



Mapping the Indicators

**An Analysis of Sustainable Development
Requirements of Selected Market Mechanisms and
Multilateral Institutions**

Impressum

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Preface

Investors are paying more and more attention to the co-benefits of climate finance. Financing activities aimed at emission mitigation must not only result in the reduction of greenhouse gas emissions, the enhancement of mitigation, adaptive capacity and adaptation strategies, but should also produce additional outcomes on other environmental, social or economic aspects of sustainable development. The Clean Development Mechanism (CDM) was created precisely to cover these two aspects: firstly, to achieve cost-effective mitigation of greenhouse gases and secondly, to assist developing countries in achieving sustainable development based on their national development priorities and strategies.

However, complying with the second objective turned out to be problematic. Registered projects appeared that had no proven sustainable development benefits, or even perceived negative impacts. Consequently, critique was raised that the current set-up is weak due to the lack of clear and transparent sustainable development criteria in many host countries, and whether the intended sustainable development benefits are actually achieved in the absence of standards or monitoring, reporting and verification procedures,.

To strengthen the current system for assessing the impact of sustainable development within CDM projects, even the High-Level Panel on the CDM Policy Dialogue recommended introducing monitoring, reporting and verification schemes for measuring the outcomes. The accent was to enhance safeguards against the risk of negative impact and to support host countries with capacity-building and sharing examples of best practice. The issue was raised to the highest political level when the CMP to the Kyoto Protocol in Durban requested the CDM Executive Board to develop voluntary measures with the aim of highlighting CDM projects' co-benefits, while preserving the right of host parties to determine their sustainable development criteria. This decision instigated the UNFCCC Secretariats development of the voluntary Sustainable Development Tool, which was approved by the CDM Executive Board in late 2012.

A robust assessment of the impact of sustainable development in CDM projects is important to ensure the social and ecological integrity of the mechanism and compliance with the objectives of sustainable development as stated in the Kyoto Protocol. Research and best practice experience into how sustainable development issues are integrated into mitigation actions through the CDM Sustainable Development Tool and other respective standards can help inform the development of Nationally Appropriate Mitigation Actions and future mechanisms on sustainable development assessment methods.

As sustainable development is a complex multilayer process covering environmental as well as social and economic aspects that can be affected both positively and negatively, there is a variety of possibilities of how to assess the impact an intervention may have. The high number of approaches analysed by this study reflects this.

The contractors assessed the Sustainable Development Tool against international standards for sustainability assessment by comparing it with other mechanisms such as voluntary carbon offset schemes as well as emerging policy frameworks.

This discussion paper does not necessarily reflect the views of the German Emissions Trading Authority. But it gives valuable input to the discussion on further development of the Sustainable Development Tool with the overall aim to increase the environmental integrity of offsetting instruments.

Berlin, February 2015



Dr. Hans-Jürgen Nantke
Head of the German Emissions Trading Authority at the Federal Environment Agency

Abbreviations

ADB	Asian Development Bank
CCB	Climate, Community and Biodiversity
CCBA	Climate, Community & Biodiversity Alliance
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO₂	Carbon Dioxide
COP	UN Climate Change Conference / Conference of the Parties
DEHSt	German Emissions Trading Authority
DNA	Designated National Authorities
DTU	Technical University of Denmark
EB	Executive Board
EIA	Environmental Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FPIC	Free Prior Informed Consent
FVA	Framework for Various Approaches
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GS	Gold Standard
HFC-23	Hydrofluorocarbon 23
IFC	International Finance Corporation
LDC	Least Developed Country
MCA	Multi Criteria Analysis
MDB	Multilateral Development Bank
N₂O	Nitrous oxide
NAMA	Nationally Appropriate Mitigation Action
NGO	Non-Governmental Organization
NMM	New Market Mechanism
OECD	Organisation for Economic Development
PoA	Programmes of Activities
PS	Performance Standards
QA/QC	Quality Assurance / Quality Control
RBM	Results-based Management

REDD+	Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
SCM	Social Carbon Methodology
SCR	Social Carbon Report
SD	Sustainable Development
SDC	Sustainable Development Criteria
SDG	Sustainable Development Goal
SEPC	Social and Environmental Principles and Criteria
SPS	Safeguard Policy Statement
SSN	SouthSouthNorth
TAC	Technical Advisory Committee
TGO	Thailand Greenhouse Gas Management Organisation
UBA	Federal Environment Agency
UN REDD	The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
UN(F)CCC	United Nations Framework Convention on Climate Change
UNCSD	United Nations Conference on Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP	United Nations Environment Programme
US	United States
WWF	World Wide Fund For Nature

1 Background

Combating climate change has gained momentum again. In the run-up to the UN climate change conference in Lima, several major Greenhouse-Gas (GHG) emitters voiced their plans for climate change mitigation action. The first mover was the EU, which at its European Council meeting in October unveiled its new climate and energy package. It sets targets for GHG reduction for at least minus 40 percent domestic (i.e. within the EU) versus 1990, at least 27 percent for renewables in 2030, and at least a 27 percent efficiency increase versus the same trend line as in the previous package.

Shortly after, in mid-November, the United States and China in a joint statement announced their respective climate change targets. The US declared a new target to cut net greenhouse gas emissions 26-28 percent below 2005 levels by 2025. At the same time, China as the first developing country announced targets to peak CO₂ emissions around 2030, with the intention to peak early, and to increase the non-fossil fuel share of energy production to around 20 percent by 2030.

These events are going to help build momentum for the international climate negotiations ahead. They might also unblock the road for a legally binding climate change agreement in Paris at the end of 2015.

However, a successful achievement of keeping global warming below 2°C must be accompanied by development that ensures sustainable economies, healthy environments and sustainable societies. Sustainable development for a world that can be enjoyed by all is the other side of the coin to climate change.

Mitigation instruments under the climate regime of the United Nation Framework Convention on Climate Change (UNFCCC) commonly refer to sustainable development. For instance, Nationally Appropriate Mitigation Actions (NAMAs) shall be implemented “in the context of sustainable development“ (UNFCCC 2009), and mitigation actions in the forest sector should “take into account non-carbon benefits“ (UNFCCC 2013).

The Clean Development Mechanism (CDM) was equally created with these two sides of the coin in mind: on the one hand, to achieve cost-effective mitigation of greenhouse gases; on the other, to assist developing countries in achieving sustainable development, based on their national development priorities.

In literature on the CDM’s contribution to sustainable development the strengths and weaknesses of host countries’ assessment approaches have been identified and analysed over the years (Figueres 2005; Olsen 2007; Corbera and Jover 2012). Critique is raised that the current set-up is weak due to the lack of clear and transparent SD criteria by many host countries (Sterk et al. 2009), cases of registered projects with no SD benefits or negative impacts (TERI 2012) and the lack of requirements or procedures to monitor, report and verify that intended SD benefits are actually achieved (Olsen and Fenhann 2008).

Responding to the 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.

As of 20 November 2014, ten out of the 7576 registered CDM projects and five out of the 271 registered 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 and Uruguay (1 CDM project each). 19 African countries are host countries to CPAs of two PoAs with an SDC description report.

To strengthen the current system for SD assessment of CDM projects the High-Level Panel on the CDM Policy Dialogue recommends to report, monitor and verify SD impacts, to enhance safeguards against the risk of negative impacts and to support host countries with capacity-building and sharing of best practice examples to strengthen their assessment of SD (CDM Policy Dialogue 2012).

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 first work package, which consisted of assessing and comparing the SD provisions of selected flexible mechanisms and multilateral standards. In a second step, the project team is going to conduct interviews with relevant stakeholders. The final results of the project will be published in late spring 2015.

2 Methodology

This paper reports on the first work package of the underlying research project. The aim of this work package is to qualitatively assess the suitability and comprehensiveness of the current SD tool against international level standards for sustainability assessment by comparing it to other flexible mechanisms such as voluntary carbon offset schemes as well as emerging policy frameworks such as REDD+, NMM and the Green Climate Fund.

The work package comprises the following steps:

1. Literature review and assessment framework
2. Assessing the EB's SD tool against the state of the art in other mechanisms

2.1 Literature review and assessment framework: Selection of standards and policy frameworks for review

In preparation of our analysis, we compiled, analysed and reviewed international level practices and standards for SD assessment. This included the CDM and its own Sustainable Development Tool (the SD Tool), as well as voluntary carbon offset standards such as the (CDM) Gold Standard, the Climate, Community and Biodiversity Standards (CCB), the Social Carbon Methodology, and others.

We also looked at a number of policy frameworks of emerging mechanisms for mitigation actions, such as the Low Carbon Development Strategies (LCDS), Reducing emissions from deforestation and degradation plus conservation (REDD+), the New Market Mechanisms under the UNFCCC (NMM), units of GHG reductions to be traded under a Framework for Various Approaches (FVA), and the Green Climate Fund (GCF).

The first insight gained from the literature review was that many of the emerging schemes are at very early stages of development. For example, the concrete design of the NMM and FVA, respectively, are far from taking shape; in fact, negotiations under the UNFCCC are deeply deadlocked so that progress in this arena is not to be expected soon. Therefore, the Federal Environment Agency (UBA) and the project team decided to exclude schemes such as NMM, FVA, and Least Developed Countries (LDCs) from the assessment (for the GCF, see below).

A second conclusion from the literature review was that the analysis should cover different types of SD assessment, as the methodological framework for identifying SD impacts has further differentiated over the years (see also Ürge-Vorsatz et al. 2014).

For the project team, it was essential to include mechanisms that

1. feature not only an assessment, but also a certification scheme
2. go beyond the traditional project-based approach known from the CDM
3. assess both SD co-benefits and co-costs (negative impacts)
4. include meaningful stakeholder consultations

Based on these criteria, the project team developed a shortlist of mechanisms to be assessed. This list was discussed with UBA and subsequently modified according to the input received. The final selection includes a range of mechanisms and programs that cover one or more of these core aspects. The Gold Standard, for example, both includes an assessment of possible negative impacts and displays an example of a certification approach. The other selection schemes are (see in brackets the representation of the above-mentioned aspects):

- ▶ CDM Gold Standard (1, 3, 4)
- ▶ Thailand's Crown Standard (1, 3)
- ▶ Social Carbon (1)
- ▶ CCB (1, 3)
- ▶ UN-REDD Programme Social and Environmental Principles and Criteria (4)
- ▶ UNDP NAMA SD Tool (2)
- ▶ Asian Development Bank Safeguard Policy (3, 4)
- ▶ International Finance Corporation Sustainability Framework (3, 4)

Some of the mechanisms had further qualifications that influenced their choice. For example, Thailand's Crown Standard was chosen because it is based on the CDM, but it features elaborate SD assessment criteria. Therefore, it was felt that this approach could be an interesting match for the comparison with the CDM SD tool. The International Finance Corporation (IFC) standards, to take another example, are also used, albeit on an interim basis, by the Green Climate Fund, which brings in an element of the newly evolving, innovative climate finance schemes.

It should be noted, though, that the SD assessment criteria presented here and assessed in the following, were looked at from a purely theoretical point of view. This means we assessed the way SD assessment is set-up and did not touch in any way on the question whether or not these schemes do work in practice as this is way beyond the scope of this assignment. For literature on practical, on-the-ground experience, see, inter alia, TERI 2012 and Dooley et al. 2011.

2.2 Assessing the EB's SD tool against the state of the art in other mechanisms

2.2.1. A comprehensive approach to SD in climate finance

The review of a variety of mechanisms and related literature shows that applying a comprehensive approach to sustainable development of international financing activities involves basically two steps of considerations beyond the regular monitoring of direct effects:

- ▶ An identification of indirect effects and their assessment via monitoring, verification and evaluation
- ▶ A consideration of stakeholder concerns within and beyond the direct spatial and topical boundaries of the activity

2.2.2. Identification of related indirect effects and their assessment via monitoring, verification and evaluation

Financing activities aiming at emissions mitigation and adaptation to climate change not only result in the reduction of greenhouse gas emissions, the enhancement of mitigation, and adaptive capacity and adaptation strategies, but may have additional impacts on other environmental, social or economic aspects of sustainable development. These impacts can be positive or negative or include both positive and negative elements for different aspects of sustainable development.

The most common approach to identify effects of a funded activity is known as “results-based management” (RBM), and applied by the Organisation for Economic Development (OECD), the Global Environment Facility (GEF) or other institutions. RBM establishes so called results chains that put funding goals and results of a funding activity / intervention at different levels. The results are put into a hierarchical and sequential order (UNDP 2010: 13) organised by the possibility to align effects more or less directly to the activity. There is a threefold differentiation of effects into (a) outputs (direct effect), (b) outcome and (c) impact (longer term indirect effect). Identifying outputs, outcomes and impacts of project inputs and activities, a results chain is the foundation of a learning process which helps to understand whether and how specific activities are expected to contribute to the desired change of the funded activity on the different levels. The results chain provides a framework for monitoring and measuring the expected changes. Key changes described in the results chain are translated into targets and associated indicators for tracking results (OECD 2010). Usually, the related monitoring requirements and exercises focus on the outputs and partially on the outcome level due to the more difficult alignment of indirect effects (problem of alignment and double counting).

There is an emerging discussion on how to go further and align indirect effects, to prevent trade-offs of such activities (e.g. The World Bank 2010) and hence to apply approaches beyond common RBM. Significant positive effects should be identified in order to demonstrate the full potential and appropriateness of the activity for the host country. Significant adverse effects should be avoided even when they are beyond the monitoring and reporting scope of direct effects of such activities. They are assumed as being unintended and as putting successful project implementation at risk.

A “risk level” describes the probability that the project activity results in unintended negative effects beyond the intended direct climate result. An unintended negative effect can be one that may be anticipated before project approval when considering and assessing the broader project context or may occur unexpectedly during project implementation or beyond. Both should be considered at the earliest point possible. Going further, the discouragement of adverse effects should be one of a number of basic trade-off rules for a sustainability assessment (Gibson 2006: 272). This approach is considered as “do no harm” approach. A do no harm approach is characterised by the application of a risk management system to prevent from negative impacts by establishing safeguards as mandatory benchmarks. Such a “safeguard system” can have substantive components, which describe specific goals and principles, as well as procedural components that outline the processes that are in place to identify, avoid and mitigate potential activity specific negative impacts (Gibson 2006).

2.2.3. Consideration of stakeholder concerns within and beyond the direct spatial and topical boundaries of the activity

For the long term sustainability and acceptance of activities as well as for the early identification of potential risks and undesired effects, the involvement of affected communities and individuals (stakeholder involvement) and the perception of their concerns is crucial for several fundamental reasons (UN 2008):

- ▶ First, stakeholders have a right to be involved if they may be affected by an activity.
- ▶ Second, the involvement and consultation of stakeholders is necessary for the realistic understanding of potential obstacles and risks within the project boundary. Moreover, it is important for the definition of problems, the identification of causes, to get an overview about already existing measures, to maximise synergies, avoid duplications and ensure coordination.
- ▶ Third, stakeholders can make valuable contributions for designing and implementing an effective and beneficial project.
- ▶ Fourth, stakeholder consultation is crucial for the consideration of effects beyond the boundary of an activity. This relates to the embeddedness of the activity in the regional/national context.

The consultation should demonstrate appropriate strategies and actions to address expressed demands and concerns and to achieve envisaged impacts. It may help save time, reduce costs and support the improvement of a project’s performance and impacts. Moreover, stakeholder involvement generates transparency, trust and accountability and is the basis for building strong, constructive and responsive relationships, which are essential for successful project implementation and for achieving targeted results. In doing so, stakeholder involvement increases the steering capacity of an activity. In particular where local communities are being addressed by a financing activity, stakeholder involvement is important for ensuring relevance to local priority needs and for strengthening participation and ownership of the target groups.

The role of participatory monitoring has also been recognized in the Governing Instrument of the Green Climate Fund (UNFCCC, 2011).

Generally, the consultation can take place at different stages of an activity: Before approval, during the preparation of the activity (to avoid risks), and during the implementation phase (to manage upcoming risks).

Furthermore, it is suggested to institutionalise continuous mechanisms beyond formal stakeholder consultation processes for dealing with “grievances” or complaints raised by stakeholders with formal rights to appeal to such a grievance mechanism. These independent mechanisms are an element of a risk management strategy in controversial cases.

While there are no generally established ways to undertake a stakeholder involvement process, several approaches and methodologies on how to carry out a sustainable process have emerged from, and been developed by diverse organisations working in different fields.

Basic elements of a stakeholder involvement process relate to the timing, institutional setting of the consultation, focus, and documentation of the process are:

- ▶ **Timing:** Ongoing engagement of stakeholders (timetables, dates, covering all project phases, consideration of complaints, provision of information...)
- ▶ **Institutional setting:** Install core contact (person), facilitation, regular processes, grievance mechanism...
- ▶ **Focus:** consider power relations, capacities, establish timely processes for identification of relevant stakeholders, define desired outcome and adequate processes...
- ▶ **Documentation:** Disclosure of information and other information policies

2.2.4. Compilation

Based on the considerations on a comprehensive approach and the selection of standards, we developed a basic assessment framework (excel matrix) that forms the basis for the analysis of both the EB’s voluntary SD tool and SD criteria; and processes of the selected mechanisms. It consists of three categories, namely

- ▶ Overarching set-up of the standard (architecture)
- ▶ Assessment of the SD impacts
- ▶ The provisions for Stakeholder Consultations

In the following, we provide an overview on these three main sections of our basic assessment framework. The completed table is provided as a background document to this report.

Overarching set-up of the standard (architecture)

In the set-up category, general framing features are considered that are specific for the respective standard. It contains questions on the assessment object, general assessment methods, bindingness of requirements, timing of assessments and reviews, compliance and target groups of tools. The criterion on assessment methods contains a description on the general assessment approach of the respective standard, i.e. whether risks are considered, safeguards applied or SD principles defined as well on the quality of indicators. This general outline of the respective approaches prepares for the subsequent more specific focus on sustainability impacts. Table 1 shows the set-up section of the assessment framework.

Tabelle 1: Assessment category „Overarching set up of the standard“

Assessment category	Assessment Criterion	Type of answer	Mechanism 1	Mechanism 2	...
Overarching set up of the standard	Object of assessment <i>Spatial boundaries of the SD assessment; Linkages to national strategies?</i>	narrative			
	Method of assessment <i>Are indicators used? Is the approach integrated or not in terms of nature-society linkages? Is the assessment qualitative/quantitative? Are effects monetized</i>	narrative			
	Is sustainability assessment mandatory?	y/n			
	Is the assessment ex-ante and/or ex-post?	narrative			
	Is sustainability assessed during approval process?	y/n			
	Is an ex post monitoring and verification mandatory?	y/n			
	Is compliance with national / int'l law assessed? Is an EIA mandatory?	narrative			
	Who uses the tool and to whom is it important?				

Assessment of sustainability impacts

The assessment of sustainability impacts (Table 2) covers the three SD dimensions which are commonly used, i.e. environmental impacts, social impacts, and economic impacts (cp. Sutter 2003, Nussbaumer 2008). These three categories are split up into 12 indicators for positive impacts. In fact, this taxonomy follows the CDM SD tool. We chose this approach because it enables us to easily compare the SD tool with the other mechanisms. Taking the SD tool taxonomy prepares for an easy identification of the variations in the approaches. Moreover, the category ‚assessment of SD impacts‘ also covers possible negative impacts. The category has to be seen in context of the general approach described in the set-up category.

Tabelle 2: Assessment category ‚assessment of sustainability impacts‘

Assessment category	Assessment Criterion	Type of answer	Mechanism 1	Mechanism 2	...
Assessment of Sustainability impacts	Which of the following positive impacts are covered?	Tick the box: Environment – Air Environment – Land Environment – Water Environment – Natural resources Social – Jobs Social – Health & Safety Social – Education Social – welfare Economic – Growth			

Assessment category	Assessment Criterion	Type of answer	Mechanism 1	Mechanism 2	...
Assessment of Sustainability impacts	Which of the following positive impacts are covered?	Economic – Energy Economic – Technology Transfer Economic – Balance of payments Other			
	Are negative impacts (co-costs) covered in approval / monitoring processes?	y/n			
	If yes, which of the following aspects are covered?	Tick the box: Violation of human rights Labour rights violations Child labour Forced Resettlements Distruction of cultural heritage Discrimination Unsafe & unhealthy work environment Corruption Damage to environment or natural habitat			

Stakeholder Consultations

The category stakeholder consultations (Figure 3) contains a description if and how the consultations are set up., who is consulted, which processes are established, how are concerns are dealt with, how are complaints solved and which options exist to intervene in approved projects.

Tabelle 3: Assessment category „Stakeholder Consultations“

Assessment category	Assessment Criterion	Type of answer	Mechanism 1	Mechanism 2	...
Stakeholder Consultations	How is the stakeholder consultation process set up? <i>Is any of the following items covered?</i>	Tick the box + explanation, if applicable			
		Global stakeholders are consulted			
		Local stakeholders are involved			
		LS are identified in a structured process			
		Project doc's available in local language(s)			
		Is a meeting held with LSs? Is the meeting place within reach for LS?			

Assessment category	Assessment Criterion	Type of answer	Mechanism 1	Mechanism 2	...
Stakeholder Consultations	How is the stakeholder consultation process set up? <i>Is any of the following items covered?</i>	A non-technical summary was presented			
		A meeting report is produced			
		Stakeholder feedback meeting/communication			
		SD monitoring plan developed			
		Other			
	Is a grievance mechanism established?	y/n + narrative			
Is it possible to intervene in approved projects (corrective action procedures)?	y/n + narrative				

2.2.5. Synthesis

Taking the information of these three categories of the basic assessment framework (i.e. the excel matrix), we conducted a comparative analysis of the different approaches to SD assessment. We have synthesised the wealth of information into four overarching categories:

- ▶ **Scope:**
Framings of the standard and the general comprehensiveness
- ▶ **Assessment types:**
Design-bases of the standard and how the general approach is implemented. The analysis follows two sets of criteria:
 - ▶ Exclusion criteria (e.g. child labour, forced resettlements): mandatory design elements and procedures, analysed by yes/no. If yes, criteria are described
 - ▶ Procedural criteria: Identification of indirect effects (e.g. Checklists/scoring systems)
 - ▶ Which effects: how many/how comprehensive (e.g. air quality etc.)
 - ▶ How is it operationalised: which indicators, how to collect and measure data (e.g. NOx at site/at distance)
- ▶ **Review and Evaluation:**
Who is responsible, how is it done, who checks the review? (e.g. monitoring, evaluation, redirection of activity, verification of Exclusion criteria/Multi Criteria Analysis by independent entity or standard itself)
- ▶ **Stakeholder Consultation framework:**
Involvement of local stakeholder and resolution of concerns.

These categories partially combine information from the categories of the basic assessment framework, allowing for an overarching comparative approach. Disaggregated information on the different standards and approaches may be gleaned from the assessment framework provided in parallel to this report.

3 Analysing SD Provisions of Selected Flexible Mechanisms and Multilateral Institutions

In the following chapter, we analyse the different roads taken in regard to assessing benefits for and impacts on sustainable development.

Chapter 3.1 gives an overview of the mechanisms and institutions we have assessed for this report. We provide the reader with short profiles of each mechanism or institution, highlighting basic functioning, and pointing to notable specialties of the respective approaches, if appropriate.

Chapter 3.2 synthesises our findings into a comparative analysis. In a first step, we explicitly exclude the CDM's SD tool from the analysis, and compare the remaining eight mechanisms' and institutions' approaches along our four main assessment categories. In a second step, we then compare our findings with the approach taken by the CDM Executive Board in order to arrive at lessons learned and possible options for improvement. For each assessment category, we provide a short overview table summarising our findings.

3.1 Short profiles of the mechanisms assessed

3.1.1. CDM SD Tool

The “Voluntary tool for describing sustainable development co-benefits of CDM project activities or programmes of activities (PoA)” (CDM SD tool) was approved by the CDM Executive Board at its 70th meeting in late 2012. As stated in the name, the tool is used by project developers of CDM projects or PoAs who would like to report on positive impacts their project or PoA brings about.

The use of the tool is voluntary and it can be used at any time in the lifetime of the respective CDM activity. This can (but does not need) also include an update in case co-benefits change. The tool does not comprise any requirements to monitor or verify identified benefits for sustainable development.

The CDM SD tool is online-based. Project participants and coordinating/managing entities may request access to the tool from the CDM tools webpage or may download a word version as an alternative from the same page.

The tool uses the three basic dimensions of sustainable development, i.e. environmental aspects, as well as social and economic ones. Based on these, the tool uses a taxonomy consisting of generic SD criteria and indicators. The taxonomy was developed bottom-up from a review on aspects on sustainability, as reported in PDDs of over 2.500 registered CDM projects (Olsen and Fenhann 2008).

In order to balance standardisation and flexibility, the taxonomy functions as a menu of generic dimensions, criteria and indicators that project participants may choose from. Criteria and indicators that are not relevant to a project can be skipped and aspects of SD that are not included in the taxonomy can be added using an ‘other’ indicator. This allows for a transparent, inclusive and objective approach to SD assessment.

From the data input into the tool, a declaration report is generated and made public on the CDM website. The tool uses similar formats for all three basic dimensions of sustainable development, highlighting environmental, social and economic benefits for sustainable development of the respective project.

Earlier versions of the tool had comprised safeguards to avoid negative impacts and enhanced procedures for stakeholder involvement as well. However, these were cut out in the course of the decision making process within the Executive Board (cp chapter 1 of this report).

3.1.2. CDM Gold Standard

The CDM Gold Standard (GS) is a premium label for activities under the UNFCCC's CDM and, since 2006, a certification standard for voluntary carbon credits. It was initiated by the NGOs WWF, SouthSouthNorth (SSN) and Helio International in 2003. Experts and stakeholders were involved in its development. The CDM Gold Standard “aims at promoting investments in renewable energy, end-use energy efficiency and waste handling and disposal techniques as well as land use and forestry projects that mitigate climate change, promote (local) sustainable development and are directed towards a transition to non-fossil energy systems” (GS 2013). However, only the requirements for energy, afforestation and reforestation activities have been released so far.

The requirements for the newer objectives land use and forestry are not yet available: The draft requirements for agriculture are currently being tested but the conditions for the implementation of forestry projects are still being developed (GS 2014). The CDM Gold Standard is overseen by the Gold Standard Foundation, which consists of and is supported by a secretariat, a foundation board, an independent technical advisory committee (TAC), and more than 80 international partner NGOs.

The GS provides project proponents with a clear structure that comprises overarching principles, criteria, indicators and parameters. It contains provisions for safeguard assessment, sustainable development impacts assessment and monitoring of projects: The safeguard system contains a list of seven overarching principles – the Gold Standard Principles – that are mandatory for all GS carbon market projects and programmes. Each principle contains one or several criteria which the project is required to meet in order to obtain GS certification. In order to comply with these principles, project proponents must apply the GS Toolkit document considering sustainable development impacts at different stages. The project developer has to apply the UNDP safeguarding principles to its project and fill out a “Gold Standard Passport” containing indicators for “Do no harm”, for the “Sustainable Development Matrix”, for the “Sustainable Monitoring Plan”, and for “Stakeholder Comments”. The gravity of potential risks has to be assessed. The safeguard approach is complemented by a detailed impact assessment in terms of sustainable development (“sustainable development matrix”). Quantification however is not necessarily required but a plausible qualitative explanation of the potential impacts. Finally, the project developer has to submit a sustainability monitoring plan. All non-neutral indicators of the sustainable development matrix must be monitored in order to verify whether or not the project has indeed contributed to sustainable development as assessed ex ante.

The GS is characterised by a comprehensive and integrated approach to cover sustainable development issues (on details, see Kreibich et al 2014). The original self-assessment made by the project proponents using the GS tools and guidelines may be refined as result of the two-step approach for the involvement of stakeholders and hence lead to a significant improvement of the project design. With the installation of a grievance mechanism, the GS has made a significant step forward in addressing potential adverse impacts projects may have on the environment and the society.

3.1.3. Crown Standard

The Crown Standard is the Thai government’s approach to conduct an ex ante assessment of the likely contribution of a CDM project to local and national sustainable development and to conduct an initial environmental assessment (TGO 2014 a+b). Project proponents have to complement UNFCCC requirements with relevant information when submitting a project proposal to the Thailand Greenhouse Gas Management Organisation (TGO), which serves as a Designated National Authority (DNA). On this basis, the TGO will decide on the project approval.

The project proponent’s report has to describe the project and the existing environment, and it has to include an initial assessment of the environmental impact and the sustainable development potential. The project proponent has to score 24 indicators in the fields of environment and natural resources, social impact, technology deployment/transfer, and economy (TGO 2014b). He/she shall indicate the details of the assessment and the rationale for scoring. In case of negative sustainable development scores, the project proponent shall delineate the mitigation measures to prevent environmental impact of the project. TGO provides guidelines how to perform this assessment and points to the related laws and regulations.

The Crown Standard is a pure ex ante tool. It does not stipulate a dedicated grievance mechanism neither it mentions the possibility to intervene in approved projects.

3.1.4. Social Carbon Methodology

The Social Carbon Methodology was developed by the Ecologica Institute to deliver high-quality projects to the voluntary carbon market by monitoring a project’s co-benefits. Six sustainability aspects of a project are individually measured using the “Social Carbon hexagon”: Social, Human, Financial, Natural, Biodiversity, and Carbon. The hexagon serves as a visualisation of a project’s benefits, with a scale of zero to six, where the centre represents zero access to a resource (Ecologica Institute 2013).

The project proponent, supported by an approved organization, has to submit a Social Carbon Report (SCR) with relevant information.

First, local stakeholders have to be selected for the collection of information. Information gathering includes “participative methods” such as interviews and group meetings, discussing the indicators’ contents. The indicators are laid down in sector- and project-specific guidelines, which were developed as a bottom-up process by approved organisations for specific projects. Depending on the project or the community involved, indicators have to be customized. Thus, the guidelines may continually be amended or new guidelines be added. By the end of 2014, Social Carbon provides guidelines for the following sectors and project types: Ceramic Sector, Forest Projects, Landfill, Hydropower Plants, Micro and Small Scale Hydropower Grouped Projects, Efficient Lighting, Fuel Switch in Brazil, Methane avoidance through composting in small and medium sized swine farms in Brazil, Red Ceramic Factories in Brazil, and Amazon REDD Projects.

Based on the information gathered, a “Zero Point” assessment is carried out to provide for an initial point of comparison for future developments. Objectives will be developed in an action plan. Six possible scenarios have to be adopted for each indicator, with the first scenario being the most precarious and the sixth scenario representing the most sustainable situation.

Social Carbon does not establish absolute requirements for scoring all indicators, but instead requires to continuously improve the project’s sustainability performance. The previously defined indicators at “Zero Point” have to increase over the monitoring period. For every year, an SCR has to be developed.

3.1.5. CCB Standards

In 2003, the Climate, Community & Biodiversity Alliance (CCBA) was founded as a partnership of five international NGOs: Conservation International, CARE, Rainforest Alliance, The Nature Conservancy and Wildlife Conservation Society. With the goal of promoting the development of forest protection, restoration and agroforestry projects, it has created the voluntary CCB Standards to identify high quality multiple-benefit land-based carbon projects. The CCB standards as well as the rules of their use last revised in December 2013. As of November 2014, for 86 projects in more than 30 countries validation has been approved, with 22 projects having achieved verification (CCBA Website 2014).

The CCB Standards apply a do no harm approach (safeguard system). Seventeen criteria are defined in a user-friendly, clearly structured project checklist, split into four sections: General, Climate, Community, and Biodiversity. These criteria cover those issues that are crucial for avoiding negative environmental and social impacts of land-based carbon activities. For approval projects must satisfy all required criteria. Each of the criteria is complemented by numerous detailed indicators. Apart from safeguards, the CCB Standards also expect projects to have a net positive impact on climate and biodiversity and to generate net positive impacts on the social and economic well-being of communities. In order to monitor positive as well as negative impacts of the project, project proponents are to describe the original conditions in the project area and to describe, evaluate, estimate, calculate or just demonstrate a range of aspects important for the assessment of a project’s impacts. While the CCB Standards only contain little guidance on how this should be done, a manual has been developed to assist project proponents in designing and implementing projects that meet the CCB Standards’ requirements. However, the use of this manual is voluntary.

A particular strength of the CCB standards is the central role local communities and other stakeholders play throughout the entire project lifetime (Kreibich et al 2014). The CCB Standards require project proponents to provide access to project documentation, to consult with communities and other stakeholders and to describe how effective participation in decision-making is enabled. Furthermore, the installation of a grievance redress procedure with different stages for grievance resolution is required. The application of FPIC (Free Prior Informed Consent) is required if right holders are affected by the project, a provision of particular relevance for projects that involve indigenous peoples.

3.1.6. UN REDD

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN REDD Programme) was founded in 2008 in order to support and promote piloting activities under the evolving REDD+ scheme under the UNFCCC. The programme covers both direct support to the design and implementation of national REDD programmes and complementary activities such as developing common approaches, analyses, methodologies, tools, data, and best practices. The Programme currently collaborates with more than 50 partner countries in Africa, Asia-Pacific, and Latin America.

The initiative is jointly managed by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).

With respect to Sustainable Development the UN REDD Programme has given itself an elaborated catalogue of „Social and Environmental Principles and Criteria (SEPC)“ (UN REDD 2012). It comprises 7 principles with 24 criteria, which are consistent with the with the official UNFCCC safeguards for REDD+ (UNFCCC 2010), but develop these further and take them to a practical level. In an integrated manner, the SEPC covers aspects ranging from ensuring compliance with national commitments and Multilateral Agreements, promoting sustainable livelihoods and poverty reduction, protecting natural forest while maintaining and enhancing multiple functions of forests up to avoiding adverse impacts on non-forest ecosystem services, thereby covering both positive and negative impacts of REDD+ activities.

The most striking feature about the UN REDD Programme are the ‚Guidelines on Stakeholder Engagement in REDD+ Readiness‘ which the programme has developed together with the Forest Carbon Partnership Facility (FCPF) (UN REDD and FCPF 2012). In forestry projects, stakeholder involvement plays an important role as forestry activities by nature involve Indigenous Peoples and other Forest-Dependent Communities. The UN REDD Guidelines comprise a set of eight guiding principles followed by elaborate guidance for eight consultation steps for the stakeholder involvement process, including a grievance mechanism and the possibility to intervene in ongoing projects or programmes.

3.1.7. UNDP NAMA SD Tool

The UNDP has designed a tool for Nationally Appropriate Mitigation Action (NAMA) developers and policy makers. The tool allows users to evaluate the sustainable development performance indicators and sustainable development results achieved over the lifetime of the NAMA. It is linked to the Sustainable Development Goals (SDGs) agreed at the United Nations Conference on Sustainable Development (UNCSD) 2012 and shall allow policy makers to track the effects of the NAMA on environmental conservation, economic growth, poverty reduction and public welfare (UNDP 2014).

Users shall split the NAMA into corresponding activities (“interventions”). Each intervention is assessed separately and the scores summed up to assess the NAMA’s overall contribution to sustainable development. The tool links up SDGs with a set of indicators to evaluate the intervention’s performance against these goals. There are no linkages to national strategies or spatial boundaries. NAMA developers and policy makers may choose, which of the SD goals and corresponding indicators they want to evaluate and monitor.

The NAMA developer or policy maker has to identify the impacts of the NAMA himself/herself. In a dedicated column “effect on indicator”, he/she has to classify the impact against the corresponding indicator as positive, negative or neutral. The tool does not provide any measurement method for the proposed indicators, but the NAMA developer/policy maker has to develop this method himself/herself or he/she has to use an appropriate existing (external) method. As such, the tool does not give any guidance for indirect effects’ impact assessment.

3.1.8. ADB Safeguard Policy

The Asian Development Bank (ADB), established in 1966, is a regional development bank facilitating economic development in Asian countries. It has 67 members in total, of which 48 are regional. In order to achieve its goal to end poverty in the Asia and the Pacific, the ADB established three complimentary agenda in its “Strategy 2020” - inclusive economic growth, environmentally sustainable growth, and regional integration.

The ADB lists environmental sustainability as a “core strategy” on its website (ADB 2009). In order to ensure sustainability of its services, the ADB adopted its Safeguard Policy Statement (SPS) in 2009 after a four-year policy review process. The SPS builds upon ADB’s previous Involuntary Resettlement Policy (1995), Policy on Indigenous Peoples (1998), and Environment Policy (2002). It applies to all ADB-supported projects. The SPS integrates these previously separate three policies into one, and introduces among others the option of employing domestic country safeguard systems for ADB-financed projects if they meet ADB requirements. It also includes provisions for transboundary effects.

The ADB’s SPS is a dedicated safeguard policy aimed at ensuring that funded projects and programmes of the ADB “do no harm”. In addition to avoiding negative impacts by funded projects, the SPS therefore also contains a dedicated negative list of non-fundable project types.

This focus on safeguarding negative impacts sets it apart from most others covered in this study except for the IFC's Sustainability Framework (see below), which also cover positive sustainability effects.

The SPS requires that the ADB screens proposed projects for potential adverse environmental impacts, and categorised them into categories A (significant adverse environmental impacts) to C (minimal/no adverse environmental impacts) for projects directly funded through ADB, or FI for projects implemented through financial intermediaries. Impacts can be physical, biological, and socio-economic, including occupational and community health and safety, vulnerable groups, gender issues, and impacts on livelihoods and physical cultural resources.

Category A projects require a full-scale Environmental Impact Assessment to be published 120 days in advance of project approval. Category B projects only need an initial environmental examination, while Category C projects do not need such an assessment. Projects by financial intermediaries (Category FI) require an Environmental and Social Management System.

The SPS further spells out requirements on the avoidance or, impossible, mitigation of resettlements, and special safeguards for indigenous peoples. Notably, the SPS itself does not contain detailed provisions on labour conditions. Requirements in this field are covered by a separate, non-integrated ADB policy.

3.1.9. IFC

The IFC (International Finance Corporation), founded in 1956, is a member of the World Bank Group. The IFC is the World Bank's "private sector arm", financing private sector activities directly or through financial intermediaries in over 100 developing countries. According to the IFC's website, the organisation accounts for about one third of developing country private sector financing by development finance institutions over-all. The IFC's overarching goals are to end extreme poverty by 2030, and to boost shared prosperity in every developing country. Strategic priorities include, among others, to address climate change and to ensure environmental and social sustainability.

This is addressed through the IFC's Sustainability Framework released in 2006, and updated 2012 after an 18-month stakeholder consultation process (IFC 2012). The policy contains eight performance standards that IFC clients have to adhere to. Performance Standard 1 (Assessment and Management of Environmental Risks and Impacts), includes a requirement for all IFC clients to establish environmental and social management systems, including a sustainability policy. Such management systems have to include integrated assessments of environmental and social impacts, risks and opportunities of envisaged projects, and have to engage affected communities. Performance Standards 2 - 7 establish requirements and objectives needing special attention, including labour and working conditions (PS2); resource efficiency and pollution prevention (PS3); community health, safety, and security (PS4); land acquisition and involuntary resettlement (PS5); biodiversity conservation and management of living natural resources (PS6); indigenous people (PS7); and cultural heritage (PS8).

The IFC's safeguard provisions widely resemble those of the ADB's SPS (see above). The standards cover quite some detail on the general governance aspects of sustainability management, but do not have the same level of detail in their specific requirements that have to be met by every single funded asset. Instead, the IFC requires its clients to develop their own frameworks along the required lines, and reviews them both in the proposal phase and during the projects' duration.

Other than most other standards and requirements analysed within this study, the IFC's sustainability framework does not make any prescriptions on positive contribution to sustainability of a project proposal. The standards included in the policy serve as safeguards against negative impacts of proposed projects. To the same effect, the IFC also published an exclusion list of projects that by default cannot receive funding by the IFC.

3.2 Comparison and Analysis

3.2.1. Scope

The four certification standards for CDM projects (the Social Carbon Methodology, the CCB Standards, the CDM Gold Standard, and the Thai domestic Crown Standard) generally follow a comparatively narrow approach to assessing sustainability, focusing strongly on the boundaries of individual projects. Notably, the CCB standards follow an integrated approach that also considers effects of the project beyond its boundaries. In addition, all certification standards but the Crown Standard limit themselves to specific project types. They are meant to be applied by CDM project implementers in order to assess a project's effect on sustainable development.

Because of their focus on specific projects, the CDM standards generally do not make reference to national sustainable development strategies or policies a host country may have. A notable exception is of course the Crown Standard, as it is in itself part of Thailand's national policy. Nevertheless, even the Crown Standard does not have any direct reference to Thailand's over-all strategy for sustainable development, but the standard points to relevant laws and regulations.

The UN REDD programme represents a special case within this comparison. It offers strategic sectoral planning and implementation guidance for national governments. It makes strong reference to national strategies as well as requirements from multilateral agreements. As regards sustainable development, the approach limits itself to the forestry sector, but covers all possible intervention types within, including not only physical projects, but also policies. Within its sectoral boundaries, the approach can therefore be considered to be wider in scope than the market-based approaches.

Even wider in scope, but also less definite, is the UNDP's NAMA SD tool. Nationally Appropriate Mitigation Actions do not follow a common definition that delineates what is a NAMA and what is not. Therefore NAMAs can be everything from single project activities to a bundle of (policy) interventions. The NAMA SD Tool therefore currently leaves out any mention of spatial or sectoral boundaries, making their delineation subject to NAMA developers' or policy makers' own valuations. The application of the tool is currently being field-tested in partner countries, with NAMA developers and national governments defining boundaries individually to their circumstance.

The safeguard policies by ADB and IFC both have to cover a wide variety of sectors and project types because they aim at the whole funding portfolio of the two development banks. In order to safeguard against potentially harmful impacts, they include assessments beyond the direct scope of the assessed projects, and even consider possible transboundary issues. Assessments have to be conducted by the clients of the two banks, but are counter-checked and also publicised.

It is important to note that the spatial boundaries the standards set relate to their direct effects (outputs and outcomes, see section 2.2.2). The actual impact of a project/activity (longer term indirect effect) may be beyond spatial boundaries. All standards implicitly or explicitly take differences between outputs, outcomes and impacts into account. E.g., technology transfer may be defined as technology applied at a project site (output). The Gold and Crown Standards measure the outcome, that is, they aim at assessing whether foreign technology is locally applicable. A longer term impact may be that technologies applied nationally increasingly apply this foreign technology.

Tabelle 4: Overview of scope of analysed approaches

	CDM SD Tool	Social Carbon Methodology	CCB Standards	CDM Gold Standard	Crown Standard	UN REDD Programme	UNDP NAMA SD Tool	ADB Safeguard Policy	IFC Sustainability Policy
Boundary of Assessment	narrow: project limits	narrow: project limits	project limits, + effects beyond boundaries	narrow: project limits	narrow: project limits	wide: national scope	n/a, subject to policy makers' decisions	wide, includes transboundary effects	wide, includes transboundary effects
Project types/sectors	all CDM types	currently limited to certain project types, but can be expanded	forestry, agriculture, land use (biodiversity)	renewable energy, energy efficiency, waste, land use, forestry	all CDM types	all projects and policies within the forestry sector	n/a, subject to policy makers' decisions	funded projects in all sectors	funded projects in all sectors
Links to national SD policies and strategies	none	none	none	none	domestic CDM SD Standard, references relevant legislature	to be integrated in national SD policies and strategies	none, subject to domestic circumstances	national plans to be taken into account in project design and implementation	national plans to be taken into account in project design and implementation
Applicants	project implementers	project implementers	project implementers	project implementers	project implementers	policy makers in national governments	policy makers and implementers	project implementers	project implementers

Comparison with the CDM SD Tool

The sustainability assessment standards for CDM projects mostly assess sustainability within project boundaries, and do not consider in more detail effects that occur outside them. Lessons may be learned from the CCB standards, but also the development bank policies on how to include farther-reaching effects that projects may have on sustainable development.

Most CDM project standards are bound to a limited number of project types, while the UN REDD programme only covers the forestry sector. Limiting assessments to certain sectors or project types can facilitate the development of stringent methodologies and indicators. Project proponents using existing methodologies and assessment guidance may become familiar with the standard's application and in a later stage add new methodologies for new sectors or project types. Thus, the application of well-known methodologies may ease opening the standard for wider application at a later stage.

Assessment types

Since sustainable development is a multi-dimensional process covering environmental as well as social and economic aspects that can be affected both positively and negatively, there is a plethora of possibilities how to assess the impacts an intervention may have. This is reflected by the high variety of approaches analysed within this study. Basically, the standards may apply a number of exclusion criteria (eligibility) as well as a certain scoring system for SD benefits (or costs.)

Exclusion criteria may either be positive or negative lists for certain sectors or project types. The principle of positive lists is applied by the Gold Standard for energy efficiency and renewable energy projects. An example for negative lists are safeguard principles, which are used by ADB, IFC, UN REDD and the Gold Standard.

Checklists and scoring systems commonly apply qualitative assessments that involve plausible narratives on assessed categories of sustainable development, and are frequently complemented by quantitative measurements.

Exclusion criteria/eligibility

Before project approval, most approaches require an impact assessment that also determines the actual eligibility of a project for certification (in certification standards), or funding (in Multilateral Development Banks, MDBs). An exception is the UN REDD programme, which, as a general standard for domestic REDD programmes, does not require impact assessments in itself, but suggests the implementation of such assessments within domestic programmes. The Gold Standard as well as both MDB safeguard policies require project proponents to present “no project” alternatives, and give their rationale for selecting the project particulars.

A number of standards (CCB Standard, Gold Standard, Social Carbon Methodology) employ positive lists that determine the project types eligible for certification. The MDBs, on the other hand, have put in place negative lists that explicitly exclude certain activities from any eligibility for funding.

Checklists and scoring systems

A common method employed by the certification standards, but also the NAMA SD tool, are checklists, providing the user with a set of parameters, criteria or indicators that need to be answered narratively, and/or scored, in order to assess the impacts a project may have on different aspects of sustainable development.

We have used the assessment criteria for positive contributions to sustainable development provided by the CDM SD tool as reference for the other approaches analysed. Most of them do cover these aspects, however, they are always not spelled out in the same way. All approaches that do assess positive contributions address environmental and social aspects of sustainable development. Surprisingly, the UN REDD Programme does not include economic benefits. The Social Carbon Methodology, the CCB Standards and the Gold Standard partly include economic benefits, but do not follow the same categorisation.

Scoring systems are employed by Social Carbon Methodology, the Crown Standard, the Gold Standard and the NAMA SD Tool. They offer the added value that indicators may also be scored negatively, which offers a more complete picture of the effects an intervention may have on sustainable development, as opposed to a mere look at positive effects.

Negative impacts, or co-costs of a project, are covered by all approaches analysed. The strongest and most detailed requirements for the assessment of negative impacts can be found in the safeguard requirements of the multilateral development banks (MDBs), as they are especially geared towards this type of assessment.

The assessment types covered in this study all are mandatory, even though with different stringency. The certification schemes require sustainability assessments for all projects aiming to be certified. The multilateral development banks require initial risk assessments that assign risk categories to the assessed project. Depending on the strength of the risk, different levels of stringency for further assessment are required. The Crown Standard includes a detailed description of the project and the existing environment. Based on that, the project proponent shall conduct an initial environmental evaluation. If the CDM project could not meet all legal requirements (i.e. the Environmental Impact Assessment, EIA), proper mitigation measures shall be proposed.

Tabelle 5: Overview of assessment types

	CDM SD Tool	Social Carbon Methodology	CCB Standards	CDM Gold Standard	Crown Standard	UN REDD Programme	UNDP NAMA SD Tool	ADB Safeguard Policy	IFC Sustainability Policy
Mandatory initial impact assessment	no	yes	yes	yes	yes	no, but suggestion to include in domestic programmes	no	yes, plus „no project“ assessment	yes, plus „no project“ assessment
Exclusion lists	no	positive list	positive list	positive list	no	no	no	negative list	negative list
Scoring systems	no	zero to positive (hexagon)	no	positive and negative	positive and negative	no	positive and negative	categorisation of risk types	categorisation of risk types
Inclusion of safeguard principles	no	no	yes	yes	no	REDD+ safeguards	no	yes	yes
Assessment of positive contributions	yes	yes	yes (different categorisation of economic benefits)	yes (different categorisation of economic benefits)	yes (different categorisation of economic benefits)	yes (excludes economic contributions to SD)	yes	no	no

Comparison with the SD Tool

Assessing the effects a project may have on sustainable development can take on many forms, and at least in part depends on the general focus of the respective mechanisms. Sustainability effects include a number of qualitative criteria such as equity. The standards operationalise their assessment by either demanding qualitative descriptions or by introducing a narrative that translates certain project conditions into a scoring system. For example, Social Carbon Methodology's indicators receive scores ranging from the worst scenario (level 1) to the ideal situation (sustainable use of resource – level 6).

Again, it may be difficult to measure (indirect) impacts. Firstly, they may occur only in the longer term, whereas issuance of Certified Emission Reductions (CERs) may stop after seven or ten years of project implementation. Secondly, it may be difficult to assign indirect impacts to (single) project activities.

The certification standards are meant to add value to the certificates their projects generate, and as such are geared towards demonstrating positive effects on sustainable development. On the other hand, it is very important to also ensure that projects do not generate negative impacts. Our analysis shows that all approaches include negative impact assessments to some extent. A scoring system, as employed by the Gold Standard and the NAMA SD Tool, allows for an evaluation of both positive and negative effects without overburdening the analysis.¹

On the other side of the spectrum, the safeguard policies of the multilateral development banks are not geared towards added value, but risk minimisation. They represent mandatory steps that every project needs to fulfil in order to be eligible for funding. They are meant to ensure that projects have the least possible negative impact on sustainable development. Lessons may be learned from the practice to categorise projects according to their expected risk to sustainable development, and to assign levels of stringency for further assessments accordingly. However, care needs to be taken to also ensure that project practice does not exceed envisaged risks.

The inclusion of positive (inclusion) or negative (exclusion) lists can add value to a sustainability assessment. Positive lists give quick insight on which type of project is eligible under an approach, while negative lists preclude any project type that is deemed non-sustainable, or non-eligible for any other reason. If an approach aims at a large number of different project types in many different sectors and countries, negative lists may be easier to handle, as positive lists can become unwieldy if too many project types get included.

When comparing the standards we analysed with the SD tool, the first eye-catching difference is that the tool covers co-benefits only and is silent on safeguards or an assessment of co-costs/negative impacts. This becomes all the more relevant when considering the reports that claim there are CDM projects with negative impacts on the local environment and/or on local population (see, inter alia, Gujarat Forum on CDM 2013, Schade and Sterk 2014, TERI 2012). A thorough risk assessment would bring the discussion onto a structured level.

Applying positive and / or negative lists was discussed in the early days of the CDM, when the EU proposed that „Parties should use technologies in a way that minimizes any adverse environmental and social effects“ and suggested that the CDM should use „a positive list of safe, environmentally sound eligible projects“. This list comprised renewable energy, energy efficiency, and demand side management projects (UNFCCC 2000). However, this approach did not prevail. It was the EU again who introduced negative lists through the back door when the block excluded credits stemming from projects destroying HFC-23 and N₂O from adipic acid production in its Emissions Trading Scheme from 2013 on.

Review and Evaluation

For a continuous oversight on effects on sustainability, it is important that ex-ante assessments on possible effects are followed up through monitoring systems over the project duration.

Only the Crown Standard does not meet this criterion - it only includes a mandatory ex-ante assessment. The Gold Standard, by contrast, requires project implementers to submit a sustainability monitoring plan that includes all indicators with positive or negative scores (see above), and to submit monitoring reports that need to be verified by an independent auditor. The CCB Standard and Social Carbon Methodology employ similar methods. The SCM approach demands projects to continuously improve the initial situation.

¹ However, these approaches rely first of all on a self-assessment of the project developer. External validation/ verification involves higher transaction cost.

That is, the sustainability scores have to increase over the monitoring period.

The MDBs require their clients to continuously monitor risks, and set up dedicated social and environmental management systems for projects that fall under the high risk category. Monitoring is reviewed by MDB representatives.

The UNDP NAMA tool features mandatory monitoring, which needs to be carried out every three years. The tool requires NAMA implementers to establish monitoring procedures for each intervention the NAMA covers. The nature of the monitoring system can be defined by the implementing agency. A Quality Assurance / Quality Control (QA/QC) system ensuring data quality is obligatory. The UN REDD guidelines also foresee monitoring and reporting frameworks.

An additional control measure is the verification of the SD effects included in the monitoring plan by an independent auditor. This step ensures compliance and therefore adds to the reliability and credibility of the SD assessment. The Gold Standard has provisions in this regard, and the CCB and SCM as well. These external processes are complemented by a review of the validation and verification reports by the standards' organisations.

The IFC requirements on auditing are less stringent, yet the organisation encourages internal inspections and audits in order to verify compliance and progress toward the desired outcomes of interventions. Furthermore, the organisation has established three oversight functions that may evaluate appraisal and supervision documents (Compliance Advisor/Ombudsman, The Internal Audit Vice Presidency, Independent Evaluation Group for Private Sector). The ADB follows a similar procedure. For projects involving Indigenous Peoples, the institution has established mandatory requirements including experienced external experts or qualified NGOs that verify monitoring information and suggest on corrective actions, which the borrower/client has to follow-up with.

Tabelle 6: Overview of monitoring requirements

	CDM SD Tool	Social Carbon Methodology	CCB Standards	CDM Gold Standard	Crown Standard	UN REDD Programme	UNDP NAMA SD Tool	ADB Safeguard Policy	IFC Sustainability Policy
Mandatory monitoring of intervention impacts	no	yes	yes	yes	no	yes	yes	dependent on risk level of project	dependent on risk level of project
Independent review	no	yes	yes	yes	no	n/a	n/a	review by bank auditors, external review for involvement of indigenous peoples	review by bank auditors, external reviews for certain projects
Possibility for corrective action	no	yes	n/a	yes	no	yes	n/a	yes	yes

Comparison with the SD Tool

In order to adequately assess a project's effects on sustainable development, both ex-ante assessments establishing their eligibility and ex-post monitoring and evaluation requirements should be considered. In order to arrive at a stringent implementation of a standard or methodology, ex ante assessments and ex post monitoring should apply the same SD criteria.

Most of the analysed approaches do cover both ex-ante and ex-post assessments. This sets them apart from the SD tool's approach, as it only requires a single evaluation. This gives the SD assessment of the tool a purely declaratory nature.

If the SD Tool is further developed towards a review and evaluation approach which is similar to current other SD standards, then there are basically two options: First, the tool could demand project developers to demonstrate that the effects claimed ex ante are verified ex post. Secondly, it could demand project developers to score the initial situation (or baseline) against the actual SD outcomes. The latter option would allow for a relative comparison of the "with project" and the "without project" situations.

In order to give credibility to review and evaluation efforts, the use of external auditors can be highly recommended. The Gold Standard, the SCM and CCB standards cover this step which is needed to ensure that a project did fulfil its requirements, and, in case of certification, can receive the intended certificate. The MDBs do not prescribe external auditing as a mandatory step but they have internal review procedures in place, and in some cases require external check-up as well. Again, this step is missing in the CDM SD tool.

Stakeholder consultation

One of the most important aspects to ensure that projects contribute to and do not harm sustainable development is the formalised consultation of stakeholders ideally over the entire lifecycle of a project in order to identify and avoid negative effects (pre-approval) and identify and manage upcoming negative effects during project implementation.

By far the most approaches covered here have included mandatory stakeholder consultation processes into their project design, albeit with varying strictness. Surprisingly, the NAMA SD Tool is an exception to this. It can only be assumed that this may be due to an underlying thought that NAMAs are primarily state-driven, and stakeholder processes would be covered under a sovereign's domestic policies.

Among those having requirements, approaches of designing a stakeholder consultation process vary. Global stakeholders are consulted to different degrees under the different approaches. Of the certification standards, only the Gold Standard has established procedures that open the local consultation to globally active stakeholders/NGOs if they are engaged in the GS. The MDBs require that high-risk projects draft environmental impact assessments to be published 120 days prior to project approval. Local stakeholder consultations are included in all but the NAMA SD Tool. In order to identify stakeholders, all approaches include structured processes, stakeholder meetings and project reference material in local languages (note that this is unclear for the Crown Standard, as its guidelines are available in Thai only).

While the IFC requirements depend on the specific project type, most other standards have generally applicable procedures how to involve stakeholders. Differences, however, exist in the stringency of stakeholder integration: the Gold Standard requires two meetings with stakeholders during the approval process, and includes a requirement for continuous stakeholder consultations over the whole project duration. The MDBs have implemented similar requirements, and also posit that consultations are to be intensified if there is a potential for significant adverse effects of a projects. The CCB Standards contain several detailed requirements on the engagement of local communities and other stakeholders through full and effective participation. Inter alia, projects are to explain how stakeholders have been identified, how they have been involved in project planning and design, and how the continuation of communication and consultation between the project proponent and the stakeholders throughout the life of the project is ensured.

Indigenous peoples receive special attention by a number of approaches. The UN REDD programme, the MDBs and the CCB Standards make special reference to the need for free, prior and informed consent (FPIC) of indigenous peoples. FPIC describes a process that goes beyond the mere consultation of affected stakeholders. It gives stakeholders the possibility to withhold their consent to project implementation after an extensive exchange process has taken place.

If applied resolutely, can be a show-stopper for projects not consented to by the local people. The MDBs as well as the UN REDD Programme provide for dedicated policies for the inclusion of indigenous peoples into the project assessment process.

Grievance mechanisms are another important element of stakeholder consultation to ensure that sustainable development complaints are heard and solved over the duration of the project. In practice, most of the standards analysed have procedures in place for or at least encourage to deal with grievances or complaints raised by stakeholders during project implementation. Such mechanisms are to implemented by the project proponents themselves. The ADB allows for grievances to also be addressed to its accountability mechanism if a problem cannot be resolved. The CCB standards as well as the Gold Standard encourage to employ independent mediation processes in order to resolve grievances brought forward by stakeholders. Grievance mechanisms are not explicitly required in the Social Carbon Methodology. For the Crown Standard it is unclear (Thai language).

Tabelle 7: Overview of stakeholder requirements

	CDM SD Tool	Social Carbon Methodology	CCB Standards	CDM Gold Standard	Crown Standard	UN REDD Programme	UNDP NAMA SD Tool	ADB Safeguard Policy	IFC Sustainability Policy
Mandatory stakeholder consultations	no	yes	yes	yes	yes	yes	n/a	yes	yes
Global stakeholders	no	no	no	yes	no	no	n/a	120-day prior publication of EIAs for high-risk projects	120-day prior publication of EIAs for high-risk projects
Local stakeholders	no	yes	yes	yes	yes	yes	n/a	yes	yes
Structured processes for identification	no	yes	yes	yes	n/a	yes	n/a	yes	yes
Meetings with stakeholders	no	yes	yes	2 meetings during approval +continuous involvement	n/a	yes	n/a	continuous involvement, intensified consultations if high risk	continuous involvement, intensified consultations if high risk
Local language PDs	no	yes	yes	yes	n/a	yes	n/a	yes	yes
Consideration of indigenous peoples	no	yes	yes	yes	n/a	yes, +inclusion of FPIC principle	n/a	yes, +inclusion of FPIC principle	yes, +inclusion of FPIC principle
Grievance mechanisms	no	no, but included in monitoring procedure	yes	integrated in project design, independent mediator possible	n/a	mechanisms for grievance, conflict resolution and redress required	n/a	local grievance mechanism required	establishment of a grievance mechanism supported

Comparison with the SD Tool

The experiences of the analysed standards show that SD assessments should be accompanied by and carefully consider how local communities and other stakeholders could be actively involved in project development and implementation. While the important role of stakeholders has been recognised by all instruments analysed but the NAMA SD Tool, there are differences regarding the degree of participation.

By contrast, the CDM SD tool does not contain any mentioning of stakeholder consultation neither as a voluntary option to consider nor by providing pure blanco space to report if such procedures should exist in a project anyway. This complete suppressing of the issue is the more interesting as there are provisions for stakeholder involvement in the CDM itself and the pre-final draft of the SD tool covered stakeholder involvement and even a grievance mechanism. Clearly, the voluntary character of the SD tool should be reconsidered.

In the absence of any requirements, the SD tool can clearly build on the experiences made by the analysed standards to ensure the successful participation of stakeholders throughout the project lifetime. Such provisions should, in particular, provide a key role for local communities and other stakeholders in the process of the measurement, reporting and verification of potential adverse environmental and social impacts.

The involvement of stakeholders during project implementation should not replace, but rather complement mechanisms that allow stakeholders to explicitly file grievances related to projects. By installing appropriate reporting requirements, it can be ensured that concerns raised at the project level are communicated to the highest governance level while adequate monitoring provisions make sure that remedies will be implemented and supervised, where appropriate.

4 Conclusions

In this paper, we analysed sustainable development requirements of selected Carbon Finance instruments and multilateral standards and compared them to the provisions of the CDM's SD Tool. This section summarises the results of the analysis and derives conclusions.

In Brief – assessment of SD requirements of selected mechanisms

Regarding scope, we see variations that can be mainly attributed to the over-all focus of the different approaches analysed. The four certification standards are designed for, and therefore widely follow, the logic dictated by Carbon Market projects, with relatively narrow assessment boundaries and a strong project focus. This makes them most easily comparable to the CDM SD tool, showing possible improvements of the approach to SD assessment already practiced in the Carbon Market context.

The approaches taken by the IFC and ADB (and with slight variations most other MDBs as well) may serve as examples for detailed safeguard policies in a very wide portfolio of activities. In contrast, the UNDP's NAMA SD tool shows the difficulty in defining scope if activity types and specifics are highly unclear.

Looking at the way SD is assessed, our analysis shows that there is a wealth of different approaches on how to assess the impacts an intervention may have. Many make use of exclusion criteria to define eligibility as well as scoring system for SD benefits and / or costs (negative impacts). The Gold Standard, for example, applies the principle of positive lists in that exclusively make energy efficiency and renewable energy projects eligible for the standard. The MDBs, on the other hand, have put in place negative lists that explicitly exclude certain activities from any eligibility for funding.

Most certification standards assessed, but also the NAMA SD tool, use checklists that provide the user with a set of parameters, criteria or indicators that need to be answered narratively, and/or scored, in order to assess the impacts an intervention may have on different aspects of sustainable development. An example is the Social Carbon Methodology's indicators, which receive scores ranging from the worst scenario (level 1) to the ideal situation (sustainable use of resource – level 6).

The standards assessed in this assignment all check upon positive and negative impacts (co-costs). The strongest and most detailed requirements for the assessment of negative impacts are reflected in the safeguard requirements of the multilateral development banks, as they are especially geared towards this type of assessment.

All SD requirements we studied are part of a mandatory system for SD assessment of the respective mechanisms. The stringency of the assessment, however, varies. The certification schemes (CDM Gold Standard, Crown Standard, Social Carbon, CCB) require sustainability assessments for all projects aiming to be certified. The MDB standards, by contrast, comprise initial risk assessments. These assign risk categories to the assessed intervention, with the aim of ensuring that projects have the least possible negative impact on sustainable development.

Regarding review and evaluation, we found that the majority of the systems studied have implemented systems that monitor the possible impacts identified in the ex-ante assessments. Gold Standard users, for example, are asked to submit a sustainability monitoring plan covering all indicators with positive or negative scores, and to submit monitoring reports that need to be verified by an independent auditor. The CCB Standard and Social Carbon Methodology apply similar schemes.

The MDBs require their clients to continuously monitor risks and to develop specific social and environmental management systems for high-risk category interventions. Monitoring is reviewed by MDB representatives. Monitoring also required by the UNDP NAMA tool, which needs to be carried out every three years. The tool requires NAMA implementers to establish monitoring procedures for each intervention the NAMA covers. The UN REDD guidelines also foresee monitoring and reporting frameworks as well.

A follow-up step to monitoring is having the SD effects included in the monitoring plan verified by an independent auditor. This ensures compliance and therefore adds to the reliability and credibility of the SD assessment. The Gold Standard has provisions in this regard, as do the CCB and SCM. These external processes are complemented by a review of the validation and verification reports by the standards' organisations.

Finally, most approaches covered here have included dedicated mandatory stakeholder consultation processes into their project design, albeit with varying strictness. While provisions for the involvement of global stakeholders vary, all approaches except the NAMA SD tool require local stakeholder consultations. They include structured processes to identify stakeholders, hold stakeholder meetings and project reference material in local languages (provisions unclear for the Crown Standard). Guidance varies with respect to the stringency of the stakeholder involvement: the CCB Standards, for example, feature detailed requirements on the engagement of local communities and other stakeholders through full and effective participation. Inter alia, projects are to explain how stakeholders have been identified, how they have been involved in project planning and design, and how the continuation of communication and consultation between the project proponent and the stakeholders throughout the life of the project is ensured.

Grievance mechanisms are a means of ensuring that controversial issues can be voiced and solved over the lifetime of the project. The majority of the standards analysed have procedures in place for or at least to encourage dealing with grievances or complaints raised by stakeholders. The ADB, for example, allows for grievances to also be addressed to its accountability mechanism if a problem cannot be resolved. The CCB standards as well as the Gold Standard encourage using independent mediation processes in order to resolve issues brought forward by stakeholders.

Comparison to the SD Tool

The analysis above shows that most mechanisms analysed apply an integrated approach to sustainable development assessment. They require the ex-ante assessment of both positive and negative impacts the respective interventions. Alternatively, they make use of safeguard and / or risk assessment systems. All these systems are mandatory for the respective project developers or client. Another important component of these systems is that they subsequently follow-up upon the claims made in the initial SD assessment in that they have monitoring systems in place. Some systems additionally require an obligatory verification of the benefits claimed. Last not least, a vital part of an integrated approach to SD assessment is a meaningful stakeholder interaction procedure, which enables people affected by interventions to voice their concerns combined with the possibility to embark on corrective actions. This is at best paired with a grievance mechanism.

By way of contrast, the CDM SD tool does not make use of the full potential an integrated approach offers. The tool does assess positive impacts in a structured manner. However, the claimed benefits are neither monitored nor verified. Negative impacts or possible risks are not assessed. Despite the global and local stakeholder procedures in the CDM in general, these do not cover SD aspects specifically, as they are not included in the

CDM SD tool. Last not least, the tool is voluntary and can only be used by project proponents and coordinating managing entities. These shortcomings make the tool a primarily a marketing instrument, albeit in the absence of monitoring procedures with a questionable reliability.

This is all the more regrettable because integrating all or some of the components mentioned above could address criticism voiced against the CDM. For example, some CDM projects are being criticised for causing negative impacts for the local population (see above). A thorough risk assessment, combined with a meaningful stakeholder interaction, would clearly help managing these claims, improve the project results, and contribute to greater acceptance of CDM projects.

The pure declaratory nature of the SD tool could be overcome if SD effects claimed would be monitored and verified. Again, this measure would strengthen both the SD assessment itself and the credibility of the mechanism as a whole. In fact, some DNAs such as the Philippines and Nepal have already introduced measures to follow-up on the SD claims made in the PDDs and assessed by the respective DNAs.

The use of external auditors that verify the monitored effects can be highly recommended. This measure adds credibility to review and evaluation efforts. Making SD assessment mandatory would underline the importance of the different elements, again adding credibility.

Adding some or all of these requirements does not necessarily result in burdening project proponents with intolerable extra cost. Sterk et al. (2009), for example, have shown for the additional steps of the Gold Standard assessment that project proponents perceive them as manageable, and that they can be met with a reasonable amount of additional work.

Towards future climate finance instruments

Assessing SD requirements in emerging instruments like the New Market Mechanism (NMM), the Framework for Various Approaches (FVA), and the like has proven difficult. First of all, most of the schemes are still in the early stages of conceptualisation and therefore do not feature any reference to aspects that are beyond GHG management. Moreover, many of these new schemes are going to operate above the project-level, i.e. targeting entire economic sectors. As a consequence, it is hard to conceive how to introduce a system with SD criteria linked to individual actions. The only feasible option in this regard seems to be sectoral crediting with installation level crediting. For all other variants, the introduction of internationally-agreed SD criteria for NMM would come close to an international agreement on sustainable development for all the sectors covered by the NMM (Wehnert et al. 2012).

With regard to the FVA, this picture changes as this scheme is to work as an umbrella for a multitude of mechanisms, some of which will be project-based. An example would be the Japanese Joint Crediting Mechanism (JCM), which is modelled on the CDM principles. Introducing SD criteria at mechanisms-level looks feasible here at first sight. However, in order to have a system which is comparable over the whole framework, the SD criteria would need to be fixed at the highest level, i.e. at FVA governance level. Yet this would probably lead to a very general SD assessment approach because the mechanisms covered by the FVA will be very different in scope, nature and approach.

For the development of an SD assessment framework for NAMAs it is useful to clarify the commonly used concepts to describe the relation between NAMAs and sustainable development. Coming from sustainability assessment of CDM projects, there is a risk of adopting a climate first approach reflected in the concept of 'co-benefits', where the price of GHG reductions is the driver of CDM mitigation actions and SD is characterised by weak national and international practices for MRV of the SD co-benefits (Olsen 2007; Sterk, Rudolph et al. 2009). For NAMAs the priorities are reversed. Developing countries emphasize the right to development as a key driver of sustainable development and NAMAs are seen as a means to move away from business-as-usual high-carbon pathways towards low-carbon pathways. SD objectives are widely recognised as a key driver of NAMAs in developing countries (Cerqueira, Davis et al. 2012; LEDS_GP 2012; Tilburg, Röser et al. 2012; GIZ 2013) reflecting a development first approach. In line with this approach more appropriate concepts are sustainable development impacts of NAMAs and sustainability assessment. Co-benefits have a connotation of being secondary to the actions, which is not the case for NAMAs, where development goals have priority.

The question of how sustainable development impacts are to be integrated into NAMA processes remains open, as do questions regarding which impacts should be assessed and how they should be measured. Research and best practice experience on how sustainable development considerations have been integrated into mitigation actions through the CDM EB SD Tool and other SD standards can inform development of NAMA SD assessment methods. However, the rigour found in these standards may or may not be suited to NAMAs, since globally defined and onerous standards may not be in the interest of implementing countries. In addition, NAMAs are much broader than the project-based CDM, potentially involving policy and sectoral actions that require different sustainable development assessment tools.

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