

CDM: from policy to practice

Corporate strategies and the Clean Development Mechanism: Developing Country Financing for Developed Country Commitments?

Søren Ender Lütken and Axel Michaelowa; Edward Elgar Publishing, Cheltenham, UK, 2008, 192 PP, £55.00, ISBN 978 1 84720 928 3

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When the Clean Development Mechanism (CDM) came on to the scene in international climate negotiations, negotiators had in mind a mechanism that would both lower the cost of compliance in industrial countries (Annex I countries in the language of the UNFCCC) and spur foreign direct investments in developing countries (non-Annex I). Polluters in industrial countries should be encouraged to make use of the lower marginal abatement costs in developing countries than those they face at home and *invest* in emission reduction projects abroad. This would both increase the level of foreign investments and transfer modern climate-friendly technology to developing countries.

Somewhere along the way, however, the CDM radically changed its nature. Rather than supporting bilateral investment, CDM projects now represent mostly unilateral efforts by a non-Annex I country entity, supported by an Annex I country partner only in so far as it concerns the offtake of emissions reductions and the process of CDM registration itself. The investment in the underlying project is up to the non-Annex I entity. This is the critical observation and starting point of the book *Corporate Strategies and the Clean Development Mechanism*. The unilateralism of the investment is indeed an interesting and little-examined aspect of the CDM. This reviewer still recalls the early arguments brought up in favour of the mechanism. One tonne of carbon, it was said, could be avoided at much lower cost when, for example, upgrading an inefficient Chinese power plant than trying to make an already efficient European one even more efficient. Thus, it was predicated on a direct comparison of investment costs. Later on, there was a personal feeling of astonishment when the first carbon-market actors, the World Bank's Prototype Carbon Fund and the Dutch Government

ERUPT/CERUPT, entered the market in 2001. Neither acted as investors in CDM projects but rather as intermediaries, assisting host-country investors in the registration of CDM projects and the monetization of their carbon assets. Silently the CDM changed its nature from an instrument for bilateral investment to a commodity-generating investment vehicle, whose commodities – the certified emission reductions (CERs) – are traded freely in the international carbon market.

According to the authors, this outcome should not come as a surprise when looking at the CDM through the prism of corporate decision making. Corporations tend to invest along core business lines (e.g. power production in Europe), which they may expand to other markets or sectors, but not to both at the same time. Companies view emissions reductions as one factor among many others, alongside the prices of fuel and tax regimes. Rarely will emissions reductions alone be the driver of an investment. Thus, it is much more likely for a developing country entity to find CDM opportunities within its core business activities than it is for an emission-constrained entity in Europe or Japan. A European power producer, for instance, will lack the skills, capacity and interest to invest in a landfill gas reduction project in Vietnam. It is simply outside its corporate strategy. With the reference to corporate decision making, the authors provide a plausible microeconomic underpinning for a tendency that is readily observed in the market, although not stimulating much debate.

Is this unilateralism of CDM projects actually problematic? At some point, developing countries actively lobbied for the option of unilateral CDM (which was finally agreed upon) and China still gives priority to local project developers by allowing only majority-owned Chinese state enterprises as

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proponents of CDM projects. The obvious shortcoming *vis-a-vis* a bilateral investment mechanism is the lack of technology transfer. Left to its own devices, a developing country entity will not benefit from direct transfer of knowledge and technology. This is a disadvantage of unilateral CDM but, overall, it still results in an influx of additional resources into the country via the sale of CERs and still fulfils its mandate to contribute to the sustainable development of the host country.

The more severe outcome highlighted in the book, and linked to the observation of unilateralism, is the assertion that a significant proportion of investments follows business-as-usual practices. Like Annex I entities, non-Annex I entities have the choice between investing in core activities (business-as-usual) and investing outside their core business for the purpose of creating CDM credits. These options are labelled Level 1 and Level 3 investments, respectively, in the book (Level 2 pertains to the mere purchase of credits, an option only relevant for Annex I corporations and not the focus of the analysis). When non-Annex I corporations enter the CDM market they do so by responding to an opportunity rather than addressing a threat. Having no emissions target to comply with, non-Annex I corporations could choose simply to ignore the CDM. If they choose to engage voluntarily, barriers are significantly lower for Level 1 investments, where the risk exposure is limited to the costs of CDM registration itself (thus a maximum of €200,000, often paid for by the buyer or absorbed by consultants). Risks are fundamentally higher for Level 3 investments. Here the company has to venture into a new market or technology application not previously taken up. This takes risk and effort and will only occur under certain conditions. It should be noted that it is still easier for non-Annex I corporations to invest in Level 3 projects than for Annex I corporations, given that non-Annex I corporations only have to expand on the technology axis but can at least stay within the same geographical/political domain. This explains the large prevalence of unilateral projects. The dominant concern arising from the book's analysis is that unilateral project developers are behaving opportunistically and are proposing business-as-usual projects with weak additionality arguments. This critique goes to the heart of the CDM concept.

The book is original and thought-provoking in providing a microeconomic rationale for an issue that has long dominated the controversy around CDM projects. Additionality has haunted the mechanism since its inception and continues to do so to the present day. So it is anything but reassuring to read that non-additional projects are the natural projects to emerge. The conclusion is illustrated with two highly interesting case studies of the Indian and Chinese CDM market, which seem to be cases in point.

Given the gravity of the book's conclusions, it is tempting to try and poke holes in the authors' logic, or at least offer counter-arguments. Is it true that most unilateral investments tend to be business-as-usual (Level 3 investments)? And are most CDM projects today really unilateral, without significant input from an industrial country partner? Lastly, is it an inherent design flaw of the CDM to attract business-as-usual projects or could this change through an improvement or toughening of the rules? While there are no conclusive answers to any of these questions, and the arguments raised in the book certainly warrant further debate, a few points are worth mentioning. Projects that are considered 'low-hanging fruit' in terms of their low-cost emission reduction potential have done exceptionally well under the CDM (certainly in terms of their share in credits), while options with large marginal abatement costs such as photovoltaic systems have *de facto* been bypassed. It seems that most industrial gas destruction projects have been exploited and all major landfills in the developing world have received frequent visitors from carbon funds and other project developers willing to invest. These are examples of projects that represent Level 3 investments, i.e. additional investments triggered by the CDM. And is the role of project developers, carbon intermediaries, and funds set up to explore and exploit the opportunities of CDM really as small as the authors maintain? Counting the number of registered projects with Annex I investors, the authors dismiss the role of these entities as contributing only 7–8% of the portfolio – a number even lower than the 10% foreign direct investment that is reached, on average, in gross fixed capital formation in developing countries. But is it fair to conclude that in the remaining more than 90% of cases, where the investment was carried out unilaterally, the foreign partner has had no discernible impact on the investment? Certainly not, as foreign partners may have helped to shape and develop projects in manifold ways including, but not limited to, offering a steady flow of income from the sale of the carbon. That the additional income from carbon does not always have a meaningful impact on a project's IRR and is often minor compared with other revenue streams is a justified criticism. But the impact of the carbon transaction does not stop there. As carbon contracting is becoming more diverse, and competition among buyers rises, most carbon offtakers agree to paying a large percentage of the contract value upfront, with significant impact on a project's ability to secure financing. Banks are helping their clients in identifying CDM opportunities, and use CERs as a collateral to soften loan conditions. Big compliance buyers have started to spin off carbon investment vehicles, or are acquiring project-development companies, thus channelling further resources into equity investments. Finally, the philosophical question remains of whether the CDM could trigger more truly new

investments if the framework was more appropriate to investors' needs. To address this question, two conditions should be met: a long-term stable demand for credits beyond 2012, and greater certainty for investors that their efforts will result in the issuance of CERs.

Overall, the book is a very knowledgeable and highly recommended read that leaves the reader with a strong

message. It is both timely and informative for policy makers to have feedback on the gaps between initial policy intentions and the *actualité* in practice. In spite of its fundamental criticism of the CDM, it ends on a conciliatory note and remains optimistic (or pessimistic?) that the CDM is versatile enough to prevail and will continue to play a role in whichever international climate regime emerges.