

Transaction Structuring and Risk Management

The Carbon Finance Unit's finance team remains at the cutting edge of innovation in carbon transaction structuring and risk management

Structuring innovative deals. The CFU continued to deliver innovation in carbon finance transactions, developing tailored structures that enable project sponsors to borrow against carbon cash flows while maintaining acceptable terms and appropriate risk allocation. Innovative financial structuring of the emission reductions purchase agreement for the Abanico run-of-river hydropower project in Ecuador, for example, enabled the project sponsor to use its emission reductions purchase agreement with the Netherlands CDM Facility to secure financing from the Inter-American Investment Corporation (IIC) for the country's first privately financed hydroelectric power plant (see Box below). The CFU's innovation in structuring emission reductions

purchase agreement terms is key to this ability to accommodate project sponsors' needs and to facilitate financing for the underlying project.

Streamlining transaction development. The CFU upgraded and streamlined project financial screening and transaction processing, resulting in lower preparation costs and improved quality at entry. It standardized the initial financial due diligence documentation, enabling the team to screen out projects that are unlikely to secure financing and/or achieve sustainability. It developed, disseminated and provided training on standard contractual terms, to streamline project structuring and negotiation.

Ecuador: Abanico Hydro Plant

Abanico, a 30 megawatt run-of-river hydro plant in Ecuador, sought financing from the Inter-American Investment Corporation (IIC) in 2002. The project had strong fundamentals, but power purchase agreements fell short of IIC's investment criteria, which required over 50 percent of sales to be under contract and assigned to the lender to secure the loan's debt service. With the involvement of the World Bank's Carbon Finance Unit in 2004, IIC agreed to consider the proceeds of Hydroabanico's certified emission reductions sales in its investment analysis, allowing the borrower to comply with the IIC's covenant.





Securing underlying financing.

Carbon finance has continued to provide measurable benefits to investors and stakeholders in climate-friendly projects. However, the true catalytic effect has not fully materialized. As a result, the CFU's finance team continues to focus on how to use carbon finance as a catalyst for securing underlying project finance. The CFU's finance team has led efforts to promote investment in climate-friendly projects in developing and transition countries. These efforts, funded largely through trust funds such as CF-Assist and the Public-Private Infrastructure Advisory Facility, a multi-donor technical assistance facility managed by the World Bank, were leveraged by the World Bank Group's broader efforts to combat climate change and promote

renewable energy and energy efficiency. The team worked with multi-lateral, bi-lateral and private financial institutions to raise awareness of the impact of carbon finance on climate-friendly investment, and to encourage lending against carbon revenue streams, by convening and/or participating in numerous conferences, training and dissemination events such as the World Renewable Energy Congress, United Nations Environment Program (UNEP) Sustainable Energy Finance, and Hydropower 2005. These efforts are bearing fruit for the CFU as additional financial institutions are now more aware of the carbon finance risk profile and are actively engaged in developing products to lend against the cash flows generated by the CFU's emission reductions purchase agreements.

"The IIC participation in the capital structure of Hidroabánico with a loan of \$7 million is a recognition of the important contribution of the project to generate clean energy in Ecuador. The intervention of the World Bank as trustee of the NCDMF as purchaser of the emission rights of the project, and the corresponding revenue resulting from the emission reductions purchase agreement lowered the risk level of the project and had an impact on the financial costs of the project."

*Jacques Rogozinski,
General Manager
Inter-American Investment
Corporation, IIC*

Innovation in portfolio risk management.

The team introduced innovations in risk management, articulated in strategies for PCF, CDCF and the Danish Carbon Fund. These strategies provide the framework for risk management in project selection and screening, transaction structuring and pricing, portfolio management and insurance.