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# Private Authority in Global Climate Governance:

## *The Case of the Clean Development Mechanism*

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*Revised version of a paper prepared for the 4th Marie Curie Training Course on the Human Dimension of Environmental Change, held at the Environmental Policy Research Center, Freie Universität Berlin from October 4-13 2010*

## Introduction

The architecture of contemporary global climate governance is characterized by a complex relationship between public and private authority. While intergovernmental decision-making at diplomatic conferences remains central in global climate politics, several authors have noted that private actors adopt and perform various governance functions that formerly rested solely with governments (Jagers and Stripple 2003: 388-389; Pattberg 2007: 8-17; Andonova, Betsill and Bulkeley 2009: 52). A prominent example of the mix of public and private authority in global climate policy-making is the *Clean Development Mechanism* (CDM). National governments maintain the supreme authority in the regulatory framework of the CDM, whereas the oversight and daily supervision of the project-based mechanism has been delegated to an intergovernmental body and further to private auditing corporations. According to many scholars and policy-makers, the privatization of authority is a long overdue step to overcome the shortcomings and failures of traditional government approaches and to increase the effectiveness of international regulation (for example Rosenau 1992; Commission on Global Governance 1995). While this might be true, this paper puts forward the argument that the trade-offs which accompany the shift from public to private authority have not been analyzed in enough detail. Therefore, this paper aims to analyze the consequences associated with the growing role of private actors in the field of global climate policy-making and focuses on the CDM as a particular instance of private authority in global climate governance.

The paper proceeds in four analytical steps. First, I discuss different theoretical approaches to the relatively recent phenomenon of private authority in global (environmental) governance and sketch a few examples of the growing involvement of private actors in global policy-making. Second, I give an overview about the CDM and briefly review the literature about this instrument. Third, I scrutinize the mix of public and private authority in the CDM by focusing on the delegation of authority to private auditing corporations and analyze their critical function in the regulatory framework of the CDM. Finally, I conclude with an evaluation of the role of these corporations in the CDM and point to factors that merit attention in future research on private authority in global governance.

## Private authority in global (environmental) governance

Authority is traditionally associated with the public sphere. Recent approaches to international relations, however, acknowledge that in the past decades, private actors have been increasingly engaged in authoritative decision-making (for example Rosenau 1995; Cutler, Haufler and Porter 1999a; Hall and Biersteker 2002a).[1] Scholars of global environmental politics were among the first who pointed to the growing importance of private actors in global policy-making (cf. Falkner 2003: 75-76). Moreover, environmental politics has in the past few years served as a major empirical testing ground for the theoretical development of the concept of private authority in global governance.

According to the relatively broad definition formulated by Claire Cutler, Virginia Haufler and Tony Porter, private authority can be understood as decision-making power over a particular issue-area that is exercised by private actors and accepted as legitimate by all stakeholders (1999b: 5). While Cutler, Haufler and Porter focus on cooperative arrangements between private economic actors, Rodney Hall and Thomas Biersteker adopt a more general approach to the emergence of private authority in global governance. They distinguish between moral, market-based and illicit forms of authority and argue that the empirical phenomenon of private authority has been largely neglected by classical approaches to international relations (Hall and Biersteker 2002b). More recently, Jessica Green has analyzed the emergence of private authority in global politics. She particularly investigates the authoritative role of private actors in global environmental policy-making (Green 2008a, 2008b, 2010a, 2010b, 2010c). In her latest studies, Green deepens the concept of private authority and differentiates between *delegated private authority* and *entrepreneurial private*

[1] Other scholars reject the thesis that states have lost dominance in the international system (for example Krasner 1999). A recent elaboration of this argument is formulated by Drezner (2007).

*authority*. According to Green, delegated private authority requires a transfer of decision-making power from states to private actors (2010b: 12). Entrepreneurial private authority, by contrast, emerges when stakeholders in a given issue-area defer to rules or standards that have been formulated by private actors without the explicit delegation of authority by states (Green 2010b: 11-12). In the CDM several instances of entrepreneurial private authority can be identified, such as the *Gold Standard*, which is a private initiative to evaluate the environmental and sustainable development performance of CDM projects. The empirical focus in this paper, however, is on the delegation of authority from states via an intergovernmental body to private corporations. Green's findings regarding the delegation of authority in global environmental politics show a mixed picture. Based on a quantitative analysis of more than 150 multilateral environmental agreements, she concludes that the delegation of authority to private actors is a relatively rare phenomenon in global environmental politics, which has, however, become more frequent in the past few years (Green 2008b, 2010a). Thus, while states generally appear to remain rather hesitant to delegate governance functions to private actors, the number of instances of delegated private authority has recently increased in global environmental policy-making.

Scholars have identified different reasons for this development. One of the most common explanations is the declining financial and technical capacity of states to regulate increasingly complex issues (Strange 1996). Due to economic globalization as well as global environmental changes, states have partly lost control and authority over certain regulatory functions, with the result that public authority has been complemented by private structures of authority (cf. Pattberg 2007: 16). Another explanation is that states have deliberately chosen to transfer some of their authority into the economic realm in order to increase the effectiveness of international regulation (cf. Clapp 1998: 289). Through delegating authority to private actors, states aim to benefit from the division of labor, particularly from the specialized knowledge of the body performing the function (Hawkins et al. 2006). Slightly modifying this argument, Robert Falkner asserts that states may also aim to delegate the often complex task of regulation to private actors in order to save the costs of implementation and compliance (2003: 77). Other more critical scholars claim that states pursue the strategy to shift the responsibility for various social risks from the state to private economic actors (for example Shamir 2008). These critical accounts suggest that the declining capacity of states to effectively regulate in a globalizing and changing world is not the only reason for the growing involvement of private actors in global environmental policy-making (cf. Clapp 1998: 298).

In the past few years, several studies have identified various types of private governance arrangements that can be categorized as instances of private authority. First, scholars have adopted Stephen Krasner's classical definition of *international regimes*[2] and transferred the regime approach to the economic sector (Haufler 1995; Cutler, Haufler and Porter 1999a; Cutler 2002). These authors analyze the institutionalization of informal industry norms and rules and investigate the resulting impacts on the international system. Cutler, Haufler and Porter show that states not only recognize the *principles*, *norms*, *rules* and *procedures* negotiated by private firms, but also incorporate them into domestic as well as international regulatory structures (1999b). A prominent example of this type of private authority is the *ISO 14000 series* which has been drafted mainly by private corporations in the early 1990s in order to establish global environmental standards for industrial production and service provision (Clapp 1998). Several countries, mostly in Europe and East Asia, have adopted the ISO 14000 series as official standards. In addition, the *World Trade Organization* has recognized the ISO standards as international guidelines (Clapp 1998; Haufler 2001; Falkner 2003: 77). This gives, according to some scholars, additional legitimacy to private standard-setting activities (for example Falkner 2003: 77). Other authors, however, claim that privately formulated environmental standards are an instrument of the industry to obscure the persistence of environmentally harmful practices, especially in areas where public control is limited as in developing countries (for example Chatterjee and Finger 1994; Gleckman and Krut 1996).

Second, a growing number of scholars focuses on *public-private partnerships* (for example Reinicke and Deng 2000; Börzel and Risse 2005; Bexell and Mörth 2010). These partnerships between, for instance, transnational corporations and intergovernmental organizations are involved in rule setting, rule implementation and the provision of public services. While public-private partnerships potentially increase the effectiveness and legitimacy of global governance by involving private actors in the design and implementation of policy-making instruments, little empirical evidence points to the environmental effectiveness of these new modes of governance (cf. Bäckstrand et al. 2010: 16-18). The question whether this type of private authority contributes to an effective provision of public goods and whether it can close the participation gap of international policy-making remains controversial (for example Pattberg and Stripple 2008: 380-382; Schäferhoff, Campe and Kaan 2009).

[2] Krasner defines international regimes as "sets of implicit or explicit procedures, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations" (1983: 2).

Third, and closely related to the concept of private international regimes, scholars pay increasing attention to new forms of strategic cooperation between private firms and their efforts to formulate voluntary codes of conduct to promote *corporate social responsibility* (cf. Pattberg 2007: 11). These voluntary codes of conduct supplement, to some extent, public regulation and "are a clear example of market-based actors exerting significant influence in the global policy arena" (Clapp 1998: 298). Proponents of this type of private authority argue that the corporate responsibility movement may help disseminating social norms in the global political economy (Haufler 2006). Recently, however, scholars have emphasized shortcomings of voluntary industry initiatives, such as the risk of 'window-dressing' or 'greenwashing' (for example Vogel 2005). According to critics, voluntary self-regulation may favor private interests at public expense and render public authorities vulnerable to regulatory capture (Cutler 2008: 207).

In addition, private actors play authoritative roles in state-based international regimes.[3] They do not only lobby state representatives during intergovernmental negotiations, but also take on governance functions in the regulatory framework of international regimes. In the international climate regime, for instance, private auditing corporations are engaged as regulatory agents and have been put in charge to monitor the compliance of rules and procedures negotiated by national governments. Since the precise nature of how these private actors perform their functions has only marginally been addressed, this type of private authority will be examined in the following sections of this paper. While most of the instances of private authority sketched above can be classified as entrepreneurial or hybrid private authority according to Green's theoretical conception, the latter example falls in the category of delegated private authority.

In sum, there is increasing scholarly attention to the growing importance of private actors in global (environmental) policy-making. Several theoretical approaches have been developed to conceptualize the role of private actors in authoritative decision-making at the global level. As indicated above, the consequences associated with the growing involvement of private actors have, however, not been analyzed in much detail.[4] Therefore, the remainder of this paper critically assesses the role of private auditing corporations in the regulatory framework of the CDM as an illustration of delegated private authority in global climate governance.

[3] While the early work on international regimes did not exclude the participation of private actors, many subsequent studies using the regime approach have neglected the considerable role of private actors in international regimes (cf. for example Rosenau 1995: 29; Levy and Newell 2005).
[4] A first step in this direction has recently been taken by Jönsson and Tallberg (2010).

## A brief overview of the CDM

The CDM is one of three *flexible mechanisms* that have been established with the *Kyoto Protocol* in 1997 in order to lower the overall economic costs of achieving greenhouse gas (GHG) emission reduction targets.[5] Its specific rules and procedures have been agreed upon by the parties in Marrakesh in 2001 and the first CDM project was registered in 2004 (UNFCCC 2004). The basic idea of the mechanism is to allow companies from industrialized countries with emission reduction targets under the Kyoto Protocol (Annex 1 countries) to gain *Certified Emission Reductions* by investing in projects that reduce emissions in developing countries (non-Annex 1 countries). The purpose of the CDM, defined in Article 12 of the Kyoto Protocol, is twofold: First, the CDM aims to reduce the costs of Annex 1 countries to meet their targets. Second, the project-based mechanism is supposed to assist non-Annex 1 countries to achieve sustainable development (UNFCCC 1997). Thus, the CDM can be seen as an institutional link between industrialized and developing countries that "seeks to bridge the demarcation between countries with emission reduction targets and those without in the UNFCCC [United Nations Framework Convention on Climate Change]" (Stripple and Lövbrand 2010: 75).

### *A short literature review*

Since its introduction, the CDM has been criticized for different reasons. Many scholars emphasize that the CDM has, so far, not significantly contributed to sustainable development in developing countries, one of its two key purposes (for example Cosbey et al. 2006; Olsen 2007; Sutter and Parreno 2007). Moreover, authors criticize that the CDM draws off the attention from GHG emission reductions in industrialized countries and does not generate emission reductions on a global scale since the emissions reduced in developing countries are emitted elsewhere (Schneider 2007; Luhmann and Sterck 2008; Victor and Wara 2008). Some critical scholars even perceive the CDM as a form of 'carbon colonialism' that enables industrialized countries to buy themselves out of their obligations while exacerbating environmental and social injustice at the global level (Bachram 2004; Lohmann 2006). Furthermore, authors point to the inequitable geographical distribution of CDM projects. While nearly 80 percent of the projects have been registered in Asia and the Pacific and more than 17 percent in Latin America and the Caribbean, Africa accounts for less than 2 percent of

[5] The two other flexible mechanisms introduced with the Kyoto Protocol are *International Emissions Trading* and *Joint Implementation*. For a comprehensive overview about these mechanisms see the work by Yamin and Depledge (2004: 136-196).

all registered projects (UNFCCC 2011b). In addition, scientists and civil society representatives hold that the CDM does not provide proper opportunities for local stakeholders to participate in the decision process whether a project is eligible or not (Michaelowa 2007; Olsen 2007; Lövbrand, Rindefjäll and Nordqvist 2009). Another criticism of the CDM concerns the *additionality* question of many projects (for example Figueres 2005; Michaelowa 2007; Purohit and Michaelowa 2007). According to the rules and procedures of the CDM, companies will receive carbon credits from a CDM project only if it leads to *additional* emission reductions, i.e. only if the project activity generates emission reductions that would not have been achieved in the alternative scenario to the implementation of the CDM project (UNFCCC 2006: 16). The question whether a project is *additional* can thus only be calculated through counterfactuals, which gives rise to methodological problems (Schneider 2007: 7-10). According to different scholars, many of these problems are a logical consequence of the current incentive structure built in the CDM which sets priority for cheap emission reductions and does not place enough value on sustainable development benefits (Ellis et al. 2007; Lövbrand, Rindefjäll and Nordqvist 2009; Stripple 2010).

On the other hand, there are also arguments suggesting that the CDM is at least a partially successful market-based instrument. Most observers acknowledge that the CDM is working well in providing cost-efficient GHG emission reductions (for example Pattberg and Stripple 2008: 375). The CDM has produced a significant output of more than 2,700 registered projects and an overall number of about 5,800 projects that are in the pipeline (UNEP Risø Centre 2011a). Scholars moreover emphasize that the CDM has started to generate environmental technological transfer (Dechezleprêtre, Glachant and Ménière 2008; Larson et al. 2008; Benecke 2009) as well as a substantial transfer of finance from industrialized to developing countries (Fuhr and Lederer 2009: 332). In addition, due to an increasing market share of projects in the *renewable energy*, *fuel switching* and *energy efficiency* sectors, the potential of the CDM to contribute to sustainable development in developing countries has significantly risen in the past few years (Pattberg and Stripple 2008: 375). Furthermore, some authors point out that the CDM has several unintended positive side-effects. They argue that, due to the introduction of the CDM, governments and local authorities in developing countries have considerably enhanced their capacity to deal with climate policy issues (Fuhr and Lederer 2009: 339). Hence, the CDM provides a crucial instrument for the integration of developing countries into the international climate regime (Grubb, Vrolijk and Brack 1999: 133-138; Michaelowa 2005: 305; Streck 2007: 92). These countries have, so far, no obligations to reduce GHG emissions under the Kyoto Protocol.

Additionally – and very important with regard to the criticisms sketched above – the CDM "has shown that it can evolve, adapt and improve" (UNFCCC 2007) as noted by Yvo de Boer, the former Executive Secretary of the UNFCCC. Recently, this has been underscored by the establishment of the *Program of Activities* as a new CDM modality (CDM Executive Board 2007: 17). This innovation is supposed to render the CDM more accessible to small and medium-sized enterprises as well as to small countries, which do not have large single site sources of GHG emissions and which have hence been excluded from the CDM in its earlier form (Hinostroza et al. 2009).

Thus, while the current design of the CDM suffers from a number of inherent shortcomings, the CDM can be regarded as an evolving market-based instrument which is open to amendment in the post-Kyoto era (cf. Lövbrand, Rindefjäll and Nordqvist 2009: 76). The various concrete proposals for a reformed CDM (Stripple 2010: 76-80) suggest that the mechanism is still seen as a promising governance arrangement in the area of global climate policy-making (cf. Paulsson 2009: 76).

### *The CDM as a new mode of global climate governance*

Several scholars of global environmental politics describe the CDM as an innovative mode of governance which is supposed to open the door for broader participation by non-state actors and less hierarchical forms of steering in global climate policy-making (for example Bäckstrand 2008: 90-91; Lövbrand, Rindefjäll and Nordqvist 2009; Stripple 2010). The CDM involves a wide range of non-state actors such as multilateral institutions, private corporations and non-governmental organizations which perform various functions in the CDM project cycle, from the identification and design of individual projects over their validation, registration and monitoring to the verification, certification and issuance of carbon credits (cf. Pattberg and Stripple 2008: 375).[6] In addition, the CDM represents a market-based instrument that is characterized by a mix of public and private forms of regulation (Bäckstrand et al. 2010). While the regulatory framework of the CDM has been established by national governments and the basic rules and procedures are negotiated at diplomatic conferences, the day-to-day management of the mechanism is conducted by an intergovernmental body and private auditing corporations that evaluate the environmental performance of individual projects. The role of these private corporations, labeled *Designated Operational Entities* (DOEs), in the regulatory framework of the CDM is particularly interesting because they represent an instance of delegated private authority in global climate governance. Despite

[6] For a concise overview of the different actors involved in the CDM, see the article by Streck (2007).

their important function in the CDM, relatively little scholarly attention has been paid to the DOEs.[7] The DOEs are primarily large multinational auditing corporations that are responsible for the validation and verification of CDM project activities. In the validation process of a project, the DOEs assess whether a proposed project meets the requirements of the CDM; in the verification phase, the DOEs review the GHG emission reductions that have been achieved through a certain project. Hence, the DOEs are entrusted with the important task to supervise the quality of the CDM projects and to ensure the environmental integrity of the market-based instrument (cf. Paulsson 2009: 66). However, the top institution in the regulatory framework of the CDM is the CDM *Executive Board* that, inter alia, accredits the DOEs and may also suspend or withdraw their accreditation if it is not satisfied with the performance of certain corporations. The Executive Board, in turn, acts "under the authority and guidance" of the *Conferences of the Parties serving as the Meeting of the Parties* (COP/MOP) to which it is "fully accountable" (UNFCCC 2002: 27). Thus, while private corporations are engaged in authoritative decision-making and perform central governance functions in the CDM, they operate in a 'shadow of hierarchy' with background conditions of public authority, state intervention and governmental control (cf. Bäckstrand et al. 2010: 13). This complex mix of public and private authority in the regulatory framework of the CDM will be analyzed in more detail in the following section of this paper by focusing on the critical function of the DOEs.

## The complex mix of public and private authority in the CDM

As indicated above, the CDM has a rather hierarchical regulatory structure. The supreme authority in the regulatory framework of the CDM is shared among governments in the CDM Executive Board (cf. Pattberg and Stripple 2008: 375). This multilateral institution consists of ten members and ten alternates who are elected by governments according to a specific quota system (UNFCCC 2006: 32-36). The members of the Executive Board take various regulatory decisions. Their most important responsibilities are (i) the accreditation of the DOEs, (ii) the approval of methodologies used to evaluate the project activities, (iii) the registration of the projects and (iv) the issuance of carbon credits (UNFCCC 2002: 27-31). Hence, the Executive Board has the final say about whether a CDM project will be implemented or not and takes the final decision on how many carbon credits are attributed to a project activity. In these tasks, the members of the Executive Board are supported by committees, expert panels and

[7] Two exemptions are Green's work on 'Delegation and Accountability' (2008a) and the analysis on 'Dysfunctional Delegation' carried out by Lund (2010).

working groups (cf. Streck 2007: 93-95). Hitherto, five of these ad hoc institutions have been established.[8] The creation of the *Registration and Issuance Team* is especially interesting for the analysis in this paper. This institution was established in 2006 after concerns had been raised about problems in the performance of certain DOEs due to their profit-seeking behavior (Schneider 2007: 22; Lund 2010: 282). Its task is to assist the Executive Board to review whether the DOEs have appropriately validated and verified the CDM project activities. In other words, the Registration and Issuance Team is supposed to ensure that the DOEs act in accordance with the rules and procedures of the CDM (cf. Green 2008a: 41). In addition, the UNFCCC Secretariat started to assess the work of the DOEs in 2007 and gives advice to the Executive Board which projects should undergo a review process (Schneider 2007: 22-23). Another option for the Executive Board to control the work of the DOEs is to conduct unscheduled surveillances of selected DOEs in collaboration with the *Accreditation Panel* (UNFCCC 2002: 30). These so-called *spot checks* shall enhance the compliance with the rules and procedures of the CDM among the DOEs. If the Executive Board detects serious non-conformities with the rules and procedures of the CDM, such as that a DOE lacks sufficiently qualified personnel or cannot provide evidence that it actually has undertaken an independent technical review of a certain project activity, the Executive Board may suspend or withdraw the accreditation of the respective DOE (UNFCCC 2002: 31). Although the withdrawal or suspension of a DOE needs to be formally adopted by governments represented at the COP/MOP, the decision taken by the Executive Board enters into force immediately on a provisional basis after it has made its recommendation (UNFCCC 2002: 31). The Executive Board has in recent years considerably increased the number of spot checks of DOEs and between late 2008 and early 2010 suspended four DOEs (Schneider and Mohr 2010: 17-19).[9] Thus, the Executive Board has wide-ranging competencies in the regulatory framework of the CDM. The establishment of the Registration and Issuance Team, the expanded competence of the UNFCCC Secretariat to assess the work of the DOEs as well as the increased use of spot checks and the ensuing suspension of a number of DOEs has, according to Emma Lund, moreover, strengthened the rule-based character of the regulatory framework of the CDM (2010: 286).

[8] The *Accreditation Panel* that assists the Executive Board to accredit the DOEs, the *Methodologies Panel* that develops guidelines for the methodologies used to assess the projects, the *Afforestation and Reforestation Working Group* and the *Small Scale Working Group* that provide recommendations on specific projects as well as the *Registration and Issuance Team* that assists the Executive Board in questions regarding project registration and the issuance of carbon credits (UNFCCC 2011a).

[9] These DOEs have already been re-accredited under the CDM (CDM Executive Board 2010: 3).

However, despite the gradual tightening of the oversight by the Executive Board, several indications suggest that the Executive Board is not able to effectively run the CDM and that the functionality of the regulatory framework of the CDM is compromised by the profit-seeking behavior of the DOEs. First, the decisions taken by the Executive Board regarding the regulation of the CDM are largely based on the information provided by the DOEs which conduct the on-the-ground supervision of the CDM project activities. Although the Executive Board is supported by several experts, a comprehensive and detailed review of whether the DOEs have appropriately validated and verified the numerous projects is apparently beyond its capacity. Hence, the Executive Board has to a large extent rely on the discretion of the DOEs which they may use to increase their own profit at the expense of the CDM's environmental integrity (Lund 2010: 283). Second, the DOEs are being selected and paid by the project developers (i.e. companies from Annex 1 countries seeking to receive carbon credits by investing in CDM projects) that they are supposed to supervise. If a DOE, for instance, strictly interprets the rules of *additionality*, the corporation will risk not to be chosen again by the project developer for the validation and verification process of future CDM projects. The DOEs have, therefore, a clear incentive to get the project approved in order to increase their overall amount of validation and verification assignments. This causes a conflict of interests among the DOEs due to their profit-seeking ambition and their concurrent regulatory function in the CDM (McCully 2008: 11; de Sépibus 2009: 14-15; Lund 2010: 281-282). Third, and related to the previous point, the DOEs often lack adequate information on project activities (de Sépibus 2009: 15). When the DOEs validate and verify CDM projects, they depend very much on the information they receive from the project developers. The DOE that supervises a project has only rarely the opportunity to countercheck the data provided by their clients or to consult independent sources (Lederer 2010: 6-7). And for the reason stated above, they neither have an incentive to do so. Fourth, the DOEs are also involved in the development of new methodologies that are, for instance, used to calculate the amount of carbon credits attributable to a certain project activity (UNFCCC 2002: 35). While the Executive Board formally approves the methodologies in coordination with the *Methodologies Panel*, this means that the DOEs have not only a large influence on the implementation but also on the formulation of the rules and procedures of the CDM. Fifth, due to their highly specialized knowledge about the validation and verification of project activities and because of the limited number of corporations that have been accredited as DOEs with the Executive Board, several DOEs have created their own niche markets. According to data from the *United Nations Environmental Program's Risø Centre for Energy,*

*Climate and Sustainable Development* (UNEP Risø Centre), the six largest DOEs (out of currently 37) have validated almost 85 percent and verified more than 90 percent of all projects (UNEP Risø Centre 2011b). Moreover, many DOEs are specialized in only a fraction of the 15 different *sectoral scopes* of the CDM, which means that they validate and verify only project activities of a particular type (e.g. only *afforestation and reforestation* projects). According to the rules and procedures of the CDM, validation and verification of a project have to be undertaken by two different DOEs (UNFCCC 2002: 32).[10] This reduces the incentive for the DOEs to approve a project solely in order to receive the assignment for the verification phase of the same project. Because of the limited number of DOEs which dominate the market and due to the specialization of some DOEs, there is, however, a risk of collusion between the DOEs (Green 2008a: 22). The corporations have an incentive to favor each other since they will probably be soon in the reverse position and hence expect reciprocal benefits from their behavior (Green 2008a: 49-50; Lund 2010: 282). These five instances demonstrate the critical role of the DOEs in the regulatory framework of the CDM and point to serious trade-offs which accompany the delegation of authority to private actors.

### *The CDM regulatory framework in need for a reform*

While the question of how these trade-offs could be adequately resolved cannot fully be addressed here, two proposals for a reformed CDM can be derived from the previous analysis. First, the DOEs should no longer be selected and paid by the project developers. Because of their profit-seeking ambition, the DOEs have an economic incentive to positively validate or verify a CDM project activity, even if the project does not conform to the rules and procedures of the CDM. The DOEs seek to establish a favourable reputation among their clients by granting them a positive evaluation in order to receive as many validation and verification assignments as possible (cf. Lund 2010: 281-282). Different scholars have, therefore, proposed to transfer the responsibility for the selection of the DOEs to the Executive Board or the UNFCCC Secretariat (Haya 2007: 10; Schneider 2007: 56-57; McCully 2008: 13). This suggestion addresses a major problem in the regulatory framework of the CDM and would solve the conflict of interest among the DOEs (cf. Lund 2010: 286). Second, public control over the performance of the DOEs needs to be tightened (cf. Schneider 2007: 21). A first step in this direction has been taken with the development of the *Validation*

[10] This rule does not apply to evaluations of small-scale projects (UNFCCC 2006: 46). In exceptional cases the Executive Board may, moreover, allow a single DOE to perform both the validation and the verification of a certain project activity (UNFCCC 2002: 32).

*and Verification Manual* adopted by the Executive Board in late 2008 (CDM Executive Board 2008: 3). The aim of this Manual is to provide clearer guidance for the DOEs when they validate and verify project activities and to increase consistency among DOEs in the application of the rules and procedures of the CDM (cf. Lund 2010: 285). In addition, the Executive Board has recently launched a *Policy Framework* to address non-compliance by DOEs (CDM Executive Board 2009: 3). This initiative is only in its initial phase and still contains several weaknesses (Schneider and Mohr 2010: 25-27). However, if this approach is further strengthened, it will prospectively enhance the rule-based character of the regulatory framework of the CDM. These two reform proposals can certainly not sort out all weaknesses of the current regulatory design of the CDM, but they would render the CDM less susceptible to the risk that the DOEs increase their own profit at the expense of the mechanism's environmental integrity.

## Conclusion

This paper has shown that the regulatory framework of the CDM is characterized by a complex mix of public and private authority. While the DOEs are entrusted with the important task to supervise the quality of the CDM projects, they operate in a 'shadow of hierarchy' with background conditions of public authority, state intervention and governmental control. The Executive Board which is accountable to governments represented at the COP/MOP holds the supreme authority in the regulatory framework of the CDM and can use the support of a number of experts, including the UNFCCC Secretariat, to control the work of the DOEs. However, the empirical analysis in this paper casts doubt on the question whether the Executive Board is able to effectively run the CDM and has pointed to serious trade-offs which accompany the delegation of authority to private actors. First, when the Executive Board takes regulatory decisions, it highly depends on the information provided by the DOEs. Second, the DOEs are being paid by the project developers that they are supposed to supervise, causing a conflict of interests among the DOEs. Third, the DOEs have no incentive to critically assess the data they receive from the project developers. Fourth, the DOEs are involved in the development of the methodologies used to calculate the amount of carbon credits attributable to a certain project activity, enabling them to influence the formulation of the rules and procedures of the CDM. Fifth, due to the relatively small number of accredited DOEs, the market dominance attained by a few corporations and the resulting niche markets in the CDM, there is a risk of collusion between the DOEs.

From a theoretical perspective, the role of the DOEs in the regulatory framework of the CDM represents an interesting instance of private actors performing important governance functions in global (environmental) policy-making. Although the findings from the case study on the CDM cannot easily be generalized, they can be approached as illustrative examples of the consequences associated with the growing involvement of private actors in authoritative decision-making. The key theoretical conclusion that can be drawn from this paper is that the promise of innovative modes of governance to increase the effectiveness of international regulation is seriously compromised by the profit-seeking behavior of private actors. Apparently, this problem will only be solved if the rule-based character of private governance arrangements will be consolidated and if the delegation of authority to private actors will be conditioned by public control. Otherwise, private actors might use their powerful role to increase their own profit at public expense. This can be illustrated by returning to the case of the CDM. If the DOEs do not critically validate and verify the CDM project activities and strictly interpret the rules of additionality, more carbon credits will be issued by the Executive Board than GHG emissions are actually reduced. Hence, without the effective operation of its regulatory framework, the CDM will in fact generate a net increase in global GHG emissions and reinforce the problem of climate change. This example underscores that the consequences associated with the privatization of authority need to be thoroughly analyzed and suggests that the balance between public and private authority in global (environmental) governance has to be reconsidered.

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