IN BRIEF

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The Kyoto Protocol's Clean Development Mechanism

INTRODUCTION

The Clean Development Mechanism (CDM) is one of the Kyoto Protocol's three flexibility mechanisms aimed at helping industrialized countries meet their greenhouse gas reduction targets.(1) It is a project-based mechanism that allows public or private entities from countries with emission reduction targets (Annex 1 countries) to invest in emission reduction projects in developing countries in order to earn emission reduction credits (known as "certified emission reduction units" or CERs).(2) These credits can be used against domestic emission reduction targets or sold to other interested parties.

The CDM is also meant to help developing countries achieve sustainable development by, for example, facilitating the transfer and/or development of low-emission technologies. The CDM thus offers an incentive for developing countries to maintain their active participation in the Kyoto Protocol. Most observers agree that meeting Kyoto targets would be exceedingly difficult in the absence of the CDM.

ADVANTAGES OF THE CDM

In certain circumstances, it can prove more cost-effective for entities seeking to reduce emissions to undertake CDM projects than to reduce emissions domestically. The cost of reducing GHG emissions can vary significantly from country to country and from project to project. Yet the direct benefit to the global environment of reducing GHG emissions is the same regardless of where the reduction originates.

The appeal of the CDM is that it offers an opportunity to those with emission reduction targets to lower their Kyoto compliance costs by taking advantage of lower-cost emission reduction opportunities available in developing countries.

CDM POTENTIAL

The potential to reduce GHG emissions in developing countries under the umbrella of the CDM is considerable and is drawing interest from many organizations. China and India, in particular, could host numerous projects due to the speed at which their economies are growing and the associated opportunities to reduce emissions. The European Carbon Fund estimates that over 300 million tonnes of emission reductions could be generated annually through the development of wind farms and landfill and coal mine methane recovery and utilization projects in China alone.(3) Natsource, a private-sector consultancy active in carbon markets, estimates somewhat more conservatively that the worldwide supply of CERs could average between 150 and 250 million tonnes per year over the first Kyoto commitment period (2008-2012), which could cover up to half of the predicted global emission reduction shortfall against Kyoto targets.(4)

IS THE CDM WORKING?

Now that the Kyoto Protocol is operational and the CDM rules have been finalized, the CDM, which was floundering because of the uncertainty surrounding the viability of the Protocol, has been given a new lease on life. As of 10 January 2006, 68 projects from around the world had been registered by the CDM's Executive Board, the body that oversees the CDM.(5) Together, these projects, which range from biomass energy to methane recovery to the reduction of nitrous oxide from industrial processes, could deliver up to 30 million tonnes of GHG emission reductions on an annual basis. None of these projects have as yet been issued CERs.

The Executive Board (EB) has at times struggled to support the timely development of the CDM. The project approval process has been described as

"cumbersome and unrewarding" and "tangled in red tape."[6] It is expected that a new management plan and additional resources for the EB, as agreed to at the Kyoto Conference of the Parties held in Montréal in November/December 2005 (COP-11), will help speed up the process and, ultimately, the issuance of CERs. This is of particular concern to market participants, who are anxious to see the market for CERs develop and expand. The slow pace at which methodologies for calculating baseline emissions and monitoring emission reductions from CDM projects have been approved has proven to be an important stumbling block to the project approval process.

The EB, mindful of the need to be fair and rigorous so as to maintain the credibility of the CDM, has placed considerable emphasis on ascertaining that proposed projects result in emission reductions that are above and beyond (i.e., additional to) those that would have occurred under a business-as-usual scenario. This, of course, is not always easy to do. It is, however, absolutely critical that CERs not be issued to emission reductions from projects that would have occurred in the absence of the CDM, as this would jeopardize the integrity of the mechanism and contribute nothing to international efforts to limit GHG emissions.

Ultimately, the successful development of the CDM is inextricably tied to that of the Kyoto Protocol itself. The emission reductions attributable to CDM projects essentially have monetary value only in the context of the Kyoto Protocol. The demand for CERs could plummet, along with the price, in the absence of renewed or additional emission reduction targets beyond 2012. Uncertainty vis-à-vis the post-2012 period therefore constrains the development of CDM projects. Many projects require a stream of credits over several years if they are to be viable. The COP-11 acknowledged the importance of extending the CDM beyond 2012.[7]

THE CDM AND SUSTAINABLE DEVELOPMENT

Some observers have noted that the CDM appears to be developing in a way that favours large industrial projects that can quickly generate a substantial number of credits from the reduction of industrial gases with a high global warming potential (e.g., nitrous oxide, hydrofluorocarbons). This trend may be to the disadvantage of smaller projects that incorporate low-emission technologies and promote the sustainable development of impoverished communities. In other words, while the CDM may enable some entities to lower their Kyoto compliance costs over the coming years, it is felt that it may not in fact do much to promote sustainable development at the community level.

The high costs associated with the convoluted project approval process and administrative delays further hinder the development of small, community-based CDM projects. Prospective buyers of CERs are also hesitant to enter into contracts with developers of small projects for fear that the emission reductions might not materialize, leaving them without the CERs they need to meet their targets. It is felt by some in the development community that the CDM is geared primarily toward delivering cheap credits to prospective buyers in the industrialized world.

A CANADIAN PERSPECTIVE

Canadian companies will likely be net buyers of credits in the coming years, should the Government of Canada continue to aim to meet its Kyoto target. In this case, Canadian companies may find it advantageous to be active in the CDM arena. Those companies with competitive low-emission technologies will also be seeking to take advantage of the burgeoning export opportunities offered by the CDM. Canada thus has a clear interest in seeing a robust international carbon market emerge.

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(1) The other flexibility mechanisms are International Emissions Trading and Joint Implementation, a mechanism that allows countries with emission reduction targets to collaborate on domestic projects to reduce emissions.

(2) One certified emission reduction unit is equivalent to a one-tonne reduction of greenhouse gas emissions (measured in carbon dioxide equivalent units).

(3) Laurent Segalen, European Carbon Fund, "Enter the Dragon: how China will revolutionise the international CDM market," in International Emissions Trading Association, *Greenhouse Gas Market 2005*, Geneva, November 2005.

(4) Richard Rosenzweig and Rob Youngman, Natsource, "Looking forward from 2005: more surprises to come?" in International Emissions Trading Association, *Greenhouse Gas Market 2005*, Geneva, November 2005. To put these figures in context, it bears noting that Canada's predicted emission reduction shortfall under a business-as-usual scenario is currently estimated at approximately 270 million tonnes annually in 2010.

(5) For a synopsis of the steps involved in getting a CDM project off the ground, see http://cdm.unfccc.int/ Projects/pac/index.html.

(6) See, for example, International Emissions Trading Association, *Strengthening the CDM: IETA Position Paper for COP11 and COP/MOP1*, 2005, http://www.ieta.org.

(7) See Tim Williams, *Climate Change: The 11th Conference of the Parties to the United Nations Framework Convention*, PRB 05-16E, Parliamentary Information and Research Service, Library of Parliament, Ottawa, 22 December 2005.