

Article # 25

By A. Kaupp, IGEN

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By Albrecht Kaupp,

and arguments

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1. The art of messing up CDM

For all those who have not yet caught up with Climate Change. CDM stands for Clean Development Mechanism and not Corporate Development Management of the international CDM-Executive Board. This "corporation" called CDM-Executive Board is in charge of deciding what is a CDM Project and what not.

One may in a very simplistic way characterize a CDM measure as an investment that is somewhat new, not mainstream and not particularly financially attractive. A few other conditionality such as clean, sustainable and helpful to combat climate change are as well asked for. In other words "business as usual" measures will not qualify. There are several so called checks to what extend a measure is additional and therefore qualifies as CDM. The owner of such a CDM Project is entitled to sell "avoided tons of CO₂,_{equ}"(CER's) similarly to other firms selling tons of sugar. Energy efficiency measures (EE) in industry reduce CO₂ emissions by burning less coal, oil or gas for the same output. They could significantly reduce CO₂ emissions. However the bulk of this measures are neither involving new technology nor know how. Many are mainstream, run-of-the-mill measures, and almost all of them are financially attractive in India. Consequently EE-projects hardly qualify as CDM measures. On the other hand, the market potential for investments in energy efficiency measures is very large and presently only captured by about 20% in India. Consequently one could argue that energy efficiency measures are not business as usual. However this argument does not find favor with the CDM-Executive Board and its technical committees. One could therefore further argue that those lobbying and defending CDM and its set of additionalities may be responsible for increasing CO₂ emission instead of mitigating it.

One may explain this by a simple business model. View the CDM-Executive Board as a firm that manufacturers ceramic dogs and cats. The profit from sales of cats is US\$3 while profit from dogs is only US\$1. Small firms rarely analyze manufacturing costs item wise but look only at the end of the month's profits from sales of cats and dogs. Lost opportunities in profit making are therefore not discovered. As a business advisor I would certainly recommend to the firm to increase the sales of cats and accordingly reduce the sales of dogs if the market can absorb it. View EE-measures as the cat business which generates per US\$ life cycle cost large amounts of "tons of CO₂ mitigated" because most measures are highly profitable. View many (but not all) renewable energy projects as the dog business where US\$ life cycle costs yield much less "tons of CO₂ mitigated". Consequently all efforts to increase the market for dogs implies increasing CO₂ emissions, as long as the market for cats is not better covered. In other words there is no difference between a CDM-Executive Board and a small cats and dogs business when it comes to rational decision making to increase profits i.e. "tons of CO₂ mitigated". Both enterprises overlook basic principles of allocation efficiency of investments.

Whenever I discuss this analogy there is bound to be one objection which I accept. Diversification of measures and market acceleration of newer and cleaner technologies are important as well. However I usually have the final laugh by arguing: "If someone is so convinced that CDM is a tool for market acceleration of newer and cleaner technologies and concepts, why being so hypocritical and superficial about it. Tell the world by how many days or years the market was accelerated by a CDM approved newer and cleaner technology". At least that would take out the steam of arguments that CDM is another scheme to promote high cost/ low impact measures and there is no serious concern to mitigate GHG emissions in a most allocation efficient way.

My final argument why one should approve most EE-measures under CDM, addresses a non-monetary angle. Those who invest in EE-measures are usually not so interested to apply for CDM because at an IRR of 30% and present market rates of CER's the IRR may increase from 30% to 31%. Therefore why bother and go through the trouble. On the other hand any CDM approved EE-measure by the very nature of the CDM process of monitoring and verification of tons of CO₂ mitigated, provides to the investor an internationally recognized methodology and strategy to monitor and verify energy consumption reduction. This M & V tool by itself is very useful for all EE-advisors or clients who are involved in EE-measures implemented under an ESCO contract. An ESCO contract is a contract where a firm specialising in energy conservation will identify, plan, design, finance, implement and maintain an energy efficiency investment over a certain period of time at their own risk. In such a scenario it would tremendously help the ESCO firm to be backed by the M & V protocol of CDM.

2. Why a good CDM needs additionality determination

Axel Michaelowa

Imagine you are picking up a 20 € bill lying on the sidewalk – and then you go on claiming an extra payment from your bank for bringing this bill back into circulation. This is the impression I get from Dr Kaupp's corner contribution "The art of messing up CDM" where he calls for abolishing the additionality test for projects that generate greenhouse gas emissions reduction certificates through the Clean Development Mechanism (CDM).

Or to take Dr. Kaupp's own example of the cats and dogs manufacturer: The profitable product (cats) will find the way to the market by itself. The dogs would not be able to make it to the market. However, the dogs bring an added benefit by scaring away thieves. So there a subsidy is warranted to increase sale of dogs and to increase overall security in the country.

Similarly, there are two types of energy efficiency projects: those that make it to the market on their own and those that are left aside due to longer payback periods, unavailability of capital or other barriers. The first type is not acceptable under the CDM. It does not reduce emissions compared to business-as-usual. The second type will pass the additionality test as it can show that barriers prevented its implementation. This may even be the case at high financial rates of return if for example it can be shown that alternatives such as expansion of production have a higher return. So the CDM does accept profitable projects, it does only not accept the most attractive of all realistic alternatives. So if you can sell cats, dogs or frogs, the most profitable alternative defines the baseline – in our case it will be the cats. The key challenge is now to find good criteria for determining the difference between cats and dogs. The CDM Executive Board has defined guidelines for this and independent validators will check whether the arguments are consistent.

At the end of his article, Dr. Kaupp gives a nice example for the CDM as an instrument that overcomes barriers. If the barrier to energy efficiency projects is the absence of credible verification of savings, the CDM is a perfect way to overcome this barrier. Again – the barrier test is part of additionality determination and these projects will qualify for the CDM.

A brief tentatively final word

by Albrecht Kaupp

The comparison with the "20 € Bill pick up" is exactly the central issue. However there is no legal requirement for the owner of a CDM project to prove, certify and preferably state under oath that he would have not done the project without CDM benefits from future sales of CER's. This would at least employ a few more lawyers to clearly prove and provide documentary evidence that many projects would have been implemented anyway with or without CDM. If there would be such a legal requirement where one may get caught most projects would not even make it to the Board. In other words it is my suspicion that most of these approved CDM projects are picking up 20 € bills and bring it back into circulation anyway. For them it is "icing on the cake". This is fine with me. Let them have icing on the cake. However in such a scenario it would make perfectly sense to introduce an impact indicator such as allocation efficiency in terms of mitigation effect.

Awaited brief tentatively final word

By Axel Michaelowa and

3. The art of misunderstanding the CDM

By Holger Liptow

We all like to see the CDM maturing and it is making good progress. Some issues were easier to solve, others are still taking their time. Dr. Kaupp is concerned that energy efficiency projects are losing in the CDM while other options like renewable projects are treated more favorably. I don't concur with his view, since he likes to see more and foremost energy efficiency projects in the CDM that seem to be economically more favorable than others. If they are economically so attractive as he claims and, additionally, the CDM does not make much of a difference to their internal rate of return, why are they not implemented anyway? Dr. Kaupp can explain the reasons for the low 20 % market share of the potential energy efficiency projects much better than myself. Therefore, it is difficult for me to understand why he is putting so much blame on the CDM Executive Board (EB) for stopping "his" energy efficiency projects.

My understanding of a CDM project is that it should be economically attractive to the investor including the income from the sales of CER. If the investor can not achieve an expected IRR including all transaction costs like PDD development, validation, registration and verification he should better invest in something else or give his money to a bank. Of course the investor has to meet the rules of the game set by the Kyoto-Protocol, the Marrakesh Accords and the EB and can not only apply the rules of business as usual. Part of the CDM game is the additionality test which in simple terms says: No additional benefit for the global environment, no extra Rupees or Euros for the CDM-project. As the quality of sugar is checked, when I sell it, the quality of the CERs are checked, in the later case by the designated operational entity (DOE) along the rules of the game overseen by the EB. The key question asked is not, does the CDM project apply standard or new technologies but would the project have taken place without the incentives of the CDM. The issue whether a standard or new technology is applied may be helpful in finding the overall answer on additionality but it is not the only criteria to be used.

Energy efficiency is therefore not at a disadvantage per se but it has its intrinsic problems. E.g. the energy savings and the corresponding cost savings that are achieved by an energy efficiency project may already result in high profits so that the income from the sales of CERs may be hardly worth the effort of the CDM game. This makes CDM unattractive for energy efficiency projects. But one can not put blame on the EB on this speciality of energy efficiency projects. It is not the business of the EB to check whether a business is worthwhile, but observe strongly that the environmental integrity of the Kyoto Protocol is fully met. The EB is not forbidding to sell cats but to sell false cats being worth nothing.

I follow Dr. Kaupp in his final laugh in as far as I see the CDM not as an instrument to support any specific technology. This has too frequently been the understanding of many who had hopes that CDM will bring Renewable Energies and Energy Efficiency to a much greater application. We have many other instruments to assist these two options to find a wider and broader response; the CDM should give first priority to emission reduction, other intentions have to follow if economic thinking prevails.

Finally, let me say that I support Dr. Kaupp in his intention to give energy efficiency projects a wider application in the CDM. But we need to avoid misunderstanding the CDM as an instrument for or against a certain technology or approach.

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