Carbon Market Update

for CDM Host Countries

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About the Update

This quarterly "CDM Market Update" is a joint effort between the United Nations Environment Program (through its CD4CDM project) and the International Emissions Trading Association. The objective of the Update is to contribute toward the enhancement of the local capacity for the CDM market development by providing information of use to experts in CDM host countries. The electronic copies of the Update are also available on-line at the websites of the partner organizations.

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CDM market development:

Lessons and views from host country entities

Is time running out for the Clean Development Mechanism to mitigate climate change?

By Marco G. Monroy and Gautam S. Dutt, MGM International

The climate change mitigation community has not been idle waiting for the Kyoto Protocol (KP) to go into effect. Almost all CDM procedures are already in place, and the first dozen projects have already been "registered" under the CDM. However, many potential CDM projects have been delayed for a variety of reasons.

CDM projects typically require agreement among several entities from different countries, making the decision making process slow and complicated. Official approval of potential CDM projects requires institutions in both host (developing) countries as well as Annex 1 (industrialized) countries. In many countries these institutions are not yet fully developed. Moreover, a market mechanism such as the CDM is not entirely compatible with public bidding and other requirements when projects involve public entities such as local governments. Such procedures can add considerable costs and delays to project sponsors making potential mitigation projects less attractive.

Where a project involves significant technology transfer, and there are many

different technology providers, decision making for potential beneficiary companies in developing countries can become complicated.

Even when technology choices and engineering issues have been resolved, CDM project development takes about two to three years. Some of the reasons are a consequence of the CDM cycle. For instance, each CDM project must be based on approved baseline and monitoring methodologies and this has become the largest bottle neck in the process. While many methodologies have been approved, the scope of such methodologies is often very restricted so that many potential projects cannot proceed until new methodologies are approved.

Getting off to a slow start in a new field — emissions trading to mitigate climate — would not itself be a major problem except for two constraints.

In the first place, the same factors that delayed KP ratification also have prevented any global climate change agreements beyond 2012. Thus, while many mitigation activities would continue to reduce emissions for many years in the future, and the CDM allows for a crediting period of up to 21 years, there is currently no market for emission reductions to be accrued beyond 2012. The most cost-effective CDM projects — and with the largest potential contribution to climate change mitigation — often generate little benefits to project sponsors besides carbon credits. These projects have to recover their expenses through a revenue stream that exists only for a few years.

Secondly, according to the 1999 Marrakech Accords —setting forth the rules of the CDM— any mitigation activities started after January 1, 2000 and before November 18, 2004 can only claim credits if they can be registered prior to year-end 2005. Because of the delays associated with the CDM approval process, a great deal of "legitimate" carbon credits may not be available to project sponsors.

As a result of these two circumstances, CDM projects would appear to be less attractive to potential project sponsors, as well as fail to demonstrate the enormous potential of this market mechanism to mitigate climate change at low cost. Without this message, countries may be discouraged from making future climate change mitigation commitments, and the earth's climate will be the loser.

The main solutions are in the hands of the Parties to the Climate Change Convention: to consider eliminating or postponing the December 2005 deadline and to establish the framework beyond 2012. The CDM Executive Board will have to continue its efforts to streamline procedures for smoother registration of the projects. At the same time, potential sponsors will have to start projects as soon as possible in order to make sure the projects are viable under current conditions. □

The role of DNAs – beyond national approval

By Marcos Castro, Director a.i., Ecuadorian CDM Promotion Office (CORDELIM)

Host countries' national CDM entities have played a key role throughout the operationalization stage of the CDM. Commitment with the dual objective of the CDM – namely contributing to global GHG mitigation and pursuing local sustainable development paths – drove many non-annexes 1 parties to developing institutional capacity for the CDM. Different international capacity building programmes have been important partners in many host countries and have granted significant assistance for addressing basic capacity needs.

While implemented CDM institutional arrangements vary according to national circumstances and needs, they commonly perform functions beyond those explicitly referred to in the Marrakech Accords (i.e. designating a national CDM authority (DNAs) in charge of managing project approval procedures at the national level. Notably, many host countries' CDM entities have been actively involved in inter alia:

- *Development of the CDM regulatory framework:* Although often flooded by domestic duties, national CDM Offices have been obviously committed to the CDM regulatory process. Engagement of their officials has not been limited to participating in UNFCCC negotiations on flexibility instruments, but also covers appointments in executive and advisory positions in the official CDM administrative body and continuous collaboration with manifold events, fora and think-tanks related to CDM design.

- *Implementation of awareness raising and capacity-building activities:* Amongst other outreach tools, countless workshops and courses on CDM have been organized by national CDM Offices, frequently in collaboration with other carbon market players. Hence, awareness on carbon offset opportunities has substantially increased in a broad range of heterogeneous local stakeholders. Moreover, (one may dare to state that) CDM appeal has been decisive for drawing key sectors' attention to overall global warming concerns.

- *Pioneer project portfolio origination:* Many national CDM Offices have led the way of carbon offset project identification in their countries. They have closely worked together with national project proponents as well as with demand side players, providing valuable assistance along early stages of the CDM project development cycle. This includes provision of political and institutional support to remove those barriers "early movers" are typically confronted to whenever taking innovative steps.

- *Making progress in methodological issues:* The CDM has evolved under a "learning by doing" approach, and accordingly, capacities have been installed in many of the host countries' CDM Offices. As one result, they have contributed to gaining methodological certainty by participating in methodologies review processes at UNFCCC level, and in particular, by carrying out sector scope assessments and by maintaining permanent technical feedback with PDD developers of priority project proposals.

- *Supply-side market development:* To a different extent, CDM Offices have become accessible local platforms for fostering carbon offset opportunities in their countries. They typically manage networks of relevant national stakeholders and carbon market players, process market information (as well as methodological guidance) in accordance with domestic circumstances, and serve as a first order hub for facilitating access of local project sponsors to carbon buyers (and vice versa).

Certainly, there are multiple issues that national CDM Offices may improve on or still address so as to have smooth progress of the CDM market. Such core issues imply closer interaction with other relevant national entities and -- depending on national circumstances and priorities -- may encompass inter alia (i) campaigning for effective CDM mainstreaming into sector policies and strategies, (ii) ensuring clear domestic regulatory frames for CDM investments and CER transactions, (iii) encouraging design and implementation of incentives and mechanisms aiming at mitigating country-specific barriers, and (iv) focusing capacity development in disregarded key segments e.g. financial sector.

Stakes are high for host countries' CDM Offices as the carbon market enters a kind of consolidation stage – and they should not reduce themselves to "one-stop shops" for national approval issuances. Besides pending procedural improvements and methodological guidance still needed for sharpening the current CDM modus operandi, postponed strategic definitions are waiting around the corner. For instance, certainty on validity of CERs accrued throughout post-2012 crediting periods and further development of offset trading alternatives building on the current project-based approach (e.g sector-scope or policy-based instruments) are just two crunch issues that are determinants for ensuring a fair present value for granted compliance assistance as well as for promoting long-term participation of developing countries in the global carbon market. It seems that host countries' CDM Offices must go in front on these matters, as they would otherwise not make up for generated domestic expectations. □

ICONTEC – an Applicant to become an Operational Entity that validates, verifies and certifies CDM project activities

By Ing Juan Alberto Gracia, CDM Coordinator Service, ICONTEC

ICONTEC is currently pursuing the accreditation process under the Clean Development Mechanism – Executive Board (CDM-EB) to the United Nations Framework Convention on Climate Change (UNFCCC), to be officially designated as an Operational Entity. ICONTEC has structured validation and verification services for CDM projects and it is supported by a high quality, internationally trained and knowledgeable staff. The goal is to get the full accreditation for the second semester of 2005 making ICONTEC the first Latin American DOE. In addition, ICONTEC will be an alternative in the CDM market to reduce transaction costs of CDM projects.

Currently, ICONTEC has been ratified by the CDM-EB as Operational Entity to validate, verify and certify emission reductions from CDM project activities generated in its area of influence, i.e. Central and South America and the Caribbean region.

The CDM Accreditation Panel in its 17th meeting held in Bonn, Germany, bestowed ICONTEC the "indicative letter" endorsing its successful compliance of the desk review and on site assessment stage, which evaluated applicant's sufficiency and structure according to requirements of the CDM-EB 17th decision as well as the technical, administrative and financial capacities.

For ICONTEC, the most challenging issue in pursuing the accreditation process was the high cost involved. These costs include trainings, travel arrangements for the accreditation team, fees to the Executive Board, etc. Although they are considered as an investment, ICONTEC found that the return period is long, considering the limited numbers of approved CDM projects and long accreditation process.

ICONTEC offers competitiveness to the region through this new CDM certification service as part of the process of generating memorandum of understanding to trade CERs. Considering that currently Colombia has approximately 45 CDM projects in the pipeline, representing a potential GHG emission reduction of 70.7 millions of CO_2e (according to the Ministry of Environment, Housing and Territorial Development of Colombia). However, in the rest of the Latin American countries, there are many CDM projects that are being developed.

The Minister of Environment of Colombia, Sandra Suarez Perez recognizes CDM benefits for the country and its entrepreneurs. Although it is one of the countries with no binding commitments in the first commitment period (2008-2012), Colombia has given a high priority to climate change problem, and assigned the resources to execute the actions to participate in the GHG emission market through CDM. These opportunities offered by the Kyoto Protocol (KP) include enhancing international cooperation, integrating with the international community and contributing to sustainable development.

Various policy directives and strategies have been defined by the government to respond to the threat of climate change and to comply with the assumed international commitments and get the best of the opportunities from GHG emission reduction including sink activities. □

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Leveraging Sustainable Development in CDM

By Rey Amaury Alburo Guarin, Development Bank of the Philippines

The Clean Development Mechanism (CDM) market is deemed to be a two fold market based mechanism for greenhouse gas emissions reductions (GHG-ER) compliance among the Annex B developed countries and promotion of sustainable development (Sus Dev) among non annex 1 developing countries (DC).

Initially, there were high hopes that CDM would usher in a new form of climate friendly foreign direct investments (FDI) as against the traditional FDI. Expectations of a new flow of resource exchanges in finance, technology and knowledge would come the way of DCs offering the best CDM GHG-ER projects in energy efficiency, renewable energy or fugitive emissions capture thereby fast-tracking SusDev. Unfortunately, this largely remains to be seen.

What has evolved is the proliferation of carbon funds buying low cost GHG-ER products instead of investing in underlying GHG-ER projects. While the CDM project activity transactions costs can be conditionally covered by these buyers, the shouldering of CDM underlying project development finance is presumably up to the DC project proponents using available local financing facilities from the private sector or existing and dedicated Official Developmental Assistance funds for CDM eligible underlying projects. The problem from a resource allocation viewpoint could be that the existing set of scarce capital resources are already fully allocated in their own developmental and investment project portfolios without CDM consideration. Opting for the CDM path given, its new set of risks, added time constraints of CDM project cycle processing, low negotiated prices of ERPAs and limited volume off-take of CERs, simply do not yet offer mutually beneficial returns. This can be true especially for smaller DCs with little FDI flows, smaller and/or weaker economies and lower GHG-ER potentials unlike countries such as China and India. Under this scenario, it can be seen that SusDev promotion is a Business as Usual case too and has a natural barrier towards CDM. Thus, how can DCs enhance SusDev and reduce its barriers in the CDM market? If we are to remain true to the spirit of the Kyoto Protocol seeking to reduce GHG emissions and promoting SusDev, then maybe we can seriously consider the following:

1. DC's should negotiate for or build in a SusDev premium on ERPAs or CERs/ from CDM Projects. Knowing a CDM project's potential Economic Internal Rate of Return (EIRR), one can perhaps do a present value of these and systematically add it on the CER prices.

2. Develop country investors, similar to the breed of Socially Responsible Investors (SRI), ought to have a preferential option to buy CERs with SusDev premium to financially encourage and reward CDM project proponents offering higher SusDev impacts thus, preventing a race to the bottom.

3. An independent CER rating agency should be established to objectively assess the CER SusDev impact and therefore guide prospective "CDM SRI's" when buying CERs. CERs as a financial commodity ought to be rated too. □

Note: The author is currently the Climate Change Program Manager for the Development Bank of the Philippines. Views and opinions of the author here neither reflect the position of the Bank nor of the Philippine government. For inquiries and comments send it to rey.guarin@gmail.com

Views in the carbon market CDM – the need to reform

By Andrei Marcu, International Emissions Trading Associations

International Emissions Trading Association (IETA) believes that the Clean Development Mechanism (CDM) is critical to the success and viability of the global greenhouse gas (GHG) market. If properly implemented, the CDM holds the potential of influencing $100 billion in green private investment into developing countries, thereby helping promote sustainable development.

IETA has strongly supported the CDM and acknowledges that the Executive Board (EB) and its staff have delivered a substantial amount of work in spite of serious resource constraints.

However, there are significant concerns regarding different aspects of the CDM process, including bottlenecks in the approval of methodologies, the application of additionality criteria and the registration of projects. The CDM will, in its current form, function in certain niche areas. There is a real danger however, that it will remain a "boutique" operation.

With the entry into force of the Kyoto Protocol, it is essential that the CDM be governed, regulated, managed and funded in a manner that benefits a global institution with significant financial impact.

The lessons learned from the "prompt start" phase indicate the need to intensify efforts to streamline and improve CDM processes and make them more cost-effective, especially in areas such as simplifying additionality criteria, improving quality of input by project proponents, consolidating approved methodologies, improving quality of output (transparency, substantiation and consistency of decisions and guidance), enhancing mutual understanding between the Executive Board and DOEs on the role of the latter as an "extended arm of the Board", incorporating, at appropriate points in CDM processes, regular and direct interactions between stakeholders and the Executive Board or its Panels, and improving system performance against agreed time-lines.

Bold actions, within the confines of the Marrakech Accords, by those that support the CDM and its Executive Board, are necessary leading to the Montreal meeting, in order to equip the CDM with the necessary tools to accomplish its missions. Such proposals could include:

- The Executive Board focusing on its strategic oversight role, consistent with the Marrakech Accords, while dealing with specific projects only in exceptional cases,
- Simplified additionality criteria that should avoid perverse incentives and rely primarily on sound baselines for emission reductions, as envisaged in the Marrakech Accords,
- The accelerated and proactive development of methodologies,
- An effective "fast track" for small-scale projects and a supportive approach to bundling small-scale and "micro" projects,
- Nominations to membership of the Board should be based on agreed terms of reference, resulting in a mix of policy, business, regulatory and technical expertise, as well as regional perspectives, that enables the Board to fulfill its oversight role;
- The Board must have adequate technical support by a dedicated secretariat unit under a strong leadership which can outsource technical work, including work on development of methodologies,
- The credibility of any strengthened governance will depend on the adequacy of funding. Parties making use of the CDM for compliance with their Kyoto Protocol commitments have a special responsibility for contributing funds. The required funds should be committed at COP/MOP 1 for a three-year period and regularly thereafter,
- Indicators to measure the success of the Executive Board and the CDM should be established. The ultimate measure of success, however, must be the contribution of the CDM to limiting global GHG emissions,
- A better geographical spread to least developed and other poor developing countries will be encouraged by expeditious registration of small-scale projects and support for bundled projects,
- National and regional capacity building is needed to increase the supply of projects from least developed and other poor developing countries. □

Status and analysis of the CDM project portfolio

by Jørgen Fenhann, UNEP Risø Centre

The CDM is speeding up. Since the first issue of Carbon Market Update in May, about 100 new CDM have been sent for validation by DOE's. With about one project per day, the Executive Board/its Methodology Panel have had problems because of the rapidly increasing workload. This portfolio analysis covers only CDM projects that have reached the stage of validation and the Project Design Documents (PDD's) which are available at the UNFCCC CDM website - cdm.unfccc.int.

The annual CER's for each project is calculated by dividing the reductions stated here for the first crediting period with 7 or 10 years as chosen in the project. If the first crediting period for the project is finished before 2012, the reductions for the missing years until the end of 2012 will be added.

Table 1 show that 13 projects have now been approved by the EB. The UNFCCC website also reveals that 10 more projects have asked to be registered. Now a project can be registered without an Annex I Project Participant but CER's cannot be issued without said Participant. The projects "at validation" include both projects that are open for comments and validated projects that have not been asked to be registered. Given the fact that only 85 JI projects have been under validation, CDM is clearly ahead of JI.

Table 2 shows the sartorial distribution of the projects in the pipeline. It is good to finally see a solar project (i.e. 1000 solar cookers in Indonesia). Wind is catching up with 13 projects with one of them already registered. No new geothermal projects have been submitted and the number of landfill projects has not been increasing either. However, the number of biogas projects has more than doubled after the pig waste developer AgCert submitted 15 waste management projects covering about 200 farms in Brazil and Mexico. The most popular CDM project types are still hydro and biomass energy projects using bagasse and other agricultural/forestry wastes. Energy efficiency and transport are still lagging far behind. Only 8 projects covering energy savings at large industrial facilities and the low-cost urban housing energy project in South Africa have been submitted.

After the methodology "Decomposition of N_2O from existing adipic acid production plants" was approved by the EB, two projects (5000-10000 CER's/year) have been submitted. Two more HFC_{23} projects, each about 4000 CER's annually have entered the pipeline. Table 2 shows that these 6 HFC and N_2O projects gain more CERs than the other 196 CDM projects altogether.

The small-scale CDM methodologies are popular; 46% of the projects in the pipeline are small-scale. The smallest so far is the "E7 Bhutan 70 kW micro hydro power project" reducing only 524 tons of CO_2 annually.

The total annual number of CER's created by the 194 projects is 47 $mtCO_2$.The total number of CERs expected to be generated by these projects from the start of their crediting periods until the end of 2012 is 347 $mtCO_2$.

As of last count, project participants have submitted 132 proposals for new methodologies for full-scale CDM projects. Out of these proposals, 23 have been approved and the EB has additionally developed 4 consolidated methodologies. Table 3 shows how many approved methodologies are available in each sector for project developers to use in their PDDs. Table 3 explain that projects in some sectors like energy efficiency or transport are missing.

None of the 11 methodologies for afforestation/reforestation submitted have yet been approved. However, the first draft for small-scale A/R projects developed by the Afforestation/Reforestation Working Group under the EB is on the web for public comments.

Table 4 shows that most CDM projects take place in Brazil (with 67 projects) and in India (38 projects). Now projects have started coming in: 2 hydro, 3 landfill and 4 wind projects from China are in the pipeline. Countries like Chile, Honduras, Mexico and the Philippines have reached the level of about 10 projects. Africa and the Middle – East/North Africa is lagging far behind.

All the analysis presented and the background information for all methodologies proposed and validated projects can be downloaded from www.cd4cdm.org, where it is regularly updated. □

Table 1: CDM projects in the pipeline

CDM projects in the pipeine 1. September	Number
At validation (public comments for for 30 days; LULUCF 45 days)	232
Request for registration (normal 8 weeks, small-scale 4 weeks)	9
Request for review	2
Withdrawn	1
Under review (final<=2nd EB meeting after decision)	1
Rejected by EB	0
Registered	19
At verification	0
Certified	0
Request for CERs	0
CER issuance review (final <30 days)	0
CER issued (<15 days after the receipt of request for issuance)	0
Total number of projects	**264**

Table 2: Sectoral distribution of the projects

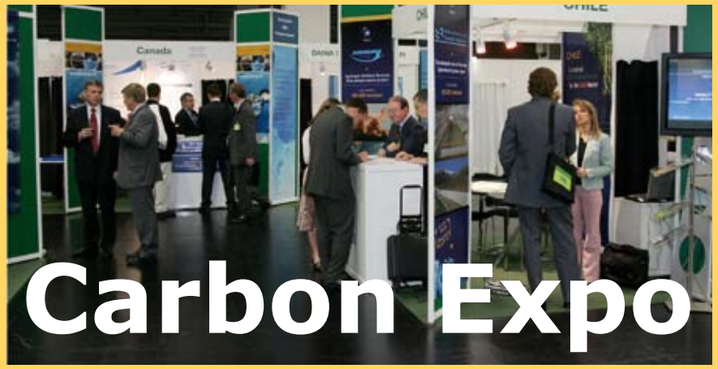
Type	Number		CERs/year	
Biomass energy	73	28%	3531	7%
Hydro	58	22%	3202	6%
Landfill gas	32	12%	8574	17%
Agriculture	33	13%	2554	5%
Wind	17	6%	1872	4%
EE Industry	15	6%	418	1%
Biogas	7	3%	471	1%
Fossil fuel switch	9	3%	370	1%
HFCs	4	2%	12375	24%
Geothermal	3	1%	772	2%
EE Household	3	1%	42	0%
Solar	3	1%	44	0%
N_2O	2	1%	15108	30%
Fugitive	2	1%	912	2%
Tidal	1	0%	311	1%
Transport	1	0%	7	0%
Energy distribution	1	0%	15	0%
Total	**264**	**100%**	**50577**	**100%**

Table 3: The number of approved full-scale methodologies

Approved full-scale methodology	Number
Zero emission renewables (no biomass, no hydro dams)	3
Biomass (not applicable for non-renewable biomass)	3
Landfills and wastewater	7
Animal waste	3
Fossil fuel switch	2
Fugitive emission from fuels	2
HFC	1
N_2O	1
Energy efficiency, Industry	4
Energy efficiency, Service	1
Total	**27**

Table 4: Host country distribution

Country/region	Number
Latin America	140
Argentina	5
Bolivia	2
Brazil	79
Chile	11
Colombia	1
Costa Rica	1
Ecuador	2
El Salvador	2
Guatamala	3
Honduras	10
Jamaica	1
Mexico	15
Nicaragua	1
Panama	3
Peru	4
Asia & Pacific DC	110
Bangladesh	1
Bhutan	1
Cambodia	1
China	13
Fiji	1
India	64
Indonesia	2
Malaysia	5
Papa New Guinea	1
Philippines	8
South Korea	4
Sri Lanka	3
Thailand	4
Vietnam	2
Europe (FSU)	5
Armenia	1
Moldova	4
Sub-Sahara Africa	5
South Africa	5
North Africa & Middle-East	4
Israel	1
Morocco	3
World	264



Carbon Expo 2005

The Carbon Market is taking off. At least 100 deals for the purchase of carbon emissions reductions from poor and middle income countries from the developing world and countries in transition were reached and/or advanced during CARBON EXPO 2005 - a unique business platform for the emerging carbon market, which attracted 134 exhibiting companies and more than 1500 participants from 87 countries, including more than 150 journalists.

CARBON EXPO 2005, the world's biggest trade fair and conference for emissions trading and the carbon market, was held from May 11th-13th May 2005 in Cologne, Germany. The event was jointly organized by the World Bank, the International Emissions Trading Association (IETA) and Koelnmesse. The event succeeded in bringing together the world's market players: Companies subject to voluntary or mandatory trading schemes, Carbon Funds, Project Developers, Exchanges and Bi- and Multilateral Finance Organizations. In addition, all service providers involved in the market exhibited at the event: Verifiers, brokers, law firms, monitoring software providers etc.

The accomplishment of CARBON EXPO 2005 is that it has become a real business place and reflects the changes that have taken place within the greenhouse gas market in the last few years.

Several billion Euros were represented at CARBON EXPO 2005 — this money was raised by 20 Carbon Funds plus individual companies that want to buy carbon assets in developing countries. 29 high level representatives from developing countries and countries in transition offered these assets. More than 100 emissions traders from European, North American and Asian Companies participated at CARBON EXPO 2005. All major trading platforms for EU Allowances were present at the event. "The huge number of people here at Carbon Expo shows that the carbon market is maturing", explained Joke Waller-Hunter, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC).

Representatives of low and middle income countries from Africa, Asia, North and South America and Central and Eastern Europe also said that they were encouraged with the results of the three-day fair. Their goals — making initial business contacts, gaining an overview of the market, swapping experiences, offering carbon assets and starting deals — were all accomplished in full.

Godfrey Semakula, Senior Investment Executive, and Uganda Investment Authority, said: "We came with 15 projects: in forestry, mini-hydro, cogeneration, landfill, solar, and waste management. There was serious discussion and high interest in 13 of those projects. CARBON EXPO has been great exposure for us. Without CARBON EXPO, potential buyers would not have known about these projects."

Eduardo Reyes, Sub-Administrator General, and National Climate Authority of Panama, emphasized: "This experience was invaluable for Panama. At CARBON EXPO a lot of investors were interested in landfill projects in Panama. It turned out to be a great venue to attract buyers for projects."

Julia Justo Soto, Executive Director, National Environment Fund-Peru, and FONAM, added: "Peru sold 10 projects here at CARBON EXPO. It was a critical venue for us for these sales."

Besides offering excellent networking and business opportunities, the CARBON EXPO 2005 also facilitated the knowledge exchange among market participants. Presentations are available at the CARBON EXPO website www.carbonexpo.com/presentation/. The next CARBON EXPO will be held from May 10th-12th May 2006 in Cologne, Germany. □

State and Trends of the Carbon Market 2005 (EXECUTIVE SUMMARY)

By Franck Lecocq, Development Economics Research Group, World Bank
Karan Capoor, Carbon and Environmental Finance, Africa Region, Environment and Sustainable Development, World Bank

The carbon market encompasses both the *generation of emission reductions (ERs)* through *project-based transactions* where a buyer purchases ERs from a project that produces measurable reductions in greenhouse gases (GHG), and *trading of GHG emission allowances* allocated under existing (or upcoming) cap-and-trade regimes such as the European Emissions Trading Scheme (EU ETS).

This study reviews the state and trends of the carbon market as of May 2005, based on the material provided by the Evolution Markets LLC and Nat source LLC, and based on interviews with a large number of market participants. Its main findings are as follows:

- The regulatory framework of the carbon market has solidified considerably in the past 12 months with the start of operations of EU ETS on 1 January 2005 and the entry into force of the Kyoto Protocol on 16 February 2005. While regulatory uncertainty continues notably for the registration of Clean Development Mechanism (CDM) projects by the CDM Executive Board, the approval of climate mitigation plans in Japan and Canada or the allocation plans under the EU ETS for the 2008-2012 period, the very existence of policies constraining GHG emissions up to 2012 is no longer in doubt.

Project-Based Transactions

- The market for project-based ERs is still growing steadily: 107 million metric tonnes of carbon dioxide equivalent (tCO_2e) have been exchanged through projects in 2004, a 38% increase relative to 2003 (78 $mtCO_2e$). We estimate that the volume exchanged so far in 2005 (January to April) is 43 $mtCO_2e$, most of which are under either Joint Implementation (JI) or the CDM. In the past 12 months, the number of JI and CDM projects under development has also increased substantially, with notably a large supply of unilateral CDM projects.
- New buyers of emission reduction have emerged. Private and public entities in Europe now represent 60% of the volume of ERs purchased through project-based transactions (January 2004 to April 2005) against 21% for private and public entities in Japan and 4% for private entities in Canada.
- The supply of emission reductions has remained heavily concentrated in few countries: notably India—by far the largest supplier of project-based ERs on the market — Brazil and Chile. Apart from a few small-scale deals, poorer or smaller countries have seen limited activity since January 2004. Africa, in particular, has been to our knowledge only one new large-scale transaction during that period and, in comparison with other regions, has relatively few projects in preparation.
- HFC_{23} destruction is still the dominant type of emission reduction projects in terms of volumes supplied (25% from January 2004 to April 2005). Projects capturing methane and N_2O from animal waste now rank second (18%), ahead of hydro, biomass energy and landfill gas capture (about 11% each). Projects abating non-CO_2 emissions account for more than half of the total volume supplied, while traditional energy efficiency or fuel switching projects, which were initially expected to represent the bulk of the CDM, account for less than 5%.
- Due to the heterogeneity of the underlying projects and contract terms, the spread of prices of project-based emission reductions at any given time is very large. The whole spread has also moved substantially upward since last year's report. Verified Emission Reductions have traded between \$3.6 and \$5/tCO_2e between January 2004 and April 2005, with a weighted average of \$4.23. Certified Emission Reductions have traded between \$3 and \$7.15/tCO_2e over the same period of time, with a weighted average of \$5.63/tCO_2e the decline of the dollar relative to the euro can explain only part of the observed increase relative to last year.

Allowance Markets

There are four active markets for GHG allowances as of May 2005: the EU ETS, the UK Emissions Trading System, the New South Wales trading system and the Chicago Climate Exchange. Volumes exchanged on these allowance markets have increased dramatically compared with last year, and are now comparable to the volumes exchanged through project based transactions. Cumulative volume exchanged on these four markets from January 2004 to March 2005 is about 56 $mtCO_2e$.

- Of the four allowance markets listed above, the EU ETS is the largest, with an estimated 39 $mtCO_2e$ exchanged since January 2004, the bulk of which was transacted since January 2005.
- Unlike project-based assets, allowances are homogeneous assets, and purchase contracts for allowances are fairly homogenous as well. As a result, the spread of prices for EUAs at any given point in time is small. In other words, one can speak of "the" price of EUAs.
- EUAs traded between €7 and €9 in 2004, but their price has increased substantially in recent months, to reach more than €17 in March and April 2005.

▷

▷ *Price of EUAs vs. Price of JI/CDM ERs*

- The widening gap between prices of carbon in JI/CDM and in the EU ETS is raising concerns from project sponsors and host countries. Three sets of elements can explain this difference.
- First, the markets for EUAs and for JI/CDM ERs are very different. Project-based ERs, as long as they have not been registered and delivered, are subject to important registration and delivery risks. By contrast, EUAs are government-issued, compliance-grade asset. And delivery risks in forward contracts for EUAs within Europe are likely to be smaller, on average, than in contracts for forward delivery of project-based ERs from developing countries.
- Second, the two markets are only partially connected. Precisely, for a project-based ER to be valid under the pilot phase of the EU ETS (2005-2007), the seller must be able to guarantee delivery of CERs from the 2005, 2006 or 2007 vintages, which can be challenging. In addition, certain technical aspects of the import of CERs into the EU ETS are still subject to some uncertainty.
- Third, there are reasons to believe that the current prices of EUAs do not reflect long term equilibrium price between supply and demand on the EU ETS: few entities are selling allowances, there are still large uncertainties over some national allocation plans, and weather and high oil prices have had an important impact on prices. Relatively thin volumes traded so far have also resulted in high price volatility.

Outlook

- Taken together, these developments suggest that the carbon market is responding to the ratification of the Kyoto Protocol and to the beginning of operation of the EU ETS. Increased activity, both on project- and on allowance-based markets is extremely likely in the coming years.
- Major uncertainties remain however, notably the absence of any price signal for emission reductions beyond 2012 which limits the impact of carbon finance on CDM in projects with regular lead times. The amount of AAUs that Russia and Ukraine will supply to the market is also a key uncertainty for the medium-term balance between supply and demand on the carbon market. □

Carbon Funds for CDM (continued from Issue no. 1)

Name of Fund / Programme	Size of Fund / Program	Initiative by	Focused Project Categories	Geographic Focus	Typical Size per Project	Website		Contact Name	Personal Email Address	Alternative / Generic Email Address
Funds managed by WorldBank / IFC and other Multilateral Financial Institutions										
Danish Carbon Fund (DCF)	US$35 million in the first portfolio of 5-7 projects	Danish government; Fund managed by the World Bank	Primarily wind power, combined heat and power, hydropower, biomass-use-for-energy purposes and landfill projects	Economies in transistion and developing countries	NA	http:// carbonfinance.org				helpdesk@ carbonfinance.org
Spanish Carbon Fund	US$210 million	Spanish government and the World Bank; Fund is open to the participation of Spanish public and private entities.	Renewable energy, biomass and agricultural waste products, urban waste management, industrial processes	Latin America, North Africa, East Asia, South Asia, Eastern Europe and the Russian Federation	NA	http:// spanishcarbonfund.org				helpdesk@ carbonfinance.org
Private Fund										
Asia Carbon Fund	Euro 200 million, 8-year closed-end fund (3 closing, first close: Euro30-50M)	The Asia Carbon Group	Primarily RE projects, but EE and Chemical projects are also considered	Asia, with a focus on India and China (50% allocation). Other countries include Malaysia, Thailand, Vietnam, Indonesia, Bangladesh, Bhutan, Sri Lanka & Mauritius	Eruo 15-20M	http://www. asiacarbon.com/ asiaCarbonFund. htm				info@ asiacarbon. com
Trading Emissions PLC	US$200 millions	Private sector investors	All categories (for CDM - CERs andVERs)	All regions (JI, CDM & EU-ETS)	No upper or lower limits			Simon Shaw, Justin Guest, Desmond Godson	simon.shaw@ epicip.com, justin.guest@ epicip.com, des.godson@ epicip.com	
IUCN Climate Fund	US$10million	IUCN	Afforestation / Reforestation	Global with a focus on South/Southeast Asia, Africa and Latin America	USD1,500,000	www.iucn.org/ themes/climate		Hans Friederich, Head, Conservation Finance	hans. friederich@ iucn.org	climate@iucn. org
RNK Capital LLC/ CDM Project Tender	Initial CDM Tender of US$ 25 million	RNK Capital LLC	All types (except LULUCF and nuclear)	Global	All sizes	http://cdm. rnkcapital.com/				cdm@ rnkcapital.com

On-Line Resources

(continued from Issue no.1)

Latest information on CDM and other relevant decisions by UNFCCC

UNFCCC website (http://cdm.unfccc.int/) has all the updated information on the CDM, including the report of the last EB meeting, new methodology search tool, agendas for the upcoming COP11 (COP/MOP 1).

News services and Newsletters

Energy and Climate News, WBSCD
Weekly newsletter compiling articles from major newspapers and magazines, focusing on energy and climate issues in the context of sustainable development.
Subscription:
wbcsdenergy@group.wbcsd.org

Tiempo Climate Newswatch, University of East Anglia
Weekly online magazine on climate and development
http://www.tiempocyberclimate.org/newswatch/
French-language CDM mailing list.
Subscription:
http://www.initiative-mdp@media-terre.org

KLIMA-INFO,CaPP,GTZ quarterly newsletter on climate protection and development cooperation
http://wwwgtz.de/en/themen/umwelt-infrastruktur/umweltpolitik/4831.htm

CDM reports, training tools and presentations

IPIECA CDM Navigator by IPIECA (for the development of oil and gas sector emission reduction projects including Gas Flaring Reduction, CO_2 Capture and Storage, Energy Efficiency, Fuel Switching, Cogeneration)
http://www.ipieca.org/

CDM Methodologies Guidebook by Global Environment Centre Foundation (GEC)
http://gec.jp/gec/gec.nsf/en/Publications-Reports_and_Related_Books-CDM_Meth_Guidebook

CDM Manual for project developers and policy makers by Global Environment Centre Foundation (GEC)
http://gec.jp/gec/gec.nsf/en/Publications-Reports_and_Related_Books-CDM-Manual-2004

2005 State and Trends of the Carbon Market by World Bank /IETA
http://www.ieta.org/ieta/www/pages/download.php?docID=899

Realizing the development dividend: making the CDM work for developing countries by IISD
http://www.iisd.org/publications/pub.aspx?id=694

Approaches for Future International Co-operation by Cédric Philibert, IEA,
http://www.oecd.org/dataoecd/56/35/35009660.pdf

Guide to Bundling Small-scale CDM Projects" by IT Power
http://www.cdmpool.com/reports0797%20Handbook%20FINAL%20Version.pdf

Discussion papers on four "line of inquiry" by IISD (i.e.Climate Change and Sustainable Economic Growth, Climate Change and Technology, Climate Change and the International Carbon Market, Climate Change and Adaptation) in support of the preparation for COP11/MOP1 by the government of Canada
http://www.iisd.org/climate/unfccc/loi.asp.

Analysis tools for emissions trading by Henk Harmsen
http://www.carbonmetrics.com/

Carbon Funds of this issue

Carbon Funds managed by EcoSecurities

EcoSecurities, the world's leading carbon origination, structuring and commercialization group, maintains two Small-Scale CDM Project Facilities on behalf of the Republic of Austria and Japan Carbon Finance.

The Clean Development Mechanism (CDM) is an application of the Kyoto Protocol that allows Annex 1 countries to purchase Certified Emission Reductions (CERs) from projects located in developing countries and aimed at mitigating greenhouse gasses. Small-scale CDM projects comprise their own set of requirements and methodologies within the CDM, and are projects that emit fewer than 15 kilotonnes of Carbon Dioxide equivalent per year, have installed capacities below 15 MW or improve energy efficiency up to 15 GWh per year.

In November 2004, the "Austrian CDM Small-Scale Project Facility" began purchasing Certified Emissions Reductions (CERs) from small-scale projects in developing countries under CDM. The projects are based on production of renewable energy, energy efficiency, fuel switching, methane capture, and/or reduction of industrial emissions. The Facility will acquire 1.25 million tons of CERs generated between 2006 and 2012. It is expected that this Facility will contribute substantially towards Austria's international climate obligations under the Kyoto Protocol and the respective EU agreements in a cost-effective manner, while simultaneously fulfilling Austria's desire to support sustainable development in CDM countries.

In August 2005, EcoSecurities and Japan Carbon Finance unveiled the "Japan Carbon Finance, Ltd. CDM Project Procurement and CER Sale Facility," which will purchase CERs from small-scale projects in developing countries under the CDM. The facility will acquire 1 million tons of CERs generated between 2008 and 2012. While it is expected that this Facility will assist domestic industry in Japan's effort to reduce greenhouse gas emissions voluntarily under the Kyoto Protocol in a cost-effective manner, the most attractive element is that these projects will support sustainable development in CDM countries. As such, EcoSecurities will ensure that all projects meet Japan's internal environmental screening procedures developed by the Japan Bank for International Cooperation (JBIC).

EcoSecurities was founded in 1997 by experts in the GHG field. With offices in the UK, the USA, Brazil, Holland, Malaysia, China, and Indonesia. EcoSecurities is the largest dedicated climate change advisory firm in the world, specializing in emissions trading and strategic advisory services to the sector. EcoSecurities has structured and transacted several of the world's first and largest certified emission reduction trades to date, and manages a carbon facility with Standard Bank to purchase emissions reduction credits on behalf of institutional and government buyers. EcoSecurities has also joined with E+Co, the leading provider of finance to small-scale clean energy projects in developing countries, to create 2E Carbon Access, the first carbon finance service developed exclusively for clean energy projects under 15MW.

More information can be found on our website: www.ecosecurities.com

The Greenhouse Gas Credit Aggregation Pool (GG-CAP) of Natsource

In February 2005, Natsource Asset Management Corp. (NAM Corp), a wholly owned subsidiary of Natsource LLC, launched the Greenhouse Gas Credit Aggregation Pool (GG-CAP). GG-CAP is one of the world's first operational private sector mechanisms to be launched with the sole objective of helping corporate and governments manage their greenhouse gas (GHG) compliance requirements cost-effectively. Buyers can use ERs purchased by GG-CAP to comply with emission reduction requirements from 2005-2012 imposed by the European Union Emissions Trading Scheme (EU ETS) and by nations such as Canada and Japan in accordance with their obligations under the Kyoto Protocol (KP).

GG-CAP Buyers have committed to over €100 million (approximately US$123 million). We expect this figure to be higher when deals are announced in the near future. The participating companies are engaged in electricity generation, chemical manufacturing, oil and gas production, and gas transmission and distribution.

GG-CAP will acquire and manage the delivery of a high quality portfolio of ERs for participants by: (1) aggregating individual buyers' demand to achieve economies of scale; 2) reducing delivery risk through portfolio diversification; and 3) utilizing proven risk management techniques.

The pooling of Buyers' demand enables the purchase of all or a significant portion of a project's entire offering of ERs, and creates syndication opportunities with funds or buyers. It also allows the manager to reduce transaction costs associated with development, origination and management of GHG compliance instruments, and creates a source of demand for sellers around the world. Sellers will also benefit from the efficiency and speed of GG-CAP's screening, approval, negotiation and purchasing process.

GG-CAP is purchasing a diverse portfolio of ERs, and can source supply from a wide range of countries and project technologies. It uses its proprietary Delivery Risk Model (DRM) to optimize portfolio diversification, evaluate project and portfolio delivery risk and pricing of ERs from proposed projects, and evaluate the impact and value of risk mitigation measures.

In addition to portfolio diversification, GG-CAP will utilize proven risk management techniques such as reserve margins, risk management contracts and insurance products to reduce the risk of under-delivery of contracted ERs and to build a high valued portfolio for buyers.

GG-CAP will leverage Natsource's significant experience in and knowledge of emissions markets derived from its global team of experts. Bolstering this is. The industry-leading experience of its manager, Paul Vickers, who has contracted for and managed millions of tons of GHG ERs in the private sector. □

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Progress of CD4CDM Project: Update for North Africa Region

By Sami Kamel, UNEP Risø Centre

During the first and second quarters of 2005, CD4CDM project in Egypt and Morocco has witnessed various new developments and the implementation of different activities. Following several policy-level CDM workshops organized in the two countries in 2004 and early 2005, a shift in capacity building strategy took place were the workshops became more targeted and sector-specific. For example, in Egypt, a sectoral workshop was organized by the project's national team for the fertilizer industry. The workshop was organized between 5th and 6th of April 2005 and was attended by key stakeholders in the sector. The purpose of the workshop was to build the capacity of the participants in CDM project development. A second targeted workshop was organized on May 7th for the investment promotion authority and the Federation of Egyptian Industries along with several of their affiliated companies.

In Morocco, the national CDM council has approved up to 21 projects which is expected to attract an increasing number of carbon credit buyers interested in evaluating CDM project opportunities in the country. In addition, the CD4CDM national team has recently completed a detailed study on small-scale projects in Morocco, their potential, and means for possible bundling of the projects. The study will be used to raise awareness among policymakers towards the potential of small-scale CDM project in the country and will provide guidance as to the promotion of this particular sector. During the same period, both countries have actively participated in the 2005 Carbonexpo in Cologne, Germany. During the event, country delegates from Egypt and Morocco had the opportunity to engage in extensive project promotion discussions with global carbon market players. As a result of the successful representation in the Carbonexpo, and following the event, the DNAs and local CDM experts were contacted by various carbon credit buyers to further explore specific project opportunities in each country.

In the MENA region in general, the progress of CDM project development has been closely linked to the institutional preparedness of the host countries, the level of political will among host country government agencies, and the level of CDM awareness among relevant private sector entities, especially consultancy firms. It is interesting to note that ratifying Kyoto Protocol (KP) and establishing a Designated National Authority (DNA), the two key CDM participation requirements, are not necessarily sufficient actions to turn a host country into a CDM destination. In addition, to having a host country fulfill these two requirements, carbon credit buyers seem to be also interested in the presence of a CDM project portfolio and a well-defined national project approval procedure. Mainly countries that have received technical assistance for capacity building in CDM were able to satisfy all these requirements, which is evidence for the importance of building capacities for CDM. □

News from CDM host country:

Cambodia

By Sum Thy, Climate Change Office, Ministry of Environment, Cambodia

Cambodia has developed a set of sustainable development criteria to assess proposed CDM projects. A draft sub-decree on Establishment of Cambodian Climate Change Committee has been submitted to the Council of Ministers for approval. This draft sub-decree contains provisions on the establishment of a permanent DNA for Cambodia.

A Project Design Document (PDD) of Angkor Biocogen Power Project has been posted in the UNFCCC website for public comments. The project is designed to use rice husk for electricity generation that would otherwise be left to decay. It involves the construction and operation of a 1.5 MWe new rice husk power generation plant adjacent to Angkor Kasekam Roongroeung Rice Mill (Angkor Rice Mill) in Kandal Province in Cambodia. The project will lead to an estimated reduction of emissions of 45,815 tCO_2eq per year.

A Methane Recovery Project in Stung Meanchey Landfill has been developed by ACTELIOS S.P.A. of Italy in collaboration with CINTRI CAMBODIA Ltd, a local waste collecting company. A letter of Non-objection has been given by the Ministry of Environment to the project developer. The estimated greenhouse gases reduction generated from the project up to a period of ten years will be about 858,000 tCO_2eq.

Other potential CDM projects currently under consideration are: (1) Cambodia Fuel wood Saving Project (CFSP), (2) Rubber plantation project in Modalkiri province (under feasibility study), (3) Small Piggery Biogas, (4) Cetic International Hydropower Development Company Ltd. Kirirom 3 Minihydro (13MW), (5) Mekong Wood Waste Project, and (6) Kamchay Hydropower. □

For more information, contact Sum Thy at cceap@online.com.kh.

Upcoming Events for CDM host countries (September-December 2005)

- 19-20 September 2005, Vienna, Open meeting for Technical meeting/training for Francophone African countries, organized by UNIDO, http://www.unido.org/doc/40167

- 19 - 21 October 2005, Madrid, 5th IETA Forum on the State and Development of the Greenhouse Gas Market: http://www.ieta.org/ieta/www/pages/index.php

- 28-30 September 2005, Bonn, CDM Executive Board 21, http://cdm.unfccc.int?EB/Meetings/021/index/html

- 25-27 October 2005, Norway, Trondheim, Bioenergy2005: http://www.bioenergy2005.no

- 27 October 2005, Copenhagen, The Clean Development Mechanism (CDM) -Linkages to Poverty Reduction and Sustainability, organized by the Research Network for Environment and Development: http://www.rened.dk/static.asp?page=CDM_2005

- 27-28 October 2005, Vienna, 2nd technical workshop on JI/CDM, organized by Austrian JI/CDM Programme, contact: Clemens Ploechl, ploechl@kommunalkredit.at

- 28-29 October 2005, Hamburg: International conference: Climate or development, organized by the Hamburg Institute of International Economics (HWWA), http://www.hwwa.de/Forschung/Klimapolitik/Veranstaltungen.htm

- 31 October-1 November 2005, London, Carbon Finance conference, organized by Environmental Finance, more details: jessica@environmental-finance.com

- 23-25 November 2005, Jakarta, Indonesia, Asia-Europe Environment Forum conference, Asia-Europe Foundation, contact: env@asef.org

- 23-25 November 2005, Montreal, CDM EB 22

- 28 November - 9 December 2005, COP 11 and COP/MOP1 : Palais des Congrès de Montréal, http://unfccc.int/meetings/cop_11/items/3394.php

- 28 November– 9 December 2005, IETA Side events during COP11 and COP/MOP1:http://www.ieta.org/ieta/www/pages/download.php?docID=1100

- 5 December 2005, Carbon Finance Day, Montréal, Guy Favreau, http://www.ieta.org/ieta/www/pages/ □

Other news from partner organizations

CF-SEA project progress underway

The joint UNEP-World Bank initiative "Carbon Finance for Sustainable Energy in Africa" (CF-SEA) has become operational in the five Sub-Saharan African countries Cameroon, Ghana, Mali, Mozambique and Zambia.

The first CF-SEA workshop and training seminar took place in Yaoundé, Cameroon on July 21st – 22nd july 2005 . The workshop was formally co-hosted by the Ministry of Environment (MINEP) and opened by his Excellency Mr. Pierre Hélé. The participation was broad and diverse, covering the public sector, all leading Cameroonian NGOs as well as the private and financial sector. Strong interest was manifested by private waste management operators, as well as a few local banks, including Afriland First Bank, Citibank, and Amity Bank. More information on the workshop is available at http://www.mdpcameroun.org/

Cameroon has ratified the Kyoto Protocol and is moving quickly toward establishing a DNA. It is proposed that the ministry of environment will host the Secretariat for a "National Committee on Implementation of the CDM in Cameroon" which will assist in reviewing proposed projects and in promoting Cameroon to carbon investors. Procedures and criteria for project approval will be developed with the assistance of CF-SEA. Additional assistance is being provided to set up a website for the DNA, which will also include all presentations delivered under training workshops.

For general information about the project, visit: http://www.uneptie.org/energy/act/re/CF-SEA/index.htm

Gold Standard- seeking for quality CDM projects

The project registry of The Gold Standard, the premium quality label for carbon credits backed by over 35 NGOs, is now on-line. It also features the first-ever CDM registered Gold Standard project.

The Gold Standard therefore invites project developers to use The Gold Standard methodology. There is currently demand for around 100'000 tCO_2e worth of Gold Standard credits from buyers such as the FIFA World Cup, large banks and brokers. Pre-payments may be offered.
Benefits are:

- High reputational benefits – methodology endorsement by the global NGO community and improved consultation of stakeholders involved.
- Lower risks – identification and proven tools to address crucial issues early in the design process.
- Potential for a price premium – increasingly, powerful buyers are interested in demonstrating a link between carbon investments and sustainable development.
- Environmental integrity and a positive impact on sustainable development. □

For more information please visit us at http://www.cdmgoldstandard.org
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