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DISCUSSION PAPER

Development Aid and the CDM - How to interpret “Financial Additionality”

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Axel Michaelowa**

HWWA DISCUSSION PAPER

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- How to interpret “Financial Additionality”

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Development Aid and the CDM - How to interpret “Financial Additionality”

ABSTRACT

International climate negotiations have specified that projects under the Clean Development Mechanism (CDM) should not lead to a “diversion” of official development assistance (ODA). It is however unchallenged that ODA can be used in capacity building for the CDM. Diversion can be interpreted in financial, sectoral and regional terms. There are possibilities to use ODA benchmarks to define diversion such as the UN 0.7% target but they are unlikely to be politically acceptable. On the project level, three main options exist but none of them is perfect. The value of emissions credits (CERs) could be deducted from ODA. This however leads to a long-term pressure on the ODA level. Differentiating an ODA-financed baseline project and a “piggyback” CDM option is likely to be arbitrary in many circumstances. Even if CERs do not accrue for the ODA share of the investment, still private CDM projects are crowded out due to the subsidising of CDM projects.

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1 Introduction

The Clean Development Mechanism (CDM) specified in Article 12 of the Kyoto Protocol has the double aim of furthering sustainable development in developing countries and reducing greenhouse gas emissions. Under the CDM, industrialised countries (so-called Annex B countries) receive emission credits ("Certified Emission Reductions", CERs) for emission reductions achieved through projects in developing countries. As the CDM enhances the emissions budgets of Annex B countries, it is important that the corresponding reductions would not have occurred in the absence of the respective emission mitigation projects. This issue is commonly termed "additionality" and has its base in Art. 12, 5c which states "emission reduction [shall be] additional to those that would have happened in the absence of the certified project activity". Financial additionality is one element of the additionality concerns; it originally meant that no public money that would have been spent anyway on climate-related action in developing countries could be relabelled as CDM. This originates in the fear of LDCs that the continuation of ODA flows could be linked to their acceptance of CDM projects. But ever since Kyoto, Japan had shown its intent to use official development assistance (ODA) for CDM projects and also the EU Commission (1999, p. 11) accepted use of ODA by stating that *"official development finance and GEF should only be supplementary to private funding.[...] ODA within the framework of [the] CDM [...] would have to be targeted to areas where the public sector has a comparative advantage over private investment and where additional social benefits are to be expected."* But the Commission made also clear that ODA should not be used to finance the acquisition of CERs (ibid, p. 12). In the negotiation of the CDM text in 2000, the G 77 and India asked for CDM funds to be additional to ODA while the Umbrella Group and the EU in a rare accord developed a new term "diversion" of ODA that should be avoided (UNFCCC 2000, p. 39). When the Parties to the U.N. Climate Convention met in Marrakech in late 2001 to define the detailed CDM rules, the very broad Umbrella/EU definition for financial additionality prevailed. It states that *"public funding for clean development mechanism projects from Parties in Annex I is not to result in the diversion of official development assistance and is to be separate from and not counted towards the financial obligations of Parties included in Annex I"* (Preamble of Decision 17/CP.7, UNFCCC 2001, p. 20). Besides official development assistance (ODA), the cited paragraph relates to the Parties' contributions to the Global Environmental Facility (GEF).

Despite the entire flurry around CDM project development, up to the present little attention has been given to the practicalities of the relation between ODA and CDM. The Development Assistance Committee of the OECD is currently negotiating guidelines for the treatment of ODA in the context of CDM project finance, which are expected to be finalised by June 2004. It should by all means be avoided that until the final decision on the matter countries use and report ODA for the CDM in widely differing manners, which then could lead to an impasse within the OECD. The CDM Executive Board will perhaps be forced to propose intermediate regulations, adding to its already heavy workload in the actual CDM starting phase

In the current article, ODA is understood to consist of technical cooperation and financial cooperation. Compared to financial cooperation, the monetary volumes (and carbon revenues) from technical cooperation are usually rather small. Financial cooperation is typically channelled through the host country's central bank, which then distributes loans to local banks for financing concretely identified projects. Financial cooperation agencies like the German KfW stress that the terms of these loans shall reflect market conditions.¹ These conditions are in many cases hypothetical, as long or medium-term loans would otherwise not be available.²

We start by defining the term "diversion" for the purpose of the subject. Then we study proposals for a benchmark approach, followed by options to interpret diversion on the project level. Even in this latter case, our focus is on the aggregate consequence on the amount of CERs generated and on the regional allocation of CDM projects. In conclusion, we give concrete policy recommendations on how to find suitable international regulations, and how development aid agencies could handle the issue until those will have been decided upon.

2 What is diversion?

In order to understand the concerns expressed in the discussion around financial additionality, we shall first define types of potential diversion. Any regulation concerning financial additionality can result in one or more diversion risks.

¹ Personal communication Joseph Gamperl, April 9, 2003

² In the case of the World Bank's Prototype Carbon Fund, the Brazilian Plantar project under market conditions would have received a loan with a duration of one year and an interest rate of 20 percent. When presenting the PCF's carbon purchase contract, the bank increased duration to 6 years, and brought down the interest rate to 6 percent.

2.1 Diversion of purpose

If ODA is used for direct acquisition of certified emission reductions (CERs) while still being reported as ODA, its original purpose may not be pursued any longer. For any single case, this argument may be difficult to sustain, because both CDM and ODA have the objective to further sustainable development of the target country (Kete et al. 2001, p.5). If a host country does not endorse a project, it will not produce CERs. The risk however is that ODA might be directly or indirectly tied to the execution of CDM projects (ibid, p. 8). Furthermore, climate change is not a top priority for many developing countries, given more pertinent concerns about food and water security, and poverty alleviation. Mitigation projects may have combined goals, but not necessarily will climate projects be the most efficient use for the solution for the above-mentioned problems.

2.2 Financial diversion

If ODA can be used for CDM project financing and CER receipts need to be deducted from ODA reporting like any other project proceeds or loan repayments, this will lead to a reduction of ODA by the time when the project generates CERs in favour of the investing institution. This risk could only be circumvented if budget re-flows to donor countries would automatically be re-channelled to ODA institutions.

2.3 Sectoral diversion

Similarly to the diversion of purpose, ODA investment could preferably be led into sectors that are most likely to produce CERs, like waste disposal or large-scale energy production, while the most pressing necessities may lie in other areas, like social infrastructure and education.

2.4 Regional diversion

The incentive of gaining carbon credits could as well divert ODA investment to countries where those projects are most likely to be successfully implemented. This could relate as well to mitigation potentials as to administrative capacities. One part of this concern is certainly participation in the climate regime. Currently, most of the African nations have not ratified the Kyoto Protocol, which makes them ineligible for the CDM. Actually, much ODA investment is directed into national and regional

capacity building. Nevertheless, should ODA flows depend on the recipient's active participation in the Climate Convention?

3 Why should ODA come into CDM?

If the risk of diversion is there, why then should ODA be used under the CDM?

It is not controversial today that ODA operates in the field of CDM institution and capacity building, like in the case of the World Bank initiated National Strategy Studies (NSS). These activities are financed on a bilateral basis and create the framework for successful project implementation. One result of these studies is a CDM project pipeline. The development of complete project documents is only one step further, which is actually undertaken by cooperation agencies of several countries (e.g. Canada and Germany), but this effectively moves into a grey zone where ODA might subsidise implementation.

The rationale for looking into direct ODA involvement in CDM projects is that it may increase the chance to attract private sector investment in neglected regions and in specific project types and modalities with a high contribution to sustainable development, but which would not be profitable enough for private investment alone. This may be due to the high CDM transaction costs, to a lack of institutional capacity, to the small project size, to the large number of stakeholders, or the fact that in terms of CO₂ reduction the options favoured by the host country are not the most profitable ones. If ODA agencies were not allowed to participate in this process, decades of valuable project experience would be lost. In certain cases during the AIJ phase, ODA grants to projects were even withdrawn in order to allow turning them into carbon projects (Dutschke and Michaelowa 1997, p.36). Like foreign direct investment, the bulk of private sector investment in the CDM will probably go to three countries, China, India and Brazil (Halsnaes 2002, p. 26). This concentration will be extremely high in the first commitment period, because of the low expected CER demand. ODA could help balancing this unfair division of resources and mitigate perceived country risks. In least developed countries, ODA may leverage private CDM investment. Furthermore, ODA has the chance to promote project types the private sector would rather not invest in, especially small community-based projects and advanced technology developments (Kete et al. 2001, p.6).

There are thus good arguments in favour of combining public and private funding for the CDM. In the next paragraphs, we shall see how regulations could be designed to address ODA involvement.

4 Options for avoiding ODA diversion

The discussion on how to avoid ODA diversion through the CDM moves between two extreme cases. One is to simply ignore the diversion rule, arguing that it is only expressing an intention, without any practical consequences. This case will not be considered, as we think it runs counter the intention of the Marrakech Accords. The other is to disallow any involvement of ODA funding into the CDM. This would probably lead to circumvention strategies, like granting ODA funds to NGOs or defining the focus of ODA programmes in a way that single CDM projects can indirectly obtain ODA finance made available to host country institutions in a broader context.

There are principally two ways to look at diversion; on the macro and on the micro level. The macro approach consists in observing the country level and needs to define a baseline for ODA “without-CDM”, be it for the donor, be it for the host country. The micro-level approach observes likely changes in ODA flows based on project opportunities.

4.1 An ODA baseline

Jusen Asuka proposes an ODA baseline, beyond which ODA could participate in the CDM. His methodology is guided by two criteria: “(1) There will be no reduction in the overall ODA flow from developed countries to developing countries. (2) In the overall aid projects portfolio of an industrialized country there should be no crowding out of regular ODA projects by global warming mitigation projects” (Asuka 2000). A third criterion (3) should be environmental additionality: Climate change mitigation projects might already be the business-as-usual case for ODA. In this respect, what has been common practice in the last years will under the CDM eventually generate extra credits and thereby inflate Annex B carbon budgets.

Criterion (1) is acting on a very large scale. It could be operationalised either by following the development of individual donor countries’ ODA budget over a certain timescale or by the compliance with the UN 0.7-percent target for ODA in relation to industrialised countries’ GNP. As public expenditures are more determined by

business cycles and the resulting state income, they are quite erratic over time. It could be a valid option to allow proceeds from ODA to be realised only under the condition that ODA budgets are at least maintained at the level of foregone periods (e.g. over five years). A less stringent approach would be to observe ODA receipts of the individual host country by the implementing donor. It could require ODA directed to the host country from the individual donor to increase by the same amount publicly invested under the CDM. This approach could still lead to regional diversion.

If in contrast, the compliance with the self-imposed target of 0.7 percent ODA was a prerequisite for investing ODA funds into the CDM, this would limit CDM investment eligibility to just four donor countries and would for the time being act nearly as restrictive as the option of total ODA prohibition under the CDM.

Criterion (2) is near impossible to monitor. Even in the absence of CER incentives, donor countries could increasingly ask for ODA contributions to mitigation and adaptation, in which case no diversion of purpose would take place. Overall, there are no “regular ODA projects”.

Monitoring criterion (3) would require a quantification of GHG effects of business-as-usual ODA projects. This has been done for the World Bank, whose investment in emission-intensive technology between 1992 and 1997 was found 100 times higher than the GEF budget during the same period (Sustainable Energy and Economy Network et al., 1997:5). Thus, World Bank involvement in climate change mitigation is hardly suspect of being non-additional. A graduation approach could as well be applied. Assuming 20 percent of ODA in the previous period were spent for activities that have a high impact in climate mitigation, any CDM investment could be regarded as 20 percent non-additional. Over time, and as climate mitigation measures under ODA increased, CDM investment would slowly be phased out.

Sectoral and regional diversion of ODA can happen due to other intervening factors than CDM involvement. As host countries take increasing stakes in allocation of ODA funds, there is no sense in fixing the quota over an indefinite time in the future. ODA baseline approaches can thus be a starting point in order to avoid Annex B budget inflation, but they cannot prevent diversion. We should therefore study the consequences on a macro level of additional sets of criteria that are related to individual projects.

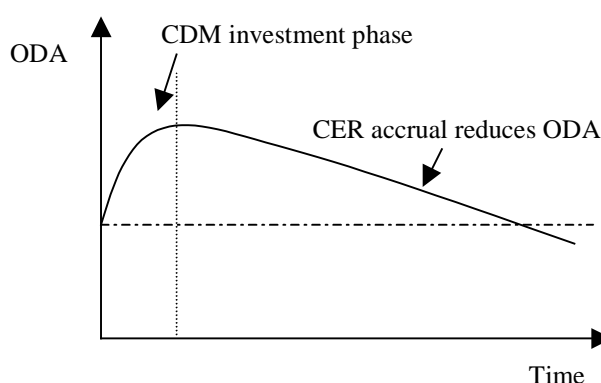
4.2 CER value deducted from ODA

In order to decrease the incentive for diversion, CER revenues could be deducted from the net aid disbursement in the period they accrue. The investor country can then either sell them immediately or put them in the national registry. In order to avoid the perverse incentive for the investor country to sell them below their value, they need in every case to be valued on the basis of actual market prices by the time they are certified. A particular price index needs to be chosen in advance on an international level.

The higher the CER revenue, the lower the total amount of ODA spent over the lifetime of the project. If the CER revenues are higher than the initial investment, ODA becomes negative. Financial diversion is thus likely, if the revenues are not re-channelled back to ODA budgets.

As for the market effects of this regulation, let us assume that under a business-as-usual case, there is a stable amount of ODA funds for renewable energy and energy efficiency projects. In fact, since the UN Summit on Environment and Development in 1992 the share of ODA going into such projects has strongly increased. This in itself could be seen as diversion of ODA as recipients may have preferred other uses.

Figure 1: Overall ODA changes over time if CER revenues are deducted

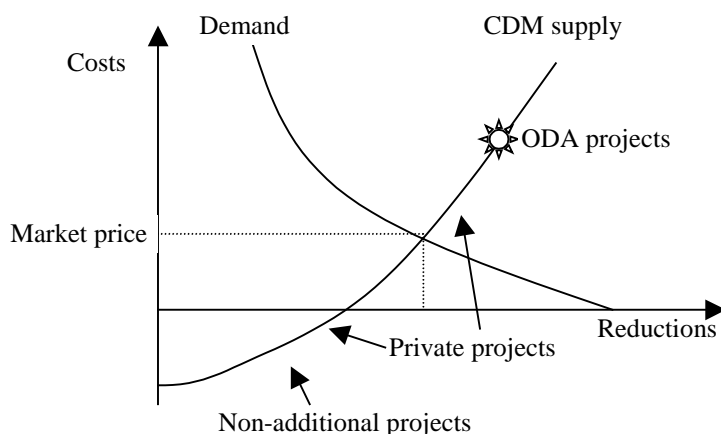


In this case, ODA funds can be used for CDM projects and all renewable energy and energy efficiency projects are now labelled as CDM. We have to distinguish two extreme cases:

1. All CERs accrue to the donor country. ODA will increase during investment and later decrease as shown in Figure 1 above. Only if politicians decide to keep total ODA constant, there is no net financial diversion.
2. All CERs accrue to the host country. ODA remains constant and there is no financial diversion.

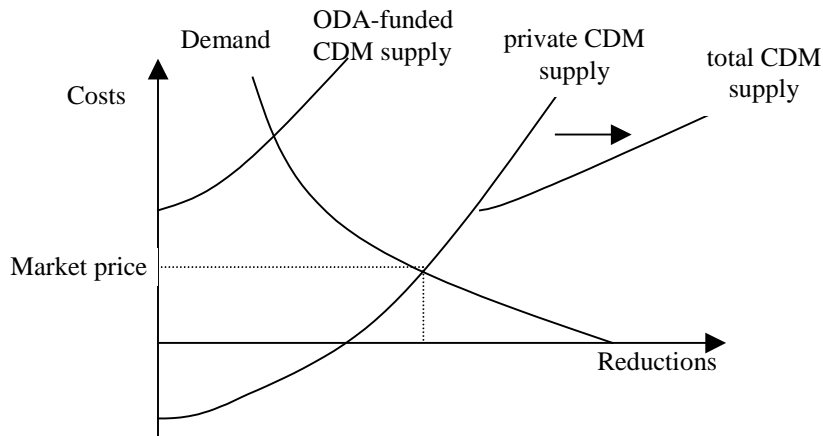
The impact on emissions budgets depends on the characteristics of ODA-financed CDM projects. We base the subsequent analysis on the following assumption: CDM projects financed by ODA typically will have higher implementation costs than privately organised projects, as they want to provide development benefits. This does not necessary mean that only high-cost mitigation measures are financed by ODA, but ODA finance covers country risks private investors would not be disposed to shoulder on their own. Otherwise no ODA would be needed as the private sector would take up these projects anyway, and ODA engagement would only lead to crowding-out private sector investment. In case of private-public partnerships (PPP), ODA commitment works as a subsidy.

Figure 2: Private and ODA-financed CDM projects



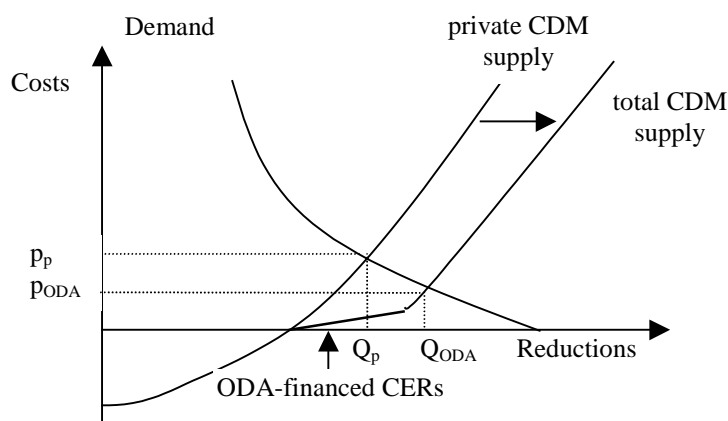
The effect on the market depends on who gets the CERs, the investor (Figure 3) or the host country (Figure 4).

Figure 3: Investor country gets CERs



As ODA projects are more expensive than the market price there will be no change in the market. For the investor country, spending ODA is a bad business as it could get them cheaper at the market.

Figure 4: Host country gets CERs



If the host country gets the CERs, the picture changes completely. It zero costs for the CERs if fully grant-financed and low costs for concessional financing and thus the supply curve shifts to the right. Price falls from p_p to p_{ODA} and CERs rise from Q_p to Q_{ODA} . Private projects are crowded out and the revenue of the remaining ones falls. CDM gains market share compared to domestic emissions reduction.

4.3 No credits for the ODA share of investment

If in the previous option, the CERs' value was deducted from ODA, CERs could as well be deducted according to the ODA share of investment. This could either be done by the certifier (designated operational entity DOE) if the CDM Executive Board should wish to add a rule in this sense, or the investor country definitively retires the relating CERs from the market. In this case, ODA may leverage private investment, but the donor country's incentive for ODA to be invested in CDM projects will not be as high as in option 2 above.

Project proponents will ask for a high grant element, as ODA with a low grant element will lead to the same reduction in CER as ODA with a high grant element. For illustration, consider the following case:

A small-scale wind power project of 1 MW costs 1 million € and gets an ODA loan with an interest rate of 10 percent over 10 years, equivalent to 100,000 € annually. Assuming an increase in the CER value to 5 €, and an annual CER generation of 6,000 t of CO₂ reduction the return from CDM will amount to 30,000 €. For the project owner, taking an ODA loan will thus imply opportunity costs of 30,000 € per year. The fact that the grant element of the loan is at least 25 percent when going to the central bank does not necessarily mean that the CDM investor receives the same conditions. On the contrary, financial cooperation agencies pretend to mirror market conditions for the borrower, in order not to introduce market distortions. If the investor has a realistic choice to obtain a commercial loan, he will negotiate conditions for the ODA loan to compensate his opportunity costs due to the loss of CERs. He will now only take up the ODA loan if its net costs compared to a loan at market rates are at least 30,000 € lower than the ones of a market loan. Here, he will ask as a compensation to receive a grant element of at least 15 percent if the grant element threshold of 25% is calculated at the level of the central bank.

The question arising from this example is whether the loan is in this case to be considered ODA or not. The central bank receives a higher grant element in order to guarantee for the general country and special currency risks. The German KfW asks recipient central banks to re-invest benefits if they accrue from the differential between the conditions offered by KfW to the central bank and those offered by the central bank to the investor into development projects. Thus, this amount cannot be considered diverted from ODA. Therefore, we propose to measure the ODA share at the project and not at the central bank level. In our example, this means that the investor will get the CERs as long as the grant element stays below 25 percent. As

he loses the CERs at a higher value of the grant element, he will decline any loan with a grant element between 25 and 40 percent³.

4.4 Distinction between baseline project and CDM “add-on”

Here it is assumed that a baseline project (e.g. a coal power plant) would have been funded through ODA anyway and a CDM portion (e.g. the improvement of efficiency due to use of a more advanced technology) can be defined. ODA may not be used for the CDM portion. Diversion of ODA on a macro level (towards projects that are suitable baseline projects to “piggyback” CDM projects) would be likely.

Problems arise in defining the baseline project. The following options are possible:

1. The baseline project is the macroeconomically most attractive solution. This is the incremental cost principle applied by the GEF. It has encountered numerous implementation problems.
2. The baseline project is the commercially most attractive solution. This would require the determination of the most attractive investment which may be difficult (compare the debate on investment additionality, Greiner and Michaelowa 2003)
3. The baseline project is the project planned on the site before the CDM idea came in. However in the future planning will consider the CDM option from the outset

The West Nile hydropower project of the World Bank’s Prototype Carbon Fund has a 3.7 million \$ ODA component; it was argued that this component was necessary to overcome the barrier that commercial financing is not available for projects in that region (PCF 2000, p. 6f).

5 Conclusions and recommendations

In this paper, we have made practical proposals on how to operationalise the term “diversion of ODA”. We distinguish financial, sectoral and regional diversion. Means of addressing the different types of diversion can be grouped in benchmark approaches and project-level regulations, both of which might be combined.

³ As the total volume of loan and interest amounts to 2 million €, 30,000 € loss per annum equals 15 percent of loan value.

Among the benchmark options, only the orientation towards the 0.7 percent of GNP UN target can be determined easily by the end of each year. Even though an increased pressure to fulfil this target is desirable, the political feasibility of this proposal is negligible, given that only four investor countries would be eligible to use the CDM. The other practical option is to compare annual national donor's ODA expenditures to previous periods to be determined. This option requires a high amount of data availability and aggregation, but it does not prevent regional diversion either.

There is no perfect option for regulating ODA use for CER acquisition. Most options only address one or two types of diversion and disregard others.

- Deduction of CER value leads to a long-term pressure on ODA flows to the extent that the CERs are not given to the host country.
- Distinguishing between an ODA-financed baseline project and a CDM "add-on" opens Pandora's box of baseline determination.
- While the non-accrual of CERs avoids diversion of ODA, it still leads to a crowding out of private sector CDM projects, a problem that even more characterises the other options.

The highest number of CERs will undoubtedly be produced under the unrestricted use of ODA within CDM projects, which in our view is not consistent with the Marrakech Accords. On the other hand, we do not recommend a total prohibition of ODA use in the context of CDM projects, as both have complementary aims. Of the remaining options, the one that allows CER generation for host countries will give the highest incentives for CER creation. Obviously, the rule according to which the ODA share of financing is not allowed to generate CERs, will limit interest to use ODA in the CDM, while not necessarily leading to a total retreat of the ODA from CDM. While no internationally accepted decision has been taken over the use of ODA in the CDM, we recommend this last option. On the one hand, it is sufficiently conservative to not predetermine practices that may lead to future conflict. On the other hand, it allows for a reasonable involvement of development aid agencies into the CDM, to the benefit of projects that contribute to the host countries' sustainable development.

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