Sida's Helpdesk for Environment and Climate Change

SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES

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Review of market-based mechanisms

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Sida's Helpdesk for Environment and Climate Change is a government agency collaboration between the Swedish University of Agricultural Sciences (SLU), University of Gothenburg (GU) and Sida to promote enhanced integration of environmental issues and perspectives in Swedish development cooperation.

Executive summary

While market-based mechanisms alone are not a panacea or a substitute for public financing carbon markets under Article 6 of the UNFCCC provides an opportunity to channel capital towards investment in mitigation activities in developing countries. To strategically select the appropriate mitigation mechanisms will however require in-depth understanding of domestic mitigation opportunities. The provision of GHG emission inventories, establishing monitoring/reporting/ and verification (MRV) frameworks are other important aspects. Voluntary carbon standards, being less regulated, can potentially channel capital to developing countries in a similar way as those under UNFCCC Article 6. Market-based mechanisms for biodiversity is still in its infancy and they tend to be more complicated than those for carbon emissions trading. For REDD+, the outcomes and effectiveness of this mechanism in reducing deforestation and/or achieving co-benefits are still unclear.

Recommendations to Sida

- to continue to work with mobilisation of capital, but not least to contribute to capacity building of appropriate institutions having a role in promoting the use of market-based mechanisms adapted to the specific national context. This would entail capacity development of local and national actors, both private and public, and their interaction.
- to support the development of legal frameworks that are transparent and that build inclusive governance structures for market-based mechanisms. Special measures could be taken to include local communities and indigenous groups in the design, implementation and monitoring of market-based mechanisms.
- to promote both monetary and non-monetary assessments of tangible and intangible biodiversity services and support to the practical use of the CBD safeguards.
- to support readiness funding for REDD+ approaches focusing on sustainable forest production and livelihoods that are beneficial beyond REDD+.

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Acknowledgements

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1. Introduction

Sida is increasingly working with mobilisation of development financing. For example, there is an ongoing internal project on the topic and also continuous work on the government assignment on biodiversity and ecosystems, which includes financing aspects, during the period 2020-2023. This in the light of the understanding that ODA will not be enough to address the climate change challenges and the financing needs for mitigation and adaptation. The same can be said for biodiversity where innovative financing solutions will be needed to achieve the global targets. To this effect, market-based solutions are being explored on global, regional, national and local levels. An increased ambition in using market-based mechanisms for climate change and biodiversity should however not overshadow the importance of greening of all investments.

Market-based mechanisms put a price on pollution or other causes of environmental issues with the aim to incorporate "external" costs in decision making. In this report, we refer to market based mechanisms as systems that create tradable units, either by setting a cap and allowing trading of units within the cap, or by enabling units to be earned by reducing emissions, or other relevant causes of environmental problems below a baseline. In the latter case the baseline could be "business-as-usual" but it could also be otherwise defined.

This report aims to draw attention to potential opportunities as well as challenges and risks involved for developing countries that consider engaging cooperation based on market-based mechanisms. As will be seen from the chapters below, the report does not claim to provide a complete review of available market-based mechanisms. Moreover, there are a number of other policies and mechanisms such as taxes, levies, subsidies which affect markets and how financing for climate change and biodiversity action can be pursued. What is clear is that no single mechanism can provide a comprehensive, or blue-print, solution. Rather, a variety of policies will undoubtedly be required to address the challenges specific to different sectors and contexts. To this effect, market-based mechanisms can provide one of several economically efficient paths for addressing climate change and biodiversity objectives.

1.1. Structure of the report

Chapter 1 of the report briefly describes the objectives and the methodology of the assignment. Chapter 2 summarises a selection of market-based mechanisms, with a focus on those linked to climate change. Mechanisms related to biodiversity and forestry (REDD+) are also included. Chapter 3 provides conclusions and recommendations to Sida.

1.2. Objectives

As per the Terms of Reference and the Helpdesk interpretation of the assignment (annex 1), the overall purpose of the assignment is to:

I. contribute to a common understanding within Sida of what market-based mechanisms are, and how they can contribute to environmentally sustainable development.

II. contribute to Sida's increased understanding of how the organisation can work with market-based mechanisms in the future. The hope is that the Helpdesk's report can

contribute to the development of a guiding document that can be of support to desk officers and managers at Sida and the Embassies.

1.3. Methodology

The Helpdesk carried out the assignment as a desk study with support from external experts from the Swedish Environmental Research Institute (IVL). As far as possible, the assignment includes a review of up-to-date evaluations or other assessments of market-mechanisms in relation to climate change and biodiversity. The Helpdesk has selected the mechanisms included in the study in a dialogue with Sida. When relevant, include brief information about scope and limitations.

2. Review of selected market-based mechanisms

2.1. Climate change

A vast majority of international public climate finance (about 95 percent) is provided as activity-based climate finance, referring to climate finance that is made available early in the project cycle, typically in the form of loans, grants, equity, or guarantees.[1]

This section of the report addresses avenues for monetizing climate results (mitigation of adaptation) through either compliance carbon markets, results-based climate finance (RBCF), voluntary carbon markets (VCM), or mechanisms specially designed to monetize climate change adaptation results. By putting a price on climate change mitigation or adaptation outcomes, they provide additional incentives for actors to engage in climate action. These approaches can, therefore, provide an additional revenue stream for climate change-related projects.

It is important to note that all the addressed options for monetisation require a robust monitoring, reporting, and verification (MRV) framework to demonstrate the achievement of results against which payments can be made. Carbon market mechanisms therefore play an important role for all approaches. They are instruments to generate and enable trading of emissions units, each representing one metric tonne of CO2 equivalent (tCO2e). Furthermore, countries require a consistent policy approach or framework at the national level to ensure that participation in markets will make the most of opportunities and manage associated risks.

Under the Kyoto Protocol, compliance carbon markets were primarily in the form of the project-based “flexible mechanisms” called the Clean Development Mechanism (CDM) and Joint Implementation (JI). In 2015, the Paris Agreement introduced a new bottom-up approach to address climate change. Under the Paris Agreement, Parties set non-binding climate targets through their nationally determined contributions (NDCs). Article 6 of the Paris Agreement recognizes cooperation among countries for achieving their NDCs and raising climate ambition. This provides the basis for international compliance carbon markets, where countries can trade mitigation outcome (“carbon”) credits with each other.

[1] World Bank (2022), Defining results-based climate finance, voluntary carbon markets, and compliance carbon markets. World Bank.

Article 9 of the Paris Agreement stipulates that developed countries shall provide resources to developing countries for climate mitigation and adaptation. Developed countries would also take the lead in mobilizing climate finance from a variety of sources that represents a progression beyond previous efforts. Results-based climate finance is relevant in this context as a means to providing international climate finance upon verification of agreed climate results. Therefore, RBCF provides an additional revenue stream for climate change-related projects and can play an important role in incentivizing climate action, enhancing project viability, and catalysing private sector investment.

VCM are driven by demand from nonstate actors, such as corporations, institutions, and individuals that wish to voluntarily purchase and use carbon credits that represent additional mitigation or adaptation achieved outside an actor's boundaries or value chain. This mitigation could help the host country in meeting its existing targets or help to reduce global net emissions above and beyond countries' targets, thus contributing to global ambition raising.[2] Unlike compliance carbon markets, activity in VCM is not currently regulated by a state or supervisory body. Therefore, demand is driven by voluntary buyers, who may have varied objectives.

2.1.1 Carbon market mechanisms

Carbon market mechanisms fall into two main categories, namely emissions trading systems (ETSs) (also referred to as cap-and-trade schemes) and crediting standards (also referred to as baseline-and-credit schemes). ETSs are tools for complying with mandatory mitigation obligations while crediting standards can cater for both voluntary and compliance purposes.

Ensuring the environmental integrity of carbon market mechanisms is key to making them a tool for driving ambitious mitigation. In this context, environmental integrity means that the use of carbon markets does not lead to a net increase in global emissions.[3] Otherwise, carbon market mechanisms could undermine global mitigation efforts.

During the past 20 years, numerous crediting standards have emerged to issue carbon credits against mitigation outcomes that meet specific criteria relating to additionality, baseline setting, monitoring, reporting and verification, leakage, permanence, double-counting, and in some cases also environmental and social impacts and safeguards. The purpose of these standards is to ensure the environmental integrity of carbon credits and their use, including to ensure that each carbon credit represents at least one tCO2e permanently reduced or removed. Crediting standards also include the approval of methodologies, the accreditation of validation and verification bodies, and the operation of a carbon registry for approved activities and issued carbon credits.[4] Crediting standards may be governed by independent, international, bilateral, regional, national or sub-national bodies.

[2] Ahonen H-M. et al (2022), Harnessing voluntary carbon markets for climate ambition. Nordic Council of Ministers.
[3] Schneider L. & La Hoz Theuer S. (2019), Environmental integrity of international carbon market mechanisms under the Paris Agreement. Climate Policy, pp. 386-400.
[4] Michaelowa A., et al. (2019), Overview and comparison of existing carbon crediting schemes, Helsinki: NEFCO; Broekhoff, et al. (2019), Securing Climate Benefit: A Guide to Using Carbon Offsets, Stockholm Environment Institute & Greenhouse Gas Management Institute.

A crediting standard originally designed for voluntary offsetting use may be approved for compliance use. For example, Gold Standard for the Global Goals (GS4GG) and Verified Carbon Standard (VCS) are eligible to provide carbon credits for use towards compliance under the South African and Colombian carbon tax and to generate carbon credits for compliance use under the Carbon Offset Reduction Scheme for International Aviation (CORSIA). And vice versa, crediting standards, such as the CDM, that were originally designed for compliance use, may also be used for the voluntary used of carbon credits.

2.1.2 Compliance carbon markets

Market-based mechanisms of the Kyoto protocol

A purpose of the flexible mechanisms of the Kyoto Protocol was to assist developed countries in meeting their mitigation commitments.[5][6] The Kyoto Protocol successfully used market-based instruments to assist industrialised countries to achieve their mitigation commitments at a reduced cost.[7] This approach created a global multi-billion-dollar market engaging the private sector in climate friendly investments and enhanced cost efficiency by activating an efficient market function. Incentives for investment in climate friendly technologies were introduced in countries and regions where national energy and climate policy were not yet incentivising such technologies.[8] These achievements resulted from almost entirely the implementation of the CDM, which became the dominating flexible mechanism in terms of volume.

The CDM had the additional purpose of assisting developing countries in promoting sustainable development. According to the modalities and procedures of the CDM, determining what constitutes "sustainable development" was a host country decision[9]. However, it has been widely questioned whether the CDM delivered sufficiently on the sustainable development objective.[10]

As a response to the critique that the CDM was not significantly contributing to sustainable development, the CDM Executive Board launched in 2011 a process to introduce assessment of co-benefits and negative impacts in the documentation of CDM project activities. The process eventually resulted in a voluntary sustainable development co-benefits tool.[11] However, the tool that was finally adopted included only assessment of sustainable development contributions but left out negative impacts and safeguards.

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[5] UNFCCC (1997), The Kyoto Protocol.
[6] UNFCCC (2001), The Marrakesh Accord & the Marrakesh Agreement.
[7] Michaelowa A., Shishlow I. and Brescia D. (2019). Evaluation of international carbon markets: Lessons for the Paris Agreement.
[8] UNFCCC (2018), Achievements of the Clean Development Mechanism.
[9] The only requirement that needed to be fulfilled was the issuance of a "Letter of Approval" by the project activity host country Designated National Authority (DNA) which confirmed that the project activity contributed to "sustainable development".
[10] UNDP (2006), An assessment of progress with establishing the Clean Development Mechanism. United Nations Development Program (UNDP), pp 1–164; Olsen, K. (2007), The clean development mechanism's contribution to sustainable development: a review of the literature, Climatic Change volume 84, pages 59–73 ; Schneider, L (2007), Is the CDM Fulfilling Its Environmental and Sustainable Development Objectives? An Evaluation of the CDM and Options for Improvement. Öko-Institut.
[11] https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Tool.aspx

Market-based mechanisms of the Paris Agreement

Since the Paris Agreement, other cooperative approaches, below referred to as Article 6 mechanisms, are under development. Labelling Article 6 as a "market article" is somewhat simplistic however, as it is actually much more than that. It provides a framework for general cooperation in the implementation of the Paris Agreement and the NDCs. The focus of Article 6 is on ambition-raising rather than on flexibility and cost-effectiveness.

Put in plain language, the rules of Article 6 allow one country ("acquiring country") to contribute to GHG mitigation in another country ("transferring country") and the acquiring country can then claim (all or part of) the associated mitigation outcome towards its target or, importantly, as a contribution towards the host country mitigation target. A fundamental difference to consider in the context of Article 6 mechanisms compared to the Kyoto Protocol mechanisms is that under the Paris Agreement all countries have targets, so a situation where two countries claim the same mitigation outcome must be avoided[12] (see Figure 1).

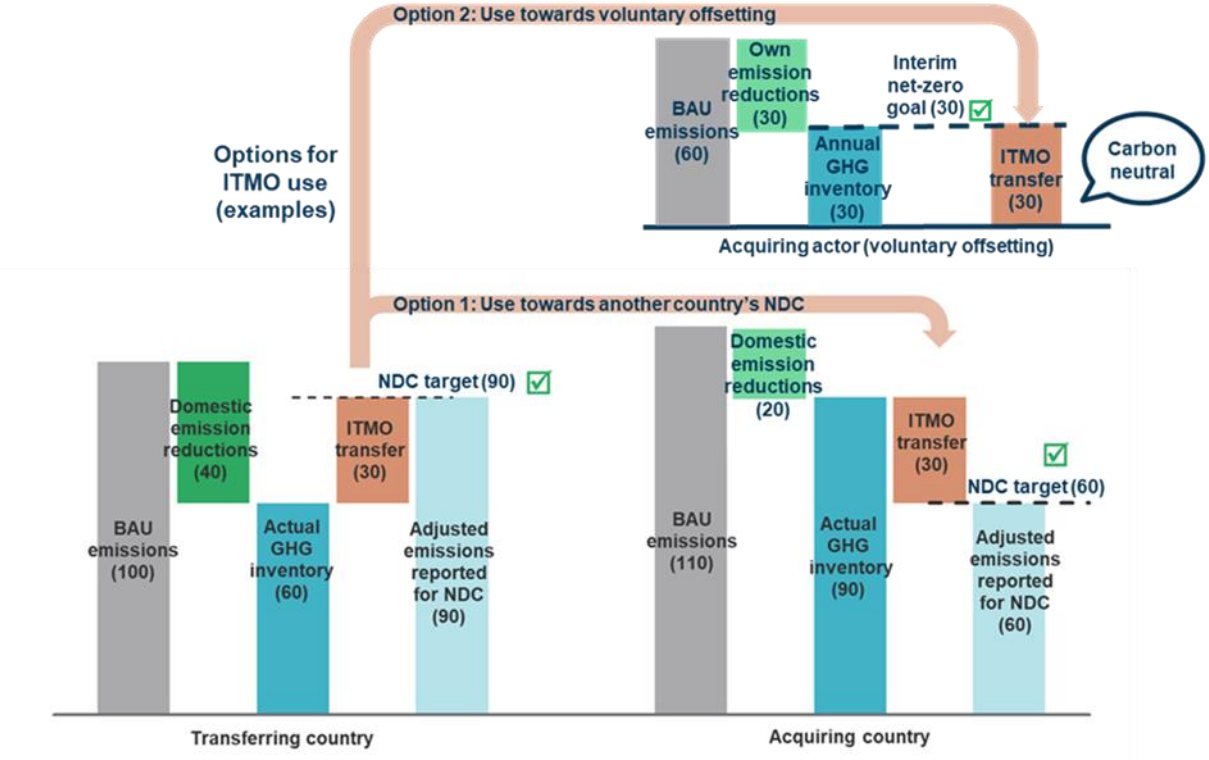

Figure 1[13]: Illustration of corresponding adjustments (Adapted from: Spalding-Fecher, et al. (2021)). BAU = Business-as-usual. Note that the same Internationally Transferred Mitigation Outcome (ITMO) cannot be used for both voluntary offsetting and towards another country's NDC target.

[12] To avoid double claiming, the transferring country excludes authorised mitigation outcomes from its target by applying so-called corresponding adjustments to its emissions balance (Figure 1). Since the Article 6 rules also allows transfer of mitigation outcomes for other purposes than towards countries NDCs, e.g., for voluntary uses, the figure also illustrates that as an option.

[13] Figure 1 illustrates that if the transferred mitigation outcomes are used to lower the acquiring country's emissions in its NDC performance reporting (i.e., not its actual national GHG inventory), then this amount must be "added back" to the

The Paris Agreement emphasises "the intrinsic relationship that climate change actions, responses and impacts have with equitable access to sustainable development and eradication of poverty". Accordingly, the Paris Agreement requires Parties that engage in market-based cooperation under Article 6 of the Paris Agreement to promote sustainable development and minimize and, where possible, avoid negative environmental, economic and social impacts. They are also required to "respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity".[14]

Article 6 of the Paris Agreement comprises two different approaches for cooperation between Parties:

- "Cooperative approaches" under **Article 6.2 is a mechanism to promote mitigation and sustainable development**. Article 6.2 allows countries to set up their own cooperative approaches bi- or plurilateral as long as they meet certain criteria related to environmental integrity, robust accounting and promotion of sustainable development. They must set up national arrangements for authorising mitigation outcomes as Internationally Transferred Mitigation Outcomes (ITMOs), tracking their transfer and use and adjusting their national emissions balances (i.e., make "corresponding adjustments") to avoid double counting.
- The Paris Agreement also establishes the international "**Article 6.4 mechanism" for issuing Article 6.4 Emission Reductions (A6.4ERs) for mitigation outcomes** that meet the mechanism's quality criteria. The Article 6.4 mechanism is centrally governed by the Article 6.4 Supervisory Body, which is appointed by the Conference of the Parties (COP). In that sense it resembles the CDM.

There is one main difference between cooperative approaches under Article 6.2 and the 6.4 mechanism which is worth highlighting. Under 6.2 corresponding adjustments are required as soon as host countries authorise a certificate (a so-called "ITMO") for international transfer. This means that the mitigation outcome cannot be used towards the host country target. Thus Article 6.2 is suitable for situations where an entity outside the host country wants to pay for and claim the right to the underlying Mitigation Outcome towards its own target. Importantly this implies an overselling risk for the host country since allowing too extensive international transfer of mitigation outcomes

transferring country's NDC reported emissions. Assuming that the mitigation activity lowers the actual GHG inventory figures of the transferring country, the net result is that the transferring country's reported emissions for NDC compliance are unchanged by the cooperative activity. This is illustrated in Figure 1, where the 30 units transferred from the transferring country to the acquiring country are added back to the transferring country's actual emissions when these are reported (i.e., as "adjusted emissions") for NDC compliance. In the figure, if the transferring country's mitigation pledge was to reach 100 units, then it would still achieve its goal after the transfer was complete. If its goal was to reach 70 units, however, then the transfer would mean that it would miss this target. Even though its actual emissions inventory would be lower than this level, reported emissions for NDC compliance would be higher than the pledge.

[14] Decision 2/CMA.3, Annex, paragraph 22(g) and Decision 3/CMA.3, Annex, paragraph 24(ix)

will jeopardise its NDC achievement (as discussed in the footnote to Figure 1). This is addressed further below in this section.

Under 6.4, however, host transferring countries can choose between two fundamentally different options. The first option is to authorise mitigation outcomes for international transfer, so that it can be claimed by an entity outside the host country to be used towards their targets, similar to how it works under Article 6.2. This comes with the obligation to carry out corresponding adjustments to avoid double counting which means that the mitigation outcome cannot be used towards the host country mitigation target.

The second option is to issue so-called ”mitigation contribution A6.4ERs”. In the latter case no corresponding adjustments will be required which means that the mitigation outcome can then be claimed towards the host country mitigation target. Importantly, “mitigation contribution A6.4ERs” thus constitutes a potential vehicle for RBCF towards support of host country attainment of their NDC targets. In this case the function of the mechanism would be that of performing MRV of mitigation outcomes incentivised through international climate finance.

Several countries, notably Sweden[15], used the CDM as an instrument for quantification and verification of the Mitigation Outcome of international climate finance to developing countries under the Kyoto Protocol. The generation of “mitigation contribution A6.4ERs” under Article 6.4 can be used for the same purpose under the Paris Agreement. An important difference is that in the context of the Paris Agreement, the quantified and verified mitigation outcome can contribute towards the host country mitigation target, whereas under the Kyoto Protocol, host countries had no mitigation commitments or obligations.

Risks with the use of market-based instruments for GHG mitigation

Environmental integrity: Generally, the risk that carbon crediting standards may overestimate the Mitigation Outcome of mitigation activities implies a risk that the use carbon market mechanisms may compromise environmental integrity (i.e., lead to higher emissions compared to a situation without the use of carbon market mechanisms). As already mentioned in section 2.1.1, this highlights the need for robust methodologies for quantification of mitigation outcomes and capacity and robust systems for MRV in the host country.

Adverse socio-economic consequences: Historically, emissions trading systems have been criticised for not taking into account a broader sustainability agenda in the assessment of project activities for GHG mitigation. Emissions trading mechanisms (i.e. CDM) have also been criticised for failing to adopt sufficiently stringent safeguards against harms to the environment or local people, especially indigenous communities[16]. This has led to adverse socio-economic consequences in connection with

[15] Through its programme for International Climate Investments managed by the Swedish Energy Agency.
[16] Carbon Market Watch (2018), The clean development mechanism: Local impacts of a global system.

project activities. While a tool was developed under the CDM to address sustainability impacts of CDM activities it is noted that the tool and its recommendations is of a purely declaratory nature[17].

Overselling: Another concern of prospective project host countries under Article 6 in the Paris Agreement is the risk that participation in Article 6 cooperation could compromise achieving their NDCs - due to "overselling" emission reductions that the host countries would need for their own NDC achievement[18]. Moreover, there is a risk that Article 6 cooperation may harm developing countries' capacity to gradually ramp-up their mitigation ambition. Emissions trading has traditionally been based on the economic theory of implementing emission reductions that have the lowest cost first in order to reduce overall mitigation cost and/or have the greatest possible effect as quickly as possible with limited funds. This means that it might be better to begin mitigation activities in countries/regions where it is cheaper to do them, compared to countries where the marginal cost of reduction is higher.

In particular, if market-based cooperation continues to prioritise "low-hanging fruit", and if assessment of sustainable development impacts is neglected, there is a significant risk that developing countries will sell their cheap mitigation opportunities to others for little contribution to broader development objectives. In the worst case this will harm their capacity to gradually ramp up NDC ambition if too much of cost-effective potentials are sold to and claimed by developed countries[19]. The capacity to manage overselling risks is significantly improved if host countries have made a thorough mitigation analysis that can be used to support the strategic selection of the appropriate mitigation activities for funding and transfer of mitigation outcomes through Article 6.[20]

Advantages and added value of development cooperation interventions

Facilitating development financing: Estimates show that around 80 percent of the greenhouse gas reduction that will be necessary between now and 2100 in order to limit global warming to well below 2 degrees Celsius will need to take place in developing countries[21]. For this to happen, large financial flows will be required from developed to developing countries to enable the necessary investments. If managed right, market-based collaborative instruments may play an important role in mobilising public and private finance towards nationally appropriate and transformational mitigation activities in developing countries that does not have a negative impact on host countries' capacity to achieve their NDC targets and to gradually ramp-up ambition.

Supporting domestic processes: In contrast to the CDM under the Kyoto Protocol, participation in markets in the context of the Paris Agreement requires governments to develop and implement accounting and reporting procedures (since all countries have mitigation targets). Development

[17] The recommendations include: the introduction of no-harm safeguards, development of monitoring and reporting guidelines, introduction of 3rd party validation and verification of SD claims, linking enhanced stakeholder requirements to the CDM SD tool, and enhancing the tool by introducing UNFCCC certification of SD co-benefits.
[18] Spalding-Fecher R. et al. (2020), Practical strategies to avoid overselling, Carbon Limits, infras, Öko-Institut & Stockholm Environment institute.
[19] Warnecke C. et al (2018), Opportunities and safeguards for ambition raising through Article 6, New Climate Institute.
[20] Spalding-Fecher S. et al (2020)
[21] IPCC, 2014, AR5 Climate change 2014: Mitigation of Climate Change. Working Group III contribution to the fifth assessment report.

cooperation could support countries wishing to host Article 6 activities to set up domestic processes for authorising such activities and the transfer of associated ITMOs, in line with the Article 6 Rulebook. Transactions will involve different stakeholders and can take place among governments, among private sector actors or with the involvement of both. However, in all cases, governments will have a role in governing and monitoring carbon market transactions in the context of their NDCs. This includes to ensure environmental integrity and avoidance of double counting, as well as to safeguard NDC achievement and alignment with national development objectives.[22] Capacity-building support could include aspects related to keeping GHG emission inventories, MRV, administration of corresponding adjustments, and, more generally, how to strategically utilise the opportunities in Article 6 to achieve national development objectives and avoid overselling that could harm host countries' ability to achieve their NDC targets.

2.1.3 Voluntary market standards

As already mentioned in the introduction to section **Error! Reference source not found.**, VCM are driven by demand from nonstate actors, such as corporations, institutions, and individuals that wish to voluntarily purchase and use carbon credits that represent additional mitigation or adaptation achieved outside an actor's boundaries or value chain. This mitigation could help the host country in meeting its existing targets or help to reduce global net emissions above and beyond countries' targets, thus contributing to global ambition raising.[23] Unlike compliance carbon markets, activity in VCM is not currently regulated by a state or supervisory body.

There are a large number of voluntary carbon crediting standards. The larger and more established ones resemble the CDM and are working on Article 6-alignment. Some voluntary carbon standards, in particular the Gold Standard for the Global Goals (GS4GG) have developed a much more advanced system for assessing sustainable development impacts and implementing environmental and social safeguards than the CDM.

Risks

Non-harmonisation of standards: Voluntary standards constitute a heterogeneous landscape and need to be assessed one by one. Generally, there is a higher environmental integrity risk when engaging with voluntary standards. There is not necessarily any coordination between voluntary standards and the host countries that they act in which implies a greater risk of policy non-alignment. The heterogeneous nature of voluntary standards implies a risk that some standards may issue credits of poor quality.

The main international undertaking to harmonise the voluntary carbon market, the Integrity Council of the Voluntary Carbon Market (ICVCM) has presented draft so-called "core carbon criteria" (which are currently under public consultation) which provides a tool to assess the quality of carbon credits

[22] Michaelowa A. et al (2021), Promoting Article 6 readiness in NDCs and NDC implementation plans. Perspectives Climate Group.

[23] Ahonen H-M, et al (2022), Harnessing voluntary carbon markets for climate ambition. Nordic Council of Ministers.

from voluntary standards.[24] The ICVCM has also proposed criteria for the assessment of the standards themselves. Once finalised, the criteria determined by the ICVCM will likely provide a robust framework for the assessment of voluntary standards and the credits those standards generate.

Compromising NDC targets: The dominating existing voluntary crediting standards emerged under the Kyoto Protocol when developing countries had no quantified mitigation commitments or obligations. Currently, voluntary standards are adapting to the Paris Agreement context with mitigation targets in all countries. One implication is that corresponding adjustments may be carried out also in relation to international transfer of voluntary standard carbon credits. For example, the GS4GG has clearly stated that they will require corresponding adjustments when GS4GG units are purchased to be used towards voluntary offsetting claims. Verra, which is the organisation behind the Voluntary Carbon Standard (VCS), stated in a briefing after COP26 that "some buyers may seek out credits that are backed by adjustments to provide an extra assurance that the countries will not lighten the mitigation efforts set out in their NDCs as a result of successful voluntary market projects impacting on their emissions[25]. Performing corresponding adjustments to mitigation outcomes that are internationally transferred for voluntary offsetting of GHG emissions is sound as it prevents double claims and, thus, safeguards environmental integrity.[26] However, from a host country perspective, international transfer of voluntary standard carbon credits may, if accompanied by corresponding adjustments, be attached to the host-country risk of compromising host countries' ability to attain their NCD targets and to gradually ramp up their NDC ambition, in a similar way as international transfer under Article 6.

<u>Advantages and the added value of development cooperation interventions</u>

Supporting flexibility and domestic capacities: Among voluntary standards more methodologies/approaches are represented than within the mechanisms under the UN system. Voluntary standards usually act faster and are more flexible so they may be suitable for piloting approaches that have not been adopted under the UN mechanisms. This could enable acting faster in the use of market-based approaches to incentivise technologies appropriate for developing country circumstances, such as biochar application in agriculture and agricultural practices that lead to enhanced levels of soil organic carbon.

As an alternative to offsetting claims, companies could choose to make "contribution claims" instead, i.e., offer the credits issued they pay for, and the underlying Mitigation Outcome, to be used towards host country mitigation targets. This would be similar to the intended use of the "mitigation contribution A6.4ERs described in the section that covers Article 6.4. Developing countries would

[24] The Integrity Initiative for the Voluntary Carbon Market (2022), Core carbon principles, assessment framework and assessment procedure (draft for public consultation).
[25] Verra, 2021, https://verra.org/moving-forward-together-verras-reflections-on-the-cop26-outcome-in-glasgow/
[26] Möllersten K., Ahonen H-M. and Zetterberg L. (2022). https://lifedicetproject.eui.eu/2022/07/05/offsetting-for-carbon-neutrality-getting-the-claims-right/

benefit from gaining deeper understanding of the potential benefits of collaborating with entities who want to make contribution claims through the use of Voluntary Carbon Standards.

2.1.4 Other examples

The Adaptation Benefit Mechanism

The Adaptation Benefit Mechanism (ABM), promoted by the African Development Bank, is an innovative mechanism for mobilising new and additional public and private sector finance for enhanced climate change adaptation action. The ABM will MRV, and certify the social, economic and environmental benefits of adaptation activities. The value of adaptation action captured in these certificates, including the incremental costs of generating the benefits, will be promoted to potential investors or lenders. The expectation is that verified certificates of the benefits of specific adaptation activities (issued by a reputable international organisation and based on sound methodological and technical work, in consultations with stakeholders and with the approval of the host country government) will guarantee the credibility of the adaptation activities and increase their attractiveness to potential investors or lenders.

Examples of activities with tangible adaptation and mitigation benefits, that have been considered in the mechanism's piloting phase, include:

- Solar powered irrigation pumps to help farmers overcome unreliable rainfall
- Climate resilient agriculture to diversify income streams of vulnerable farmers
- Coastal protection through afforestation with mangrove trees
- A range of clean energy technologies, which free up women and children's time enabling them to become more economically productive or attend school and hence become less vulnerable to the negative impacts of climate change.

Risks

The mechanism is in a pilot phase and its feasibility is yet unknown. ABM has been part of the discussions on Non-market-based approaches, referred to in Article 6, paragraph 8 of the Paris Agreement. ABM is considered a non-market-based approach, because no international transfer (between countries) of Mitigation Outcomes is envisaged.

Advantages and the added value of development cooperation interventions

If there is a demand for ABM certificates from investors and lenders, the mechanism has a potential to increase results-based payments for adaptation, which is currently lacking sufficient funding.

2.2. Biodiversity

While several initiatives have been established, most biodiversity related market-based mechanisms are still insufficiently developed. This is due in part to a lack of knowledge by businesses of e.g. the market, opportunities and risks, as well as unfavourable market conditions and high transaction costs. Investors point to a lack of deals with the right mix of risk and returns as the most significant

obstacle. The low average deal size is another commonly cited challenge[27]. Most, if not all, biodiversity market-based mechanisms can be contested, as economy is only one value of many to consider. Social, ecological, cultural, religious values are some that need to be considered when establishing biodiversity related market mechanisms[28]. An additional question is how impacts/damages to the natural environment that apply to future generations should be valued in today's decisions, and how to quantify consequences when there is a range of possible outcomes.

Developments in this area are however moving rather fast, both as a result of market interest in innovative mechanisms, but also the process and decisions taken under the CBD. Factors that drive the uptake of biodiversity and ecosystems considerations by the market and private sector include[29]:

- A willingness to mitigate business risks relating to disruptions of operations, supplies or reputational damage
- The necessity to adhere to norms of transparency, traceability, environmental responsibility and other standards
- The desire to obtain a winning share in new markets and establish a position with future customers; and
- Openness to engage and build goodwill with stakeholders

In 2018, the Conference of the Parties to the CBD approved safeguards in biodiversity financing mechanisms[30]. Noting that these are voluntary, they provide an important step to introduce measures to safeguard inclusive decision-making, livelihoods, and resilience, as well as biodiversity's intrinsic values. The safeguards come with a "checklist" that can be used when designing and implementing market-based mechanisms for biodiversity. The safeguards especially highlight the importance of participation and decision-making power of indigenous peoples and local communities.

Notwithstanding the positive developments, including the approval of the CBD safeguards, there are several common risks related to the development and expansion of market-based mechanisms for conservation of biodiversity[31].

Over-financialisation: Financialisation without sound regulatory provisions may perpetuate market failures and lead to incorrect pricing, with the risk of transforming ecosystems into cheap commodities with prices based only on what the market is prepared to pay for them.

Scaling up too quickly in immature markets: Lack of absorptive capacity for large investments remains an issue. Investment readiness, i.e. availability of "good" projects remains a key challenge in developing countries.

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[27] UNDP (2020). Moving Mountains: Unlocking Private Capital for Biodiversity and Ecosystems, p.41.
[28] For an in-depth analysis of valuation of nature, see "IPBES, 2022, Summary for policymakers of the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (assessment of the diverse values and valuation of nature)"
[29] UNDP (2020). Moving Mountains: Unlocking Private Capital for Biodiversity and Ecosystems, p.13.
[30] CBD/COP/DEC/14/15, 30 November 2018.
[31] OECD (2020) A Comprehensive Overview of Global Biodiversity Finance, p. 31.

The lack of an enabling market infrastructure: Market infrastructure is intended as services to enterprises, and the lack of which can inflate the investment costs of market-based biodiversity initiatives.

Greenwashing: Greenwashing can damage the appeal of the impact investment market and ultimately the trust of investors. For example, asset managers could fraudulently label and sell traditional investment products as "biodiversity finance".

2.2.1 Biodiversity offsets

The goal of biodiversity offsets is to achieve a net gain in biodiversity (or at least no net loss) when undertaking economic activities such as infrastructure projects, that may have a negative environmental impact[32]. Offsets are based on the premise that impacts from development can be offset if sufficient habitat can be protected, enhanced, or established *elsewhere*. First used in the United States in the 1970s to mitigate damage to wetlands, biodiversity offset programmes have more recently been introduced in a number of countries. Most of these are in the global north, but there are an increased number of developing countries (for instance Columbia, Mozambique and South Africa that have launched biodiversity offsetting schemes[33].

Risks

Although there are some stablished principles[34] about when and where to allow biodiversity offsetting, the mechanism has come under scrutiny for a lack of transparency, mismatch between theory and practice, and lack of enforcement on mitigation hierarchies, all of which has led to concerns about biodiversity loss. Biodiversity offsets are also problematic in that even if the total amount of species is constant, the destruction of a certain habitat and restoration elsewhere affects the ecosystem. Another criticism is the geographical aspect. It is impossible to compensate for loss of biodiversity in e.g. Indonesia that local and indigenous communities might depend on for their livelihoods, with restoration or protection of biodiversity in e.g. Kenya.

Advantages and the added value of development cooperation interventions

The main advantage of biodiversity offsets would be their (theoretically) simple design. Also, experiences from carbon offsets provide an opportunity to make use of lessons-learned and building on institutional knowledge and experience. On a global level, Sida might consider supporting additional research and analytic work to further outline potential entry-points for biodiversity offsets. That said, and taking into account the risks above, the role for a development actor, such as Sida, are assessed as limited.

[32] World Bank Group (2016), Biodiversity Offsets: A User Guide
[33] Nils Droste et. al (2022). Journal of Environmental Management, 316.
[34] For instance by IIED (2016), Issues Brief: Biodiversity Offsets.

2.2.2 Biodiversity credits (Biocredits)

Biocredits are similar in design to biodiversity offsets but they differ in use, i.e. the credits are not designed to offset or compensate for actions with negative impacts on biodiversity elsewhere. In this sense, they are less contentious. Biocredits are an economic instrument that can be used to finance biodiversity-enhancing actions (such as protecting or restoring species, ecosystems or natural habitats) through the creation and sale of biodiversity units. Potentially, biocredits would be generated by those who conserve biodiversity and bought by those who want to invest in biodiversity conservation. In theory, biocredits can be used to fund investments in biodiversity conservation with a net biodiversity gain from a pre-existing baseline. Similar to carbon offsets, biocredits could also be aggregated, facilitating the scaling-up of actions needed to provide significant thresholds, both in terms of biodiversity conservation and for financial investments.[35]

Risks

Biocredits are inherently harder to trade than carbon because of the site-specific contexts in which biodiversity occurs, and currently there is no unique measure of biodiversity which allows units of biodiversity to be valued, compared or traded. An important component of biodiversity credits will be linked to the ability to generate a SMART unit of measurement or metric[36]. Furthermore, and despite the name, biocredits are not a purely market-driven intervention. Governments will be required to enable policies and planning to regulate and facilitate the market according to clear and simple rules in an efficient, transparent way that promotes biological integrity and poverty reduction.

Advantages and the added value of development cooperation interventions

If and when biocredit schemes are considered, especially at national level, development partners can promote the following aspects[37]:

- **Simple, transparent cost-effective design:** This might include clear and transparent units for biocredits, effective use of technologies, legal and regulatory clarity on biocredit property rights, and transparent biocredit standards and registration.
- **Enabling policy from government for implementation:** This could entail support to setting up rules for monitoring and reporting biodiversity, registration and trading rules, and by promoting strategies that avoid double-counting.
- **Market engagement to attract buyers and generate sales:** Historically, not enough attention has been paid to market engagement and for identifying buyers. This suggests that an effective biocredit scheme needs to be accompanied by a thorough market survey of potential buyers and by assisting in setting fair and sustainable biocredit prices (effective marketing to identify niche markets or storing credits until prices recover could be strategies to be used).

[35] IIED (2020), Making Markets work for Nature, p.8.
[36] Ibid., p.9.
[37] Mainly based on: IIED, Making Markets work for Nature, and UNDP (2020): Moving Mountains: Unlocking Private Capital for Biodiversity and Ecosystems.

- **Inclusive and fair benefits for local people:** For biocredits to work, it is vital to share their benefits with poor but biodiversity-rich countries and with the communities who often live in these areas. Important issues to consider are tenure, poverty and participation and free prior and informed consent (FPIC).

2.2.3 Biodiversity bonds

Biodiversity bonds can be used to mobilise resources from domestic and international capital markets for biodiversity projects. These bonds are generally no different from conventional bonds, their only unique characteristic being the specified use of proceeds which are invested in projects that generate biodiversity benefits[38].

Risks

One limitation of biodiversity bonds is that investors are only likely to finance conservation projects that are capable of delivering a financial return alongside positive biodiversity impact. Another key limitation affecting biodiversity bonds (and green bonds in general) is the lack of internationally recognised credit ratings across emerging markets. The use of biodiversity bonds will also depend on adequate market infrastructure. This includes exchanges and trading platforms, clearing houses, credit risk assessment, custodians, and fiduciaries, without which bond markets will be difficult to scale. Similarly, sound taxation and accounting frameworks, legislative enforcement, protection of creditor rights, and bankruptcy and competition law are building blocks for a favourable investment climate are vital[39].

Advantages and the added value of development cooperation interventions

The green (including biodiversity) bond market has grown considerably in recent years and several successful issuances have been carried out for both green and blue bonds. For this development to progress and apply to developing countries, possible actions could include:

- Assist companies in the development of a green/blue bonds framework or in complying with existing biodiversity-aware frameworks.
- Help financial institutions and corporations to assess progress and impact of the allocation of proceeds from green bonds.
- Scope for opportunities and support the design of public-private partnerships in relation to green/blue bonds issuances.
- Support the development of business models for companies to become recipients of the proceeds of bonds.

Similar to the bullets above, OECD visualises some of the tools available for development agencies in supporting green and sustainable, or for that matter biodiversity, bonds[40]. See figure 2 below.

[38] UNDP (2020) p.56.
[39] OECD (2021). Scaling up Green, Social, Sustainability and Sustainability-linked Bond Issuances in Developing Countries. p.28
[40] OECD (2022), Green, social, sustainability and sustainability-linked bonds in developing countries: How can donors support public sector issuances? p.40.

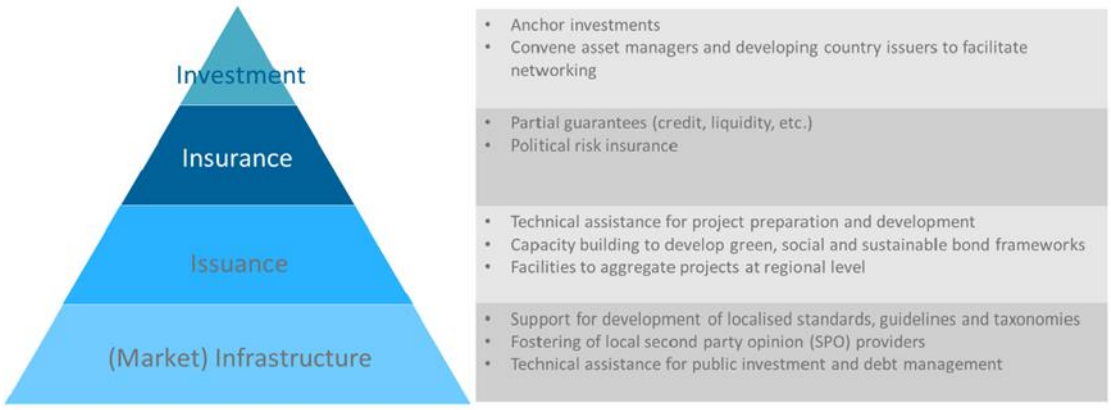

Figure 2: Tools to support green and sustainable bonds (OECD, 2022).

2.3. Reducing emissions from deforestation and forest degradation (REDD+)

REDD+ is a framework within the UNFCCC Conference of the Parties (COP) including activities in the forest sector that reduces emissions from deforestation (REDD) and conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries (REDD+). More than 15 years have passed since the idea of REDD+ was adopted. It became part of the international climate agenda in 2007 and was adopted at COP 19 in Warsaw, 2013 as the Warsaw Framework for REDD+ (WFR). The WFR provides complete methodological and financing guidelines for the implementation of REDD+ activities at the national level[41]. There are many different initiatives and organisations and donors that have provided funding for REDD+ activities. In the WFR, countries agreed that results-based payments for REDD+ may come in the form of non-market- or market-based finance.

Since its inception, REDD+ has developed into one of the most prominent but also contentious issues on the international climate change agenda, receiving high attention not only from governments, but also from researchers, multilateral funds and organisations, NGOs, politicians, and the private sector[42]. This may be due to its apparently simple initial approach: to pay tropical forest countries to keep their forests standing. In the beginning, emission reductions from REDD+ were believed to be a relatively cheap, quick, and feasible mitigation option, more readily available in the short term than reduction opportunities in other sectors. As the discussions have progressed and matured and their scope extended, multiple challenges have surfaced including how benefits from REDD+ should be distributed to forest communities and how to establish a structure of funding mechanisms that maintains environmental integrity[43]. These concerns must be addressed in the context of low-quality governance structures and weak tenure systems in many developing countries[44].

There are three phases of implementation for REDD+ which can overlap:

[41] https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd
[42] Duchelle et. al (2020), What is REDD+ achieving on the ground?
[43] Pistorius (2012, From RED to REDD+: the evolution of a forest-based mitigation approach for developing countries
[44] Phelps et al. (2010), Risky business : an uncertain future for biodiversity conservation finance through REDD+

- **Readiness phase**, including the development of national strategies, action plans, policies and measures and capacity building
- **Implementation** of national policies and measures, action plans or national strategies. These could entail further capacity building technology development and results-based demonstration activities
- **Results-based actions** that should be fully measured, reported and verified, allowing countries to seek and obtain results-based payments.

Many different stakeholders are involved in the actual implementation of REDD+ activities by addressing for example drivers of deforestation, providing technical guidance or supporting capacity building activities. However, such actions should happen within the framework of the national REDD+ strategy or action plan, as the national government is the responsible entity for reporting to the UNFCCC[45]. Activities that are being developed during the readiness and implementation phase should be in place when developing countries seek results-based finance for results that are measured, reported and verified against a credible system for measurement, reporting and verification (MRV) including a forest reference level (tonnes CO2 per year). To be eligible for results-based finance, information on how REDD+ safeguards (e.g., clarifying rights to forests, land and carbon) are being addressed and respected are also needed. MRV systems can also track non-carbon benefits and can provide information on how well REDD+ activities respect social and environmental safeguards.

Since 2007, more than 350 REDD+ projects have been implemented across the tropics[46]. In 2022, more than 60 developing countries have submitted a REDD+ forest reference level to the UNFCCC, while 24 countries have submitted a summary of information on how safeguards are being addressed and respected. In 2020, six countries have all elements in place to seek and obtain results-based finance for REDD+.

REDD+ is recognized in Article 5 of the Paris Agreement which encourages countries to implement and support approaches to REDD+. It is still under negotiation whether results-based REDD+ actions will be eligible under Article 6 of the Paris Agreement.

Risks

Effectiveness: The outcomes and of REDD+ in reducing deforestation and/or achieving co-benefits are still unclear. The broadening of REDD+ from a simple and focused idea to including additional elements, such as safeguards, co-benefits and Indigenous Peoples rights has slowed down progress and made it harder to demonstrate results[47]. REDD+ was intended to be part of a global carbon market but this has not yet materialised. Results-based payment has not been the driving force as it was expected to be, due to a lack of finance and other challenges, such as what to pay for, whom to pay and how to set reference levels.

[45] https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd
[46] Angelsen et. al (2018) Transforming REDD+: Lessons and new directions.
[47] Schroeder et al. (2020), Policy learning in REDD+ Donor Countries: Norway, Germany and the UK

Benefits for Indigenous People and Local Communities (IPLCs): While REDD+ is perceived as having many potential benefits, it also brings social-economic and environmental costs and risks for vulnerable and oftentimes marginalised communities. There is a need to better account not only for the ecological functions of forests (carbon sequestration hydrology, biodiversity, climate regulation) but also incorporate the overarching aim of emissions reductions with social inclusion, equitable benefit sharing, including civil society and the private sector. Also, communities often have no incentive to include global climate effects in their decision-making. Land tenure and the rights of indigenous peoples and local communities have been important on the REDD+ agenda since it was started in 2005. Implementation has resulted in some progress on tenure, but not enough to ensure a proper functioning of REDD+. Concrete local efforts are often not supported with sufficient national policy support and reforms[48].

Sustainable financing: Finance for REDD+ has been provided by only a small group of countries (e.g., Norway, Germany and UK) and multilateral institutions, making it potentially vulnerable to political fluctuations[49].

Advantages and the added value of development cooperation interventions

Supporting good governance: A large share of support for REDD+ preparations during the last decade comes from the development and cooperation budgets of donor countries. This support ranges from work by individual companies and NGOs to bilateral and multilateral cooperation agreements at a national scale. It has allowed REDD+ countries to build capacities and develop policy and legal frameworks to reduce deforestation and improve forest and land-use governance, to distribute benefits to rural forest communities, farmers and smallholders and to build institutional capacities[50].

Contribution towards sustainable livelihoods: Local participation in the design of institutions and rules governing forest use often leads to better outcomes for forest conservation and local livelihoods. Forest conservation policies such as REDD+ are an essential part of the policy response to climate change, especially because in addition to reducing carbon dioxide emissions, they can provide co-benefits and improve local livelihoods both as a direct result of the interventions and as a result of improvements in local environmental quality and ecosystem services. Given the risks, controversies and paucity of evidence associated with REDD+, development cooperation interventions may be focused on broad approaches focusing on sustainable forest production and livelihoods that are beneficial beyond REDD+ per se. As the drivers of deforestation are often located outside the forestry sector, landscape wide approaches could also be feasible to ensure sustained provision of important forest-related ecosystem services, to address complex environmental problems and to avoid trade-offs. Sida might also consider encouraging local participation in the design of institutions and rules governing forest use, as such interventions often lead to better outcomes for forest conservation and local livelihoods.

[48] Angelsen et. al (2018)
[49] Angelsen et. al (2018)
[50] https://euredd.efi.int/about/about-redd/major-bilateral-multilateral-initiatives/

Providing readiness funding: Although the Green Climate Fund is envisioned to support some REDD+ readiness activities, it lacks the targeted funds and broad REDD+ expertise of the Readiness Fund of the Forest Carbon Partnership Facility (FCPF-RF) and UN-REDD national programs. Multilateral funding programmes have a comparative advantage over bilateral funding mechanisms as they can leverage several countries engaged in similar activities and have specialised capacity – both technical (e.g. following UNFCCC guidelines) and governance (e.g. safeguards).Yet, Sida and other development agencies still have a role to play in promoting the extension of REDD+ financing to more forested countries. This can create more national dialogue and awareness, national strategies, and improved forest monitoring and institutions.

3. Conclusions and recommendations

3.1. Conclusions

I. Market-based mechanisms alone are not a panacea or a substitute for public financing, ODA, or philanthropy. Concessional public financing, grants and donations remain essential contributors to the financing of climate change and biodiversity as not all activities are investable opportunities. Effective collaboration between public and private actors is often the answer. Policy and regulatory provisions will be required to generate sufficient financial returns, including by phasing out harmful subsidies, establishing regulated markets, and designing smart public incentives.

II. **Carbon markets** under Article 6 of the UNFCCC provides an opportunity to channel capital (sovereign as well as private) towards investment in mitigation activities in developing countries. Taking advantage of opportunities and to avoiding risks will however require host country alignment of Article 6 activities with NDC objectives as well as with broader development objectives (while avoiding overselling), in other words the capacity to strategically select the appropriate mitigation activities for funding through Article 6. This will require in-depth understanding of how to comprehensively analyse domestic mitigation opportunities. Other essential capacities include maintaining GHG emission inventories, MRV, and the setting up of domestic processes for authorising such activities and the transfer of associated ITMOs, including administrating corresponding adjustments.

III. **Voluntary carbon standards** are shaped outside the UNFCCC and are, therefore, less regulated. The larger and more established voluntary standards emerged during the Kyoto Protocol era and are currently adapting to the context of the Paris Agreement. Voluntary standards can potentially channel capital to developing countries in a similar way as Article 6 and potential opportunities and pitfalls are also similar.

IV. Market-based mechanisms for **biodiversity** is still in its infancy. Also, they tend to be more complicated than those for emissions trading. Risks in relation to biodiversity offsets are especially high. However, as more initiatives are being launched, and safeguards are being developed, there could be room for Sida to test new approaches.

V. For **REDD+**, the outcomes and effectiveness of this mechanism in reducing deforestation and/or achieving co-benefits are still unclear. Results-based payments for REDD+ has not been the driving force as it was expected to be, due to a lack of finance and other challenges, such as what to pay for, whom to pay and how to set reference levels.

3.2. Recommendations

I. To continue to work with mobilisation of capital, but not least to contribute to **capacity building of appropriate institutions** having a role in promoting the use of market-based mechanisms adapted to the specific national context. This would entail capacity development of local and national actors, both private and public, and their interaction.

- To build capacity in developing countries on how to strategically work with Article 6 in order to not compromise the achievement of current national mitigation targets and, furthermore, to enhance capacity to progress beyond the previous effort in successive NDC cycles.
- We recommend support towards alignment of market approaches under Article 6.2 and Article 6.4 with Parties' NDC implementation as the most fundamental way to mitigate host country risk and facilitate ambition raising. It furthermore promotes environmental integrity in that it will steer activities funded through carbon markets away from activities with higher risk of non-additionality.
- We propose that this can be achieved through support to identify technologies/mitigation options that are genuinely inaccessible through own efforts with the aim to use Article 6 for such options.
- We further suggest exploring the role of list-based approaches to identify such technologies − a negative list for technologies which define country's domestic action without any support; positive list outlining technologies with high costs and lower maturity on a global/regional level that would otherwise be inaccessible for the country; as well as potential grey zones which may need careful investigation before seeking any form of international cooperation to avoid trade-offs.
- Further work to elaborate this framework is recommended, as well as to build the capacity of countries to carry out such a list-building exercise.
- Capacity building initiatives in the area of Article 6 could consider also including aspects related to working with Voluntary Carbon Standards.
- Development cooperation interventions may also be directed towards raising developing countries' general capacity to participate in market-based cooperation under Article 6 of the UNFCCC including MRV and capacities necessary to perform international transfers of mitigation outcomes.

II. Support the development of **legal frameworks** that are transparent and that build **inclusive governance structures** for market-based mechanisms. Special measure could be taken to include local communities and indigenous groups in the design, implementation and

monitoring of market-based mechanisms (not least for biodiversity and climate change adaptation)

III. For biodiversity mechanisms, promoting both monetary and non-monetary **assessments of tangible and intangible services** can be a way forward, as is support to and the practical use of, the CBD safeguards. Sida should however avoid directly supporting biodiversity offsets. Other biodiversity mechanisms, being part of a nascent market, should be carefully considered by applying the criteria set for Sida´s environmental assessments.

IV. For REDD+, development cooperation interventions may be focused on broad approaches focusing on **sustainable forest production and livelihoods** that are beneficial beyond REDD+. Supporting readiness funding for REDD+ through ODA or via multilateral programmes could still have a role to play to strengthen institutional capacities and build effective forest governance structures.

And finally, while continued support to existing green contributions are important, a transformational approach focusing on financing transition and progress will be needed. “Greening of all investments” is crucial.

List of references

- **Ahonen** H-M. et al (2022), Harnessing voluntary carbon markets for climate ambition. Nordic Council of Ministers
- **Angelsen** et. al (2018) Transforming REDD+: Lessons and new directions
- **Broekhoff**, et al. (2019), Securing Climate Benefit: A Guide to Using Carbon Offsets, Stockholm Environment Institute & Greenhouse Gas Management Institute
- Carbon Market Watch (2018), The clean development mechanism: Local impacts of a global system.
- CBD/COP/DEC/14/15, 30 November 2018
- **Droste** et. al (2022). Journal of Environmental Management
- **Duchelle** et. al (2020), What is REDD+ achieving on the ground?
- IIED (2016), Issues Brief: Biodiversity Offsets
- IIED (2020), Making Markets work for Nature
- IPBES (2022), Summary for policymakers of the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (assessment of the diverse values and valuation of nature)
- IPCC, 2014, AR5 Climate change 2014: Mitigation of Climate Change. Working Group III contribution to the fifth assessment report.
- **Michaelowa** A., et al. (2019), Overview and comparison of existing carbon crediting schemes
- **Michaelowa** A., **Shishlow** I. and **Brescia** D. (2019). Evaluation of international carbon markets: Lessons for the Paris Agreement.
- **Michaelowa** A. et al (2021), Promoting Article 6 readiness in NDCs and NDC implementation plans. Perspectives Climate Group.
- OECD (2020) A Comprehensive Overview of Global Biodiversity Finance,
- OECD (2021). Scaling up Green, Social, Sustainability and Sustainability-linked Bond Issuances in Developing Countries
- OECD (2022), Green, social, sustainability and sustainability-linked bonds in developing countries: How can donors support public sector issuances?
- **Olsen**, K. (2007), The clean development mechanism's contribution to sustainable development: a review of the literature, Climatic Change volume 84
- **Phelps** et al. (2010), Risky business: an uncertain future for biodiversity conservation finance through REDD+
- **Pistorius** (2012, From RED to REDD+: the evolution of a forest-based mitigation approach for developing countries
- **Schroeder** et al. (2020) Policy learning in REDD+ Donor Countries: Norway, Germany and the UK

- **Schneider**, L (2007), Is the CDM Fulfilling Its Environmental and Sustainable Development Objectives? An Evaluation of the CDM and Options for Improvement. Öko-Institut.
- **Spalding-Fecher** R. et al. (2020), Practical strategies to avoid overselling, Carbon Limits, infras, Öko-Institut & Stockholm Environment institute.
- **Schneider** L. & **La Hoz Theuer** S. (2019), Environmental integrity of international carbon market mechanisms under the Paris Agreement. Climate Policy
- The Integrity Initiative for the Voluntary Carbon Market (2022), Core carbon principles, assessment framework and assessment procedure (draft for public consultation).
- UNDP (2006), An assessment of progress with establishing the Clean Development Mechanism. United Nations Development Program
- UNDP (2020). Moving Mountains: Unlocking Private Capital for Biodiversity and Ecosystems
- UNFCCC (1997), The Kyoto Protocol
- UNFCCC (2001), The Marrakesh Accord & the Marrakesh Agreement.
- UNFCCC (2018), Achievements of the Clean Development Mechanism.
- World Bank Group (2016), Biodiversity Offsets: A User Guide
- World Bank (2022), Defining results-based climate finance, voluntary carbon markets, and compliance carbon markets

Additional websites (all accessed in December 2022):

https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Tool.aspx

https://verra.org/moving-forward-together-verras-reflections-on-the-cop26-outcome-in-glasgow/

https://lifedicetproject.eui.eu/2022/07/05/offsetting-for-carbon-neutrality-getting-the-claims-right/

https://unfccc.int/topics/what-are-market-and-non-market-mechanisms

https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd

https://euredd.efi.int/about/about-redd/major-bilateral-multilateral-initiatives/

Annex 1. Terms of reference

Bakgrund

Sida arbetar med mobilisering av utvecklingsfinansiering. Sida har bland annat ett pågående arbetet på området som under uppdraget för Utvecklingsfinansiering samt Regeringsuppdraget för biologisk mångfald och ekosystem 2020-2023.

Inom ramen utvecklingsfinansiering finns det incitamentskapande och marknadsbaserade finansieringsmekanismer så som t.ex. handel med utsläpp (utsläppsrätter och utsläppsminskningsenheter etc.). Att använda sig av internationell utsläppshandel för finansiering har genomförts under the Clean Development Mechanism (CDM), under Parisavtalets Artikel 6 och även inom utsläppshandelsområden så som EU ETS. Det finns även en associerad marknad för utsläppsminskningar i det som kallas frivilligmarknaden. Denna riktas mot företag och individer och de två största standarderna heter Verra och Gold Standard.

Utsläppshandeln utgår ifrån den ekonomiska teorin att genomföra utsläppsminskningar som har lägst kostnad först för att få största möjliga effekt så fort som möjligt med begränsade medel. Detta innebär att det är bättre att först utföra utsläppsminskande åtgärder i länder där det är billigare att göra dem, jämfört med i länder där det kostar mer. Bedömningen av insatsers additionalitet är grundläggande i detta arbete, då insatser som hade blivit av ändå inte ska finansieras med offentliga medel. Samtidigt ska insatserna inte vara för additionella utan finansieringen genom de marknadsbaserade mekanismerna ska vara tungan på vågen som får rätt insats att bli av.

Det finns även relaterade mekanismer så som betalning för ekosystemtjänster t.ex. REDD+ som syftar till att minska avskogningen i utvecklingsländer och därmed minska utsläppen. Medan utsläppsminskningar genom ökat upptag av koldioxid inte är permanenta, utan riskerar att frigöras igen genom bränder eller avskogning, kan de ha andra positiva effekter för t.ex. biologisk mångfald. Flera av dessa mekanismer är ifrågasatta och omstridda, både för deras förmåga att åstadkomma den avsedda förändringen (jmfr additionalitetsdiskussionen under CDM) men också för att inte till nog grad ta hänsyn till hur investeringen påverkar andra områden (hänsyn till mänskliga rättigheter, urfolks rättigheter, biologisk mångfald och miljöhänsyn etc.). Det finns också en långtgående diskussion om faran av att satsa på klimatkompensation, i form av köp av krediter istället för att satsa mer på klimatomställning, dvs. att vi låser in oss i system som inte är långsiktigt hållbara istället för att snabbare komma till lösningar för klimatomställning.

Utöver utsläppshandel och betalning för ekosystemtjänster finns även ett tredje område: negativa utsläpp. Det innebär att koldioxid avskiljs vid källan och lagras i t.ex. i berggrunden, för att inte komma ut i atmosfären igen. Koldioxidavskiljning är i en tidig fas och står inför helt andra utmaningar än de övriga områdena. Det ska därmed inte vara fokus för detta uppdrag.

Syfte

Är att Sida ska få fördjupad kunskap och underlag om hur organisationen inom ramen för sitt mandat ska relatera till marknadsbaserade mekanismer och användande av dessa. Underlaget ska tydliggöra fördelar och risker för Sidas utvecklingssamarbete och rekommendera hur dessa risker kan hanteras.

En viktig fråga är vad Sidas och utvecklingssamarbetets mervärde är i den här typen av verksamhet? En annan är vilka instrument som är intressanta för Sida och vilka som avrådes?

Utifrån underlaget kommer Sida utveckla en slutprodukt med rekommendationer och förhållningsätt till handläggare/ chefer som arbetar med eller kommer i kontakt med marknadsbaserade finansieringsmekanismer för klimat och miljö inklusive biologisk mångfald.

Genomförande

Uppdraget innebär att göra en kartläggning och analys (desk study) av befintligt material, från t.ex. UNFCCC, UNREDD, CBD. Detta sammanställs i en rapport innehållande rekommendationer kring vilka åtgärder Sida bör förorda i relation till marknadsbaserade finansieringsmekanismer.

I steg 1 måste de, för Sida relevanta, olika finansieringsmekanismerna för klimat och biologisk mångfald (PES, utsläppsminskningar) och för energiomställning identifieras och kartläggas. Fördelar, nackdelar och risker i relation till Sidas mandat och perspektiv (som HRBA, gender) bör identifieras. Det är viktigt att bedöma de olika mekanismerna utifrån frågeställningarna i Sidas miljöbedömning som ska genomföras i Sidas samtliga insatser.

Underlaget bör ta hänsyn till:

- Lärdomar från carbon markets och de safeguards som föreslagits (CDM samt nuvarande diskussion under artikel 6).
- Lärdomar kring REDD+ och de safeguards som föreslagits
- De safeguards för biodiversity financing mechanisms51 som utvecklats under Konventionen för biologisk mångfald (CBD).
- Uppdraget bör även bygga på sånt Sida redan gjort under uppdraget för Utvecklingsfinansiering samt Regeringsuppdraget för biologisk mångfald och ekosystem 2020-2023. Under det senare tas för ögonblicket fram en evidensbrief kring finansieringsmekanismer som även ska inkludera klimat.
- Andra givares verksamhet inom området
- Andra för uppdraget relevanta lärdomar inom området.

[51] COP 14 (CBD/COP/DEC/14/15 see 14/15. Safeguards in biodiversity financing mechanisms (cbd.int) and CBD VOLUNTARY GUIDELINES FOR SAFEGUARDS: IMPLEMENTATION PATHWAYS)