IR/PS CSR Case #07-18

Designated Operational Entities (DOE):

An Evaluation of DOE' Monitoring Performance of Clean Development Mechanism Projects Under The Kyoto Protocol

By: Jeff Horowitz

GRADUATE SCHOOL OF INTERNATIONAL RELATIONS AND PACIFIC STUDIES

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Prepared for Professor Peter Gourevitch
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Abstract:
Det Norske Veritas (DNV), an international and independent third party organization, is an accredited Designated Operational Entity (DOE) responsible for monitoring Clean Development Mechanism (CDM) projects under the Kyoto Protocol. The CDM project standard is established and enforced by the CDM Executive Board (CDM EB) and carried out by DOEs through validation or verification and certification methodologies and procedures. This technical and rule-based standards framework regulates the "carbon projects" that create Certified Emission Reduction credits (CERs) for industrialized national governments and large firm operators with greenhouse gas (GHG) emission reduction requirements to meet their obligations under the Kyoto Protocol. This paper will evaluate DNV' organizational credibility and its certification process of CDM projects, assess the validity of CERs in the mandatory GHG emissions reduction market, and will put forth one consumer of the environments' evaluation of whether or not CDM projects are generating credible GHG emissions reductions.

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I. Introduction

The Clean Development Mechanism (CDM) is a flexible provision under Article 12 of the Kyoto Protocol that enables industrialized countries with a GHG reduction commitment to invest in GHG emission reduction projects in developing countries as a strategic alternative to more expensive emission reductions in their own countries. Essentially, CDM is intended to lower the overall costs of achieving industrialized economies' emissions targets while also serving the dual purpose of promoting sustainable development in host countries where investment and expertise in environmentally friendly technology and processes is needed most.[1]

Strong demand for "carbon projects" from industrialized national governments and large firm 'operators' continues to generate international private and public interest for potentially real, measurable, and long-term emissions reductions (CDM has over 2,800 projects of over 2.6 billion CERs in the pipeline).[2] With this newfound conviction from firms looking to cost-effectively meet their GHG emission reduction obligations also arises an equally necessary, yet challenging effort: to ensure that registered CDM projects pass through a valid and efficient monitoring process that ensures the environmental integrity and credibility of the Kyoto Protocol. In fact, critics of CDM have recently stepped up their attack, having blown the whistle on various registered CDM projects that appear to have resulted in spurious credits and inflated profits for firms.[3]

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[1] Retrieved form website, http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php, Accessed: December 3rd, 2007. Note: Governments are separated into two general categories: developed countries, referred to as Annex I countries (who have accepted greenhouse gas emission reduction obligations and must submit an annual greenhouse gas inventory); and developing countries, referred to as Non-Annex I countries (who have no greenhouse gas emission reduction obligations but may participate in the Clean Development Mechanism).

[2] Retrieved from website, http://cdm.unfccc.int/Statistics/index.html, Accessed: November 20th, 2007.

[3] Transnational Institute, "How Not To Write an Effective Climate Policy," New Matilda, 25 April 2007.

This paper will evaluate the performance of Det Norske Veritas (DNV); one of the first DOEs accredited by the CDM EB to carry out CDM monitoring services.[4]
By assessing the CDM standards setting procedure, DNV' organizational framework and methods of monitoring (validation and verification/certification), the purpose of this case study is not only to substantiate DNV' monitoring credibility, but also determine whether or not CSR norms, as they pertain to the environmental integrity of the Kyoto Protocol, are being met by CDM.

II. The CSR Problem

The current issue of climate change has become one of the most critical environmental issues facing the international community, the business world, and individual citizens alike. Ever since 1992, when the United Nations Framework Convention on Climate Change was established following evidence of the human impact on global climate, governments (and their firms) from around the world have responded to the global challenge with stronger commitment and more immediate action. As a result, a "mandatory" greenhouse gas (GHG) emission reduction market exists today under the legal framework of the Kyoto Protocol.

The CSR goal underpinning the Kyoto Protocol is clear: not only is it to identify the worst GHG polluters, but also to implement and enforce strategies for limiting their contribution to climate change. It is not a collective problem, since we are all not equal polluters. The problem of limiting anthropogenic GHG emissions rests in firms and not individual citizens.[5]
The Kyoto Protocol puts pressure on heavily polluting countries' firms to change their behavior and limit their GHG emissions. The creators of the Kyoto Protocol responded sensibly to

[4] Retrieved from website, http://cdm.unfccc.int/DOE/index.html, Accessed: October 21st, 2007.
[5] Email notes from Peter Gourevitch, UCSD Distinguished Professor of Political Science, November 29th, 2007.

binding emission reduction targets by implementing flexible market-based measures i.e. CDM for countries and their most polluting firms to meet their mandatory greenhouse gas emission (GHG) reduction obligations. Unlike the "voluntary" GHG offset market, which signifies the absence of government regulations mandating the creation of the market, the Kyoto Protocol's cap and trade emissions market is compulsory for industrialized signatory countries, who must reduce their collective emissions levels of GHG by 5.2% compared to their 1990 baseline level.[6]

Countries receive either greater or fewer pollution credits from the UNFCCC, based on their overall GHG emissions contribution. The total amount of credits allocated to a country represents a "cap." Industrialized economies facing an emissions cap then systematically distribute these credits to firms in their domestic firms, again based on each firms' GHG emission record. Firms are required not to exceed their cap amount, but are allowed to meet this obligation by trading with other firms (countries) with the same restrictions i.e. "trade." The incentive for signatories of the Kyoto Protocol (CDM) thus becomes to achieve their obligations at the lowest financial cost to the firm. UN-based bodies carry out the allocation, review, and enforcement of these reduction commitments.

III. Standards Setting

A necessary step in assessing the environmental integrity and credibility of CDM is first to understand the nature of the standard setting process. Who sets the standard and how? What problem does the standard address? What does the standard certify, and how is its compliance verified? A thoughtful and prudent approach in answering these questions will provide a better understanding of the CDM chain of custody and verification and certification procedures, and

[6] Tierney, Laura. "The Center for Resource Solutions: Can CSR Monitor the Voluntary Greenhouse Gas Offset Market?" March 20, 2007.

allow for general underlying suspicions in CDM to be identified.

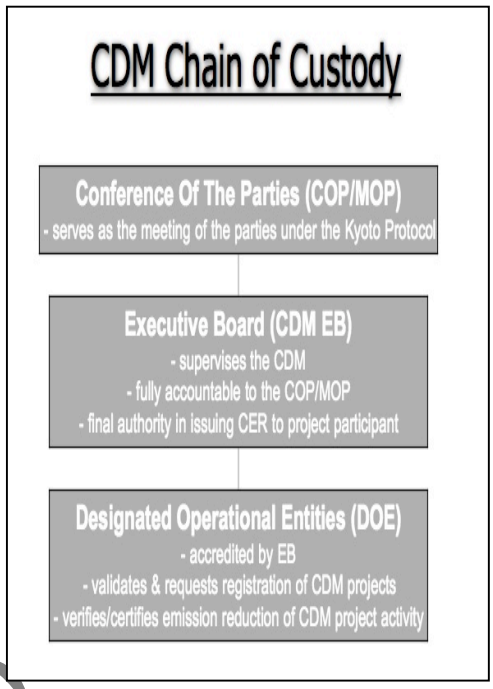
A. Chain of Custody

The CDM chain of custody begins with The Conference of the Parties (COP/MOP), which serves as the meeting of the parties under the Kyoto Protocol. The COP/MOP is comprised of the signing member countries to the United Nations Framework Convention on Climate Change (UNFCCC) Treaty. The COP/MOP recognized the need to delegate final authority of CDM projects to a separate regulatory body, and in 2001, under the auspices of the UN, established the Clean Development Mechanism Executive Board (CDM EB) to set standards and verify compliance.

B. CDM Executive Board

The CDM EB is a Bonn, Germany-based group with responsibilities for setting CDM standards and assessing and approving projects in host countries prior to awarding CERs to the projects' participants. The ten-member Board is comprised of one representative from each of the 5 UN regions groups, two representatives from both Annex-I and non-Annex I countries respectively, and one representative from the small island developing States.[7] Paragraph 8 of the CDM Modalities and Procedures states that "members are bound by rules of procedure of the EB, and must possess appropriate technical/policy expertise, have no pecuniary or financial interest in CDM project activity or designated operational entity, and take a written oath of service."

[7] "Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol", pg.32 (paragraph 7 of the CDM modalities and procedures).



The EB may establish committees and panels to assist in the performance of its main functions. Drawing on the expertise from the UNFCCC roster of experts, the CDM EB can form "working groups" to assist its ten-member Board in keeping up with the consistent inflow of CDM project proposals, a reasonable provision considering the over 2,800 CDM projects currently in the pipeline.[8] UNFCCC governing documents ensures that the CDM EB takes into account the consideration of regional balance when forming these operational teams. Duties of the groups include: preparing decision making for accrediting DOEs; developing recommendation on guidelines for methodologies for baseline and monitoring plans; and appraising project registration and CER issuance requests.[9] One of the competence requirements for working group members is to act in other than an impartial and non-discriminatory manner.[10] Missing from this documentation, however, is any explanation or indication of where the CDM EB sources the additional help. Does the hiring of scientists that fill their 'roster of experts' come from international organizations, government, or industry? If so, which ones, and what affiliation do they have to CDM stakeholders? Answers to these questions could relieve some suspicion by revealing possible conflicts of interest and differing incentives under CDM.

Another important question left unanswered is how general administration costs of the CDM EB are funded. What is their primary funding source? Are governments, foundations,

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[8] Retrieved from website, http://cdm.unfccc.int/Statistics/index.html, Accessed: December 6th, 2007.
[9] "UNFCCC Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its first session, held at Montreal on 28 November to 10 December 2005", Decision 3/CMP.1, page 6.
[10] "General Guidelines For Panels/Working Groups (Version 2)," EB 20 Report, Annex 1, p. 2

grant money, or private fees from firms the major financial support behind CDM? Is favoritism given to the stakeholder with the highest bid? Does CDM EB receive these sources of money directly or indirectly by way of the UNFCCC COP/MOP? Again, if the facts here were known, it would help dispel any suspicions of conflicts of interest that affect the integrity of CDM EB in performing its primary functions.

C. Designated Operational Entities

The validation and registration process for CDM projects, as well as the verification of emissions reductions of a registered CDM project and subsequent issuance of CERs to the project participant(s), are administered by DOEs. DOEs are domestic legal third-party entities or international organizations accredited and designated by the CDM Executive Board.[11] As is frequently the case in the delegation of legislative authority, where one party (DOEs) typically has the discretion and expertise that the other lacks (CDM EB) lacks, the classic principal-agent problem may arise. Although the "working groups of experts" appointed by the EB addresses this risk, the outsourcing of monitoring CDM projects opens up the methodologies and procedures, which underpin the legitimacy of the CDM standard, to varying interpretations by DOEs, thus creating potential incentives for the DOEs i.e. agent to differ from the preferences of the CDM EB i.e. principal in order to please their client. One way of gaining a deeper understanding of this principal-agent problem is to look at the number of Corrective Action Requests (CARs) that are publicly listed on the CDM website and compare them to the number of CER issuance requests. The larger the discrepancy, the more questionable the monitoring standard appears to be.

[11] Retrieved from website, http://cdm.unfccc.int/DOE/index.html, Accessed: October 21st, 2007.

A CAR is essentially a tool used by CDM stakeholders to flag suspicious issuance requests on issues of fraud, malfeasance, or incompetence of the DOE. All it takes is for either three Board members or one Party involved in the project to request a review. Projects flagged with CARs are later reviewed at the next EB Meetings.[12] Yet, this begs the question: the CDM EB may find infractions, but so what? The pressure on DOEs to do a good job (or not to do a good job) is uncertain because it remains unclear the ramifications they face. Is there any evidence that the issuance of CARs actually leads to decertification? Not only would the facts here be useful in determining the question posed above of whether or not DOEs and the CDM EB assess CDM standards consistently and on equal footing, but they may also lend support either for or against the notion that even if infractions were found, the monitor would still go unpunished.

D. Accreditation

The DOE accreditation procedure involves various actors with unique responsibilities that ensure all applicant entities (AE) are subject to the same thorough assessment by the CDM Executive Board.[13] Applicant entities (AE) are assessed in three main ways: *desk review* of documentation submitted by an AE against CDM accreditation requirements; *on-site assessment* on the premise of the AE; and *witnessing* of the performance of tasks by the AE. Each of these steps provides assurance that the AE has the capacity to perform the tasks related to the sectoral scopes and monitoring functions for which it has applied. Periodic "spot checks" are also conducted by the Executive Board to assess whether a DOE continually meets its accreditation

[12] "Procedures for review referred to in paragraph 65 of the modalities and procedures for a clean development mechanism," FCCC/CP/2004/10/Add.2, Annex I, p. 6

[13] The term "applicant entity"(AE)=once application has been duly submitted/subject to a procedure contained in EB34 Report annex 1; "designated operational entities"(DOE)=after designation by COP/MOP; previous AE.

requirements.[14]

Despite what appears to be a well-established accreditation process that lends claims to credibility, there are still unanswered questions that must be raised. First off, no official figures exist of the number or percentage of accredited DOE having been de-accredited by the CDM Executive Board, which casts some doubt to the effectiveness of the spot checks. It is not unimaginable to expect greater complacency on the part of DOEs, or even all the CDM stakeholders, if there are no teeth in the de-accreditation threat. Knowing the rejection rate could tell a lot about the pressures DOEs face to "do a good job" and remain a credible monitor and ensure the integrity of the CERs generated by CDM.

E. The CDM project process

Proposed project activities pass through a fairly straightforward and established process. First, a firm (applicant) obtains consent from host developing country that project will add sustainable development. Host countries have a vested interest increased technology and expertise, and thus will accept most projects as long as they meet the minimum criteria of host countries' Designated National Authority (DNA).[15] Second, the applicant presents its case to the CDM EB that the project activity would not have happened without the proposed project. This step is referred to as establishing additionality. Third, the calculation of future emissions in absence of the registered project is made, known as establishing a baseline scenario. The claims of additionality and baselines are carefully outlined in the Project Design Document (PDD) and scrutinized by DOEs and CDM EB before a project is registered. Fourth, the DOE assesses the additionality and baseline claims in the PDD and ensure that the project results in real,

[14] "Procedure For Accrediting Operational Entities By The Executive Board of the Clean Development Mechanism (Version 8): Retrieved from UNFCCC website at: http://cdm.unfccc.int/DOE/index.html

[15] More information about DNAs can be found at the CDM website, http://cdm.unfccc.int/DNA/index.html.

measurable, long-term emission reductions. Fifth, the CDM EB either registers or denies the project. If registered, the project becomes operational and the DOE (a different DOE than the one that did the Validation) conducts periodic verification of the project, based on the detailed Monitoring Report in the PDD. The sixth and final step is the allocation of Certified Emission Reductions (CER's) to project participants based on the monitored difference between the baseline and the actual emissions. One CER is equivalent to one metric ton of CO_2. They can be used by firms to meet their emissions reduction commitments or sold on the open market for a profit, thus, as previously mentioned, from the point of view of the project participant(s) i.e. firms, the value of CERs is in lowering their cost of investment.

Fig.1 CDM project cycle

The flow chart (above) breaks down the CDM project cycle into its two main components of validation and verification (Certification).[16] Validation is an independent third party assessment required for all CDM projects. The first step is drafting a Project Design Document (PDD). The PDD describes the project's baseline, Monitoring Plan, duration of the project activity/crediting period, environmental impacts, stakeholders' comments and compliance with Kyoto Protocol and host country criteria are validated. The PDD is important in that it serves as basic assurance to stakeholders of the quality of the project and its proposed generation of CER's.

[16] Retrieved from website, http://www.jaco-cdm.com/english/services/index.html, Accessed: November 25th, 2007.

Verification and certification is the periodic independent appraisal and determination of the monitored emission reductions that have occurred from a registered CDM project. DOEs must provide written assurance to all stakeholders that the project has achieved the verified amount of emission reductions during the specified time period before the CDM Executive Board is allowed to distribute CERs equal to the verified amount to the project participant(s).[17] Certification reports for all DOEs are made publicly available on the CDM website.

The CDM EB has the authority to suspend or reject the issuance of CERs. To date, over 103 million CERs have been requested, while roughly 97 million CERs have been issued.[18] The fact that not all requests from DOEs are granted by the CDM EB suggests effective oversight in the CDM process and emphasizes the discretionary power of the EB as the final authority. On the one hand it reinforces the strength of the CDM monitoring process, however, on the other hand, requires that a deeper analysis of CDM stakeholders' incentives be taken. What are the features of the firm as perpetrator? Where is the pressure coming from for them to cheat, or conform? These questions can be understood by taking a closer look at the technical aspects of projects that determine the legitimacy of the credits CDM is intended to generate.

F. Establishing A Baseline And Additionality

Central to the assessment of the validity in CDM projects is how firms establish their baseline measure of emissions, and whether their proposed project activity would not have occurred without CDM. The issue of additionality can best be understood by taking as an example a Chinese wind farm project. It might fail the additionality test if local government regulations in China already mandated a more prominent role for renewables in its national

[17] Retrieved from website, http://www.jaco-cdm.com/english/services/index.html, Accessed: November 25th, 2007.
[18] Retrieved from website, http://cdm.unfccc.int/Statistics/Issuance/CERsRequestedIssuedBarChart.html, Accessed: December 6th, 2007.

energy policy. If such "business-as-usual" projects were registered as CDM projects and generated CERs for its operators, then the net effect would be an increase of global emissions, as the spurious credits will be used to allow higher domestic emissions without reducing emissions in the developing country hosting the CDM project. Similarly, since CERs are determined by the monitored difference between the baseline and actual measures of emissions, spurious credits may also be awarded through overstated baselines, causing the same problem. Project participants i.e. firms in a cap and trade system therefore have an incentive to present projects that appear additional but may not be, and inflate their baseline in order to receive more CERs.

Conformity in calculating these estimates has long been a point of contention between stakeholders; the vast majority of review requests submitted by the CDM EB are on the grounds of irregularities in baseline or additionality calculations.[19] Moreover, an increasing number of environmental NGO's, who have long contested the integrity of the Kyoto Protocol, are using the baseline and additionality card to further their fight against what they perceive as a flawed system. In February 2007, an article published in Nature Magazine exposed the perverse incentives inherent in CDM.[20] This story, along with other targeted, negative PR tactics from watchful NGOs and environmentalists, has created a small yet passionate group of vigilantes ready to blow the whistle on dubious CDM projects. They use the gray area of establishing baselines and additionality as a basis for their complaints. Consequently, ways of avoiding the problems that arise from miscalculating baselines and additionality lie at core of the most important methodologies that define CDM standards.

The CDM EB, with the guidance of the COP/MOP, establishes and manages the baseline

[19] Retrieved from website, http://cdm.unfccc.int/Issuance/review.html, Accessed: December 7th, 2007.
[20] "Kyoto Protocol 'loophole' has cost $6 billion," NewScientist.com, http://environment.newscientist.com/channel/earth/energy-fuels/dn11155-kyoto-protocol-loophole-has-cost-6-billion.html, Accessed: December 6th, 2007.

and monitoring methodologies. They do so in a transparent manner, publishing accessible methodological tools that provide a step-wise approach for project participants to identify the baseline scenario and simultaneously demonstrate additionality in the PDD.[21] Project participants have two options when trying to register a CDM project activity; they can either use a methodology previously approved by the Executive Board, or submit a new methodology to the Executive Board for review. The CDM EB has approved 48 baseline and monitoring methodologies, which depend on a project's sectoral scope. Project participants can request a revision or clarification on approved or pending methodologies, which are publicly available on the CDM website. Such malleability helps the CDM EB facilitate the uniform assessment of additionality and baseline claims.

IV. DNV: The Organization

Det Norske Veritas (DNV) is an independent foundation based in Oslo, Norway. DNV was founded in 1864 with the sole principle of inspecting and evaluating the technical condition of Norwegian merchant vessels.[22] Since then, the organization has expanded its business services to include a range risk management consulting and certification services. Among its core competencies is a detailed understanding of and commitment to the human impact on global climate change. According to its website, DNV "has specialized in delivering independent, third party services for climate change activities, and has over the last six years been engaged in a number of diverse validation, verification, and certification activities."

DNV became UNFCCC-accredited as an operating entity under CDM in March 2004 to

[21] More information on the methodology procedure can be found in the "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 02.1), downloadable at http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html

[22] Retrieved from website, http://www.dnv.com/certification/about_us/index.asp, Accessed: November 29th, 2007.

conduct independent project validations and verification/certification of emissions reductions projects. Before UNFCCC accreditation, DNV also held approved certifier status under the Californian Climate Action Registry, the Chicago Climate Exchange (landfill gas utilization projects), and the UK Emissions Trading Scheme. The ability of DNV to remain an accredited DOE in spite of random and continuous assessments by the CDM EB points to its organizational competency. Of course, cautious optimism should be placed on this fact until it is known for certain the frequency of these appraisals and what percentage of those actually lead to the de-accreditation of DOEs.

A. Structure, Principles and Background

The DNV Board of Directors consists of a chairman and eight members. Five of these are selected from different business sectors, while three are elected among the employees. Members are selected from the different groups served by DNV, thus ensuring an equal balance of influence on the Board. DNV also employs a team of worldwide greenhouse gas specialists with relevant experience and a skill set particular to CDM. The background of these individuals is not available. However, based on the selection of names and credentials listed on their website, it is assumed that all, if not the majority, of their proclaimed "CDM experts" have at least over 10 years of climate change certification experience in various sectoral scopes and hold advanced degrees in various fields of engineering and environmental science.[23]

B. Principles

[23] Retrieved from website, http://www.dnv.com/certification/climatechange/our_technical_expertise/index.asp, Accessed: December 7th, 2007.

In compliance with UNFCCC regulations and to avoid any potential integrity issues, DNV only performs one of the monitoring services for its CDM clients, i.e. either validation or verification/certification.[24] Other integrity principles DNV ascribes to its daily operations include not holding any ownership interests in enterprises for which it certifies products or verifies services and publishing a Project Portfolio for the public to freely comment on proposed projects. This extensive, 146-page project portfolio is downloadable and includes over 1,400 project design documents (PDD) dating as far back as September of 2002, when DNV first began monitoring CDM projects.[25]

C. DNVs Pitch

DNV is a for-profit organization active in various markets and industries (four main business areas include DNV Maritime, DNV Energy, DNV Industry and DNV IT Global Services). Expanding its business operations and reaching new clientele thus requires a proactive approach in terms of its marketing and overall corporate strategy. DNV markets itself to prospective CDM partners as an organization with an 'international team of climate change experts with experience from a range of industry sectors whose goal it is to help companies manage their carbon assets in the best way possible.'[26] DNV faces the challenge of finding the right balance between its profit-making strategy and its CSR and climate change monitoring obligations. But appeasing both their clients and the CDM EB raises suspicion over their incentives. How competent are 3rd-party verifiers like DNV in assessing technical issues and

[24] Retrieved from website, http://www.dnv.com/certification/climatechange/cdm_projects/cdmoverview.asp, Accessed: December 1st, 2007.
[25] Retrieved from website, http://www.dnv.com/certification/climatechange/Projects/ProjectList.asp?whichpage=141&pagesize=10&Country=&DontCreate=True, Accessed: December 6th, 2007.
[26] Retrieved from website, http://www.dnv.com/certification/climatechange/cdm_projects/whypartnerwithdnv.asp, Accessed: December 5th, 2007.

standards, and how forthcoming are these private monitoring firms if they hope to please their clients (the firms that pay for their service) and generate future business?

D. Monitoring and Evaluation

The verification and certification process begins once a project participant (client) submits their Monitoring Report and its received by DNV. The purpose of the Report is to calculate the actual emission reductions as the difference between actual monitored emissions and the baseline emissions during the entire crediting period of the project. If, after review, DNV feels the Monitoring Report includes all necessary information on the relevant factors that are necessary to claim emissions reductions, it will request issuance of CERs. CDM actually lists all the Monitoring Reports that DOEs receive from project participants on its website.[27] However, much in these 50-60 page reports are too technical for most individuals with an untrained eye to determine firms' monitoring compliance. Therefore, the general public i.e. international citizens must do as the CDM EB does and afford in third party, independent engineers, economists, and environmental scientists confidence in assessing every technical aspect of CDM projects for us. As mentioned earlier, CDM standards allow the CDM EB and its panel of climate change experts to review each Monitoring Report and subsequent requests for issuances of CERs. Nonetheless, the delegated nature of CDM cannot circumvent the prospect of agency loss and the uncertainties it raises over the credibility of the monitoring process.

Evaluating the efficacy of independent monitoring organizations such as DNV, whose business scope also extends into strategic and consulting services, usually requires an extra dose of cynicism than do monitoring organizations with the sole purpose of verifying and certifying a particular CSR standard. Take, for example, the partnership between DNV and the energy-giant

[27] Retrieved from website, http://cdm.unfccc.int/Issuance/MonitoringReports/index.html, Accessed: December 6th, 2007.

British Petroleum (BP). DNV provides BP with strategic consulting services for the launch of their internal emissions trading system. The two companies just recently finished collaborating on the design of an audit framework for the verification of BP's global GHG footprint. Obvious credibility issues surface in such a partnership. BP, domiciled in Britain and thus with a cap on its GHG emissions, is also eligible to participate in CDM. Will an independent and lucrative DNV-BP partnership risk the veracity of future CDM validation or verification between the two entities? DNVs corporate prospectus states that it does not validate or certify services or processes for companies it has an ownership stake in, however, mentions nothing about key clients. It is reasonable to assume that the lines may be blurred between BP's internal auditing framework and that of CDM.

Corporate partnerships such as the one between DNV and BP make up a large portion of DNVs global client portfolio. These deals fall squarely within the scope of DNVs business services and make up the core of its profit-making strategy, one that seems to be working considering the 99 million Euro operating profit posted last year. However, the real problem arises when DNV' clients are also eligible project participants in CDM: is it possible for DNV to objectively monitor clients' CDM projects while managing and increasing that clients' carbon assets, when increasing assets, as discussed earlier, can be done by a simple tweaking, or re-interpretation, of the method for establishing baselines and/or additionality? An interesting fact would be to know which business services are driving DNVs profitability. How much DNV charges its clients for CDM validation or verification and certification monitoring? It is reasonable to assume that CDM monitoring generates only a very small portion of DNVs total revenue; long-term partnerships with private firms are no doubt more lucrative than a one-off certification service. DNV has a vested interests in promoting its more lucrative business

partnerships at the expense of its less profitable CDM-related ones – knowing by how much each contributes to the organization's bottom line would allow for a more compelling evaluation of the DNVs incentives. Unfortunately, these facts cannot be confirmed, as DNVs latest annual report does not disaggregate revenue by source.

The issue of third-party certification and consulting services by the same business unit is a key corporate focus area for DNV and was highlighted in its 2006 Annual Report to investors. According to management, DNV is 'taking a proactive approach to addressing this issue and defining which services can and should be delivered to customers.'[28] In spite of this, once again the details for what the approach entails are unclear. A revised corporate policy on how potential conflict of interest issues should be addressed was recently drafted, but it was not publicly released; instead, it is only part of DNVs internal governance manual.[29] A concerned consumer of the environment is thus forced to speculate on the implications of DNVs recent new approach. For lack of clarity and transparency, many would argue DNVs rhetoric is nothing more than a corporation saying what they think the public wants to hear, suggesting a quick PR tactic more than anything else.

V. A Consumer Of The Environments' Assessment

This paper has shown that the lack of essential information, regardless of whether the information is either not available to the public at this time or there was simply not enough time to research all the facts in advance, can offer critics the ability to poke holes in the argument that CDM does in fact upholds the environmental integrity of the Kyoto Protocol. Perhaps with all

[28] Repeated efforts to contact someone at DNV regional/headquarter offices about this were unsuccessful.
[29] 2006 Annual Report. Retrieved from website, http://www.dnv.com/publications/annual_reports/ar_2006/corporate_focus_areas/reorg_and_governance.asp, Accessed: December 5th, 2007.

the facts available, however, these holes of suspicion could be filled with confidence in CDM. But the proprietors of this information – DOEs and the firms they monitor – first must become more forthcoming with the finer details that characterize their working relationships.

The lack of answers in this case introduces an ironic and unfortunate realization: the fact that there are no facts provides in an incomplete, even unsatisfying, evaluation of CDM. More research must be done in order to try and fit informative answers to the important questions raised in this paper. Also worth considering is CDMs lack of precedent, given the fact that it is only 7 years old. As a result, many of its methodologies and procedures are continuously being changed, amended, or reinterpreted, either internally by the CDM EB or by outside stakeholders such as independent DOEs. A more pragmatic approach therefore would be to return to this study at a later date, after the first crediting period of all existing registered CDM projects have occurred and all stakeholders have become entrenched in their ways. Appendix I is a list of questions that should be carefully considered with future research and analysis.

Considering all that is known now, and what should be known in the future, this consumer of the environment remains "skeptically confident" that CSR norms, as they pertain to the environmental integrity of the Kyoto Protocol, are being met by CDM.

On the one hand, certain parts of the CDM framework and DNV monitoring framework appears credible: standards are set by a UN-based body independent of any real conflict of interest; projects' monitoring history, approved and pending methodologies, and other relevant CDM EB decisions are published on the CDM website; transparency and accountability, despite lack of key information to base judgment, seem to play important role in the standards setting process and CDM project cycle. On the other hand, CDM is still far perfect, and from convincing that CDM projects are in fact generating credible GHG emission reduction credits. By presenting a

basic understanding of the CSR problem and the CDM standards and monitoring process in a cynical manner, this paper reveals the competing vested interests of CDM stakeholders (see Appendix II) that lie at the heart of the skepticism. As the assessment of DNV points out, clearer technical thresholds and strict penalties for cheating must be established between the CDM EB and DOEs. Inherent in the monitoring process is the potential for profit from the point of view DNV and its CDM clients, and as long as DOEs like DNV remain multi-functional and do not rely solely on revenue from CDM certification services, the skepticism over the monitoring framework in CDM will persist.

VI. Discussion Questions

1. The author discusses various issues in CDM chain of custody. Which aspect is the most problematic? Which steps would you take to strengthen the credibility of the CDM project?

2. What are some of the problems of a for-profit organization such as DNV accrediting CDM projects? Would DNV be more credible if it were a non-profit? Why or why not?

3. Asides from the additional questions posed by the author in Appendix 1, what other issues should we require to confidently evaluate the effectiveness of the CDM project mechanism?

4. Do the current weaknesses of CDM project mechanisms allow countries to sidestep the objectives of the Kyoto Protocol? Is this project merely a PR tool? Or does it have the potential to be an effective instrument to address climate change?

5. Can CDM effectively overcome the collective action problem on addressing climate change issues?

VII. Appendix

Appendix I: Further Research and Analysis

Below is a list of questions for further analysis and their importance for this case study.

Q1: Does the hiring of scientists that fill their 'roster of experts' come from international organizations, government, or industry? If so, which ones, and what affiliation do they have to CDM stakeholders?

Importance: Could reveal apparent conflicts of interest and differing incentives under CDM.

Q2: How is the CDM EB funded? Are governments, foundations, grant money, or private fees from firms the major financial support behind CDM? Is favoritism given to the stakeholder with the highest bid?

Importance: Would help dispel any suspicions of conflicts of interest that affect the integrity of CDM EB in performing its primary functions.

Q3: What is the number of Corrective Action Requests (CARs) vs. the number of CER issuance requests?

Importance: Based on the size of the discrepancy, could expose the severity of agency loss and competing incentives of DOEs and the CDM EB in monitoring projects

Q4: What evidence is there that the issuance of CARs actually leads to decertification?

Importance: Would indicate the pressure DOEs face to do a good job (or not to do a good job) and lend support either for or against the notion that even if infractions were found, the monitor would still go unpunished.

Q5: What number or percentage of accredited DOEs have been de-accredited by the CDM Executive Board?

Importance: May show the effectiveness of CDM EB spot checks as well as whether the de-accreditation threat is valid.

Q6: Is CDM EB being compensated for accreditation of DOEs?

Importance: Could expose false positives; giving incentive to EB to accredit more DOEs on a weaker basis.

Q7: What are environmental NGO's (whistle blowers) saying about spurious credits?

Importance: More time to scour the Internet and interview NGO's to see if criticism of CDM projects is a consensus among NGO would help measure true opposition and either reinforce or deflect prevailing criticism.

Q8: Do DNV clients pay for CDM monitoring services before the project is registered and receives CERs or after?

Importance: Knowing the conditionality of payment could explain the (financial) incentives of DNV and other monitoring organizations in CDM projects.

Q9: What is the DNVs rejection rate of its clients' project proposals (PDD)?

Importance: Knowing if DOEs rejected faulty projects off the bat instead of waiting for reviews by EB would give an evaluator more confidence in their credibility.

Q10: What percentage of projects DNV validated but were not registered by the CDM EB?

Importance: Would show any disconnect between DNV and EB standards and reveal whether they are both using the same criteria for monitoring CDM projects.

Q11: What is the frequency of DNVs' field visits? Is it every verification/monitoring period or random?

Importance: Would either reinforce or weaken confidence in site visits, which are intended to monitor projects' true performance.

Q12: What is the penalty for non-compliance under the Kyoto Protocol?

Importance: Knowing what penalties countries face would help understand the decision-making process the options (incentives) of firms in CDM.

Q13: What exactly is the internal audit framework of British Petroleum's and how does it compare to the audit framework under the CDM monitoring framework?

Importance: Would disclose whether DNV tries to streamline clients' verification standards with CD; would show whether or not DNV considers CDM standards in its consulting services to large clients.

Appendix II:

Vested Interests of CDM Stakeholders

Project Participants	- Achieve as many CERs as possible - Present projects that appear additional but are not - Inflate baseline with high emissions
DOEs	- Uphold standards of CDM - Manage and increase clients' carbon assets -Must appease both clients and CDM EB
Host Countries	- Accepting of almost all projects - Sustainable development - Technology transfer/ improved expertise
CDM EB	- Environmental integrity and equity