Risk Management in the Clean Development Mechanism (CDM) – The Potential of Sustainability Labels[1]

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Abstract

There is a danger that the CDM will fail to live up to its goals, namely reduction of greenhouse gas emissions and enhanced sustainable development. Sustainability labelling is a promising strategy to hedge against such failures. Labels could also serve as a business risk-hedging tool. The existing labels for the CDM are not comprehensive enough, however. A two-tiered stakeholder participatory approach with national flexibility under an international umbrella could be a promising option. Due to the necessary bureaucracy this might not be feasible. Labels in the spirit of the existing approaches – addressing only restricted aspects of sustainability or not applicable to all sectors may be a second best option. Other instruments for the further regulation of the CDM, such as a profit tax, should therefore be discussed as well.

Keywords: CDM, labels, sustainability indicators, risk, equity

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1 Introduction

The Clean Development Mechanism (CDM) allows the so-called Annex-I countries facing greenhouse gas (GHG) emissions caps under the Kyoto Protocol (KP) to achieve emission reductions in countries not subjected to emissions caps.[2] Governmental and private entities can invest in such activities to produce "certified emission reductions" (CER) that directly account for domestic reduction goals in Annex-I countries or that can be sold on the carbon market. Investment in the CDM is a business activity and subject to corresponding risks such as volatile prices (i.e. of the CERs). Besides business risks, the CDM leads to a range of sustainability risks, for example, to only achieve uncertain emission reductions or to result in a sell-out of cheap reduction possibilities without further gains for the host countries (Rose et al. 1999; Ott, Sachs 2002; see Molisa and Wittneben in this publication for a general discussion of the sustainability-business trade-off in the CDM in a societal context and Müller-Pelzer for a somewhat more project-related discussion).

To tackle the business risks, classical risk hedging mechanisms such as portfolio approaches can be applied. In addition, it can be expected that the carbon market itself will offer a wide range of products already common in financial markets (Nolles 2004). As the metric in the market is monetary, however, sustainability is not likely to be of decisive importance in such considerations.

The sustainability risks can be framed as external costs of the CDM and internalization of those would be the socially optimal strategy. Internalization could, for example, be achieved by a tax on CDM projects. Given the potential for considerable rents in CDM projects, taxing by rent sharing mechanisms is a promising suggestion (Denne 2000, Muller 2007). Tax proposals, however, usually face considerable opposition and an implementation in the CDM might not be politically viable on a global level. China, as a first nation, however imposes a tax on certain CDM projects with expectedly low sustainability benefits, resp. high profitability (CDM China 2005, Point Carbon 2005).

Currently, the sustainability risks – if tackled at all – are usually addressed by another, not market-based policy instrument, namely by standards or labels. There are different institutions (mainly NGOs and governmental agencies, but also some of the Carbon Funds; cf. Sutter 2003, CDCF 2005) providing sets of sustainability indicators to assess, and labels to communicate certain standards to be achieved by the CDM. This is mainly done on a voluntarily basis, but some funds or countries request all CDM projects they fund or host to comply with the standards they set. The UNEP has also issued a series of "Environmental Due Diligence" documents for risk assessment in several renewable energy techniques (UNEP 2003).

Such labels or standards can also act as instruments to hedge against business risks as they could be combined with assured minimal CER prices, for example. They can also build on a certain segment of customers that are likely to buy CERs

2 Annex-I countries are basically developed countries and economies in transition, and the Non-Annex-I countries are primarily developing countries.

standing for reliably verified emission reductions. Even if CERs from unsustainable projects dominate the market and even if there are no stringent reduction plans for the post-Kyoto phase, such labels and standards could be a way forward on a voluntary basis.

Sustainability labelling is thus an approach that could address both business and sustainability risks and that would break with the monetary focus of other business risks hedging strategies. In this paper, I assess the potential of labelling for the CDM. With current labels for the CDM, some shortcomings can be identified and one goal of this paper is to identify critical issues in CDM labelling and to suggest more optimal labelling strategies.

The CDM is one of the so-called flexibility mechanisms of the KP, broadening the supply side of CERs for the carbon market. As such it is a crucial part of the global carbon policy instruments designed in the KP. Labels perform well as a voluntary consumer information instrument, as experience from other sectors shows, where there are increasing market shares of sustainability labelled products (e.g. Wüstenhagen 1998, Bird et al. 2002). The greatest challenge for voluntary labels is how to gain large market penetration. This is one of the important marketing issues for sustainability labels for goods such as food (organic) or electricity (green power) (Wüstenhagen 1998).

Going one step further, labels for the CDM can be considered from a global policy instruments perspective, i.e. regarding their potential to increase the sustainability of the CDM in general by requiring all projects to comply with some additional standards. There are, however, theoretical results indicating that such mandatory standards are less efficient than other instruments such as guaranteed higher CER prices for sustainable projects (Fischer, Newell 2004). Interesting is also the theoretical economic literature on labels (relevant key concepts are “green products” or “impure public goods”, and “warm glow” as one explanation to buy such) and whether they have positive or negative environmental (or general welfare) effects. Results usually depend on modelling details. Effects are not always positive and a detailed analysis of the concrete situation at hand is necessary (see e.g. Kotchen (2005, 2006) or Althammer, Dröge (2006)). An additional complication comes from the importance of any foreign direct investment (FDI) for many developing countries. Mandatory high standards could hinder some FDI projects that might not be very sustainable or that would not achieve true emissions reductions but that definitely would be advantageous from a standard economic development perspective.

The organisation of this chapter is as follows. Section 2 presents the CDM with a particular focus on its risks. Section 3 discusses sustainability indicators and labelling on a more general and abstract level. Section 4 brings these lines together and addresses labelling for the CDM, pointing out potential pitfalls and options for improvement. Section 5 concludes.

2 The Clean Development Mechanism

The CDM is expected to lower compliance costs under the KP as the marginal GHG reduction costs are lower in developing countries. To qualify for the CDM, a

project has to reduce emissions below a baseline representing business as usual. Following the current understanding, this basically means that the project has to be profitable only with the additional revenues from CER sales (UNFCCC 2004). Setting this baseline is a crucial, complex and controversial task (Sutter 2003, Müller-Pelzer 2004), but once settled, the GHG reduction aspect of the CDM project is well-defined. Besides this, it is an explicit goal of the CDM to foster sustainable development in the host countries (UNFCCC 1997). There is clearly a big potential for sustainable CDM project activities (in rural energy supply or waste management, for example; see also Pal and Sethi in this publication), but the sustainability goal lacks further concretization in the legal documents and gives considerable leeway in interpretation.

Partners in a CDM project are a public or private CER buyer, an institution in the host country and often also a consultant facilitating the transactions between buyers and host country institutions. Currently, many projects seem not to involve direct investment from Annex-I partners but rather CER purchase agreements only, thus disproportionally shifting the risk to Non-Annex-I parties (Sutter 2005). Since February 2005, unilateral CDM projects are possible, i.e. an institution in a developing country can submit a project for registration under the CDM without involvement of other parties (UNFCCC 2005a). The CERs can then be sold on the market.

The CDM sector grows rapidly (Fenhann 2006, 2007). I attempt a short summary of the current (May 2007) situation, although changes are fast and the situation will probably look different within some months. On the other hand, some trends or characteristics have now been stable for more than a year and thus may continue. As of May 2007, there are 645 CDM projects registered, 1221 are under examination and 19 withdrawn or rejected. In accumulated (till 2012) CER production, 38% are Hydrofluorocarbons (HFC) destruction (26%) or N2O capture/destruction (12%) projects that are likely to not deliver any additional sustainability benefits (Schwank 2004, Cosbey et al. 2005). These percentages have been rather stable up to January 2006, although the number of projects and accumulated CER production has almost doubled between October 2005 and then (mid-January: HFC 40%, N2O 11%). The percentage for HFC has however dropped since then and criticism of HFC projects intensifies (ENB 2006, PointCarbon 2007). Landfill gas (Methane reduction) projects account for 9% of accumulated CER production. They are likely to deliver sustainability benefits if combined with energy use, but there are some large projects that only flare the gas, thus foregoing these additional avails. The accumulated volume of CERs from the 1866 projects is about 1910 mill tCO2e by 2012. The number of countries hosting CDM is steadily increasing but is still characterised by a skewed distribution: India (33%), China (24%), Brazil (12%) and Mexico (8%) have a share of more then 3% in project number. The inequality in distribution decreases, however (in January 2006: India and Brazil accounted for 60% of the projects). Regarding CER generation, the distribution is even more skewed: China accounts for 49%, India for 17%, Brazil for 8%, and besides those, only South Korea (5.3%) reaches over 3%. 2.2% of the projects are located in Africa, mostly in South Africa (17), Egypt (7) and Morocco (5), a share that declined since mid-January 2006 (2.6%). The biggest buyers currently are the UK with 376, The Netherlands and Japan with 137 and 135 projects, respectively, whereas for 979 projects this information

seems not available (i.e. it is likely that a CER purchase agreement has not yet been reached or that the projects are unilateral).

The current experience with almost 38% of CER production not accompanied with increased sustainability and the unspecific formulation of this goal in the KP, as well as the questions regarding additionality, emphasize the danger that the CDM fails to live up to its goals. One specific aspect is that the CDM may lead to the sell-out of cheap reduction possibilities in developing countries what would leave them with the more expensive ones only in the future, when they may face caps themselves. This could be offset by technology transfer or learning effects that would keep marginal abatement costs down (Rose et al. 1999). At least part of the experience, however, indicates that such actions might not take place (as observed in South Africa, for example, according to Steve Thorne in UNFCCC (2005b)). These reservations towards sustainability performance of the CDM initiated the discussion on sustainability indicators or labels for the CDM. First, to establish indicators for measurement of the sustainability performance and development of CDM projects. And second to identify levels of good performance and to define standards and labels for this (e.g. Sutter 2003, Goldstandard 2005). The COP11/MOP1 in December 2005 reached decisions for improvement of the CDM, but no decisions have been taken to strengthen the sustainability goal or to address the lack of projects in least developed countries (Wittneben et al. 2006). This situation still prevails after the COP12/MOP2 in November 2006, where the skewed regional distribution was still an issue of primary importance (ENB 2006, UNFCCC 2006). Besides this, prime topics identified for 2007 were the role of several specific and partly new project types for the CDM (Carbon Capture and Storage, Afforestation/Reforestation, switching from non-renewable to renewable biomass), the ongoing discussion on additionality and the discussion on how to deal with HFC projects under the CDM.

Besides being an instrument of climate policy, the CDM sets the frame for new business opportunities. It is potentially profitable to invest in GHG reduction projects in developing countries and to sell the CERs on the carbon market. The mechanism also opens up opportunities for additional profit in ordinary investments due to the CERs produced. This can, for example, be the case for renewable energy projects. The opportunities of the CDM come with several risks, though. First, there is the uncertainty of the prices of CERs. This is mainly due to yet unclear details on rules and allocation plans for the first commitment period of the Kyoto Protocol (2008-12) to succeed the “trial period” of the European Emissions Trading System (EU-ETS) now under operation (2005-07). The general political and institutional uncertainty regarding the KP or any successor agreement after 2012 further adds to this uncertain business environment. However, the COP11/MOP1 in Montreal, December 2005, decided formally to take up discussions on regimes beyond 2012 and initiated several processes in this context (Wittneben et al. 2006). This discussion was continued at the COP12/MOP2 in Nairobi, November 2006. Concrete decisions have not yet been reached, but the importance to fast proceed towards such is widely acknowledged (ENB 2006). In any case, the EU-ETS is likely to proceed and it can be expected that in particular some NGO initiatives will be willing to buy CERs also outside a stringent post-Kyoto agreement (such as the NGO “MyClimate” investing in projects to offset carbon emissions from air travel). The total market volume of CERs, however, is

heavily dependent on global participation. On this level, the role and volume of "hot air" credits in the market will also be decisive for CER prices.

Specific CDM risks are the possibility that a project is not accepted by the CDM Executive Board, the institution in charge of the whole CDM registration process. This bears the danger of sunk costs, especially for small projects, as transaction costs to file in a CDM project are still considered to be high. This problem and the insufficient funding of the CDM Executive Board have been addressed at the COP11/MOP1 in December 2005 (Wittneben et al. 2006). Additional funding has been decided on to overcome the bottleneck in processing of project proposals and some "sectoral" CDM will be possible, allowing for certain CDM activities bundling several project at different sites. Problems with monitoring and verification of the CERs might occur and there is some potential that political opposition against specific CDM projects will arise. There is also the danger that a project does not deliver as many reductions as it claimed regarding the specific base-line chosen. Still changing or newly implemented national policies regarding revenue sharing also affect the profitability of projects. CER revenue shares are explicitly a matter of negotiation between the partners for each project (UNFCCC 2005c), but it is the prerogative of national governments to set additional rules, such as China did in 2005 by imposing a tax on CDM projects (CDM China 2005, Point Carbon 2005: e.g. 65% of CER revenues for HFC projects, 30% for N2O).

Due account has also to be paid to the peculiar characteristics of CERs: they are no physical necessity for any firm, but the political decision to cap GHG emissions make them a valuable input for any process emitting GHGs. The demand for CERs is thus generated politically and the good itself as well as the market are basically designed in a political process. Neither buyers nor sellers are interested in the quality of CERs (for example measured by the reliability of the reductions achieved or by assured sustainability effects). The quality-based self-enforcing control mechanism present in usual goods markets is thus missing (Repetto 2001).

3 Sustainability Indicators and Labelling

Sustainability indicators are built to capture the state and development of a system regarding sustainability. A main problem is the overly general quality of the concept "sustainability" that hinders it to be operational without further specification. Any set of sustainability indicators frames some aspects on a concrete and measurable or evaluable level. It thus allows for a more or less complete description of a system regarding its sustainability in current state and in evolution. Sustainability is most often framed by discerning economic, environmental and social aspects on equal footing, a structure many indicator systems follow. This makes the implicit trade-offs in any sustainability assessment explicit. Another common approach is more hierarchical, seeing the social aspects as final goals, the environment as an indispensable basis and the economic issues as efficient means to reach the goals given the boundary conditions accruing to the physical basis. The importance of long-term time horizons and inter-generational equity further increase the complexity of the concept.

Sustainability indicators have become common after the UN Conference on Environment and Development 1992 – the "Earth Summit". With the "Agenda 21", a program of action for sustainable development was launched and countries were asked to develop national strategies for sustainable development. This boosted a wide range of initiatives to make sustainability a topic in various contexts, such as for local authorities (local Agenda 21), in investment (sustainability funds), in firms (ISO 14000), energy production (environmental fiscal reform), to name just a few. In parallel, indicator systems to assess the sustainability of the effects of such activities were developed.

The current situation regarding the application of sustainability is characterized by a lack of coordination and implementation of strategic action in national contexts (Swanson et al. 2004). While measuring indicators for the classical spheres economics, environment and society is widespread and rather well understood, this is not the case for more integrated aspects of sustainability. The aggregation of several indicators and the balance between generality/comparability and case specific adequacy also remains a challenge. Implementation of strategic actions addressing integrated issues of sustainability and coordination between national and local strategies, and between sustainability policies and the general national budgeting process is lacking. Furthermore, there is a still largely unused potential to implement classical economic policy instruments such as the environmental fiscal reform (Swanson et al. 2004).

While indicators measure state and development on a descriptive level, labels can be used prescriptively. They predominantly apply to single products, processes or producers. To specify what sustainability ideally means on such a concrete level is notoriously difficult. Basically two pragmatic strategies to deal with this problem can be discerned. Either one defines a limited set of ideals that should be achieved (e.g. recycling quotas), accepting the only partial view adopted. Or one identifies some crucial negative aspects to be avoided (e.g. pesticide use), thus aiming at achieving a certain minimal standard. Furthermore it is useful to discern between broad sustainability labels like the EU eco-label and more restricted but correspondingly more detailed sector-specific labels such as green electricity (de Boer 2003). The main goal of labels is to provide simple, clear and reliable information on aspects of the goods purchased that consumers cannot verify. Labelling as a means of general and environmental information provision to the customer is not new (the "Blaue Engel" – blue angel – in Germany, for example, was established in 1977), but environmental labelling was boosted in the wake of Agenda 21, and social labelling became wide spread at the same time.

The aggregation challenge is particularly important as labelling usually involves integrating a range of different indicators in a single measure. This is one point of criticism towards the EU eco-labelling scheme, and there is the danger that it undermines credibility (Karl, Orwat 1999). The problem is somewhat alleviated for the many labels that are specific for certain sectors and certain aspects of sustainability only, such as labels focusing on organic farming practices ("Organic", "Bio"), fair-trade aspects ("Max-Havelaar"), or key environmental and social aspects in forestry and fisheries ("Marine" and "Forest Stewardship Council" - MSC resp. FSC).

Current labelling schemes involve basically four groups of actors (de Boer 2003). Producers are interested in labelling as it can give them a competitive ad-

vantage – working somewhat like a brand – the market can be segmented according to the new qualities the label stands for. It signals compliance with certain sustainability standards and thus directly addresses a certain consumer segment. Consumers gain access to information they did not have before or which to collect would be prohibitively costly. Governmental institutions see it as a potential to combat free riding by reducing the asymmetric information prevailing in any producer-consumer relationship. In addition, labels are one instrument that can be employed to achieve governmental sustainability goals. Other parties like NGOs have mainly a type of lobbying interest as labels can support their case. This applies for example to the process of newly defining a label, to start a discussion in this context and to work towards some regulation.

The recent development of labelling shows the genesis of a new type of labels that are no longer linked to any increase in individual material benefit (as it is the case for organic food, for example, that is free of pesticide residuals). "Green" electricity (i.e. non-fossil, non-nuclear and no large hydro) is the paramount example. Labelling of "conflict-free" diamonds under the Kimberley-Process or the discussions on "fair-trade" oil are others. For all these products, there is no physical difference between the labelled and the conventional. The direct consumer gain is thus not tangible but wholly ideational. However, indirect differences with a public good/bad character likely arise, e.g. through the negative effects of destabilizations due to environmental conflicts in the origin countries of many natural resources (Mason, Muller 2007).

Marketing is a crucial aspect for labelling schemes, especially for goods with only non-tangible ideational individual benefits. Bird et al. (2002) identify consumer information and aggressive marketing as a crucial factor in increasing market shares for green electricity. The presence of reliable labels and differentiated products, also offered in the low-price segment, are decisive as well. But there seems a considerable willingness to pay for labelled products, e.g. in energy-efficiency, which also exceeds the expected cost savings over the lifetime of the product (Sammer and Wüstenhagen 2006). New aspects of sustainability marketing are the relevance of non-product-specific issues like social and environmental problems and how they intersect with consumer wants and demand. The potential and importance to affect macro conditions for the (new) markets on the policy level is also a new aspect because these conditions are seen as externally given in conventional marketing (Belz 2005). Sustainability marketing has also a longer time-horizon than conventional marketing and puts less emphasis on the sales and transactions than on a lasting relationship with the customer.

4 Sustainability Labels for the CDM

Section 4.1 shortly presents some of the existing indicator and labelling schemes for the CDM. In many aspects, labels for CDM take labelling to its limits – the related problems but also the potential are outlined in section 4.2. Based on this, section 4.3. investigates how an ideal label for the CDM could look like.

4.1 Existing Sustainability Labels and Indicators for the CDM

Various indicator systems and labels for the CDM exist, provided by NGOs (e.g. the SSN sustainable development tool, the Gold Standard, the CCB standards), by governmental institutions (SUSAC, an EU institution to support CDM projects in African, Caribbean and Pacific Countries), and also by the carbon funds themselves (e.g. the Prototype Carbon Fund PCF) (Sutter 2003). Common to all these approaches is a set of criteria and often some (explicit or implicit) weighting scheme to make them comparable and to aggregate them to a one-dimensional measure allowing ranking and labelling of projects. Alternatively, or in addition, there are often minimal performance requirements for each criterion that have to be fulfilled by a project to qualify for the label.

Sutter (2003) identifies four key properties that should be fulfilled by any sustainability assessment tool for the CDM: adjustability regarding (the various stakeholders') preferences, possibility for relative measurements in the context of the sustainability of the larger surrounding system (e.g. the host country), reproducibility of results, and an assessment that is as comprehensive as possible. His multi attribute utility theory (MAUT) based approach provides a framework to assess CDM projects fulfilling all these criteria. It is implemented by the government of Uruguay to assess all CDM projects it may host (Heuberger, Sutter 2003). A recent assessment of all registered CDM projects as of autumn 2005 with a simplified version of this tool shows that none of the projects fulfill both the additionality and the sustainability requirements (Sutter, Parreno 2005).

Currently one of the most prominent CDM labels is the Gold Standard (Goldstandard 2005). For the first time, CERs have been issued for a Gold Standard certified project in march 2007 and more projects are in the pipeline (Goldstandard 2005, 2007). It mainly consists of a sustainability assessment based on three groups of 3 to 5 indicators. The projects are assigned a performance measure between -2 (major negative impacts) and +2 (major positive impacts) for each indicator. Within each sub-group, the sum of the indicator values has to be non-negative and the over-all sum over the sub-groups has to be positive. No indicator must score -2. The indicators in sub-group one are 1) water quality, 2) air quality, 3) other pollutants, 4) soil quality and 5) biodiversity effects, 6) employment (qualitative aspects); in sub-group two 7) livelihood of the poor, 8) access to energy services and 9) human and institutional capacity; in sub-group three 10) employment (numbers), 11) balance of payments and 12) technological self-reliance. As a second main point, the Gold Standard requires two main public consultations in the design phase in addition to the ordinary CDM stakeholder participation criteria. One at the beginning and another, more comprehensive one, before the project is validated. The Gold Standard states several rules for these consultations, such as information and publication requirements and at least one meeting to be held in the local languages. The third main point of the Gold Standard is conformity against the host countries' or the CDM Executive Boards requirements regarding an environmental impact analysis (EIA). If no such requirements are given for the project type, the project has to be checked against the requirements of the Gold Standard. The Standard requires an EIA if the first stakeholder consultation (cf. above) identifies significant environmental impacts.

Another recently developed set of standards are the CCB standards (CCB 2005). They have four groups of criteria (general, climate related, community related, biodiversity) with 6 indicators for the first and 3 each for the others. Fulfillment of these 15 criteria leads to accordance with the CCB standards. Each group provides two additional voluntary criteria, the fulfillment of which leads to a more stringent "silver" resp. "gold" label. Regarding sustainability, these criteria remain, however, considerably general (mainly assessment of off-site negative impacts) and part of them refer more to ordinary good business practices than to particular sustainability requirements. Indeed, this applies to all general criteria besides the requirement of no significant land tenure disputes. These other general criteria refer to legality, management capacity, information on the base-line, original situation and goals of the project.

4.2 Problems and Potential of CDM Labels

Labelling the CDM has several peculiar characteristics compared with common labelling schemes. It addresses not individual end consumers but rather governmental institutions, funds and productive industries emitting GHGs. It is a label for an end product with only immaterial qualities and with demand generated by politics. It is topically very broad, in principle providing comprehensive sustainability labels to the whole range of different activities eligible under the CDM. The trade-offs intrinsic in the sustainability concept are thus transformed into similar trade-offs in the labels. Most existing labels claim general validity without differentiation according to countries and their respective national sustainable development plans. They thus face the classical problem of any sustainability label: the breakdown to project level of the ideal sustainable development that has to be seen in a wider geographical, cultural and temporal context.

If Sutters four criteria are taken as a starting point, non of the existing labels fulfills all of those. His MAUT-approach does fulfill them, but as it is now, it defines rather an indicator set for assessment than a specific label. Yet it could easily be further developed into a basis for CDM standards or labels, for example by setting requirements such as that the aggregate utility has to be larger, or no criterion must score less, than a certain value (cf. Heuberger and Sutter 2003). Due to the stakeholder participation, the MAUT approach is sensitive to case and potentially also nation specific issues. It does, however, not automatically assure incorporation of long-term aspects and coordination with national sustainability strategies.

While CDM sustainability labels thus face some problems in reporting the sustainability of CDM projects and working towards its increase in a comprehensive manner, they at least clearly capture a partial picture and can also work as risk hedging tools. This is so if a label succeeds in meeting consumers' information demands and can thereby establish credibility regarding the claims it makes. Sustainability being often a too vague goal to strive for, a label can for example claim to stand for high quality reductions (in particular verified, reliably achieved reductions) or for other specific aspects of sustainability. Comparison with existing la-

bels from other areas suggests that such restrictions make is easier to establish credibility.

A particular potential for CDM labels exists in cases where sustainability risks and business risks coincide. This can be the case for projects involving smallholders, for example, where business risk hedging aspects like guaranteed output prices can also play a crucial role in hedging against risks threatening local livelihoods. It is also the case for the above-mentioned high quality reductions, as they would lower the risk that the project actually generates fewer reductions than projected and thus leads to fewer revenues from CERs.

In this context, marketing issues related to CDM labels may become more important. This aspect is crucial to classical labelling initiatives and the object of increasing awareness in this field (cf. Belz 2005). It is largely neglected for CDM labels so far. This might be partly because of the different type of actors involved and the absence of individuals as consumers. The incorporation of marketing aspects may also take some time because the CDM labels were initiated and developed by sustainability rather than by business risk concerns.

4.3 Options to Improve CDM Labels

The discussion above suggests that an improved labelling approach for sustainable CDM should combine four key aspects: 1) a MAUT-based strategy with 2) clear labelling rules tied to the indicator values such as provided by the Gold Standard. It should also 3) include additional tools to assure coordination with national sustainable development goals (assuming that those national strategies make sense) and – as a particular aspect thereof – 4) sensitivity to long-term aspects.

Such an approach could be implemented employing a two-tiered instrument. Concrete specification for a MAUT-based procedure could be agreed on national levels, containing some further specifications for regions or sectors. An international institution could then accredit the national strategies and provide labels that thus would be credibly applicable on a global level. This international institution might provide some guidelines to facilitate comparability of national strategies. It could also provide some minimal requirements on certain indicators that are globally felt to be a necessity for any sustainability label, e.g. on how to include long-term aspects. Such a comprehensive approach, however, bears the danger to further and disproportionately increase the administrative costs of CDM projects.

Another strategy would be to abstain from any more comprehensive approach and to concentrate on some issues seen as particularly crucial for the situation at hand. The Gold Standard is such an example – but somewhat more flexibility regarding national situations and single cases could be advantageous. Instead of restricting the indicators to be considered, a topically more specific approach could be taken, trying to establish labels for more narrow national or regional contexts or for more narrow sectors only – such as for hydropower schemes or waste management.

Such restricted labels would work as information provision tools for consumers and they could also be risk-hedging tools for producers. They are however less adequate to assure sustainability of the CDM in a comprehensive manner. In particu-

lar, if any national or international policy is to be based on sustainability performance of CDM projects according to some indicators, a comprehensive approach with stakeholder participation is likely to be indispensable.

The peculiar properties of the good CER are important regarding marketing of labelled CERs. In particular because of the different characteristics of the buyers of CERs and the consumers of more conventional labelled goods. The influence on the wider economic context that is a topic in sustainability marketing in general is particularly important for the CDM, where rules for the mechanism itself are still under development. This changes marketing strategies, especially towards governments that could make labels a legal issue thus settling the decision to buy once and for all. This is very different from individuals as consumers that are usually free to decide in favor or against sustainability labelled goods with each consumption decision.

It has to be kept in mind that the comprehensive labelling approach as suggested here is likely to further add to the bureaucracy involved in the CDM that is anyway plagued by high transaction costs. This is definitely an argument to employ more restricted labels. It could also be an argument to embark on a totally different strategy to further regulate the CDM such as a profit tax (Denne 2000, Muller 2007). A tax, however, usually faces more opposition from lobbying groups than label-based and other command-and-control approaches (Dijkstra 1999). A tax could also be combined with some simple labelling scheme defining several tax levels according to a basic notion of sustainability performance. This would be in line with the general philosophy of the CDM and the KP as frameworks for market-based approaches to reduce GHG emissions. An overly bureaucratized CDM is clearly not in this spirit.

5 Conclusions

Labelling the CDM takes labelling in general to a new level – both regarding the good labelled and the actors involved. In particular the types of consumers addressed are different compared to other labels, such as for organic food or green electricity. The labelling strategies identified for the CDM can thus give fruitful input to labels for other goods with similar types of target consumers such as natural resources not sold to individual consumers. In particular, stakeholder participation in framing and applying the labels and some [two-]tiered approach setting general guidelines on an international and more specific on a national level are new to labelling. Marketing aspects in this context are likely to play a crucial role – understood in a broad sense, including affecting the economic environment.

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