

cost which must be evaluated by the parties when considering the way forward.

To date there are many approved traders and brokers involved in the CDM market. These include entities associated with multilateral development banks such as the Prototype Carbon Fund (PCF) and the Latin American Carbon Program (PLAC). There are also many private market brokers such as EcoSecurities, Netsource, Point Carbon, CO2e, and EuroCarbon that are operating in this market.

CONCLUSION

There is a great deal of potential for Latin America and the Caribbean region to continue implementing CDM activities and taking advantage of the opportunities that

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these activities offer in terms of new and better technologies, investment, and environmental improvement (air, soil, water quality) among others. CDM activities represent a value added option for doing business in the current energy market given the transparency that these project activities require, and their cost-effectiveness orientation. With regards to energy security, CDM projects are a great opportunity to reduce imported fuels dependency and produce environmental

benefits by using renewable energy sources. The process of developing a CDM project however requires time, expertise, and financial resources. The big challenge for the region lies on creating and reshaping policy and financial frameworks for renewable energy in order to allow the implementation of CDM projects.

The *Organization of American States (OAS)* is the world's oldest regional organization, dating to the First International Conference of American States, held in Washington, D.C., in 1889. The Charter of the OAS was signed in Bogotá in 1948. The OAS currently has 35 member States and has granted permanent observer status to over 48 states. The OAS is the region's premier forum for multilateral dialogue and concerted action, it brings together the countries of the Western

Hemisphere to strengthen cooperation and advance common interest. Through its Department of Sustainable Development (DSD), the General Secretariat of the OAS (GS/OAS) fulfills the mandates of Member States by promoting the implementation of policies, technical cooperation projects and partnerships that translate sustainable development and environmental protection goals into action. The DSD Energy and Climate Change Division supports the Member States

in efforts to improve the sustainability of the energy sector through the use of renewable energy, energy efficiency technology and systems, and through increased energy cooperation and integration within the region.



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New Opportunities for Sustainable Energy in Response to Climate Change

One hundred and seventy-two countries of the world gathered in Rio de Janeiro, Brazil in 1992 at the Earth Summit to tackle the challenges of climate change in a coordinated manner. As a result, the creation of the United Nations Framework Convention on Climate Change (UNFCCC) launched global negotiations that led to the Kyoto Protocol in 1997. The Protocol established a series of targets for the reduction of greenhouse gas emissions (GHGs). In order to meet these targets, several mechanisms allowing the trading of emissions within, and among countries were created. The most relevant to the Americas is the Clean Development Mechanism (CDM), which specifically allows countries with emission reduction targets to purchase emission reduction credits (certified emissions reductions - CERs) from countries that do not face GHG limits.

CDM enables the sale of avoided GHG emissions, including carbon dioxide and methane, resulting from fossil-fueled power plants. When an alternative is used to avoid, reduce, or capture these emissions, the differential has financial value. This value helps to generate investment and promote the transfer of environmentally-friendly technologies to developing countries. These activities include projects on renewable energy, energy efficiency, biofuels, forestation and reforestation, landfill gas flaring, fuel substitution, waste handling and disposal, among others.



CDM PROJECTS IN LATIN AMERICA AND THE CARIBBEAN

At present the countries of Latin America and the Caribbean region are home to 44 percent of all projects registered worldwide. Brazil has the largest number of projects in the region with 94. Another 15 countries have also registered CDM projects. The table below shows the distribution of CDM projects by country in LAC.

In Latin America, CDM projects comprise a wide range of technologies and applications involving the energy, agriculture, transportation and GHG sequestration sectors among others. The energy industry represents the largest number of projects. Many of these use renewable energy sources such as wind and hydro, and/or promote energy efficiency. The deployment of

CDM PROJECTS IN LAC*

COUNTRY	NUMBER OF PROJECTS
Argentina	7
Bolivia	1
Brazil	94
Chile	16
Colombia	6
Costa Rica	3
Dominican Republic	1
Ecuador	9
El Salvador	2
Guatemala	5
Honduras	10
Jamaica	1
Mexico	78
Nicaragua	3
Panama	5
Peru	4
Total	245

*As of March 21st 2007

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renewable energy in current CDM activities in the region range from small to large scale activities.

DEVELOPING A CDM PROJECT APPLICATION – WHERE TO BEGIN?

Most countries in Latin America have an office where experts are available to assist developers and other stakeholders in the process of preparing and submitting a CDM application. These offices – Designated National Authorities, or DNA – also help to match international project developers and investors with local entities.

Once a potential project is identified the process of submitting an application for CDM certification requires four key steps:

1 Preparation of a Project Design Document (PDD).

The PDD includes a general description of the project activity, the baseline and monitoring methodology to be applied, an analysis of environmental impacts, comments received from local stakeholders, and information on public funding and participants. Additionally, it should include the approval of the host country DNA.

2 Validating and Registering the Project Activity.

During the validation process, a designated operational entity (DOE) will evaluate the documentation, providing an opportunity for public comment, and determining whether the project should be validated based on the requirements established for CDM project activities. If the project is validated, it goes to the Executive Board for formal acceptance and registration as a CDM project activity. This step is essential for the verification, certification and issuance of CERs relating to the project activity, and marks the completion of the CDM project application.

3 Monitoring, Verification and Certification. For the monitoring part of this stage, the project participants prepare a report of the GHG emissions that occur from their project once implemented. This report will estimate the CERs generated by the project in relation to its registered monitoring plan. Following this, the relevant monitored data and report should be submitted to a DOE for verification of the presented information.

4 Issuance of CERs. If the Executive Board confirms the emissions reductions from the project over a given time period, the CERs will be issued and are made available to the investors to complete the transaction.

Latin American and Caribbean CDM projects engage different types of technologies implemented in projects of varying scales. The CDM rulebook recognizes the different needs of

WIGTON WIND FARM PROJECT

LOCATION

The project is located at the Manchester Plateau area, about 15km SSW of Mandeville in Jamaica.

PARTICIPANTS

Jamaica (host country) and the Netherlands as parties, and the Corporación Andina de Fomento and the Wigton Wind Farm Limited as public / private entities.

DESCRIPTION

The purpose of the project is to implement the first commercial grid-connected wind farm in Jamaica. Jamaica's power mix is largely dependent on diesel and heavy fuel oil. This project generates competitively priced renewable electricity. The 20.7 MW project should produce enough electricity to supply the electricity needs of 25,000 households. Furthermore, the fact that the electricity is produced from renewable sources and does not depend on fuel imports makes the project even more important for Jamaica.



The Wigton project leads to reduced greenhouse gas emissions because it displaces a largely fossil fuel based electricity generating system. The project comprises 23 turbines with a planned output of 62.97 million kW hours per year. Each turbine has a generation capacity of 900kW.

INVESTMENT

US\$ 20 million to build the project and start operation.

BENEFITS

- Increased local employment during construction phase.
- Estimated amount of emission reductions over the 10 year crediting period: 525,400 t CO₂.
- WWF project produces electricity without contributing to global warming, has a never-ending supply of free fuel, and does not require the transportation of fuel.
- Wind farms are an excellent environmentally friendly use of areas designated for mining.
- The wind farm acts as a valuable educational resource for local energy and environmental studies.
- The project contributes to the sustainable development objectives defined in Jamaica's energy policy.

small and large scale projects and has established unique rules for each. In general, the distinction between large-scale and small-scale projects deals with the maximum output capacity of the project, considering large-scale as industrial, and small-scale as community projects. In other words, activities with output capacities greater than 15 megawatts in renewable energy projects, 15 gigawatt hours per year in energy efficiency, or other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnes of carbon dioxide equivalent annually, are considered large-scale CDM projects.

FEES, BROKERS, AND TRADERS

The CDM helps to generate new business opportunities in the emerging market of GHGs emission reduction in the region. The identification of sellers and buyers in the CER market has



led to the emergence of brokers and traders. Their services can be extremely valuable in negotiating the arrangements among parties and walking down the complex path of the CDM. The services of these brokers and traders obviously carry an extra

BUNGE GUARÁ BIOMASS PROJECT

LOCATION

Guará, State of São Paulo, Brazil

PARTICIPANTS

The private entities of this project hosted by Brazil are Bunge Fertilizantes, S.A and Ecoinvest Carbon Assessoria Ltda.

DESCRIPTION

This project is an example of partnership between a country and the private sector. The Guará project applies fixed grating furnace technology with a generation capacity lesser than 15MW (manufacturer). This renewable energy technology (biomass for drying) supplies user with thermal energy that displaces fossil fuel. The crediting period for this project is 7 years, with can be renewed two times.

INVESTMENT

The thermal supply from biomass involved the installation of new equipment and an investment cost of approximately US\$ 94,000.

BENEFITS

- The project will contribute to the use of sustainable renewable energy sources instead of non renewable ones.

- This indigenous and cleaner source of thermal energy has an important contribution to environmental sustainability by reducing carbon dioxide emissions that would have occurred otherwise in the absence of the project. The project activity reduces emissions of greenhouse gas (GHG) by avoiding the combustion of fossil fuel source - LPG - (and CO₂ emissions), which would be generating (and emitting) in the absence of the project. Biomass combustion also emits CO₂, however its net emissions are considered zero, once it consumes CO₂ during photosynthesis. The emission reductions due to the project activity during seven year crediting period will be equal to 98,707 tCO₂.
- Guará Project takes advantage of the ash generated by the biomass combustion, utilizing it to enrich the fertilizers produced.
- The project includes pollution control systems for atmospheric emissions and complies with Brazilian environmental regulations.
- The biomass furnaces were developed, manufactured and installed by Guará plant, which provided local employment. The plant has more than 240 employees, including the 8 workers hired specifically for the Project activity.
- Bunge Fertilizantes S.A. is responsible for the training, maintenance and service on the furnace technology, which improves the local manpower skills and provides an opening for employment or recruitment of skilled staff.