New Directions in Carbon Finance

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www.carbonfinance.org
Ten years: catalyzing the carbon market

1996 – AIJ Trust Fund (with Norway)
1997 – NSS program (National Strategy Studies)
1997 – Global Carbon Initiative
1998 – Outreach for a carbon investment fund
1999 – Prototype Carbon Fund established
2000 – Capacity building programs (PCF Plus), PCF becomes operational
Several carbon funds set up in collaboration with governments and private sector
2004 – First Carbon Expo
2006 – Mission accomplished: the market exists
How the World Bank carbon funds work
Status of the carbon funds

- Currently 9 World Bank carbon funds, one (PCF) close to “maintenance” phase.
- Total capitalization reaches approximately US$1.8 billion.
- Blend of public and private capital – new and additional sources for sustainable development.
- Partnership with 13 governments and 73 private companies.
- Partnership with host countries (Host Country Committee).
- Parallel capacity building program, “CF Assist”

Community Development Carbon Fund. €100.4 million (closed). Multi-shareholder. Small-scale CDM energy projects.

BioCarbon Fund. €42.0 million (first tranche closed). Multi-shareholder. CDM and JI LULUCF projects.

Netherlands Clean Development Mechanism Facility. €209.0 million (closed). Netherlands Ministry of Environment. CDM energy, infrastructure and industry projects.
World Bank carbon funds and facilities

**Italian Carbon Fund.** €85.4 million (open to Italian participation). Multi-shareholder (from Italy only). Multipurpose.

**Netherlands European Carbon Facility.** €31.6 million (closed). Netherlands Ministry of Economic affairs. JI projects.

**Spanish Carbon Fund.** €220.0 million (open to Spanish participation). Multi-shareholder (from Spain only). Multipurpose.

**Danish Carbon Fund.** €54.1 million (closed). Multi-shareholder (from Denmark only). Multipurpose.

**Umbrella Carbon Facility.** [€567.7 million] (First tranche closed). 2 HFC-23 projects in China.

**World Bank/EIB Carbon Fund for Europe.** €50 million initial target (being established).
Key features of World Bank carbon funds

• Funds assume regulatory risk: purchase verified emission reductions (VERs).
• Fixed-price contracts.
• Most carbon funds purchase a share of emission reductions beyond 2012.
• Stable income stream from a reliable partner supports long-term project success.
• World Bank ERPAs accepted as collateral by project financiers, international lenders.
• Access to Word Bank know-how. Value of partnership.
Regional diversity of the World Bank’s carbon finance portfolio

Based on Expected Carbon Finance Contract Value

- East Asia & Pacific, $1,146.81 mil, 76%
- Europe & Central Asia, $84.53 mil, 6%
- South Asia, $52.78 mil, 4%
- Middle East & North Africa, $38.17 mil, 3%
- Latin America & Caribbean, $111.92 mil, 7%
- Africa, $64.29 mil, 4%

Based on Expected Number of Carbon Finance Transactions

- Latin America & Caribbean, 32 projects, 33%
- Europe & Central Asia, 21 projects, 21%
- East Asia & Pacific, 17 projects, 17%
- Africa, 16 projects, 16%
- South Asia, 9 projects, 9%
- Middle East & North Africa, 4 projects, 4%
Technological diversity of the World Bank’s carbon finance portfolio

Based on Expected Carbon Finance Contract Value

- HFC-23 Destruction, $969.76 mil, 65%
- Oil and Gas Sector, $35.63 mil, 2%
- Land Use and Forestry, $43.77 mil, 3%
- Energy Efficiency, $67.60 mil, 5%
- Coal Mine Methane, $10.08 mil, 7%
- Waste Management, $10.71 mil, 7%
- Renewables, $17.19 mil, 11%
- Transport, <1%

Based on Expected Number of Carbon Finance Transactions

- Renewables, 37 projects, 38%
- Coal Mine Methane, 16 projects, 16%
- Energy Efficiency, 13 projects, 13%
- Waste Management, 24 projects, 24%
- HFC-23 Destruction, 2 projects, 2%
- Oil and Gas Sector, 4 projects, 4%
- Transport, 1 project, 1%
- Land Use and Forestry, 1 project, 1%
Nepal biogas program

- Install 200,000 high quality biogas plants in rural areas. Biogas plants produce a renewable source of fuel for cooking.
- First ERPA signed by the World Bank in South Asia. CDCF signed ERPA in May 2006 for $7 million.
- Community benefits:
  - reduce indoor air pollution and associated health problems,
  - reduce unsustainable fire wood consumption,
  - fertilizer for agricultural use,
  - time savings for women,
  - job creation.
Nicaragua precious woods

- Reforestation of 4,000 hectares of degraded pasture land with teak and native wood species
- First ERPA for BioCF signed in April 2006 for $743,000
- Local benefits:
  - benefits regarding landscape, wildlife and ecological diversity;
  - prevention of erosion, groundwater protection, soil regeneration, improvement of the microclimate and water balance;
  - social benefits, including employment, training and career opportunities
Uganda West Nile electrification

- Install and operate a 3.5 MW hydro power station to replace diesel generators.
- First ERPA signed by World Bank in Africa. PCF signed ERPA in March 2003 for $2.4 million.
China HFC-23 destruction

- Install incineration facility at two HCFC 22 production facilities to decompose HFC-23, a potent greenhouse gas
- 2 ERPAs signed by the Umbrella Carbon Facility in December 2005 for $970 million
- World Bank worked to establish the Clean Development Fund (CDF) for China which will finance climate change related activities.
- 65% of carbon finance revenues from HFC-23 projects will go to the CDF ($630 million)
New World Bank approach to carbon finance

- December 2005: World Bank Board of Executive Directors discussed an approach for further engagement in carbon finance.
- Carbon finance to be scaled up and “mainstreamed” in the Bank and become a regular Bank product.
- Objectives of World Bank carbon finance redefined.
World Bank carbon finance objectives

- To ensure that carbon finance contributes substantially to **sustainable development**, beyond its contribution to global environmental efforts.
- To assist in building, sustaining and **expanding the international market** for carbon emission reductions and its institutional and administrative structure.
- To further strengthen the **capacity of developing countries** to benefit from the emerging market for emission reduction credits.
Carbon finance and sustainable development

- Support developing countries to enable them to receive the maximum capital transfers for sustainable development from carbon finance.
  - E.g., from project-to-project to programmatic approach

- Ensure that all carbon transactions promoted by the Bank have additional sustainable development benefits beyond the reduction of carbon emissions.
  - E.g., env’l and social safeguards policies; Green investment schemes in JI countries.
Expanding the international market

- Support the regulatory structure of the UNFCCC.
- Expand the capacity of other financial & development institutions to support developing countries in carbon finance.
- Participate with the private sector.
- Provide increased liquidity to the market.
- Bridge uncertainty, credibility and capacity gap thru purchases of post-2012 credits.
Strengthen the capacity of developing countries

- Support developing country sellers.
  - E.g., CF-Assist, a multi-donor trust fund for capacity building and technical assistance ($15 million committed)
  - Portfolio development.
  - Institution building (e.g., support to DNAs)

- Partnership with selected developing countries to establish clean development funds and carbon finance facilities.

- Mainstream carbon finance in JI countries through support of Green Investment Schemes.
The short-term vision...

- Moderate market share, but critical player in some segments of the carbon market.
- More diversified business to ensure that the carbon market supports sustainable development and poverty alleviation.
- Assist Bank client countries (“the sellers”) to develop and market emissions reductions more effectively.
- Facilitate institutional capacity for the carbon market through partnerships and risk mitigation instruments.
- Funds for poorly developed market “frontiers” expanding the benefit of carbon finance to countries, poorer regions, sectors and technologies not yet benefiting from trade (Programmatic CDM).
Medium-term challenges

- Ensure the continuity of the carbon market.

- Scale up carbon finance to catalyze large-scale investments in clean energy (contribution to the Investment Framework for Clean Energy and Development).

- Promote avoided deforestation.
CF Assist

- Multi-donor trust fund for capacity building and technical assistance operational in 2005. $15 million committed;
- To ensure that developing countries and economies in transition are able to fully participate in the carbon market;
- Typically 2 to 3 year country-based capacity building programs, some sector based initiatives;
- Fosters developing country participation in the carbon market; sponsored 25 countries to attend Carbon Expo 2006;
- So far, country programs initiated in 9 countries plus regional program in Africa;
- Broad and customized training sessions; in 2005, Azerbaijan, Cameroon, Georgia, India, Mali, Pakistan, Zambia
- Supported the designing of the Argentine Carbon Facility
Green Investment Scheme (GIS)

- GIS would link proceeds from the sale of surplus Assigned Amount Units (AAUs) under Kyoto Protocol or “hot air” to climate change related activities and environmental projects in the host country.
- World Bank taking an active role in designing GIS options for Bulgaria, Ukraine and Latvia.
- GIS most advanced in Bulgaria, Latvia and Romania; no transactions yet.
- GIS Roundtables for buyers and sellers held in Spring 2006.