of climate change.

### **3. Is the CDM letting the North off the hook for their carbon reduction obligations and what's in it for the South?**

Industrialized countries have to implement domestic policies and measures to reduce Green House Gas (GHG) emissions. These domestic measures have to generate the most significant part of the emission reductions used by an industrialized country to achieve its compliance targets according to the Kyoto Protocol, and emissions reductions earned through CDM and other market mechanisms can only be supplementary to these domestic actions.

It is estimated that the cost to meet emission reduction commitments made under the Kyoto Protocol is in the order of billions of dollars. Given that they reduce cost of compliance, market mechanisms such as the CDM are relevant to the long-term engagement of the global community to combat global climate change.

For developing countries, the CDM represents an opportunity to attract investments from the public and private sectors in climate-friendly technologies, and to contribute to the global combat on climate change. In order to be eligible, CDM projects have to be above and beyond business-as-usual, and must contribute to sustainable development as defined by the host country (developing country). Participation in the CDM is entirely voluntary.

### **4. What is carbon finance?**

Carbon finance is the general term applied to resources provided to a project to purchase greenhouse gas (GHG) emission reductions (“carbon” for short). Commitments of carbon finance for the purchase of carbon have grown rapidly since the first carbon purchases began less than 10 years ago. 2005 saw the global market for greenhouse gas emission reductions grow to more than \$10 billion. Volumes are expected to continue to grow as countries that have already ratified the Kyoto Protocol work to meet their commitments, and as national and regional markets for emission reductions are put into place, notably in Canada, Japan. The European Union’s Emissions Trading Scheme started in January 2005.

### **5. Why do greenhouse gas emission reductions have value?**

Meeting the Kyoto targets will require public and private investments. Many industrialized governments that have ratified the Protocol have already begun implementing domestic policies and regulations that will require emitters to reduce greenhouse gas emissions, according to the established targets. So far, experience has shown that the cost of reducing one ton of carbon dioxide (a greenhouse gas) can cost from \$15 up to \$100 in industrialized countries.

By contrast, there are many opportunities to reduce greenhouse gases in developing countries at a fraction of those costs per ton of carbon dioxide. Hence, an emission reduction that was achieved at a lower cost has value to a public or private entity in an industrialized country that is required by regulation to reduce its emissions.

## **6. What is the World Bank's involvement in Carbon Finance?**

The threat climate change poses to long-term development and the ability of the poor to move out from poverty is of particular concern to the World Bank. The carbon finance activities of the World Bank are a natural extension of the Bank's mission to reduce poverty. The Bank makes every effort to ensure that poor countries can benefit from international responses to climate change including the emerging carbon market for GHG emission reductions.

These countries, particularly the poorest among them, risk being bypassed by the carbon market and the potential development benefits it would bring. The World Bank's carbon finance products help grow the market by extending the frontiers of carbon finance to new sectors or countries that have yet to benefit, and to reduce market entry risks for other buyers.

## **7. What specific role is the Bank playing in the development of a market for carbon trade?**

The role of the Bank through its Carbon Finance Unit has been one of market facilitator and catalyst. The Bank has made significant efforts in the development of the carbon market, first by launching the Prototype Carbon Fund (PCF) to demonstrate how to cost-effectively achieve GHG reductions while contributing to sustainable development. More recently, the Bank launched a series of carbon funds to expand learning-by-doing to other countries and economic sectors, and to address market failures, such as through the Community Development Carbon Fund (CDCF) and Bio Carbon Fund (BioCF), which are designed to enable smaller and rural poor communities to benefit from carbon finance.

The Bank has developed a balanced approach between stimulating demand as a buyer in the early stages of the market and its support to sellers to tap new and additional sources of funds from carbon trade to support their sustainable development and to alleviate poverty. This will consist of meeting the demand for capacity building and technical assistance through Carbon Finance (CF) -Assist, and designing instruments in consultation with developing countries to enable them to directly access the market.

## **8. Who are the beneficiaries of the Bank's actions in carbon finance?**

The main beneficiaries of the Bank's actions in the carbon market:

- a) **The global community.** The Bank's efforts to catalyze a market for greenhouse gas mitigation and sustainable development hopefully contributes to the success of the market mechanisms, which are essential to lowering the cost of global action on climate change.
- b) **The Public and Private sectors that wish to participate in the market.** Through the establishment of Carbon Funds, and by pooling early participants in the market, the World Bank has reduced the market entry risk for other market players. The Bank's procedures to create carbon assets are in the public domain.
- c) **The least developed countries and poor areas of all developing countries.** The Bank is involved in market areas that the private sector simply won't go because they perceive the risk as being too high. By doing this, the World Bank is helping to bring the benefits of carbon finance to those parts of the world that would be by-passed by the market. The Bank provides technical assistance in order to develop the set of procedures and institutional arrangements that can make the market more sustainable. For example in one developing country, it took 18 months to get the first approval for a carbon finance project. Now there are almost a dozen projects in that country.
- d) **The global climate.** While the CERs are typically sold to industrialized countries to help them to meet the Kyoto target, CDM projects usually generate climate benefits beyond sold CERs. This is due to the fact that CDM rules are very strict and conservative and crediting periods are limited up to 21 years. E.g. a hydro project can generate emission reductions up to 50 years.

## **9. The Bank has created several carbon funds. How do they work? Who owns these funds?**

The World Bank manages nine carbon funds and facilities comprised of public and private participants: Prototype Carbon Fund (PCF); Netherlands JI and Netherlands CDM Facilities; Community Development Carbon Fund (CDCF); BioCarbon Fund; Italian Carbon Fund; Spanish Carbon Fund; Danish Carbon Fund; and the Umbrella Carbon Facility (UCF). These funds are public or public-private partnerships managed by the World Bank as a Trustee. They purchase greenhouse gas emission reductions from projects in the developing world or in countries with economies in transition for the account of the fund participants, and pay on delivery of those emission reductions.

The emission reductions can be used against obligations under the Kyoto Protocol or for other regulated or voluntary greenhouse gas emission reduction regimes. All the emission reduction credits are purchased on behalf of the public and private sector participants in the funds. The World Bank is acting as an honest broker to ensure that the benefits of carbon finance make their way also to the developing world and to countries with economies in transition. The World Bank regularly consults with a wide range of

stakeholders, including a host country committee comprised of representatives from developing countries, about the design and operation of these carbon funds.

**10. Why do investors and governments find the World Bank Carbon Funds an attractive business proposition?**

Companies and governments are attracted to the various carbon funds of the World Bank by the proven record of the World Bank in providing participants with Kyoto-compliant certified emission reduction assets at a guaranteed fair price. Additional benefits for participants include the acquisition of high-value knowledge and intelligence on carbon finance and emerging national, regional and international markets.

**11. What types of renewable energy projects should be eligible for carbon trade?**

The Political Declaration of the Bonn International Conference for Renewable Energies 2004 that was discussed and adopted by ministers and government representatives from 154 countries acknowledged that "in the context of Renewables 2004, renewable energy sources and technologies include: solar energy, wind energy, hydropower, biomass energy including biofuels and geothermal energy," with no distinction with respect to scale. This is consistent with the discussions that took place at the World Summit on Sustainable Development held in 2002.

A shortage of access to energy is recognized as one of the great obstacles to development, impeding business activity and disproportionately affecting the poor who have traditionally the least access. Many OECD countries have developed more than 80 % of the potential of their economically-viable hydropower, and hydropower development has been a vital platform for economic growth. This is in contrast to 20 % in developing countries as a whole, and under 5 % in African countries. Developing countries themselves have repeatedly stressed the importance they attach to utilizing this large domestic source of energy, particularly when oil prices are now around \$50 per barrel level. In recent years, they have improved the environmental and social quality of their renewable energy projects through the use of environmental assessments, resettlement action plans and related instruments.

For these reasons, the Bank considers that all renewable energy projects should be eligible for carbon trade, regardless of the scale and size, provided that such projects meet eligibility criteria, are environmentally and socially sustainable, and are consistent with applicable domestic policies and regulations.

**12. Should the eligibility of hydropower projects for carbon trade be restricted to 10 MW?**

No, the eligibility of hydropower projects eligible for carbon trade should not be restricted to 10 MW. There are many different ways to classify hydro projects – depending on purpose of classification - and it is clear that there is no single widely accepted definition of small hydro.

The 10 MW criterion is not widely used for reporting on the performance of the Clean Development Mechanism (CDM). For example, the CDM's Executive Board has developed simplified procedures for small scale projects, which include renewable energy projects of less than 15 MW, for the implicit purpose of encouraging their implementation. In addition, various countries use different ways to classify small hydro - India up to 25 MW; Brazil and USA up to 30 MW; China up to 50 MW. Thus, one reason to define small hydro is presumably to link generation capacity with potential impact to the environment, in essence stating that small hydro projects have the least impact.

The Bank's view is that the relationship between size and impact are not always directly related. The issue at hand with regard to hydropower projects is how to create development with minimal environmental and social impact. The Bank's approach – including in its role as Trustee in Carbon Funds – is not to move forward with a project unless it is confident of its environmental and social soundness, in both the preparation and implementation phases, based on application of the World Bank's Board-approved environmental and social safeguard policies.

That being said, the Bank committed at the International Conference for Renewable Energies in Bonn and in the management response to the Extractive Industries Review to grow our portfolio of renewables including hydro up to 10 MW by 20 % per annum. No growth target for hydro more than 10 MW was established. Of course, this would be in addition to the Bonn target of increase by 20% annually.

In order to enhance clarity on the definition of small hydro, the Bank will, for reporting purposes, simply classify from now on all hydro projects in its carbon funds as renewable energy projects, consistent with the Bonn declaration. However, the Bank will include any CDM hydro projects under 10 MW when it reports on its commitment to increase its portfolio of renewables up to 10 MW by 20 percent per annum.

### **13. How are the recommendations of the World Commission on Dams (WCD) addressed in World Bank projects?**

In common with virtually all those concerned in the WCD process, the World Bank shares the WCD core values and concurs with the need to promote its seven strategic priorities. In addition, the lessons presented in the Report provide a valuable base for the Bank to draw from when considering development of hydropower projects. The focus of the World Bank in the case of hydropower projects is to ensure the environmental and social soundness of the proposed project, in both the preparation and implementation phases, through effective implementation of the World Bank's Board approved safeguard policies. The existing safeguard policies remain in effect for all IBRD and IDA supported investment lending operations including carbon finance activities. The World Bank assesses the conformity of projects it supports in a manner that is consistent with the operational policies set by the World Bank's Board of Executive Directors, representing the more than 180 governments that are members of the Bank. In contrast the Report of the World Commission on Dams does not have an official policy status within the Bank.

For more detailed information on the World Bank and the Report of the World Commission on Dams please go to:

<http://siteresources.worldbank.org/ESSDNETWORK/1105722-1115887495018/20487853/ReportontheWorldCommissiononDamsWorldBankPosition.pdf>