



Questions & Answers

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:

- A decrease in the quantity and quality of water in many arid and semi-arid areas, and a decrease in the likelihood of making clean water available to the more than one billion people that already experience severe water shortages;
- A decrease in the reliability of hydropower and plantation biomass, where energy supplies are already unreliable;
- An 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;
- A 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;
- An 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;
- The displacement of tens of millions of people in low-lying areas;
- An 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 one hundred and forty countries agree to work together to fight global climate change. The thirty six industrialized countries that ratified the Protocol - namely Canada, Japan, members of the European Union, as well as economies in transition from Central and Eastern Europe – agree to put in place policies and measures to collectively reduce 5 percent of their emissions between



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2008 to 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 emission reductions from developing countries (through the Clean Development Mechanism), or from countries with economies in transition (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 eight years ago. As of May 2004, the global market for GHG emission reductions through project-based transactions has been estimated at a cumulative 320 million tons of carbon dioxide equivalent since its inception in 1996. Asia now represents half of the supply of project-based emission reductions, with Latin America second with 27 percent. 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 and the European Union (the European Union has already put in place its Emissions Trading Scheme as of January 2005).



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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 cost of \$1 to \$4 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.

The private market for emission reductions, still in an early stage, does not yet have significant volume, and the potential benefits have not reached developing countries. These countries, particularly the poorest among them, are 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 business 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



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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.

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

The World Bank manages eight carbon funds comprised of public and private participants: Prototype Carbon Fund (PCF); Netherlands JI and Netherlands CDM Funds; Community Development Carbon Fund (CDCF); Bio Carbon Fund; Italian Carbon Fund; Spanish Carbon Fund; Danish Carbon Fund; and has signed an MOU to create a ninth (Pan European Carbon Fund) with the European Investment Bank (EIB). These funds are public or public-private partnerships managed by the World Bank as a Trustee. They operate much like a closed-end mutual fund; they purchase greenhouse gas emission reductions from projects in the developing world or in countries with economies in transition, 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 the PCF's Host Country Committee, about the design and operation of these carbon funds.



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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 shareholders with Kyoto-compliant certified emission reduction assets at a guaranteed low price. Additional benefits for investors include the acquisition of high-value knowledge and intelligence on carbon finance and emerging national, regional and international markets.

11.) Who are the main players in the carbon market at this point in time?

As of May 2004, the largest buyer of emission reductions was the Japanese private sector (at 41 percent), with the Dutch Government and the World Bank (at around 24 percent). The entry into force of the Kyoto Protocol is expected to bring many more players in the market, from private entities that have been given emission reduction commitments under national law, to governments that are purchasing credits consistent with their national strategies to meet their Kyoto commitments. It is thus expected that the Bank's market share will decrease, and will be focused on reducing regulatory risk and uncertainty in the market, consolidating and streamlining carbon asset creation, and developing the frontiers of the market.

12.) Top 10 things the World Bank is doing to facilitate a carbon market:

- a. **Building capacity of developing countries:** In fiscal year 2004, the Bank launched a capacity-building initiative called CF-Assist to provide a unified approach to developing countries and to coordinate all World Bank capacity building and training activities on carbon finance.
- b. **Contributing to methodologies and procedures:** Since its inception, the World Bank's Carbon Finance Business has been a major contributor to the development of internationally approved CDM methodologies and has contributed its experience to decisions by the Parties to UNFCCC and the CDM Executive Board.
- c. **Providing carbon finance to poor countries that are bypassed by the carbon market:** The Community Development Carbon Fund (CDCF) supports small projects in less developed countries—and poor areas of all developing countries—and delivers additional environmental and social development benefits to poor communities. The development of these small-scale CDM projects is typically too expensive and often too risky for the private sector to undertake on its own.
- d. **Helping to make carbon sinks an important aspect of emission reductions:** The BioCarbon Fund is a prototype to demonstrate and benchmark the use of carbon finance in forestry and agriculture projects with strong co-benefits in terms of biodiversity, land protection and poverty reduction. The Fund will create assets that are eligible under the CDM (reforestation and afforestation projects, which create forests on deforested land or where none existed before,



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respectively), and other activities that sequester carbon from the atmosphere (e.g. watershed management).

- e. **Building confidence in the market and mitigating risks:** The eight carbon funds that the World Bank currently manages have almost 60 private and public participants. For many of these, participation in the Bank's Carbon Funds enables them to learn business procedures that they can integrate in their own carbon purchasing facilities, thus substantially reducing their market entry risk.
- f. **Continually extending the frontiers of the market:** In many cases, the Bank has been the first to purchase emission reductions in specific countries, technologies or sectors, or in poor communities. As a development institution, the Bank is committed to continue to pioneer carbon finance transactions, and to expanding the frontiers of the market.
- g. **Creating a knowledge asset that is available and transparent:** The Carbon Finance Business website is the primary vehicle to disseminate procedures, documentation and methodologies to both fund participants and stakeholders in the CDM and JI. In 2004, the funds' websites got hundreds of thousands of hits per month, and it continues to be a primary source of information regarding the carbon market.
- h. **Crowding in the private sector:** The Bank continues to be proactive in promoting and supporting direct private sector participation in carbon procurement and in building confidence in private sector intermediation. This is achieved through partnerships in intermediation on a non-exclusive basis, dissemination of business practices, and offering co-purchasing opportunities (across its portfolio, the Bank has only purchased three quarters of all assets created by 2012, thus allowing the private sector to purchase secure assets alongside the Bank).
- i. **Greening bank lending by over-laying carbon finance:** Where feasible, carbon finance will be linked to large-scale programmatic lending or non-lending assistance provided by the Bank and other multilateral financial institutions. This is necessary in sectors such as solid waste management where municipal sponsors have poor credit ratings and limited administrative capacity and need long-term assistance to make the transition to modern alternatives in waste and resource management.
- j. **Contributes to the success of market solutions to address climate change.**
Through the establishment of its carbon funds, the Bank has made a significant effort to catalyze markets for GHG mitigation and sustainable development