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Realizing the Development Dividend: Making the CDM Work for Developing Countries

Phase 1 Report – Executive Summary

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This is an executive summary of the report: ***Realizing the Development Dividend: Making the CDM Work for Developing Countries – (Phase I Report)***. The full report can be downloaded from IISD's Web site at HHttp://www.iisd.org/climate/global/dividend.aspH

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Background

On February 16, 2005, the Kyoto Protocol entered into force, nearly seven years after protracted negotiations brought it to conclusion. A key achievement of the Kyoto Protocol is the establishment of three market mechanisms designed to help industrialized countries achieve their Kyoto commitments. One of those, the Clean Development Mechanism (CDM), was created as a way of assisting governments and private sector entities to reach their GHG reduction targets in a cost effective manner, while contributing to the sustainable development priorities of developing countries.

This paper sets out to assess the extent to which the CDM is fully exploiting its potential to make that vitally important contribution—to deliver benefits to developing countries beyond those strictly related to climate change, in the areas of economic growth through investment; technological evolution; poverty alleviation; environmental and human health improvements. Without adequate delivery of this promised package of benefits—the "development dividend"—the CDM will fail on its own terms, with negative consequences for the success of the Kyoto Protocol and for the future development of the international climate regime.

The analysis begins by asking three questions:

1. Is the emerging roster of CDM projects weaker than it should be at delivering a development dividend?
2. Will the overall number of projects and resulting credits be adequate relative to the development needs (and to the market demand)?
3. Is CDM investment being skewed toward a small sub-set of developing countries, side-stepping those least-developed countries that need it most?

Fifty key stakeholders world wide were surveyed to get a broad view of the perspectives on these questions, and on perceived strengths and weaknesses in the current regime. They were drawn from developing and developed countries, from governments, NGOs, the private sector, the donor community and the multilateral institutions. Their perspectives were rounded out by online surveys, and an extensive literature review.

Setting the context

Relative to other flows to developing countries, the CDM, at an estimated US$1 billion per year, is not expected to be particularly significant. By way of comparison, official development assistance in 2004 is estimated at $47.4 billion. The previous year, flows of foreign direct investment to developing countries reached $172 billion. Nonetheless, there are a number of reasons to consider the CDM an important engine of sustainable development:

- CDM flows are focussed on sustainable development as an outcome, and as such, focus on areas that clearly demonstrate that environment and development can be mutually supportive.
- The CDM can direct investment to new, environmentally preferable technologies, helping to bring them closer to the mainstream.

- CDM investment has the potential to create tangible and important side benefits that will increase quality of life in developing countries, for example through improved air quality, provision of energy and so on.
- CDM has the potential to funnel funds into small, community-based initiatives that may be unattractive to traditional investors, but which may have significant beneficial impacts.
- CDM is a way to involve the private sector as well as developing countries in achieving the goals of the United Nations Framework Convention on Climate Change (UNFCCC). The energies and support of both groups are critical to the long-term success of the Convention.

Demand for the credits generated by the CDM—certified emissions reductions (CERs)—is expected to outstrip supply, though any predictions at this point are difficult. Recent estimates put the shortfall of mitigation from Annex I domestic actions at between 869 megatonnes (Mt) of carbon dioxide equivalent (CO_2e) and 1,098 Mt CO_2e. The key question is what percentage of total demand will be satisfied by CERs, since domestic shortfalls can be filled by CERs, emission removal units (ERUs, from Joint Implementation) or assigned amount units (AAUs) —the unused portion of emissions allowances from countries such as Russia and Ukraine. The latter are expected to out-compete CERs on price, but there are political sensitivities around the purchase of so-called "hot air," and it will make sense for sellers of AAUs to limit supply in any case, to raise prices. The resulting market for CERs has been estimated at between 217 and 640 Mt CO_2e per year by 2010.

On the supply side, as of April 6 2005, there were 88 CDM projects in the process of validation, and another four had succeeded in being registered. Taken together these projects aim to abate some 131.6 Mt CO_2e by 2012, or 26.3 Mt CO_2e per year averaged over five years. Ninety-six more projects were in the process of seeking approval for their methodologies.

The current pipeline of projects, while an imperfect predictor, can give us an idea of the broad shape of the emerging market, and help answer the three questions posed above.

First, is the current roster shaping up to deliver a large development dividend? Answering the question is difficult; since all projects in the CDM are defined by their hosts as delivering sustainable development, there is no agreed definition, nor any agreed criterion by which to judge. A wide variety of analysts, however, have come up with similar results when attempting to do so, grouping indicators around environmental, social and economic objectives.

By these criteria, a large and growing element of the CDM roster is under-performing: projects using end-of-pipe fixes in industrial processes to capture/decompose gases with high global warming potential. The magnitude of the issue is shown by the two HFC23 decomposition projects that have been approved from the current roster, where they account for fully 30 per cent of expected CERs. Landfill gas and HFCs together account for almost three quarters of the CERs in the pipeline. Analysts predict many more such projects, both in HFCs where the estimated market potential is significantly above 100 Mt CO_2e per year, and in N_2O which may offer similar potential.

This is fine from the perspective of Annex B purchasers, who want cheap, plentiful carbon. But from the development dividend perspective, the fear is precisely that such an enormous supply (relative to supply from other CDM projects) will drive down CER prices such that projects with higher sustainable development benefits will be infeasible. Already there is concern about the lack of

CERs from sectors such as energy efficiency and small-scale renewables—sectors that seem to have high sustainable development potential.

The second question posed above was: is the current configuration of the CDM capable of providing enough CERs? This may sound out of place, given the predictions that HFC, N_2O and landfill gas capture projects would somehow flood the market. From the perspective of ensuring the provision of a development dividend, though, the concern is still valid. Since CDM projects can deliver sustainable development benefits we need to worry that, even when the quality issues are addressed, the scale of operations may be below what is needed.

The current roster of projects is rather disappointing in this context, projecting to deliver just an average of 26.3 Mt CO_2e per year over the five-year first commitment period. That compares to estimates of demand for CERs ranging from 217 to 640 Mt CO_2e per year by 2010. Of course there are many more projects under development than are currently in the roster, though assuming a three- to four-year start-up time from approval and an uncertain post-2012 scenario, any project aiming to get even five years of credits would have to be on the drawing boards by now. In the end, it does look as though there will be unfulfilled market potential for CDM-generated CERs.

It may be that the current configuration of the regime keeps the market small by deterring potential investment. Investors have consistently voiced concerns about lengthy and complex approval processes, including the thorny issue of defining additionality. These may only get worse over time; the current system is straining at the seams dealing with just 92 validations. If we take the current roster of projects as indicative of the typical project size and assume a demand for CERs of 217–640 Mt CO_2e per year, the EB would have to approve between 750 and 2,200 projects in the first commitment period to meet the annual global demand for CERs. The majority of those approvals would have to take place over the next two years—an impossible scenario under the current arrangements.

The third question was whether CDM investment is being directed primarily to only a handful of developing countries. In the current roster it seems to be so; Brazil, India and Chile alone account for 70 per cent of the expected CERs. Of the 49 least-developed countries as defined by the UNFCCC, only two (Bhutan and Bangladesh) have projects in the pipeline, and they have only one project each.

There are a number of ongoing attempts to deal with the challenges identified here. The World Bank's Community Development Carbon Fund, for example, provides carbon finance for CDM-eligible projects in least-developed countries, focussing on high levels of side benefits for the local community. There are special rules to facilitate the CDM process for small-scale projects. As well, there has been much work by development agencies to build capacity for CDM in least developed countries. In the course of surveying those efforts, interviewing stakeholders and reviewing the literature, a number of policy options were identified. The most promising are presented below.

Policy Options

There are three broad types of policy options that might be employed to help realize a greater development dividend from the CDM. First, there are those that can be achieved outside of

negotiations. These are mostly voluntary measures and modest reforms that can be pursued in the first commitment period. Second, there are those measures that must be negotiated by the Parties, but which can be achieved within the first commitment period. The Parties are due to consider reforming the CDM at COP/MOP-2, in late 2006. Finally, there are measures that might be useful for considering the shape of the climate regime post-2012. Official discussions on that subject are due to begin at COP/MOP-1 in late 2005.

This paper recommends policy options in the following areas:

- Reforming the EB/The CDM project cycle;
- Changing the rules of the CDM;
- Engaging development assistance/international finance;
- Post-2012 options; and
- Defining sustainable development.

Reforming the EB/The CDM project cycle: The approval and monitoring processes for CDM projects has born some of the blame for two of the key concerns treated above: that the transactions costs of the CDM are too high, and that the volume of CDM projects on the books is too low.

High transaction costs may disproportionately penalize projects with high sustainable development benefits, since these tend to be small, and to have lower paybacks. A low volume of CDM projects may also be due in part to high transactions costs, at least relative to the expected price for CERs.

Recommendations:

1. The EB should transform itself into a professional body with full-time staff, guided by the Parties. The resources budgeted for the EB's operations, and those of the Methodology Panel, should be dramatically increased.

2. The EB and methodology panels should open and institutionalize better channels of communication with investors in general, and with project proponents whose projects are under consideration.

3. The criteria for additionality should be reviewed with a view to further downplaying the importance of financial additionality. Additionality for small-scale projects should be assumed.

Changing the rules of the game: The CDM as currently elaborated works on a bottom-up model, building the portfolio of emissions reduction efforts on a project-by-project basis. Unless current trends are drastically altered, this will not come close to satisfying Annex 1 demand for CERs. The only factor that seems likely to work against this trend is the increase in end-of-pipe capture/destruction of high-GWP gases, and projects of that type seem to offer little in the way of a development dividend.

A number of top-down approaches have been suggested that offer the possibility of both expanding the level of CDM activity (going from a "retail" to a "wholesale" effort), and generating projects that will tend to produce more environmental, social and economic benefits for the communities involved.

Recommendations:

1. Parties should allow policy-based CDM. Such an approach could remove the bottlenecks that exist in a project-by-project model, and might offer developing countries an element to be used in negotiating any future actions post-2012. It would allow for a focus on sectors where a strong development dividend is known to be likely, such as transportation, energy efficiency, renewable energy and others.

2. Parties should allow sectoral CDM. This approach shares many of the advantages offered by policy-based CDM.

3. Parties should also affirm their approval for the concept of unilateral CDM—projects that do not have Annex I investors. These offer an avenue for small-scale, development-rich projects in which many investors would have little interest. The EB has registered a unilateral project, but made no decisions pertaining to the project's treatment throughout the rest of the project cycle.

4. Parties should explore ways to expand the CDM to include sinks projects in agriculture (land-use change) and avoided deforestation, while guarding against registry of projects with few environmental development benefits. One means of doing so would be to only allow for small-scale projects in this sector. In any case, small-scale sinks projects should benefit from an approval process even more favourable than they now enjoy.

Engaging development assistance/international finance: Some development assistance agencies and multilateral development banks have already been active in fostering the ability of least-developed countries to attract and manage the CDM. The World Bank has been particularly active in facilitating carbon finance for CDM, and for projects with strong sustainable development benefits.

But there is more that could be done to fully exploit the potential offered by ODA, and by various sources of financing for the CDM.

Recommendations:

1. International financial institutions (IFIs), private investors and governments should increase their support for those investment funds that address sustainable development more discretely, such as the Community Development and Bio Carbon Funds in the World Bank.

2. The relationship of ODA with the CDM should be further explored, particularly in support of projects that clearly provide sustainable development benefits. In other words, ODA could possibly support the development benefits incremental to an environmental investment out of the CDM.

3. There should be an effort to raise the awareness of the CDM to local/national development banks and other commercial entities in the developing world. .

3. Export credit agencies should development innovative risk management products specifically geared for CDM investors, and should explore other ways in which they might support CDM investment.

CDM, the development dividend and post-2012: Given normal project lead times, and the ever-narrowing window of opportunity for earning credits in the first commitment period, we may soon

see significant new CDM activity disappearing and, with it, the development dividend. However, it is not possible to give complete certainty to investors about the shape of the climate change regime after 2012, since the discussions on this topic have not yet formally begun.

Recommendation:

1. The Parties need to find and implement some manner of assuring investors that their emissions reductions post-2012 will have value. This does not have to involve spelling out the details of a future whose shape is not yet known—an impossible task. Rather, it will involve granting as much certainty as investors need, while retaining as much flexibility as negotiators need.

Defining Sustainable Development: The development dividend might be well served by an internationally-agreed set of criteria for sustainable development. The aim would be to increase the number of projects delivering high levels of sustainable development benefits. The first problem with this is that it is difficult to define sustainable development at the general level—like all principles it needs specific context to attain real meaning. The second problem is related to the first. The fact that sustainable development needs context led developing countries to reject a one-size-fits-all definition in the negotiations, preferring to elaborate at the domestic level what would be appropriate in their contexts. It is not conceivable that this decision might be revisited.

This, of course, puts a weighty onus on each host country, since there are few precedents for this type of exercise. There have been complaints from investors that they face criteria that are too restrictive in some cases, and too vague in others. And there have been concerns that loose definitions are in some part responsible for allowing projects that generate large numbers of CERs but deliver very little development dividend.

Recommendations:

1. IFIs, donor agencies, other multilateral institutions and NGOs should continue and intensify their current efforts at capacity building for developing countries in the process of elaborating their national regimes for approving CDM projects, with a clear mandate to assist in the definition of sustainable development at the national level.

2. The Parties should explore the idea of elaborating at the international level principles and criteria that could guide national efforts to define sustainable development.

Conclusion

The intent in offering these recommendations is not to provide final definitive solutions, but to develop a framework for a constructive way of going forward—to generate the discussion and debate that will be necessary precursors of lasting and effective solutions. The starting point is a recognition of the value and potential of the CDM in providing environmental, social and economic benefits to host countries above and beyond those offered by the prospects of climate change averted—in short, a development dividend.

To take this work further, IISD, in collaboration with various partners, is bringing together a Task Force of experts with a mandate to identify and assess new strategies and approaches for the CDM

to support the provision of the development dividend; bring the results of the analysis to negotiators, members of the CDM EB and other key stakeholders; and provide a solid foundation for shaping the evolution of the CDM and/or a new instrument in both the present commitment period and in the period after 2012.