# Assessing Usefulness

## Do Stakeholders Regard the CDM's SD Tool as Practical?

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# Preface

One of the objectives of the CDM (Clean Development Mechanism) which is strongly embedded in the Kyoto Protocol, is to contribute to the sustainable development of the host countries in addition to climate protection. However, some non-governmental organisations have signalled the poor implementation of this requirement. The independent High-Level Panel on the CDM Policy Dialogue has also considered the need for improvement. Subsequently the Conference of the Parties serving as the meetings of the Parties to the Kyoto Protocol (CMP) 7 at Durban called on the CDM Executive Board to develop a tool for voluntary use in order to highlight the contribution of CDM to sustainability. As a result, in late 2012 The Sustainable Development Tool was developed and adopted.

The fact that CDM projects should support sustainable development in the host countries is a key element of the CDM, which is why past experience suggests that a strong approach to the assessment of projects is important.

Meanwhile, many innovative approaches taken by Designated National Authorities (DNAs) have superseded the restraint that was prevalent in earlier sustainability assessment with rather general sustainability criteria, superficial examinations and difficult stakeholder consultations. Such new approaches include scoring of indicators, priority sectors, checklists as well as improved documentation requirements for verification, municipal approval or on-site visits by DNA staff.

When developing the Sustainable Development Tool, it is important not to neglect or bypass the needs of the users. Accordingly, the paper at hand looks into user-friendliness and the suitability of the sustainability tool from three perspectives - DNAs, governments with a programme of buying credits from projects with high sustainability contributions, and project developers. Host countries of different size and various levels of experience with CDM and sustainability assessment and project developers with expertise for various types of projects were interviewed in a survey about their experiences. Subjects were the sustainability assessment of CDM projects by the host country, the applicability of the Sustainable Development Tool and the national sustainability assessment. The results were evaluated to see how closely the Sustainable Development Tool matched the needs of project developers and buyers. As one main conclusion the study sees the need to further include safeguards against negative impacts of CDM projects on local communities or the environment into the Sustainable Development Tool and to elaborate methods to quantify and monetize benefits. In addition the experiences with the Tool for the CDM may be further explored to enlighten potentials of simplification and unification for new mitigation mechanisms.

This discussion paper does not necessarily reflect the views of the German Emissions Trading Authority but it provides valuable input to the discussion on further development of the Sustainable Development Tool. It must be our overall aim to increase the sustainability of offsetting instruments in addition to their potential for reducing greenhouse gas emissions.

Berlin, July 2015

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# Abbreviations

| | |
|---|---|
| **BUR** | Biennial Update Report |
| **CDM** | Clean Development Mechanism |
| **CER** | Certified Emission Reduction |
| **CMP** | Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol |
| **CME** | Coordinating/Managing Entity |
| **$CO_2$** | Carbon Dioxide |
| **COP** | UN Climate Change Conference/Conference of the Parties |
| **DEHSt** | German Emissions Trading Authority |
| **DNA** | Designated National Authorities |
| **DOE** | Designated Operational Entity |
| **DTU** | Technical University of Denmark |
| **EB** | Executive Board |
| **EIA** | Environmental Impact Assessment |
| **FVA** | Framework for Various Approaches |
| **GHG** | Greenhouse Gas |
| **GS** | Gold Standard |
| **HFC-23** | Hydrofluorocarbon 23 |
| **HR** | Human Rights |
| **HRIA** | Human Rights-based Impact Assessment |
| **INDC** | Intended Nationally Determined Contribution |
| **ISO** | International Organization for Standardization |
| **LCDS** | Low Carbon Development Strategy |
| **LDC** | Least Developed Country |
| **LoA** | Letter of Approval |
| **LSC** | Local Stakeholder Consultations |
| **$N_2O$** | Nitrous oxide |
| **NAMA** | Nationally Appropriate Mitigation Action |
| **NGO** | Non-Governmental Organization |
| **NMM** | New Market Mechanism |
| **PoA** | Programmes of Activities |
| **PP** | Project Participant |
| **REDD+** | Reducing Emissions from Deforestation and Forest Degradation and the role of conversation, sustainable management of forests and enhancement of forest carbon stocks in developing countries |
| **SD** | Sustainable Development |
| **SDC** | Sustainable Development Co-benefit (SDC) description report |
| **UBA** | Federal Environment Agency |
| **UNFCCC** | United Nations Framework Convention on Climate Change |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |

# 1 Introduction

The Clean Development Mechanism (CDM) was created with the double aim to achieve cost-effective mitigation of greenhouse gases and to assist developing countries in achieving sustainable development, based on their national development priorities.

Responding to critique that the CDM is not significantly contributing to sustainable development, the CDM Executive Board (EB) launched a call for input in June-July 2011 to invite comments on how to include co-benefits and negative impacts in the documentation of CDM project activities, and the role of the different actors and stakeholders in this process. The issue was raised to the highest political level when the Conference of the Parties serving as the meetings of the Parties to the Kyoto Protocol (CMP) at its seventh session in Durban requested the Board to "continue its work and develop appropriate voluntary measures to highlight the co-benefits brought about by the CDM project activities and programmes of activities, while maintaining the prerogative of the Parties to define their sustainable development criteria" (UNFCCC 2011). The CMP decision launched the process in 2012 of the UNFCCC Secretariat cooperating with the UNEP Risø Centre for development of the voluntary Sustainable Development (SD) Tool with the Executive Board deciding on its final outcome.

In the Durban CMP decision, there is no reference to negative impacts. This later came to play a crucial role, when members of the Executive Board at its 69th meeting argued there was no mandate for the SD tool to assess negative impacts of CDM projects. The Secretariat was requested to simplify the tool by leaving out two of the three elements in an integrated approach to SD assessment, namely safeguards to avoid negative impacts and enhanced procedures for stakeholder involvement. At EB70, the final CDM SD tool was approved. The decision reduced the draft tool to only declare the SD co-benefits using a taxonomy. Judged by its design, the SD tool therefore has a number of shortcomings to realise a strong approach for the CDM to contribute to sustainable development.

The SD tool was launched by the CDM Executive Board at its 78th meeting and it went online on the UNFCCC CDM website 1 April 2014. The objective of the tool is to provide a means by which project participants (PPs) and coordinating/managing entities (CMEs) can highlight the development co-benefits of CDM activities in a way that: (a) Improves the Board's ability to demonstrate that the CDM assists non-Annex I Parties in achieving sustainable development; (b) Harmonizes and makes publicly available the information relating to SD co-benefits in the context of the CDM; (c) Maintains the Parties' prerogative to determine whether a CDM project activity or PoA assists in achieving sustainable development.

As of February 2015, 11 out of the 7595 registered CDM projects and 5 out of the 276 registered Programmes of Activities (PoAs) have published sustainable development co-benefits description reports on the UNFCCC's website. The published reports so far focus on project activities in China (5 CDM projects, 1 PoA) and India (2 PoAs). Moreover, SDC description reports are also published for CDM projects in Argentina, Chile, Guatemala, Thailand, Uruguay and Rwanda (1 CDM project each). 19 African countries are host countries to CPAs of two PoAs with an SDC description report.

It is against this background that the German Emissions Trading Authority (DEHSt) has tasked the Wuppertal Institute and UNEP DTU Partnership (formerly UNEP Risoe Center) with conducting the research project „Evaluation and development of recommendations on the CDM EB's sustainable development tool including the sustainability requirements of other flexible mechanisms".

This paper reports on the project's second work package, which consists of a literature review and interviews with selected host country governments, project developers and a buyer perspective on the usability of the EB's SD tool. The first work package covered the assessment and comparison of the SD provisions of selected flexible mechanisms and multilateral standards. In the final step, the project team will discuss pro's and con's of the EB's SD Tool and make recommendations for improvement. The final results of the research project are expected in late spring 2015.

# 2 Methodology

The aim of this work package is to assess the appropriateness of the EB's voluntary SD tool against host country needs for sustainability assessments of CDM projects and other user perspectives. Data for this analysis will be derived from a literature review on DNA practices for SD approval of CDM projects and from a survey of concrete experiences with users of the tool.

The work package comprises the following steps:

1. Literature review of DNA practices for SD approval of CDM projects
2. Survey of selected host country and project proponent's experiences and needs for using the EB's SD tool and for sustainability assessment of other mitigation actions
3. Assessment and analysis of survey results and literature with regard to host country needs and difficulties with an aim to assess how the SD tool may assist DNAs, project proponents and buyers in broadening consideration for SD in the approval process.

## 2.1 Literature review and survey of experiences with use of the EB's SD tool

In the first step, we compile and review existing literature on experiences with SD assessment approaches in host countries focusing on the role of DNAs to meet the objective of contributing to sustainable development. A synopsis of the literature will identify the issues and research questions explored, the methods and data applied and assess the key findings and conclusions of the studies as background to understand the rationale and usability of the EB's SD tool. We include this step in order to gain a more comprehensive picture of host country needs beyond the survey. Outcomes comprise a short synopsis of the relevant literature that will directly feed into the overall assessment. By providing a foundation of existing practices, this literature review will expand the base of information on host country needs, and thus further enhance insights gleaned from the survey developed in the second step of this work package.

In the second step, we conduct a series of interviews with selected host country DNAs and project proponents in order to get on-the-ground information on their respective needs regarding the assessment of sustainable development impacts within CDM practice. The work consists of three consecutive steps, which we elaborate upon below:

a) Selection of countries and interviewees
b) Development of an interview concept
c) Conducting the interviews

### Selection of countries and interviewees

We select 6-10 interviewees for the survey including a mix of host countries and other users of the tool. Countries cover a broad range of different aspects for the survey to gain the maximum representative potential. Criteria for country selection include:

- *Experience with CDM*
  Countries with strong experience regarding CDM activities may be able to provide stronger insights on sustainable development impacts. Countries with a comparatively small record of CDM activities may be able to look at the issue with „fresh eyes" beyond established CDM project practice.
- *Experience with domestic SD/co-benefit assessments*
  Some countries have taken great effort to establish elaborated national systems for assessing the CDM projects' contribution to sustainable development (cp. Brazil, Thailand). These countries provide valuable practical experience on SD assessments in a domestic context.
- *Experience with the voluntary SD tool*
  To this date, the EB's voluntary tool has only been applied by a limited number of project proponents. A correspondingly low number of countries (China, India, Argentina, Guatemala, Thailand and 26 African countries hosting CPAs of a multi-country PoA) can report on experiences made in the application of the tool, and provide information on opportunities and pitfalls. Only the countries where the tool has been or is currently applied, can provide practical knowledge on the use of this tool.

- *Size of country and geographical representation*
  Relative to their size, geographical location and political priorities countries may see varying challenges in applying the tool, e. g. due to additional cost, political considerations or bureaucratic efforts.

A screening of countries along the criteria proposed above and in consultation with the contractor has led to the selection of countries and project proponents as shown in Table 1. 12 invitations for interviews were sent in early December 2014 and 8 interviews were conducted in the period December 2014 and January 2015.

Table 1: Countries selected for the survey

| | CDM Experience | Basic/great effort in assessing SD | SD tool use | Size | Invitation for interview accepted |
|---|---|---|---|---|---|
| **Brazil** | high | great effort | no | large | yes |
| **Thailand** | medium | great effort | yes, 1 report | medium | no |
| **Cambodia** | low | request for support on monitoring SD benefits at EB79 | no | small | yes |
| **India** | high | basic | yes, | large | no |
| **South Africa** | medium | great effort | yes,1 report (supranational PoA) | medium large | no |
| **Uganda** | medium | basic | no | medium | yes |
| **China** | High | basic | 6 reports | large | yes |

### The interview concept

In order to obtain the highest amount of information and to achieve a high degree of comparability, we developed a semi-structured interview guide that:

- Contains a very short introduction of the interview topic that will lead into the interview itself and;
- Structured questions aimed at capturing the wealth of in-country views as described in the box below

### Interview topics for semi-structured interviews

The following list represents the main topics covered in the survey. The full questionnaire is included in Annex 1.

*Domestic experience with SD assessment of CDM projects:*

- Elaboration of nationally appropriate SD criteria
- Approval process for granting Letters of Approval (LoAs)
- DNA capacity needs to follow up on initial SD assessments, and to verify that CDM projects contribute to national SD criteria
- Views on procedures for elaborating additional effort for project proponents
- Procedures for stakeholder involvement
- Safeguards against negative impacts
- Needs for MRV of SD co-benefits

*SD tool specifics*

- General individual views or experience on / with tool
- Evaluation of the additional effort and the usability of the tool
- Possibilities for expanding the tool
- Views on making the tool mandatory
- Interaction with CDM project developers submitting the SDC report

*Beyond the tool – National sustainability assessment and other mitigation actions*

- Options and views on quantification and valuation of SD co-benefits
- Possibilities to enhance domestic dialogues on sustainable development through strengthening SD within CDM
- Usefulness of the tool in terms of harmonisation of SD efforts within other mechanisms
- Interest in certification of carbon units with national sustainable development impacts
- Compliance with a human rights based approach in all climate change actions

### Interviews

The interviews were conducted in two ways depending on the availability of the informant: 1) live during week one of the COP 20 in Lima or 2) over the telephone in December/January. Interviews followed the interview guide developed in the previous step and were recorded for back-up and verification. Notes were taken during the interview complemented by the sound record to capture details. Transcriptions have not been made and original data is treated with confidentiality. Interviewees were invited to speak in their capacity as representatives of an institution, from the perspective of the position they hold and their role in relation to SD assessment of CDM projects. By not mentioning names and positions of people interviewed the information is treated as semi-anonymous.

Interviewees were as follows:

- Ministry of Water and Environment, DNA Uganda
- Ministry of Science, Technology and Innovation, DNA Brazil
- Ministry of Environment, DNA Cambodia
- National Development and Reform Commission (NDRC), DNA China
- Market Development Department, Swedish Energy Agency, Sweden
- Swiss Carbon Assets Ltd./Pure Water Ltd. (companies of the South Pole Group) Developer of multi-country PoA in Africa on International water purification programme
- Green Development AS, Developer of multi-country PoA in Africa for the Reduction of emission from non-renewable fuel from cooking at household level
- Enaex, Developer of the Catalytic N2O destruction project, Chile

## 2.2 Analysis of the literature and interviews to assess usability of the EB's SD tool for host country DNAs and other users

The analysis of knowledge from the literature review and interviews on the usability of the EB's SD tool for host countries and other users of sustainability assessment of CDM projects covers two broad analytical dimensions:

1. **Concrete experience with SD appraisal of CDM projects, and specifically with the EB's SD tool.** We evaluate the needs and difficulties of host countries, and the views they have expressed on possible further elaborations of the tool. The analysis differentiates between experiences by DNAs with domestic SD assessment procedures, and concrete first experiences with the voluntary SD tool. This differentiation serves to draw a more complete picture on opportunities and pitfalls for SD assessments in national circumstances.
2. **Lessons learned for SD appraisal in general, how SD Tool experience can be relevant beyond CDM** We compare and analyse the interviewees' answers in order to arrive at some more generalised lessons that can be drawn from interviewees' experiences for the DNAs' assessment of SD impacts in general. We complenent our findings with existing literature's conclusions to bolster the analysis. At this more abstract dimension, lessons learned will go beyond specific CDM national experiences and explore the relevance of SD appraisal for other mitigation mechanisms.

The outcomes of our written assessment underpin the discussion of the SD tool and possibilities for its further elaboration in work package three.

# 3 Synopsis of literature review of DNA practices for SD assessment of CDM projects

Since early reviews of the CDM's contribution to sustainable development (Olsen 2007; Paulsson 2009), the literature has proliferated with 377 articles on the topic of 'CDM and sustainable development' found in the Web of Science by January 2015. Focusing on the subset of articles addressing governance of the CDM's contribution to SD and particularly the role of host country DNAs, the review covers 18 studies from both the academic and grey literature including technical and policy papers (see Annex 2 for an overview literature reviewed). The review consists of three parts addressing the following issues: 1) State of knowledge on the CDM's contribution to SD, 2) Governance of the CDM's contribution to sustainable development – the role of host country DNAs, market players and global rules and 3) Evaluation of the EB's SD tool.

## 3.1 State of knowledge on the CDM's contribution to SD

The early literature reviews of the CDM's contribution to SD concluded that without a price on the SD co-benefits of CERs in the carbon market, the CDM does not significantly contribute to sustainable development (Olsen 2007; Paulsson 2009). Since then, new topics explored in the literature include a broad range of issues, such as how to direct CDM projects towards national SD priorities for energy technology in five developing countries (Karakosta, Doukas et al. 2009), the SD contribution of composting projects (Rogger, Beaurain et al. 2011), win-win outcomes for stove replacement programmes (Simon, Bumpus et al. 2012) and if the CDM can deliver SD for rural communities (Subbarao and Lloyd 2010).

Key questions and issues identified in the early literature remain as challenges, in particular: 1) The lack of a common definition of what sustainable development means, which makes it hard to measure and compare SD impacts across countries in an objective manner; 2) The trade-off between the two objectives of the CDM known as a 'race-to the-bottom' (Sutter and Parreño 2007), where competition among host countries for CDM investment creates an incentive to lower the SD standards to attract investment; and 3) The role of host countries institutional capacity to govern that CDM contributes with SD benefits to the country.

In the absence of a common definition of sustainable development, the most common approach to answer the question 'how does the CDM contribute to SD' is a project-by-project approach based on various definitions of SD. In 2011 and 2012, the UNFCCC published a report on the 'Benefits of the Clean Development Mechanism' (UNFCCC 2012). The SD benefits were assessed project-by-project using a definition with SD indicators to analyse the claims in PDDs of 3,864 projects registered by June 2012. Acknowledging that claims in the PDD at

project design stage may not materialise during project implementation, a survey of 392 projects was conducted to compare PDD statements with actual SD impacts of projects implemented. The reliability of the SD assessment verified by the survey suggests that almost all CDM projects claim multiple sustainable development benefits, which vary considerably by project type.

This positive conclusion is supported in a study by He, Huang et al. (2014) that adopt a different measure of sustainable development, namely the sustainability adjusted Human Development Index as the standard measure for life expectancy, literacy, education and standards of living applied across 58 host countries. Contrary to the earlier, more negative research findings, this study finds significant evidence that CDM project development can contribute to SD efforts in a given host country should all CERs be realized. These results lend support to CDM as an effective mechanism contributing to global sustainability.

In spite of the growing knowledge on the topic, the High-Level Panel of the CDM Policy Dialogue in 2012 concluded that 'it is not possible to reach a definitive conclusion on the sustainable development impacts of the CDM to date, given the insufficiency of objective data' (Dialogue 2012). The Panel was set up in 2011 by the Executive Secretary of UNFCCC, Christiane Figueres, and the Chair of the CDM Executive Board to independently make recommendations on how to position CDM in response to future challenges and opportunities and ensure the effectiveness of CDM in contributing to future global climate mitigation. The conclusion on the CDM's contribution to SD is based on a wide-ranging research programme and extensive stakeholder consultations. Insights are that stakeholders hold divergent views, on whether or not the CDM has assisted host countries to achieve SD.

Many stakeholders believe that CDM has been successful, which is supported by research findings as described above (UNFCCC 2012; He, Huang et al. 2014). Other stakeholders hold the position that the CDM has not contributed significantly to SD for a number of reasons: the CDM has had negative impacts in some cases (TERI 2012) and is associated with human rights violations (Schade and Obergassel 2014). Some stakeholders take the view that host countries lack the capacity to make effective SD assessments. The responsibility to govern the CDM's contribution to SD is delegated to the national level but without a common international definition of SD (Olsen and Fenhann 2008) and with a lack of strong SD approaches at host country level this has led to a lowering of standards and the impacts for SD being compromised. A rich literature explores these issues and is reviewed in more detail below.

## 3.2 Governance of the CDM's contribution to SD

The literature on governance of the CDMs contribution to SD falls into two categories focusing on 1) the role of host country DNA practices for approval of CDM projects and 2) the role of market players and global rules.

### 3.2.1. Host country DNA practices for approval of CDM projects

Three categories of issues are explored in the literature regarding the role of DNA practices for governance of the CDM's contribution to SD at national level: 1) The host country policy and institutional framework (Ganapati and Liu 2009; Rindefjall, Lund et al. 2011; Buhr, Thorn et al. 2012; Koakutsu, Tamura et al. 2012); 2) Approaches to define national SD criteria and processes for issuing Letters of Approval (LoA) (Olsen and Fenhann 2008; Bumpus and Cole 2010; TERI 2012; Tewari 2012) and; 3) Technicalities related to DNA capacity and how they operate in practice (UNFCCC 2014).

#### The role of policy and institutional frameworks for DNAs

Host countries' institutional and policy frameworks is argued to be an overlooked issue, not sufficiently understood compared to governance from above at the global level (Ganapati and Liu 2009; Buhr, Thorn et al. 2012). Theoretically, institutional perspectives are applied to understand the role of rules and regulations at national level, how norms and values in social contexts determine DNA practices and how international guidelines are open to interpretation by host countries. Empirically, the role of host country policy and institutional frameworks are explored in a number of case studies from China (Buhr, Thorn et al. 2012), India (Ganapati and Liu 2009), Chile (Rindefjall, Lund et al. 2011), Latin American (Figueres 2004), Asian (Koakutsu, Tamura et al. 2012) and African countries (Disch 2010; Karakosta, Marinakis et al. 2012). For instance, China's DNA is found to be relatively more powerful than the Indian DNA (Ganapati and Liu 2009).

China's DNA is hosted by the National Development and Reform Commission (NDRC) set up in 2003 based on two energy and economic commissions and has played a key role in implementing energy saving measures. Climate change has never been a stand-alone-issue in China's policy agenda, but is closely linked with other problems such as energy consumption, economic growth and environmental protection(Koakutsu, Tamura et al. 2012). This policy approach is reflected in China's regulatory requirements to CDM projects, which do not specify any specific SD criteria. Rather, the approach consists of policy guidelines, three priority areas for CDM projects to contribute to a low carbon transition (energy efficiency, renewable energy and methane recovery and use), differentiated tax rates based on project types (2% for priority projects, 30% for N2O projects and 65% for HFC and PFC projects), price guidance with a floor price for CERs and a 49/51 eligibility rule favouring Chinese ownership of projects (Buhr, Thorn et al. 2012).

In India, the DNA is hosted by Ministry of Environment and Forests, which does not hold a powerful position in the Government of India compared to the NDRC in China. India has a National Action Plan for Climate Change since 2009, which sets out eight missions for climate change and sustainable development targeted at two issues: long term energy security through renewable energy/energy efficiency and reducing GHG emissions. The DNA follows a common approach to CDM governance based on a project-by-project assessment according to a checklist of SD criteria known as economic, social, environmental and technological well-being. The SD criteria are described as broad and encompassing, and the Indian approach is seen to focus more on promoting CDM investments than on safeguarding its contribution to sustainable development (Rindefjall, Lund et al. 2011).

In Chile, the concern for sustainable development is a recent phenomenon and the only procedural rules for CDM approval is the Environmental Impact Assessment (EIA); no explicit SD criteria exist (Rindefjall, Lund et al. 2011). The DNA is hosted by a national environmental commission, known as CONAMA. Operational activities are delegated to an inter-ministerial committee. As Chile has been successful to attract CDM projects, the lack of SD criteria reflects that the 'race to the bottom' is not necessarily a structurally determined outcome, but a deliberate choice to prioritise economic development above sustainability. For other Latin American countries, an early study argued that most countries do not have a strong approach to achieve SD outcomes (Figueres 2004). DNAs are typically not integrated into the mainstream framework for development planning and the checklist approach to a project-by-project approval of projects is not instrumental to support a national or sectoral transition to low carbon development.

A general finding across the case studies is that national policy and institutional frameworks for DNAs matter greatly for their capacity to steer the CDM's contribution to national development goals. However, what is seen as nationally appropriate differs widely, both in terms of how the CDM should function and the national priorities it should support.

### Approaches to define national SD criteria and processes for issuing Letters of Approval

Knowledge about actual approaches to define national SD criteria and DNA procedures for approval of projects exists in a number of studies (Olsen and Fenhann 2008; Bumpus and Cole 2010; Koakutsu, Tamura et al. 2012; TERI 2012; Tewari 2012); however, a comprehensive, consistent overview of all host country DNAs with easy access to relevant information does not exist.

Based on Asian case studies, Koakutsu, Tamura et. al. (2012) identify three types of approaches to promote SD through the CDM: 1) Assessment based on checklists and SD criteria; 2) A fund for sustainable development based on taxes and levies differentiated by project types and 3) Certification of projects according to an international or national standard for SD assessment such as the Gold Standard or the Crown Standard by the Thai Government. Comparing the three approaches with regard to their advantages and disadvantages to ensure that SD outcomes are achieved, Koakutsu et. al. argue that the certification approach is best, though it is so far only found in Thailand. Certification promotes a higher standard for SD, internalizes the SD benefits in the price of CERs and incentivizes project developers to consider the co-benefits of their emission reduction projects.

In a study entitled 'Mapping of criteria set by DNAs to assess sustainable development benefits of CDM projects' by Tewari (2012), the checklist approach is found to be the most common followed by a scoring approach based on SD indicators, which is often used in certification schemes. Data for the study covers a sample of 50 countries including a survey with 10 DNAs responding, websites from 29 countries and information available in the literature. Out of the 50 countries, SD criteria for 20 countries could not be accessed, as some DNAs do not have a website, others do not web-host their SD criteria or information was not accessible due to language issues or

other technical problems. Based on the data available, the study maps the SD criteria used for 30 countries and summarizes findings in a list of the most commonly used SD criteria by DNAs in three categories: economic/technological, environmental and social. The mapping shows that the concepts, categorisation and prioritisation of SD criteria vary highly among countries, but most DNAs use the criteria as a reference for a project-by-project approval of projects, with the exception of China and countries with no SD criteria available.

The approval processes to issue a Letter of Approval (LoA) are compared for 7 countries by Olsen & Fenhann (2008) and for 30 countries by Tewari (2012). Findings are that a number of other requirements than SD criteria are made by DNAs to issue a LoA. Usually the project is not expected to fulfil all the SD criteria but only describe the ones that will be achieved. Commonly, the PDD is the basis for the assessment against SD criteria and almost all countries have representation from key ministries in an inter-ministerial committee to support the DNA in its decision making. Most countries promise speedy decision processes between 2-4 weeks for the voluntary option of issuing a Letter of No Objection (LoNO) based on the Project Idea Note (PIN) and 1-2 months to issue the mandatory LoA based on the PDD and various supporting documentation. The use of other eligibility criteria for approval of CDM projects varies significantly between countries; it ranges from compliance with domestic laws to requirements for an Environmental Impact Assessment (EIA) depending on the project type.

DNAs, however, are increasingly becoming more pro-active and want to follow-up on SD claims during project implementation. In the early days of the CDM no country required that the expected SD benefits were monitored on an equal basis with GHG reductions to verify that they are real and measurable (Olsen and Fenhann 2008). Yet this is currently changing with innovative approaches being developed (Tewari 2012): the Peruvian DNA has introduced site visits and documentation for community acceptance, Rwanda requires updated SD checklists and documentation for impacts at verification stage, India has introduced more detailed SD provisions and a 2% levy on large-scale projects, Thailand, Philippines and Georgia have introduced a scoring of SD indicators and Kenya and Malaysia DNAs have identified priority sectors for approval.

Contrasting substantive issues such as definitions of SD based on country specific criteria and indicators with procedural rules such as national requirements and practices for stakeholder involvement, monitoring and verification of SD claims, Bumpus and Cole (2010) argue that strengthening of SD impacts of CDM at the national and local level is about understanding and regulating power relations. Procedural rules are found to be more important than e. g. SD criteria for screening of PDDs. To open for practical improvements of SD delivered at local level, transparent and clear information is needed in the project implementation processes focusing on opening the 'black box' of how DNAs operate to ensure that CDM contributes to sustainable development.

#### Technicalities related to DNA capacity and how they operate in practice

As part of a technical paper on possible changes to the CDM modalities and procedures (M&Ps), the UNFCCC Secretariat has compiled a list of issues for further elaboration of the role of designated national authorities (UNFCCC 2014). A number of Parties and stakeholders have suggested enhancing the role of DNAs in the CDM. Areas of focus are generally in relation to governance, transparency and technical aspects. The list of issues include: to clarify the role of DNAs, increase transparency of DNA operations, allow DNAs to validate CDM activities, handling of complaints or stakeholder comments and further elaborate the requirements for the content and form of LoAs. No decisions were made on revised M&Ps at CMP 10 in Lima. The SBI negotiations on possible changes to M&Ps for the CDM will continue at the June 2015 session in Bonn with an aim to conclude by CMP 11 in Paris.

### 3.2.2. The role of the market and global rules

Realising the weaknesses of host countries' capacities to govern the CDM's contribution to SD, i.e. that most DNAs have very general SD criteria, that claims made by projects are typically not thoroughly assessed and that stakeholder consultations are often poorly documented, market players and global rules offer complementary solutions to strengthen the CDM projects' and programmes' SD benefits.

The market demand for labelled credits is directly related to evidence suggesting 'that host countries are failing to ensure SD benefits of CDM projects' (Parnphumeesup and Kerr 2011). The rationale for sustainability labels is for the market to provide the solution to high-quality SD benefits of CDM projects, assuming there will be a segment of buyers, which is big and strong enough to increase the market share. The willingness to pay a premium price for labelled SD benefits is found to be in the order of Euro 1/CER for documented SD benefits

(Parnphumeesup and Kerr 2011). Parnphumeesup and Kerr identify and classify two clusters of buyers and find that the carbon market can be divided in two: the premium market and the normal market. The premium market is characterised by buyers, who believe there is a need for the Gold Standard (GS) label to guarantee that SD benefits are delivered and for the CDM to better contribute to SD. Typically, non-profit organisations and government buyers are members of this segment. However, other studies find that labelled CDM activities only slightly outperform comparable ordinary projects (Nussbaumer 2009) and there is not a detectable potential SD surplus generated by the Gold Standard (Drupp 2010). Furthermore, sustainability labels have never developed beyond a small niche of the compliance market and continue to attract only a small share of the overall carbon finance available (Wood 2011).

Another solution to counter weaknesses in host countries' governance of the CDM's contribution to SD is to strengthen rules at the global level. Torvanger, Shrivastava et al. (2013) believe a reformed CDM will be part of a new climate agreement by 2020 and argue, there is a need to put a price on the SD benefits to strengthen the delivery of outcomes. Facing challenges to simultaneously deliver the two objectives of the CDM – offset production (OP) and sustainable development (SD) – e. g. due to extra costs for MRV of SD benefits not benefitting the production of CERs, two tracks are proposed to strengthen both objectives, separately. The primary requirement for an SD track is a common, international definition of SD and its criteria. The EB's SD tool at UNFCCC level is found to be a first step in this direction. SD impacts would have to be MRV'ed but due to the fact that quantifying and measuring SD is difficult and costly, a more simple approach is proposed. The SD benefits could be 'graded' rather than given an exact number and the CDM Executive Board could develop methodologies for arriving at these 'grades'. The expected 'grades' for SD impacts would have to be validated and verified by Designated Operational Entities (DOEs) and the grades could then be linked to a price premium. To ensure demand for the SD track, it is suggested that the CMP introduce a binding quota for the share of CERs to be certified, e. g. 50% of CERs purchased must be certified through the SD track.

Concerned about the negative social and human rights impacts of some CDM projects, Schade and Obergassel (2014) argue that the UNFCCC could and should require all CDM projects to undergo mandatory safeguards based on a human rights impact assessment (HRIA). Projects with negative impacts should be ineligible for registration. In 2010 at COP 16 in Mexico, governments acknowledged 'that Parties should, in all climate change related actions, fully respect human rights'. However, human rights are not mentioned anywhere in the CDM's rules and procedures. Based on two case studies of Bajo Agua´n in Honduras and the case of Olkaria in Kenya, the study finds that the CDM projects feed into pre-existing conflicts related to land ownership. From both cases it follows that host country governments are responsible for human rights infringements and at the same time responsible for ensuring a projects' contribution to sustainable development and adequate stakeholder consultations. The paper therefore argues that it is important to develop mandatory human rights safeguards at the UNFCCC level.

## 3.3 Evaluation of the EB's SD tool

An evaluation of the use of the tool was requested by the CMP in 2013 to assess whether the SD tool, through its use, meets its purpose and achieves its expected impacts. The evaluation was carried out in July 2014 with a survey being sent to 4,626 stakeholders (4,363 PPs, 167 DNAs and 96 investors) with 137 responses (2.9% of which 100 were from PPs, 24 from DNAs and 13 from investors) (UNFCCC 2014). The evaluation recognises that PPs are the primary users of the tool, while DNAs and investors are potential users of the SD co-benefits (SDC) reports generated by the tool.

The survey was designed to evaluate stakeholders' awareness of the availability of the tool, to test their perception of whether the tool meets its objectives, and to assess their intentions regarding current or future use. Key insights are that among PPs (100) 41% are aware of the tool, 64% agree the tool highlights the SD co-benefits in a structured, consistent and comparable manner, 9% have accessed or used the tool, 39% plan to use it, 100% agree that the structure and criteria of the tool meet their needs, 73% expect to use the SDC report to promote their project to investors at pre-registration stage and 93% expect to use it for showcasing the co-benefits to increase the value of the CERs on the market. Among DNAs (24) 71% are aware of the tool, 83% agree the tool highlights the SD co-benefits in a structured, consistent and comparable manner and 92% plan to refer to the tool when approving CDM projects at national level. Among investors (13) 77% agree that the SD co-benefits are factored into investment decision-making and 69% agree that the SDC reports help with investment decisions.

Interestingly, an analysis of the content of the SDC reports found that 9 out of 13 PPs were willing to have claims in their SDC reports verified by a third party, the PPs considered the SD tool applicable to both projects and programmes of activities covering a variety of project types, and the structure of the tool was considered to enable aggregating information across projects.

In conclusion, the SD tool is found to meet its objective as a voluntary measure to highlight the co-benefits of CDM activities, while maintaining the prerogative of Parties to define their national sustainable development criteria.

# 4 Interview perspectives, analysis and comparison of the needs and difficulties to use the EB's SD tool

Complementing the broad UNFCCC evaluation send to 4,363 stakeholders, this study goes into details through eight qualitative interviews to explore country and project developer experiences with SD assessment of CDM projects, concrete experience with use of the EB's SD tool and how this experience can be relevant beyond CDM for other mitigation mechanisms and national sustainable development goals.

## 4.1 Overview of interviews

The eight interviews represent a diversity of perspectives and fall in two groups; 1) host country DNAs from Asia, Latin America and Africa and 2) project developers' and a government buyer perspective from Sweden. Among the four host country DNA perspectives, Brazil and China represent large sized countries with a high level of CDM experience and domestic capacity to approve a CDM project's contribution to national sustainable development priorities. The Uganda and Cambodia DNAs represent respectively a medium sized and a small sized country with medium and little experience in approval of CDM projects. Cambodia has requested technical assistance from the UNFCCC Secretariat to monitor the SD benefits of CDM projects and China is the only of the four countries, where the EB SD tool has been used by project developers.

Among the three project developers Enaex from Chile has applied the EB SD tool to a CDM project in the chemical industry titled 'Catalytic N20 destruction', a project which has been running for three years. The South Pole has applied the SD tool to a multi-country PoA in Africa for water purification and Green Development from Norway has experience from a multi-country PoA for energy efficient cooking stoves also in Africa. The perspective from Sweden is included to share experience with use of the EB SD tool by a government buyer that politically prioritises CERs from projects that are documented to have a high contribution to sustainable development benefits and no negative impacts. An overview of the interviews is presented for comparison of perspectives in Table 2 below.

Table 2: Overview of interviews regarding usability of the EB SD tool

| | Uganda (DNA) | China (DNA) | Cambodia (DNA) | Brazil (DNA) | Sweden (buyer) | Green Development, Norway (PP) | Enaex, Chile (PP) | South Pole, Switzerland (PP) |
|---|---|---|---|---|---|---|---|---|
| **Experience with SD assessment of CDM projects** | | | | | | | | |
| **What SD criteria are used?** | Checklist | No SD criteria | Checklist | Checklist | Prioritisation of EE, RE & biogas/ methane projects. | DNV-GL Global Carbon Development Benefits Standard (draft) | SD criteria defined by the company | Host country SD criteria |
| **How is the LoA decision/SD assessment made?** | Ranking of SD criteria/Inter-ministerial committee | Compliance with eligibility criteria/Inter-ministerial committee | Scoring/Inter-ministerial committee | Assessment/ Inter-ministerial committee | Comprehensive Due diligence including site visit, supported by modified version of draft EB CDM SD tool incl. safeguards and LSC procedures | Methodologies are developed for quantifying development benefits | Use of EB SD Tool and LoA obtained from DNA | PoA-DD the basis of LoA |
| **Is there interest and capacity to monitor and verify SD claims?** | Yes, but little capacity | No interest | N/D | Yes, sector ministries follow up, not DNA | Yes, modified version of SD tool is sent to PPs and SDC report as part of follow-up, including before follow-up site visits. | Yes, SD benefits to be certified and sold in their own value or internalized in the CER price | Yes, the company will follow up on SD impacts | The company is client driven, so only if clients demand follow-up and will pay it |
| **Is there a need for safeguards against negative impacts?** | Guidance needed | Yes, other agencies take care of this | N/D | No, safeguards and LSC are part of EIA | Yes,important focus to avoid negative impacts | No, too costly. LSC do not add value | No, we use ISO certification 1909 for quality assurance | N/D |
| **Are there additional requirements for approval?** | EIA is required except for clean technologies | EIA, oral presentation, tax, 49/51 rule, licences, ERPA | EIA is required for some projects | EIA, validation report, LSC procedures. Example of LoA withdrawn | Comprehensive Due Diligence including observations from site visit. | DNAs should not be involved due to low capacity & risks of corruption | DNA Chile does not have SD criteria and do not follow up after LoA | LSC were important to DNA |

| | Uganda (DNA) | China (DNA) | Cambodia (DNA) | Brazil (DNA) | Sweden (buyer) | Green Development, Norway (PP) | Enaex, Chile (PP) | South Pole, Switzerland (PP) |
|---|---|---|---|---|---|---|---|---|
| **Experience with use of the SD tool** | | | | | | | | |
| **Has the SD tool been used?** | No | No, there is no dialogue between PPs using the tool and DNA China | No | No | Yes, a modified draft EB SD tool is used incl. safeguards and LSC guidance | Yes, SDC report submitted to UNFCCC | Yes, SDC report submitted to UNFCCC | Yes, SDC report submitted to UNFCCC |
| **What is the general view of the tool?** | Very useful | Not useful to China | Useful to PPs | Not useful to Brazil, only to PPs | Very useful, but strong weakness in approved version | Very useful, but too simple. Quantification is needed | Very useful and clear | Useful, it goes into a lot of detail without quantification |
| **Is the tool a simplification or additional effort?** | Simplification | N/D | N/D | Simplification | Simplification | Simplification | Simplification | Simplification |
| **Options to expand use of the tool** | SDC report useful for local stakeholder consultations | Could be useful in China's national carbon trading system | Strengthen LSC procedures | No role for the tool in relation to national SD criteria | Address risks of negative impacts, LSC & safeguards. | Extend use of the tool for standardization across countries | SD tool useful for other projects in the company, not only CDM | Quantification based on UNFCCC guidance, requirements for validation and verification of SD claims |
| **Should the tool be mandatory for PPs to use?** | Yes, this is being considered for issuance of LoA | No, voluntary only | N/D | No, voluntary only | It could provide transparency to the market | No, not all projects need it | Yes, it makes sense to MRV SD benefits | No, we only responded to a client request |
| **Relevance of the SD tool beyond CDM** | | | | | | | | |
| **Is there a need for quantification and monetization of SD co-benefits?** | Yes | No, PPs should not do more work | Maybe, but it requires more effort | Yes, this is tough. Countries must do it, a study is ongoing | Qualitative assessment is sufficient, so far | Yes! | Yes, it would be useful to get a holistic perspective on the project | Yes |

| | Uganda (DNA) | China (DNA) | Cambodia (DNA) | Brazil (DNA) | Sweden (buyer) | Green Development, Norway (PP) | Enaex, Chile (PP) | South Pole, Switzerland (PP) |
|---|---|---|---|---|---|---|---|---|
| **Can the tool enhance domestic dialogues on SD?** | Yes, SD criteria reflect macro-economic priorities | No | N/D | N/D | Yes, the tool can give support to domestic dialogues and thereby enhance the credibility of CDM projects | Yes, the tool can strengthen domestic SD assessment | Yes, it would be useful for DNA if they gave us a uniform report format | Yes, it could greatly enhance the value of mitigation actions |
| **Can the tool assist to harmonize SD efforts across mitigation mechanisms?** | Yes, expanded to a NMM/FVA and NAMAs for harmonized reporting | Yes | Yes, SD assessment across mechanisms should be similar | N/D | Yes, the tool could potentially harmonize SD assessment across countries for transparency | Yes, we need a common standard across mitigation mechanisms | Yes, any tool to harmonize across mechanisms would be useful | Yes, the SD tool framework is broad enough to compare across mechanisms |
| **Is there an interest in certification of SD co-benefits?** | Yes, Gov. of Uganda should do certificates based on an international standard | No | Yes, a national standard would be best | N/D | Yes, given credibility and sufficient quality of service. | Yes, a global standard incl. quantification of development benefits | Yes, third party validation and verification can show SD efforts to the world in a valid way | Yes, interest is there from the market (buyers) and from government (NAMAs) |
| **Can human rights be strengthened through the SD tool?** | Yes | N/D | Yes | No, HRs issues are taken care of nationally | Yes. | Yes, but this is political. Projects should not document compliance with HRs | The company uses the 'UN Global Compact' to document respect for HRs | Yes, safeguards for HRs would be useful but not demanded by clients |

Note: N/D = Not Determined

## 4.2 Comparison of host country and user experiences with SD appraisal

The interview questionnaire structures the comparative analysis of host countries and other users' needs and difficulties to use the EB's SD tool as shown in Table 2. This section presents a synthesis of our findings in context of insights from the literature review to identify more general challenges and opportunities for use of the EB SD tool of relevance beyond the concrete survey results.

### 4.2.1. Host country DNA experiences

Except China the other three countries use a checklist of SD criteria as the basis for approval of CDM projects on a project-by-project basis. The SD criteria all relate to three or four dimensions of sustainable development; environment, social and economic, sometimes technology as a separate dimension or part of the economic dimension. However, the exact concepts and priorities for SD vary among countries reflecting different national priorities and processes of assessment. Cambodia includes 'demining' as an SD goal due to problems with old landmines. They score impacts as positive, negative or neutral and ask project developers to take action, if there are too many negative impacts. Uganda uses ranking of SD criteria according to national SD priorities and Brazil makes an assessment according to sector goals for SD. One eligibility criterion is similar across all countries, namely the Environmental Impact Assessment (EIA) being a requirement for almost all CDM projects with a few exceptions such as for clean technologies. Other requirements vary widely, e. g. whether an oral presentation is needed as in China, documentation needs for compliance with national laws and licenses, the importance and procedures of local stakeholder consultations as part of the EIA or specific to CDM, whether the validation report is required before the LoA as in Brazil and if procedures exist for withdrawal of the LoA in case of community or stakeholder complaints during implementation as in Brazil and under consideration in Uganda.

The decision on issuance of a LoA is made by an inter-ministerial committee in all countries involving representatives from key ministries. DNAs are hosted by Ministries of Environment in Uganda and Cambodia, by the Ministry of Science, Technology and Innovation in Brazil and by the National Development and Reform Commission (NDRC) in China. From the literature review it is known that the institutional set-up plays a key role for the integration of the CDM and other mitigation actions into development planning. While SD criteria in principle reflect national SD goals and priorities, the project-by-project approach used by most DNAs, except China, is not considered strong in terms of mainstreaming low carbon development and sustainability concerns into sectoral and national planning. The Chinese approach is considered more efficient than a project-by-project screening, as priority areas for CDM projects in energy efficiency, renewable energy and methane recovery saves transaction costs for SD screening and ensures CDM's contribution to national priorities. However, this approach does not ensure a strong contribution to SD at local and community levels, where procedural issues such as stakeholder involvement, monitoring and evaluation and safeguards against negative impacts, are known to be of high importance (Bumpus and Cole 2010).

While there is interest to monitor and verify SD claims in Uganda and both an interest and capacity in Brazil through sector ministries, there is no interest in adding extra procedures in China. Regarding safeguards against negative impacts, Uganda would like more guidance and Cambodia is the only country and DNA so far, who has responded to a call from the UNFCCC Secretariat in May 2014 to request technical assistance for development of guidelines for local stakeholder consultations and assistance with monitoring of SD benefits. The country perspectives reveal a division between Brazil and China on the one hand, being large developing countries and Uganda and Cambodia, being medium and small sized countries on the other hand. Big countries with capacity refer to domestic institutions and procedures already being in place and see no need for additional guidance or rules from international level, while the small and medium sized countries are more interested and open to guidance offered to build capacity and strengthen national procedures. In the literature, innovative approaches are identified in a number of countries such as Peru, Rwanda, Thailand, Philippines, Georgia, Kenya and Malaysia introducing new procedures to score SD impacts, follow-up on monitoring of SD impacts and identifying priority areas for approval (Tewari 2012). However, there is little evidence from the response to the Secretariats' offer for technical assistance to indicate that these issues are considered a priority to host countries more generally.

### 4.2.2. Project developer and buyer experiences

Experience from project developers and a buyer perspective on host countries' abilities to set national standards and steer the CDM towards high benefits for SD is very negative in one case of the experts interviewed. In the three other cases host country performance generally falls short of what is expected in the market regarding transparency, consistency in SD assessment across projects, easy access to information and follow-up to demonstrate that claims are realised. As a consequence, standards and requirements for sustainability assessment are developed by market players in two cases: 1) from a government buyer in Sweden and 2) a project developer in Norway, both aiming to set higher standards beyond what is required by the host country DNAs and to avoid negative impacts.

The two proposals, however, are very different in approach focusing respectively on; 1) qualitative and procedural aspects of SD assessment in the case of Sweden to avoid negative impacts and on 2) quantitative SD assessment in the case of a Norwegian project developer concerned with demonstrating development benefits. The latter proposal is not interested in additional transaction costs and responsibilities to involve local stakeholders or document compliance with safeguards. The Swedish government buyer applies its own due diligence assessment and has introduced a modified version of the draft EB SD tool including safeguards for human rights, good labour practices, environmental protection, anti-corruption and land rights to avoid negative impacts and prioritising participation of local stakeholders and communities. As a government buyer with a high capacity, they are able to conduct their own site visits using the modified draft EB SD tool questionnaire as a basis for due diligence assessment and they have a program to follow-up during implementation that projects perform in line with what is expected.

The Norwegian project developer has developed a draft 'Global Carbon Development Benefits Standard' for quantification of development benefits in cooperation with DNV-GL, one of the largest DOEs in the market. This reflects a general trend and interest in the market to go beyond qualitative assessments of SD impacts and have solid methods for quantified SD assessment. Validation and verification by a Third Party is prerequisite for SD benefits to be priced in the carbon market, either separately as a value in itself or internalized into the price of CERs attracting a premium price. The experiences of the two other project participants is that SD assessment in one case is based on SD criteria defined by the company due to a lack of explicit SD criteria by the host country in Chile and in the other case based on host country SD criteria, applying the EB SD tool for transparency, as the client demanded it.

Regarding interest and capacity to monitor and verify that SD claims are met, the interviewed project developers all agree that this is desired (in one case, only if the client demands it and will pay for it). Responses are more mixed regarding the need for Local Stakeholder Consultations (LSC) and safeguards. One project developer is negative arguing this is too costly and the way LSC is carried out today with the project developer being responsible, the process does not add much value, as it can be manipulated to give the result desired. Doing it thoroughly implies extra costs for little value added. Contrary to this perspective, the Swedish government buyer sees these procedural aspects as more important than quantitative information on SD benefits. They see no need for the extra efforts of quantifying the benefits, as long as thorough, robust knowledge exists on what the benefits are qualitatively. In Chile, the project developer uses an ISO certification standard for quality assurance including safeguards against negative impacts and does not see the need for additional requirements in this area.

## 4.3 Concrete experience with use of the EB's SD tool

### 4.3.1. Host country DNA experiences

None of the four DNAs interviewed have used the tool and China and Brazil do not find it useful to their DNAs, only to PPs. This is no surprise, as the primary users of the tool are PPs, with DNAs and investors being potential indirect users, e. g. through use of the information in the SDC reports. China is the only DNA of the four interviewed where project developers have used the SD tool, but there has been no dialogue between PPs and the DNA. In Brazil, the DNA sees no role for the tool to strengthen national SD assessment. In spite of the tool not being used by DNAs directly, awareness of the tool is fairly good with 71% of DNAs knowing the tool (UNFCCC 2014). In China, the tool is considered to be of interest outside of the CDM in context of the emerging national carbon trading system for a strengthened approach to SD assessment.

Contrary to DNAs in China and Brazil (large countries), Uganda and Cambodia (medium and small sized countries) do find that the tool is potentially very useful both to support DNA SD assessment and particularly to PPs. Options to expand use of the tool in Uganda and Cambodia are to use the SDC report as a basis for local stakeholder consultations and to strengthen LSC procedures. Uganda is considering the tool to be mandatory for PPs as a requirement for issuance of the LoA. In China and Brazil, there is no interest to make the tool mandatory, only voluntary. According to the UNFCCC survey, host country DNAs are generally positive towards the SD tool with 84% (of 24 DNAs) agreeing that the tool highlights SD co-benefits in a structured, consistent and comparable way and 92% planning to refer to the tool when approving CDM projects at national level.

### 4.3.2. Project developer and buyer experiences

All the project developers we interviewed have used the tool and find it very useful as a simple, standardized approach for qualitative declaration of the SD co-benefits of CDM projects. The government buyer from Sweden also finds the tool very useful, though with clear weaknesses as it does not address the risks of negative impacts through safeguards, neither does it include requirements on local stakeholder consultations and there are no provisions for monitoring, validation and verification of the SDC reports. Two of the PPs suggest that the tool should be expanded to also quantify the SD benefits according to standardized methods, applicable across countries following UNFCCC guidance including requirements for MRV of SD claims made. One of the PPs sees opportunities to expand use of the tool for quality assurance to other company projects outside the CDM.

PPs are divided on the question whether the tool should be mandatory to use. The buyer argues that the tool gives transparency to the market and developing a tool which could be accepted as mandatory to use would add credibility to the CDM as a mechanism. One of the PPs thinks it makes sense to make it mandatory including MRV of the co-benefits. Two of the PPs argue that it should not be made mandatory, as not all projects need it and it is only worth the extra costs if the client will pay for it.

## 4.4 How SD Tool experience can be relevant beyond CDM

### 4.4.1. Host country DNA perspectives

Quantification and monetization of SD co-benefits is considered a tough job that would require a big extra effort by DNAs and PPs. Brazil finds there is a need for this at country level and is exploring how it could be done in an ongoing study by the ministry. Uganda also finds a need for it, as numbers and monetary values could make it more clear particularly to Ministry of Finance, how and how much mitigation actions contribute to national development. Cambodia finds there may be a need for it but is concerned about the extra efforts required. China does not see a need, as it would require PPs to do more work.

Countries are divided on the issue whether the tool can enhance domestic dialogues on SD and assist to harmonize SD efforts across mechanisms. In Uganda, the SD criteria reflect macro-economic priorities and the tool is welcomed to assist harmonizing reporting formats for new mechanisms such as Nationally Appropriate Mitigation Actions (NAMAs), New Market Mechanisms (NMMs), non-market approaches, Reduced Emissions from Deforestation and Degradation (REDD+) and Intended Nationally Determined Contributions (INDCs) that all aim to contribute to low carbon development. China and Cambodia also see opportunities for the tool to harmonize SD assessment but China does not see a role for the tool to enhance domestic dialogues on development priorities. Brazil and Cambodia have not yet considered this issue.

Certification of SD-co-benefits is considered of interest to Uganda and Cambodia on the condition that certificates are issued domestically according to a national standard informed by international guidance. China has no interest in certification and Brazil has not considered this. In literature on national approaches to SD assessment, the certification approach is argued to be a stronger approach than checklists to promote a high contribution to SD through internalizing the value of SD benefits in the price of CERs (Koakutsu, Tamura et al. 2012) or through a separate price mechanism for SD benefits (Torvanger, Shrivastava et al. 2013). An international standard for SD criteria such as the EB SD tool could be a first step towards a new mechanism to value SD benefits. SD certificates could be issued by a market player such as the Gold Standard, at international level by the UNFCCC Secretariat or by domestic authorities such as DNAs in line with national SD priorities.

Regarding compliance with human rights in climate change actions, Uganda and Cambodia agree that a human rights based approach can be strengthened through the SD tool. China has not considered the issue and Brazil does not see a need for this, as human rights issues are taken care of nationally by other institutions.

### 4.4.2. Project developer and buyer perspectives

Except for the Swedish buyer perspective, there is a clear agreement among PPs that quantification and monetization of SD co-benefits responds to emerging demands in the carbon market.

All the PPs and the buyer agree that there are important opportunities to strengthen domestic SD dialogues and harmonize efforts across mechanisms through use of the SD tool. It would be very useful and a significant simplification to PPs to have a uniform SD reporting format across projects and countries. Use of the tool can enhance the value of mitigation actions, strengthen transparency on SD impacts and increase credibility of the mechanism as a whole. Expanding use of the tool to new mitigation mechanisms is welcomed and the framework is believed to be broad enough to compare across different types of actions.

Certification based on the tool is of interest to all CDM project participants, on the condition the standard is good enough to also address e. g. negative impacts and not only focus on pricing of benefits. A global standard is preferred by one PP to include quantification of development benefits. Third party validation and verification is regarded as a prerequisite to demonstrate the credibility of claims made, that should be available for the world to see it. Interest in certification is found both in the market among clients and from governments that wants to know SD benefits of mitigation actions to co-finance NAMAs.

Integrating a human rights approach to CDM projects is generally welcomed but with some reservations. From a company perspective already using the UN Global compact, new and additional requirements may add little extra value. One PP sees this as a very political issue and argues that projects should not be obliged to document compliance with human rights. Safeguards can be useful but are typically not demanded by clients.

# 5 Conclusions

In this paper, we analysed the literature and experiences with host countries, project proponents and a buyer's perspective on the usability of the EB's SD Tool. This section summarises the findings and lessons learned for DNAs and other stakeholders in using the tool for SD impact assessment of CDM projects and beyond, exploring synergies with sustainability assessment for broader national development and climate policy priorities.

In summary, the evaluation of the CDM SD tool, carried out by the UNFCCC Secretariat in July 2014 based on a survey to 4,363 stakeholders, is very positive and finds that the tool as a voluntary measure meets its objective to highlight the co-benefits of CDM projects, while maintaining Parties' prerogative to decide national priorities for sustainable development. Complementing these findings, semi-structured interviews with four host country DNAs and four user perspectives were carried out in this study and contribute with a rich material to understand the diversity of thinking, needs, challenges and opportunities for use of the EB's SD tool. In context of the literature review on governance of the CDM to contribute to sustainable development, the analysis leads to the following conclusions.

## 5.1 Experience with host country SD assessment and use of the EB SD Tool

The SD tool is not directly useful to DNAs, as it is meant for PPs to use. China is the only DNA of the four approval bodies interviewed where project developers have used the tool, but with no dialogue between PPs and the DNA. Uganda and Cambodia, two medium and small seized countries, see several options to expand use of the tool to strengthen their capacity for SD assessment at national level, e. g. by using the sustainable development report (SDC) from the tool as a basis for local stakeholder consultations and by making the tool mandatory for PPs to use as a condition for issuance of the LoA. China and Brazil, on the other hand, are two big countries with high institutional capacity and do not see any direct role to play for the tool in relation to national SD assessment and approval.

More generally, the UNFCCC evaluation of July 2014 found that most DNAs are aware of the tool (71%), positive towards the tool highlighting SD co-benefits in a structured and comparable way (84%) and plan to refer to the

tool, when conducting SD assessment for approval of CDM projects at national level (92%). However, the evaluation and interviews were conducted, respectively 4 months and 9 months after the SD tool was launched in April 2014, so it is still early days for countries and users to learn, what the tool is and can be used for.

In relation to host country DNA practices for SD appraisal and approval of CDM projects, the tool is similar to the checklist approach of most countries (e. g. Uganda, Cambodia and Brazil), which categorise co-benefits into three (sometimes four) dimensions of sustainable development: economic/technological, social and environmental. By providing a taxonomy of sustainable development benefits with three dimensions, 12 criteria and 70 indicators as a menu for structuring reporting on expected SD impacts of projects, the tool does not give an international definition of what SD means, but facilitates a structured comparison that respects Parties' prerogative to decide on national priorities.

Monitoring and verification of SD claims is not practised systematically by DNAs, though Brazil and Uganda have experience with community complaints related to projects under implementation. In one case Brazil has withdrawn the LoA, though there are no established procedures for how to do it and what the implications should be. From the interviews and in the literature on DNA experiences with SD assessment (Tewari 2012), there is a clear, emerging interest to follow-up that SD claims are met, though some DNAs do not wish to add extra work and requirements to PPs (e. g. China) and are concerned about the extra efforts required (e. g. Cambodia). With the concept note on 'Voluntary monitoring of sustainable development co-benefits' discussed at the 82nd Executive Board meeting 16-20 February 2015 (UNFCCC 2015), new opportunities are considered to use the tool as a basis for monitoring, validation and verification of SD claims in a standardized way that supports DNA practices.

Regarding safeguards against negative impacts of CDM projects, the draft SD tool had provisions for safeguards; however, the current tool is silent on this and does not address e. g. issues of compliance with human rights. Uganda would like to have more guidance in this respect and Cambodia has requested technical assistance from the UNFCCC Secretariat to assist with country specific guidance for monitoring of SD impacts and guidelines for local stakeholder consultations. China and Brazil refer to national institutions that already deal with such issues and do not see an interest in additional support from the international level. In the context of a human rights based approach to operationalize the COP decision 1/CP.16 that human rights must be respected in all climate related actions, there is both a mandate and a need to address safeguards for human rights at the UNFCCC level. As cases of human rights violations indicate that host country governments are responsible for human rights infringements, there is a need to introduce mandatory human rights safeguards in the governance of CDM at global level (Schade and Obergassel 2014).

From the perspective of users of the SD tool, all interviewees find it very useful and simple as a standardized, qualitative approach to SD assessment. However, a number of weaknesses are identified for the tool to meet user needs, particularly avoiding negative impacts and attracting a premium price for carbon credits with high sustainable development benefits. The tool does not include safeguards to mitigate risks of negative impacts, it does not include provisions for stakeholder consultations to enhance local SD benefits, it does not provide modalities for monitoring, validation and verification and it only makes a qualitative, not a quantitative assessment of benefits.

Comparing user needs with host country DNA practices for SD assessment, national standards fall short of meeting expectations in the premium market. Long-known problems of disincentives for countries to set high SD standards, known as a 'race-to-the-bottom' (Sutter and Parreño 2007) for low SD requirements to better attract investments, are still at play and sustainable development is not priced in the compliance market, only through voluntary certification schemes. Furthermore, the capacities and priorities of host countries differ widely and the role of DNAs in governing the CDM's contribution to SD is not described in any detail internationally, though a range of proposals to strengthen the role of DNAs is under consideration as part of an ongoing review of CDM modalities and procedures (UNFCCC 2014). Against these shortcomings, a project developer and government buyer have developed their own procedures and standards, respectively a draft 'Global Carbon Development Benefits Standard' for quantification of development benefits and due diligence safeguards against negative impacts based on the draft CDM SD tool. Though the SD tool is welcomed in the carbon market, PPs are divided whether the tool should be mandatory to use. Some argue it would add credibility to the mechanism as a whole and others argue not all projects need it and it would add extra costs for project development.

## 5.2 Relevance of the SD tool experiences for other mitigation mechanisms

SD assessment experiences by both host country DNAs and CDM project participants indicate that the tool has a potential to harmonize reporting on SD efforts across mitigation mechanisms such as NAMAs, NMM/FVA, REDD+, LCDS and INDCs. It would be useful and a simplification to have a uniform SD reporting format across countries for all CDM projects and beyond to actions and policies for mitigation and development incentivised by other mitigation mechanisms. This is a largely unexplored issue not yet addressed in the literature. Project developers see a role for the tool to enhance domestic dialogues on SD but host countries are divided and China and Brazil do not see a role for the tool in relation to strengthened national dialogues on SD priorities.

Overall, SD tool experience can be relevant to CDM and other mitigation actions in three ways: 1) Strengthened standards for SD assessment at the international level, 2) Enhanced national standards for SD assessment based on the SD tool, e. g. by making it mandatory at national level for PPs to use the tool for issuance of LoAs and by including the SDC report as a basis for local stakeholder consultations, and 3) Market players could seek certification of SD impacts of mitigation actions based on the tool being further developed in line with general requirements for results-based finance applicable beyond CDM.

Further development of the SD tool would have to address its weaknesses such as including safeguards against negative impacts, development of methods to quantify and monetize SD benefits and monitor and verify that SD claims are met. This could make the tool attractive beyond CDM to harmonize SD assessment and reporting requirements in other mitigation mechanisms. Given the mandate that governance of the CDM's contribution to SD is the prerogative of Parties, challenges to make the tool useful more widely is to a large extent of a political nature, related to the competition of interests between host countries, international governance and the role of market players, who wish to set higher standards than what is currently practiced by DNAs.

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# Annex 1: Interview guide

## PART 1: Introductions (5 min)

### 1. Background and practicalities

- Thank you for agreeing to this interview (objectives and background for the study are introduced in the letter of invitation)
- We would like to record the interview as support to note-taking. Interviews will not be transcribed but are captured in a summary report based on the notes and, if you allow us, the recorded interview. Will this be acceptable to you?
- For further use of the interviews, can we reference you as the source or do you prefer to be anonymous? – Yes/No

### 2. Interviewee profile:

**Name:** _____

**Country:** _____

**Institutional affiliation:** _____

**Position:** _____

**Role relating to CDM:** _____

**Date and location of interview:** _____

## PART 2: Domestic experience with SD assessment of CDM projects (10 min)

- What are the DNA SD criteria for approval of CDM projects?
  - Are they publicly available?/How did you as a project developer come to know of them?
  - How do they relate to other national SD goals?
- On what basis are LoAs granted and what is the approval process?
- Is there DNA/project developer interest and capacity to follow up on SD assessments/LoAs to monitor and verify that CDM projects contribute to national SD criteria?
- Do you have national requirements or practices additional to the CDM procedures for stakeholder involvement? – for instance if an EIA is required for a CDM project
- Does the DNA/project developer make use of any safeguards against negative impacts? Do you see a need for this?
- In your view, is there a need for additional procedures to strengthen host country SD assessment of CDM projects?

## PART 3: SD tool specifics (10 min)

- What is the general DNA experience - or view - on use of the CDM EB SD Tool?
- What is your individual view on the usability of the CDM EB SD Tool? – e. g. at what stage in project development is it used and can add the most value
- Is it regarded as an additional effort to use the CDM SD tool? Or as a simplification to have a reporting format that supports existing DNA SD criteria?
- Do you see any possibilities for expanding use of the tool? – e. g. to follow up the SD declaration with requirements for monitoring and verification that SD impacts are realised
- What are your views on making the tool mandatory for CDM project developers to use?
- What is the DNA interaction with CDM project developers submitting the SDC report?

## PART 4: Beyond the tool – national SD assessment and other mitigation actions (5 min)

- Do you see a need for quantification and valuation of SD co-benefits?
- Do you see any possibilities to enhance domestic dialogues on sustainable development through strengthening SD assessment of CDM projects and programmes?
- Could the CDM SD tool be useful in terms of harmonisation of SD efforts with other mechanisms? - such as REDD+, NAMAs, NMMs and LCDS?
- Do you see an interest in certification of carbon units for their contribution to national sustainable development impacts?
- According to Cancun decision 1/CP.16 human rights must be respected in all climate change actions. Do see any opportunities for strengthening a HR-based approach to CDM through national sustainability assessment and the CDM EB SD Tool?

**Thank you!**

# Annex 2: Overview of literature reviewed

| Reference | Issues explored | Method and data | Key findings |
|---|---|---|---|
| State of knowledge about the CDMs contribution to SD | | | |
| Olsen, K. H. (2007). "The clean development mechanism's contribution to sustainable development: a review of the literature." Climatic Change 84(1): 59-73. | The paper reviews the state of knowledge on how the CDM contributes to sustainable development | The literature review is based on 19 studies that fall in four groups; forward-looking, SD impact assessment, carbon forestry and mixed topics | The main finding of the review is that left to the market forces the CDM does not significantly contribute to SD |
| Paulsson, E. (2009). "A review of the CDM literature: from fine-tuning to critical scrutiny?" International Environmental Agreements-Politics Law and Economics 9(1): 63-80. | This article reviews the literature on CDM thematically after the mechanism's two goals: to reduce GHG emissions and contribute to sustainable development in host countries | The review covers about 160 articles and reports on the CDM, providing a summary of the main themes discussed | A common assessment is that the current structure of the CDM leads to a focus on cheap emissions reductions at the expense of sustainable development benefits for the host countries |
| UNFCCC (2012). Benefits of the Clean Development Mechanism 2012. Bonn, United Nations Framework Convention on Climate Change Secretariat: 102. | Two types of assessment of the contribution of the CDM to sustainable development are possible on a project-by-project basis:<br>▸ How a CDM project contributes to sustainable development; and<br>▸ How much a CDM project contributes to sustainable development?<br>This study assesses, how CDM projects contribute to SD. | The sustainable development claims in the PDDs of 3,864 projects registered and undergoing registration as at June 2012 were tabulated using SD indicators. A survey of 392 projects was conducted to compare PDD statements with actual SD impacts of projects being implemented. | The relative reliability of PDD claims, as verified by a follow-up survey, suggests that the CDM is making a contribution to sustainable development in host countries in addition to the mitigation of greenhouse gas (GHG) emissions. Almost all CDM projects claim multiple sustainable development benefits, but the mix of benefits claimed varies considerably by project type. |
| He, J. J., Y. F. Huang, et al. "Has the Clean Development Mechanism assisted sustainable development?" Natural Resources Forum 38(4): 248-260. | This paper aims to provide evidence across 58 host countries on the effectiveness of CDM in encouraging sustainable development in host countries. | This paper adopts the Sustainability-adjusted Human Development Index (SHDI) used in Pineda (2012) as a measure of sustainable development and make use of a sample of 58 host countries' CDM activities between 2005 and 2010 | This research produces significant evidence that CDM project development can contribute to sustainable development efforts in a given host country should all CERs be realized. The results lend support to the effectiveness of CDM in boosting global sustainability |

| Reference | Issues explored | Method and data | Key findings |
|---|---|---|---|
| Dialogue, C. P. (2012). Climate Change, Carbon Markets and the CDM: A Call to Action. Report of the High-Level Panel on the CDM Policy Dialogue. Luxembourg, UNFCCC. | The Panel recommends 51 actions across 12 areas to address the crisis in international carbon markets and to make the CDM fit for the future | The recommendations are based on a wide-ranging research programme addressing 22 topics across three main areas: the impact of the CDM to date; the governance and operations of the CDM; and the future context in which the CDM could operate. It also organized a stakeholder consultation programme with dozens of formal and informal meetings around the world. | The Panel finds that it is not possible to reach a definitive conclusion on the sustainable development impacts of the CDM to date, given the insufficiency of objective data. The CDM appears to have had more positive impacts than negative impacts in most cases. There are also strong assertions of negative impacts, although the lack of requirements and guidance for monitoring and reporting makes it impossible to assess the actual sustainable development effects with a degree of certainty. |
| **Governance of the CDMs' contribution to sustainable development – the role of host country DNAs, market players and global rules** | | | |
| Host country DNA practices for approval of CDM projects | | | |
| Olsen, K. H. and J. Fenhann (2008). "Sustainable development benefits of clean development mechanism projects: A new methodology for sustainability assessment based on text analysis of the project design documents submitted for validation." Energy Policy 36(8): 2819-2830. | The main argument of the paper is the need for an international standard for sustainability assessment—additional to national definitions—to counter weaknesses in the existing system of sustainability approval by designated national authorities in host countries | An assessment DNA practices for approval of CDM projects draws on data available on the Internet, describing the operation of 7 selected DNAs in addition to existing studies | The most commonly used approach to the establishment of SD is the checklist approach. However, the definition of criteria differs from one country to the other. No countries require that the expected SD benefits— as described in the PDD—are monitored on an equal basis with GHG reductions to verify that they are 'real and measurable' |
| Tewari, R. (2012). Mapping of Criteria set by DNAs to Assess Sustainable Development Benefits of CDM projects CDM Policy Dialogue. India, The Energy and Resource Institute (TERI): 36. | The report provides a summary of the sustainable development criteria used by DNAs and the common approaches employed to provide the Letter of Approval (LoA) to project proponents | The assessment is based on three main data sources: a compilation of questionnaire responses from DNAs, sustainability criteria as defined/provided in DNA websites and relevant literature sources | The current system, in which countries set their own sustainable development definitions and criteria, should remain - in order to ensure country specific indicators that are aligned with local socio-economic conditions and respect national sovereignty |
| Koakutsu, K., K. Tamura, et al. (2012). Green Economy and Domestic Carbon Governance in Asia. Greening Governance in Asia-Pacific, Sato Printing Co. Ltd.: 55-84. | This chapter considers how domestic carbon governance in Asia can be aligned with sustainable development by exploring the relationship between green economy, low carbon development and SD | Case studies in Asian countries that examine domestic mitigation policies in China, India, Japan and ROK | There are three types of approaches to promote SD through the CDM: assessment, fund and certification. The certification approach surpass the others, as it has an original function that added-value of benefits for SD can be internalised in the price of CERs |

| Reference | Issues explored | Method and data | Key findings |
|---|---|---|---|
| Bumpus, A. G. and J. C. Cole (2010). "How can the current CDM deliver sustainable development?" Wiley Interdisciplinary Reviews-Climate Change 1(4): 541-547. | The key focus to strengthen SD impacts of the CDM is the role of CDM governance, focusing on the role of DNAs, stakeholder involvement and rules for monitoring and verification of SD claims. | Analysis of the role of procedural rules for strengthening SD assessment at national level in the case of Brazil | The key argument is that strengthening SD impacts of CDM is about understanding and regulating power relations, focusing on procedural issues rather than substantive issues such as measuring SD based on indicators for PDD analysis |
| Buhr, K., P. Thorn, et al. (2012). "The Clean Development Mechanism in China: Institutional Perspectives on Governance." Environmental Policy and Governance 22(2): 77-89. | We propose that the CDM literature could benefit from employing institutional theory to demonstrate, how rules and regulations are coloured by the norms and values in social contexts, often in a national context, which adds to our reasons for including the national dimension of CDM | The research question is: How has the Chinese government attempted to govern the CDM market, and with what consequences? The central government remains at the centre of climate policy efforts in the country and this paper focuses its analytical attention to the nation-state. | CDM governance is influenced by nation-specific social and cultural factors. From this argument it follows that governance patterns will not be the same in every country. What is seen as nationally appropriate will differ, in terms of both how the CDM market should function and the national priorities it should support |
| Rindefjall, T., E. Lund, et al. (2011). "Wine, fruit, and emission reductions: the CDM as development strategy in Chile." International Environmental Agreements-Politics Law and Economics 11(1): 7-22. | This paper studies, how the host country prerogative to define sustainability within the CDM plays out in practice | Case study of Chile. The focus on 'governance from above' is complemented in this paper with a focus on 'governance from below' and deal with domestic mechanisms and processes | The 'race to the bottom' in terms of sustainable development requirements has become a deliberate choice that mirrors the emphasis on economic development in Chile's overall development strategy |
| Ganapati, S. and L. G. Liu (2009). "Sustainable development in the Clean Development Mechanism: the role of Designated National Authority in China and India." Journal of Environmental Planning and Management 52(1): 43-60. | The main question for the paper is: what is the Designated National Authority's role in ensuring sustainable development through the Clean Development Mechanism? | Case studies of India and China. Three aspects of the DNA's role are examined: the institutional structure, the policy context and the CDM project market | The cases show that the DNA can wield considerable influence on raising CDM projects to achieve broader sustainable development goals. Although the ability of a DNA to achieve sustainable development depends on the country context |
| UNFCCC (2014). Possible changes to the modalities and procedures for the Clean Development Mechanism. Technical Paper. Bonn, United Nations Framework Convention on Climate Change: 42. | Further elaboration of the role of DNAs regarding the following issues: Clarify the roles of DNAs, increase transparency, allow DNAs to validate CDM activities, handling of complaints or stakeholder comments, further elaborate the requirements for the content and form of LoAs | The analysis focus on possible changes to the CDM modalities and procedures, including their implications based on data including submissions from Parties, recommendations of the Board, workshop reports and oral interventions during SBI 39. | No decisions were made on revised M&Ps at CMP-10. The SBI negotiations on possible changes to M&Ps for the CDM will continue at the June 2015 session in Bonn with an aim to conclude by CMP-11 in Paris |
| The role of market players and global rules | | | |
| Torvanger, A., M. K. Shrivastava, et al. (2013). "A two-track CDM: improved incentives for sustainable development and offset production." Climate Policy 13(4): 471-489. | This article examines how incentives to enhance sustainable development and offset production performance in the CDM can be improved assuming that a reformed CDM will be part of a new climate agreement from 2020 | A review of the literature is presented and proposals to reform the CDM and strengthen offset production and SD with a view to their political feasibility are discussed | The primary requirement for implementing an SD track is a common, internationally devised, definition of SD and its criteria |

| Reference | Issues explored | Method and data | Key findings |
|---|---|---|---|
| Parnphumeesup, P. and S. A. Kerr (2011). "Classifying carbon credit buyers according to their attitudes towards and involvement in CDM sustainability labels." Energy Policy 39(10): 6271-6279. | How buyers have different preferences for SD benefits and labelling including willingness to pay a premium price. The Gold Standard label (GS) is used as the representative of CDM sustainability labels | The study uses cluster analysis to classify the carbon market according to buyers' attitudes towards involvement in the GS. The data is based on 117 responses from an online survey of primary CER buyers | Evidence suggests that host countries are failing to ensure SD benefits of CDM projects. It follows that there is a need for CDM sustainability labels to guarantee SD benefits beyond minimal requirements of host countries |
| Drupp, M. A. (2010). "Does the Gold Standard label hold its promise in delivering higher Sustainable Development benefits? A multi-criteria comparison of CDM projects." Energy Policy 39(3): 1213-1227. | In order to determine whether Gold Standard projects can be associated with higher local SD benefits. | The paper evaluates the potential benefits of 48 CDM projects using a multi-criteria method and building on existing work | Labelled CDM activities are found to slightly outperform comparable projects. This study finds that above all the reliance on renewable energy projects is responsible for the higher potential local SD benefits of the GS in comparison to unlabelled CDM projects |
| Schade, J. and W. Obergassel (2014). "Human rights and the Clean Development Mechanism." Cambridge Review of International Affairs 27(4): 717-735. | This article analyses the Kyoto Protocol's Clean Development Mechanism (CDM) from a human rights perspective. | The article discusses two CDM projects, the case of Bajo Agua´n in Honduras and the case of Olkaria in Kenya. | UNFCCC could and should require all projects to undergo mandatory safeguards based on a human rights impact assessment (HRIA). Projects with negative impacts should be ineligible for registration |
| Evaluation of the EB's SD tool | | | |
| UNFCCC (2014). Information note. Evaluation of the use of the voluntary online sustainable development co-benefits tool. Version 01.0. Bonn, UNFCCC Secretariat: 27. | The evaluation aims to assess whether the SD tool, through its use, meets its purpose and achieves its expected impacts. Issues evaluated are; awareness among users, clarity of the tool, usefulness, needs and expectations of users | Data include a stakeholder survey to 4,626 stakeholders with 137 responses (2.9 %) on access and use of the tool among project proponents, DNAs and investors. Analysis of 13 SDC reports with regard to usefulness of the content | The evaluation concludes that the SD tool meets the objective of the CMP as a voluntary measure to highlight the co-benefits brought about by CDM PAs and PoAs, whilst also maintaining the prerogative of Parties to define their sustainable development criteria |

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