

CARBON MECHANISMS REVIEW

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The Transition Period

Towards implementation of the Paris Agreement

Linking CDM with the GCF

Why joining forces makes sense

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editorial

Dear Reader!

Half a year after adoption of the Paris Agreement, many Parties are pushing towards full ratification by the end of the year, and with the announcements from the US, China and possibly India the chances of achieving this goal are remarkably good. Implementation of the Paris decisions is thus key. This also applies to the carbon markets, for which Article 6 of the Agreement offers a variety of new ways of cooperation.

This issue of the Carbon Mechanisms Review therefore deals with the transition period ahead. Our authors take up the results of the intercessional meeting in Bonn in May and look at the tasks ahead on the road to Marrakech. We also take a renewed look at the question of sustainable development benefits, which has been given greater emphasis in Article 6. Further, we explore ways for the Green Climate Fund to make use of the CDM and report on the support needs of Parties when combining the use of market mechanisms with NDCs.

On behalf of the editorial team, I wish you an informative read.

Christof Arens



**Wuppertal
Institut**

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From Paris to Marrakesh

Negotiations in Bonn lay solid foundations for COP22

by Dr. Karsten Sach, Director General Climate Policy, European and International Policy, BMUB

In Paris in December last year, the international community agreed to tackle the challenge of climate change through ambitious action and in a spirit of solidarity. Paris marked a historic turning point. The Paris Agreement (PA) lays the foundations for transforming our societies towards climate neutrality, greater resilience and for shifting the necessary investment flows. It creates political momentum for the international community to analyse every five years how much still needs to be done, and it creates transparency about how far each Party has progressed towards achieving its goal. And the Paris Agreement creates incentives for every Party to review its goals regularly and make them more ambitious.

The “spirit of Paris” also shaped the first session of the new Ad Hoc Working Group on the Paris Agreement (APA) in Bonn in May. Its focus was on setting out the Agreement in concrete terms and preparing implementation measures. The subsidiary bodies (SBI, SBSTA), which carry out the implementation work of the UNFCCC and the Kyoto Protocol, will also increasingly gear their work towards implementing the Paris Agreement.

The hope linked to the Paris Agreement that international meetings can be depoliticised and become more oriented to cooperation was enhanced by the negotiations in Bonn. The technical expert meetings on mitigation and adaptation, the incorporation of activities by non-state players and constructive discussions and events on implementing nationally determined contributions (NDC) and on transparency initiatives contributed to this.

With the latest round of negotiations in Bonn we laid solid foundations for the next climate change conference in Marrakesh. We support the upcoming Moroccan COP presidency in its endeavour to make COP22 a COP for implementation and action so that the Paris Agreement can begin to take effect quickly. We would like to see progress on capacity building for developing countries and on mobilising finance, and concerning the concrete form of the ambition and market mechanisms envisaged in the Agreement.



Global stocktake as a key mechanism for enhancing ambition

175 countries signed the Paris Agreement on the very first day in New York in April. This is an unprecedented sign of support. So far, 17 countries have ratified the Agreement. Over 20 countries, including major emitters like China and the US, intend to do this by the end of the year. The Agreement enters into force once 55 countries representing 55 percent of global emissions



Shifting the trillions – finance flows must be steered towards a climate-friendly path.

have ratified it. This may even happen at the end of the year, but in any case well before 2020.

The Paris Agreement is founded on nationally determined contributions by countries themselves in keeping with their specific situation. The contributions presented in Paris mark a significant improvement compared with the status quo but are by no means enough to place the world on a development path compatible with the 2°C or 1.5°C goal. A fundamental component of the Agreement is a mechanism encouraging countries to make their goals more ambitious over time, thus driving forward the necessary transformation.

To be able to regularly review whether the global total of the nationally determined contributions will be enough to achieve the long-term goal, the Paris Agreement provides for a global stocktake to be carried out every five years (Article 14). In the provisional form of a facilitative dialogue, the global stocktake will take place in 2018 for the first time and will sim-

ply look at progress in reducing greenhouse gas emissions. Starting in 2023, a five-year cycle will then be introduced that takes stock of global long-term target achievement in the three areas of mitigation, adaptation and means of implementation and support. The outcomes of the global stocktake will regularly be incorporated into national decisions on the updating and enhancing of the NDCs due two years later.

All Parties, whether developed countries, emerging economies or developing countries, are obliged to draw up and communicate new NDCs every five years, starting in 2025 (Article 4(9) PA). The successive NDCs must be more ambitious than the previous one in line with the principle of progression (Article 4(3) PA). By 2020, the Parties will transform their intended nationally determined contributions (INDC) into actual nationally determined contributions when ratifying the Agreement. To quickly close the gap in the level of ambition, all Parties are called on to raise their ambition before 2020.

Strengthening cooperation for successful implementation of NDCs

To ensure the success of the Paris Agreement it is essential that Parties translate their nationally determined contributions into specific policies and measures. As well as the actions that this will entail in Germany and within the EU, in Paris we also pledged to support developing countries in this process. The Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) presented an international partnership on NDCs in Bonn. With this partnership we are aiming to improve cooperation between donor and developing countries, and between development and environment ministries, in order to facilitate NDC implementation. There has been a very positive response to this initiative.

Climate finance as a driving force for transformation processes

The Paris Agreement sets the goal of making global finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient sustainable development. Limiting global warming to well below 2°C or even to 1.5°C also serves as a global orientation for investments in energy systems and infrastructure measures. This is a task for both public finance and private investments - it is a question of steering finance flows to a climate-friendly path ("shifting the trillions").

International climate finance - in other words, funds mainly pledged by developed countries to support effective climate action in developing countries and emerging economies - plays an important, catalytic role. In the context of the NDCs presented in Paris, developed countries reaffirmed their pledge made in Copenhagen to mobilise 100 billion US dollars per year from 2020 for climate action in developing countries.

Germany is one of the largest donors to international climate action and will continue to step up its commitment in future. Federal Chancellor Merkel has announced that the German government is striving to once again double its climate

finance by 2020 compared with 2014. The German government supports international climate activities through bilateral and multilateral programmes and funds that contribute to greenhouse gas reduction, adaptation to climate change and forest and biodiversity conservation. The Federal Ministry for Economic Cooperation and Development and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety are working hand in hand on this, for example with their involvement in the Green Climate Fund (GCF). As the new, key instrument for multilateral climate finance, the GCF's goal is to change fundamental thinking patterns and to drive forward the shift to low-emission sustainable development.

The BMUB's International Climate Initiative (IKI) supports developing countries and emerging economies by applying the principle of "implementation and negotiation".

The IKI promotes specific measures on lowering emissions, adapting to climate change and conserving forests. In this way it also supports the multilateral climate process by highlighting the benefits of reform processes that facilitate a low carbon and climate-appropriate development. Following the Paris climate change conference, the focus of the IKI is now on supporting partner countries in implementing their NDCs.

To raise the Parties' level of ambition it is essential to mobilise climate-friendly investments. Climate finance therefore promotes the development and implementation of sustainable business models, which facilitate investments in renewable energies, energy efficiency and protection of the natural foundations of life to ensure food security. Mangroves are a good example of such co-benefits. Conserving and establishing mangroves also protects coastlines and nursery grounds for fish, thus securing the livelihoods of the local population.

It is also a question of steering a new course because often political and economic frameworks create incentives that are harmful to the climate and biodiversity. There are examples of this all over the world - subsidies and public support programmes that send the wrong signals in the energy, building, transport and agriculture sectors and that still squander vast amounts of precious public funding. But private finance is also flowing in the wrong direction, working in a counterproductive way to climate action. Climate finance should help bring about a new way of thinking in partner countries. The



Raising ambition – the Paris agreement offers new options for cooperation.

goal is to gain support for economically viable and socially sound solutions, for example getting rid of subsidies for fossil energy sources and using the funds for sustainable development. To achieve this major turnaround it is important to take a systematic approach covering all policy instruments. This includes policy advice for climate-friendly fiscal policy, the introduction of carbon pricing instruments, the establishment of climate-friendly investment criteria and the pricing in of climate risks.

Voluntary collaboration for raising ambition - the paradigm shift in carbon markets

Article 6 of the Paris Agreement provides Parties with the international law framework for a very wide range of voluntary cooperation options. At first glance, market mechanisms and non-market mechanisms appear to be opposites. In the Kyoto Protocol, market mechanisms provided an opportunity for countries purchasing credits to achieve their target in a cost-effective way. This aspect is no longer at the forefront in

Article 6. The use of market mechanisms now primarily serves to raise the level of ambition. What the Parties can achieve without support from other countries and what they have pledged to do in the unconditional part of their NDCs can no longer be used as tradable credits for other Parties to achieve their targets. We see this as a clear paradigm shift that now has to be reflected in international provisions on the individual mechanisms.

Learning from the Kyoto Mechanisms – and going the next step

It is therefore important to learn from the experience gained with the Kyoto Protocol's flexible mechanisms - Joint Implementation (JI) and the Clean Development Mechanism (CDM). Simply taking over the existing structures and procedures will not be an appropriate way to meet the demands and requirements of the Paris Agreement. Despite the improvements to the CDM that have been achieved, a range of deficits still persist. These include the lack of focus on transformation processes and the often insignificant contribution to sustainable development. Regarding JI, it is crucial to bear in mind the

catastrophic consequences resulting from the hot air in the system in combination with the UNFCCC's lack of control over the majority of projects. Only a small share of the JI projects are likely to satisfy the additionality requirements of the CDM. The question of what can be taken over from JI is therefore very much a rhetorical one.

In contrast, the CDM has brought a great deal that can be made use of for the future: The general transparency and focus on sound MRV as well forward looking new elements such as the concepts of the programme of activities (PoA) and standardized baselines (SBL). Both of these are important because they provide good options for linking implementation of Parties' NDCs to the international carbon market.

It is up to the host countries themselves, in national strategies such as the low emission development strategies and their climate-relevant policies, to outline in more detail than already done in the NDCs what they can achieve with their own resources and where they need access to international resources, and also to the market mechanisms.

It is essential to prevent windfall profits - otherwise financial resources would be wasted and climate targets would be undermined.

Therefore the question of additionality of measures remains in the focus. We should thus take over the requirement of assessing additionality of mitigation outcomes from the CDM. In view of the participation of industry and individual companies, we will need an independent review like it was established in the CDM. But again, we also have to think along new lines. The question of how individual mitigation activities impact on achieving and overachieving an NDC is both of international interest and of very practical value for the monitoring of the "external contributions" by the host country's government.

Concentrating on a swift transition to the Paris Agreement

The question of whether it would be legally possible to continue the CDM after 2020 makes no political sense. Of course there is the Kyoto Protocol's true-up period up to 2023. And, naturally, CDM projects should not come to an abrupt end - the loss of the mitigation impacts of these projects on a scale

of gigatonnes would be a disaster from a climate policy perspective!

Nevertheless, it will not be possible to simply take over all CDM projects into a new mechanism. There should, however, be an opportunity for projects to reapply under the new mechanisms. And if they comply with the criteria of the new certification mechanism under UNFCCC supervision, i.e. the criteria of Article 6.4, they will also benefit global climate action. If they are not recognised, it either means that these activities have adequate financing, i.e. are not additional, or that they have no quantifiable climate benefit. But this will have to be decided on a case-by-case basis.

I therefore advocate a fresh start for the market with new market mechanisms that fit into the settings of the Paris Agreement.

At the next climate change conference in Marrakesh, the important thing for the tasks under Article 6 is to take the implementation character of the conference seriously. It is not a matter of fundamental debates about how the mechanisms should be interpreted. The Paris Agreement has laid the foundations for both non-market mechanisms and market mechanisms, with Article 6.2 regulating the exchange of Internationally Transferrable Mitigation Outcomes (ITMOs) and Article 6.4 introducing a certification mechanism (Sustainable Development Mechanism) under UNFCCC supervision.

In order to maintain the momentum from Paris for international climate negotiations on this issue we need well balanced progress on all elements of the Article 6. However, it is also important to bear in mind that the article should not be considered in isolation. The Paris Agreement has a more complex architecture than the Kyoto Protocol. Article 6 is dependent on provisions in other parts of the Agreement, especially concerning accounting and transparency. Negotiations on Article 6 need to shape the specific provisions for markets, especially on avoiding double counting and ensuring environmental integrity.

Why linking the CDM with the GCF is a good idea

Combining the forces of public and private actors to scale up climate action in a post-2020 climate framework

by Szymon Mikolajczyk and Sandra Greiner, *Climate Focus*; Stephan Hoch, Axel Michaelowa, *Perspectives Climate Group*; Fabrice Le Saché, *Aera Group*

While the CDM has been suffering from neglect in the last years, the Green Climate Fund (GCF) has been prospering. We make the case that by combining their strengths, both institutions together could reach the scale that is necessary to deliver on the ambition of the Paris Agreement (PA)¹. The GCF is poised to become the key UNFCCC vehicle for large-scale, public international climate finance, but it is still at an early stage of its institutional evolution and can benefit from approaches developed under the UNFCCC's CDM for over a decade. Linking the two institutions can strengthen the results-based focus of climate finance, help leverage private capital, and pave the way for future demand for carbon offsets both pre-2020 and under the Paris Agreement. Formal discussions should be initiated between the CDM Executive Board (EB) and the GCF Board, showing commitment from both sides to progress on harnessing synergies, and communicating confidence to carbon market participants and host country governments.

The PA has redefined the global climate policy architecture. It provides a new universal, legal framework that strengthens the global response to the threat of climate change (Art. 2) by establishing that all Parties contribute to climate change mitigation and adaptation. At the same time, it builds on the vast landscape

of existing institutions and experience that have evolved within the UNFCCC process over the years.

To achieve the huge ambition of the PA – keeping global warming “well below” 2°C, or even 1.5°C, rapid implementation of large-scale mitigation action is urgently needed. Leveraging existing carbon markets and strengthening climate finance institutions is vital to achieve the scale of finance needed to trigger the transition towards low carbon development. Recognising this, Parties decided that successful elements of existing market mechanisms should serve as the foundation for the future mechanism established under Article 6.4 of the PA.

The CDM – one of the flexible mechanisms introduced under the Kyoto Protocol (KP) – has generated over 1.6 billion CERs and became the unexpected early success story among the Kyoto Mechanisms. The mechanism successfully attracted private sector investment in projects hosted in developing countries and created an internationally recognised framework for realising mitigation action. While the lack of Annex I mitigation ambition, among other factors, led to a crash in Certified Emission Reduction (CER) prices, the CDM's methodological toolbox has evolved significantly over time, broadening its sectoral scope and introducing programmatic and standardised approaches. The

¹ This article summarises the findings of an ongoing research initiative supported by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) that explores the possibilities of supporting CDM activities on the African continent.



Source: KfW photo archive / Nehmzow

Harnessing the synergies – experience gained with the CDM could serve the GCF in many ways.

mechanism delivers unique experience on implementing mitigation action in developing countries in a transparent, verifiable and independent way. It can also serve as a framework for results-based climate finance when linked to voluntary CER cancellation, thereby moving beyond its original role of providing CERs for Annex I countries.

As such, the potential for harnessing synergies between the CDM's measurement, reporting and verification (MRV) framework and climate finance is emerging. We argue that the CDM's MRV standards can support the GCF in demonstrating the mitigation impact of its interventions. This is becoming even more relevant, as host countries are expected to report their national contributions to the PA in a transparent and comparable manner. Moreover, the market-based design of the CDM and familiarity amongst private

sector investors can also support the GCF in leveraging private capital.

Status Quo

While the rise and fall of the CDM is well documented, the mechanism should not be written off prematurely. While uncertainty with regard to its role in the post-2020 climate landscape impairs the marketability of CERs, initiatives are underway to revive the mechanism. 2016 is set to be an important year in this respect, as the discussion of linking the CDM with climate finance has become a formal agenda item set by the CMP.

In Paris, the CMP11 encouraged the CDM EB to explore new opportunities for the CDM through international

climate financing channels, and report back to CMP12 in Marrakech.² The UNFCCC Secretariat has in the meantime identified four main areas in which the CDM can contribute to global mitigation efforts, including linking the CDM with NDCs and positioning the mechanism as an MRV tool to enable credible and transparent results-based climate finance, including from the GCF.³ In March 2016, the CDM EB issued a call for public input on these options. Furthermore, the CDM EB hosted an in-session workshop to further explore the topic during SB44 in Bonn.

At the same time, the COP requested the GCF to actively collaborate with other UNFCCC bodies.⁴ In response, the Fund has acknowledged the need to develop an engagement strategy with “relevant thematic bodies established under the Convention” to draw on expertise and lessons learned to date.⁵ The CDM already features as one of the four potential financing instruments that the Fund’s Private Sector Facility (PSF) – the Fund’s arm for mobilising private sector action – could use to leverage private sector capital. The GCF furthermore recognises that the mechanism has created a ‘credible and transparent framework for results-based financing of low cost mitigation activities’.⁶ The PSF Business Model Framework also proposes the use of CER price guarantees for certain types of CDM activities (e.g. energy access). Elaborating these options would certainly strengthen confidence in the CDM and direct private sector investment to low carbon development.

Aside from this reference to the CDM released in June 2013, the GCF has been cautious in formally taking a position. This reservation is surprising as the Fund’s Governing Instrument, adopted during COP 17 in Durban in 2011, clearly recognises the value and necessity of building on established UNFCCC mechanisms. Specifically, it calls on the Board to “develop methods to enhance complementarity between the activities of the Fund and the activities of other relevant bilateral, regional and global funding mechanisms and institutions, to better mobilise the full range of financial and technical capacities”.⁷ The GCF already embraces results-based climate finance in support of forestry and land use activities. Operational guidance is under

development to be discussed during the 14th GCF Board meeting in October 2016. This presents a timely opportunity to open a broader discussion on results-based finance and the role complementary UNFCCC mechanisms including the CDM can have in it.

Merits of collaboration

Having currently received pledges of USD 10.3 billion, the GCF is committed to award up to USD 2.5 billion in funding annually from 2016 onwards. Despite this ambitious objective, no coordinated approach to methodologies for assessing the mitigation impact of GCF-supported activities exists to date. The Initial Results Management Framework (RMF) of May 2014⁸ lays the foundation for the Fund’s MRV requirements and includes indicators to measure progress toward results, yet lacks concrete baseline and monitoring methodologies. Insufficient clarity on how GHG mitigation impact will be tracked in GCF funded projects and programmes undermines the effectiveness of the appraisal process and may lead to ambiguous outcomes regarding mitigation benefits of funded projects. The current lack of a unified and recognised standard for implementing MRV can also discourage participation of specialised investors that require credible proof of the achieved mitigation. Furthermore, de-politicised approach to eligibility ingrained within the CDM is one important factor that has helped to encourage the private sector’s interest to engage with mitigation activities in developing countries.

The CDM’s tried and tested MRV system is available ‘off the shelf’. With over 200 methodologies, it can cover the vast majority of mitigation projects potentially submitted to the GCF. While these may need to be simplified in some cases, they can provide the quality needed to support the GCF with achieving credible mitigation results. By incentivising project implementers to apply CDM MRV standards, or directly supporting “high-quality” CDM activities with scale-up potential and clear sustainable development co-benefits, the GCF can achieve four objectives:

² UNFCCC. *Guidance relating to the clean development mechanism*. December 2015

³ CDM. *Options for using the clean development mechanism as a tool for other uses*. March 2016

⁴ UNFCCC. *Report of the Conference of the Parties on its seventeenth session*. March 2012

⁵ GCF. *Relationships with Relevant UNFCCC Thematic Bodies, as well as Other Climate Finance Entities and External Bodies*. October 2014

⁶ GCF. *Business Model Framework: Private Sector Facility*. June 2013

⁷ GCF. *Governing Instrument for the Green Climate Fund*. December 2011

⁸ GCF. *Initial Results Management Framework*. May 2014



Source: Adam Bacher / nurenergy.com

Into the light – the CDM's MRV toolbox offers transparency and recognition.

I. Strengthen the results-based focus of climate finance

Compared with the current application of “home-baked” mitigation methodologies by Accredited Entities under the GCF, use of the CDM’s robust MRV framework can demonstrate the mitigation impact of climate finance channelled through the GCF. Ongoing efforts to standardise and simplify CDM methodologies and procedures will further enhance the value of this UNFCCC-approved framework to the needs of climate finance. By strategically collaborating with the CDM on the MRV issues, the GCF can achieve results-based finance without spending a huge amount of time and resources to ‘reinvent the wheel’.

II. Leverage the existing CDM pipeline

Demand for CERs has dropped precipitously in recent years as a result of insufficient mitigation ambition, and the CDM is struggling to stimulate new mitigation investments. By extending revenue support to additional, high quality CDM activities that have stalled operations or are at risk of discontinuation due to the lack of CER revenues, the GCF can rapidly generate a pipeline of GHG mitigation

activities commensurate with its high ambition to mobilise mitigation action.

III. Attract new sources of (private) climate finance

Given its decade-long track record, private sector investors have become acquainted with the CDM and value its de-politicised modus operandi. By directly supporting high-quality CDM projects, the GCF can strengthen its capacity to leverage private sector investment. Furthermore, institutional investors are increasingly interested in understanding the impact their funding has on GHG emissions. Lack of internationally accepted definitions and unified standards for green investments and achieved GHG mitigation impact are one reason green investment opportunities fail to materialise. The CDM can support the GCF in delivering an internationally recognised MRV framework that enables investors to link investments to GHG mitigation.

IV. Pave the way for future demand

If governments are serious about the high ambition of the PA, all sensible mitigation options need to be mobilised. This means that market mechanisms and climate finance need to work “hand in hand” to increase mitigation supply by an order of magnitude. Only by building on each other’s strength can the Paris Mechanisms and international climate finance institutions achieve this quantum leap.

Engagement models

How can the GCF and the CDM be ‘married’? Our study has identified five potential engagement models that build on the GCF’s funding instruments: grants, concessional debt, green bond financing, equity finance, and price guarantees. Depending on the model, CERs are either used as financial instruments or proof of realised mitigation benefits.

I. Grant financing

This first model, which is particularly relevant for small activities with high co-benefits, would build on a straightforward financing arrangement between the GCF and CDM project implementers. Grant disbursements would be linked to projected GHG impact when delivered upfront or directly to the volume of issued CERs. Grant-based seed

capital support could be applicable to the early development stage (e.g. targeting feasibility assessments, initial exploration activities, etc.) or during the financial structuring of the activity, where a funding gap prevents the project implementer from reaching financial closure.

II. Debt funding

The second model – which is attractive for mitigation actions that are able to mobilise a substantial volume of equity – pegs the debt terms and conditions to CER generation. The GCF could extend loans to CDM activities with a variable spread that is linked to CER volumes and affects the concessionality of the finance. Following an initial grace period, the offered interest rate would be adjusted annually based on the amount of CERs that are cancelled by the project implementer. This would create a ‘win-win’ situation: the project implementers could use the option provided by the GCF to monetise CERs through a discounted interest rate. Still, they could also revert to selling CERs to the market should the monetary benefit exceed that of the concessionality of the GCF’s funds.

III. Green bond financing

For very large projects, the GCF could support credit enhancement by extending a credit guarantee to cover a portion of the debt marketed through a green bond. As a result, the risk of default would be reduced and the credit rating of the bond could be improved, allowing institutional investors to engage. Similar to the standard debt model, the issuance success rate of CERs could be used to determine the level of a floating coupon rate. As typical institutional investors are unlikely to accept a variable coupon rate linked to GHG mitigation results, the GCF could step in to ‘top-up’ the coupon payments in the event of CER cancellation. When monetised on the market, issued CERs would not impact the coupon rate and the GCF’s involvement would be restricted to the original credit guarantee.

IV. Equity financing

For projects of various sizes, the GCF could deliver ‘concessional equity’, whereby it foregoes its portion of the dividends paid out in cash and in turn accepts payment in CERs, which are cancelled upon issuance. Any remaining

CERs could be sold to the market. CER issuance success could also be linked to the GCF’s exit strategy. To maximise impact of invested capital, the GCF could invest its funds under the condition that it can withdraw its contribution if CER underdelivery on the portfolio level exceeds a certain percentage. In the event of long-term underperformance, the GCF could revert to an exit clause to avoid tying its funds to an investment that fails to deliver on the promised impact potential.

V. Price guarantees

For experienced CDM project developers, it would be attractive if the GCF provided a put option for CERs, thereby de facto establishing a floor price which enhances investment certainty. If the market price is higher than the option, developers would sell the CERs on the market. This model, already applied by the World Bank’s Pilot Auction Facility, has proven its ability to revive stalled activities, and is very close to the PSF model described above.

Looking ahead

In this article we argue that greater engagement between the GCF and the CDM can scale-up mitigation action, both leading up to 2020 as well as in the new climate framework. We believe the debate between national governments, accredited entities, project implementers and other stakeholders on linking the CDM and the GCF is a key success factor for delivering on the urgent need for far-reaching mitigation action as agreed in the PA. We argue there are clear reasons why linking the two institutions would be mutually beneficial, and offer engagement models for how this can be done in practice.

This debate is currently still at an early stage and would benefit from a wide exchange of views and actual practical experience. Today there are still no precedents on how the GCF may leverage projects and methodologies of the CDM. As part of our research initiative we are both exploring top-down models of engagement (a study is underway) as well as initiating bottom-up proposals to the GCF in support of high-quality CDM activities in Africa.

The Best of Two Worlds

Article 6 mechanisms shall contribute to Sustainable Development Goals (SDGs)

by Karen Holm Olsen, UNEP DTU Partnership (UDP) and Alexandra Soezer, United Nations Development Program (UNDP)

The Paris Agreement and the UN Sustainable Development Goals (SDGs) were two milestone achievements in 2015. The Intended Nationally Determined Contributions (INDCs) put forward by Parties before the Climate Conference in Paris will have to be fully embedded in the 2030 agenda to achieve truly transformational, lasting impacts for low carbon and SDGs and, ultimately, resilient communities that are able to quickly respond to and recover from adverse situations.

To avoid negative impacts of NDC mitigation policies and actions (MPAs) and ensure that the newly introduced mechanisms and frameworks under Article 6 of the Paris Agreement will contribute to SDGs in a transparent and measurable way, a coherent and structured Sustainable Development (SD) assessment is essential.

The SD objective of Article 6 mechanisms

Article 6 of the Paris Agreement establishes two ways of market-based cooperation between Parties (Art. 6.2-6.3 and Art. 6.4-6.7) and a framework for non-market approaches (Art. 6.8-6.9) as means of international cooperation. A defining characteristic of the three ways of cooperation is the common objective that all MPAs shall contribute to SD. Art. 6.2-6.3 enable Parties to use the International Transfer of Mitigation Outcomes (ITMOs) to achieve their NDCs and promote SD, while Art. 6.4-6.7 define a mechanism that will contribute to the mitigation of greenhouse gas emissions and support SD. In the negotia-

tions leading up to the Paris Agreement this was named the Sustainable Development Mechanism, reflecting the ethos of the mechanism that mitigation outcomes are not the only primary objective but a means to support development priorities in a sustainable way. A framework for non-market approaches to SD is defined in Art. 6.9 with the aim to promote both mitigation and adaptation ambition in NDCs, enhance public and private sector participation and facilitate coordination across instruments and institutions. To ensure consistency and avoid fragmentation of carbon markets, SD assessment should be treated in the same way across all cooperative approaches of Article 6. Regardless of differences in the three approaches, a common international approach to highlight the contribution of MPAs to global and national SDGs along with safeguards to avoid negative impacts is crucial to ensure the integrity of mitigation outcomes.

Particularly Article 6.4, later renamed the Sustainable Mitigation Mechanism (SMM) (Marcu 2016) to reflect its two equally important objectives of contributing to the mitigation of GHG emissions and fostering SD, provides a strong mandate for quantitative sustainable development assessment. In the Paris Decision (§ 37 b) to give effect to the Paris Agreement it is stated that rules, modalities and procedures shall be adopted by the Conference of the Parties serving as the Meeting of the Parties to the Agreement on the basis of 'real, measurable and long-term benefits related to the mitigation of climate change'. Though the wording of the decision is exactly the same as the wording in Article 12 (§ 5 b) of the Kyoto Protocol



Making the benefits visible: mitigation activities have multiple effects, among them job creation. Technician servicing a wind turbine.

defining the Clean Development Mechanism (CDM), the framing is different. In the CDM the wording refers to emission reductions resulting from each project activity, while in the SMM the wording refers to the mechanism as a whole. With the dual objective of the SMM this means that not only the GHG emissions shall be 'real, measurable and long-term'. Also, the SD benefits shall be assessed in an equal way based on the same requirements. Compared to the CDM this is a much strengthened provision for SD assessment with far reaching implications. Guidance will be needed at international level to demonstrate how MPAs contribute to SDGs and avoid negative impacts such as human rights violations. The PD (§ 37 f) further states that the SMM shall be based on experience and lessons learned from existing mechanisms and approaches under the Convention and its legal instruments such as the CDM.

Learning from experience

UNEP DTU Partnership (UDP) assisted the UNFCCC Secretariat to develop the voluntary CDM SD tool, which was approved by the CDM Executive Board in 2012. Recently, UDP and the Wuppertal Institute reviewed experience and lessons learned from using the tool to provide recommendations to improve the SD assessments of mitigation actions undertaken so far (Arens et al. 2015). Key shortcomings identified were a lack of no-harm safeguards, monitoring and reporting guidelines, independent third party validation and verification of SD claims, links to enhanced stakeholder requirements and the absence of a standard for quantification of SD co-benefits within a UNFCCC certification framework for Designated National Authorities (DNAs).

In national consultation meetings with key stakeholder, UNDP has often experienced that SD benefits of Nationally Appropriate Mitigation Actions (NAMAs) are a central element for encouraging country ownership and long-term sustainability of actions. Building on the CDM SD tool, UNDP further developed the assessment of SD impacts of actions through a structured, bottom-up approach to measure SD impacts of actions. UNDP developed an SDG tool (UNDP, 2014) that will help policy makers evaluate the sector-specific transformational impacts of country-led actions and enables them to track the SD impacts of a NAMA over its entire lifetime. The SDG tool is designed to define, quantify and monitor SD parameters while gathering instrumental data to help politicians make informed decisions and create the right policy instruments that will lead to sectoral paradigm shifts.

The approach taken is to identify the most relevant indicators under five domains (environment, social, economic, growth & development) which highlight those impacts that have dual impacts on social and economic development and institutional, formulate parameters to quantify impacts, detail monitoring and reporting requirements (including sampling approaches), and ensure that all identified parameters can be easily verified by a third party verifier through guidance provided for monitoring, reporting, quality assurance and quality control. Each indicator is linked to the SDGs and their targets to ensure that the impacts of an action can be assessed against the overall SD priorities of a country.

The SDG tool provides guidance for a structured approach to SD assessment and demonstrates that impacts are 'real, measureable and long-term' while keeping sufficient flexibility for policy makers and stakeholders to identify those impacts that can be quantified cost-effectively and others that are described in a qualitative manner to prevent project implementation from becoming too costly.

The defined linkages between countries' MPAs and the SDGs will ensure future alignment of NDC implementation with the Agenda 2030 and further

the achievement of the SDGs. Article 6 approaches can play a crucial role to promote national and global SDGs and enhance ambition for MPAs provided that international guidance is developed to enable coherent SD assessment across mechanisms and instruments. Existing experience and lessons learned from CDM and NAMAs shall inform the assessment of SD impacts to ensure that Article 6 approaches do not repeat the weaknesses of the CDM to pursue a climate-centric approach and miss out on the opportunities to promote SDGs.

Disclaimer: *The views expressed in this opinion piece are attributable to the authors in their personal capacity and not to any institutions with which they are affiliated.*

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Contributing the Details

The link between the Clean Development Mechanism and Nationally Determined Contributions to climate action

by Vintura Silva, Luca Brusa and Nicolas Muller, UNFCCC Secretariat

Prior to the adoption of the Paris Agreement, Parties to the UNFCCC communicated their intended nationally determined contributions (INDCs), indicating their contribution of the collective effort to address climate change after 2020. By 31 December 2015, 160 INDCs, representing 188 Parties, had been submitted. The preparation of this number of climate plans within a short timeframe created an unprecedented challenge in terms of capacity-building and support that had to be delivered. The UNFCCC secretariat facilitated preparation of INDCs, ensuring that information was made available to Parties. Besides support to Parties as mandated to the secretariat, the

five UNFCCC Regional Collaboration Centres (RCCs) together with their host partners provided substantial support to the Parties through financial assistance from the Governments of Germany and Norway.

Delivering support according to needs

To direct this support where it was needed most, RCCs started mapping out the status of INDCs under preparation and carried out a survey to identify areas



Source: KfW photo archive / a uslöser fotografie

Tailor-made support: RCC's supported INDC preparation.

where support was needed. This mapping revealed strong differences in the extent of support needed. For example, Parties already well on track to finalizing their INDCs only requested a final review of their draft. However, many parties were still seeking support for initial phases of their INDC preparation. Major areas in which support was requested include: (i) determining the national GHG baselines; (ii) evaluating financial resources needed for INDC implementation, especially to determine the domestic as well as internationally supported actions; (iii) identifying policies to implement climate action and; (iv) identifying national expertise and input to prepare the INDCs. The RCCs delivered their support in the form of national and regional workshops, technical support by RCC experts, and clinic-style support for INDC developers in regional centres. To provide support at the scale needed, the RCCs involved host partners and regional experts, coordinated the work, and tapped into their network of regional and international capacity-building organisations. The focus of this exercise was also to develop sufficient capacity within the region to carry forward activities to implement the INDCs.

Markets in INDCs

Out of 188 parties which submitted an INDC in 2015, a total of 71 Parties stated a clear intention to use markets, some referring directly to the Clean Development Mechanism (CDM). A further 54 Parties considered use of markets to reach emission reductions. Some developing country Parties even went on to indicate that although they did not benefit from the CDM, they were willing to consider use of the CDM and other market-based instruments in meeting their INDC. What the INDCs also show is that Parties see differing uses for market mechanisms: for taking climate action domestically, abroad or collaboratively, but also for inviting financing of action to their country, either from other Parties or from other various sources of climate finance.

The needs expressed with regard to markets appear very much in line with needs expressed during sup-

port activities. For most supported Parties, a key question was how market instruments could benefit them (i) by channelling more finance / resources; (ii) by delivering co-benefits in terms of economic and social development and technology transfer; (iii) by delivering a ready-made Monitoring, Reporting and Verification (MRV) system, given the complexity of establishing MRV.

The RCCs and their regional partners facilitated dialogue on market mechanisms and their relevance to the INDCs through a series of roundtable discussions and webinars. These roundtables were an opportunity to understand the views of Parties, including views on possible uses of the CDM and possible future instruments, as eventually provided for in Article 6 of the Paris Agreement. A lesson of these interactions is that supported parties are generally open to any instrument, whether it would be the current CDM, an improved CDM or any other new instrument. Still for most parties, the crucial criterion for any mechanism remains improved access with low transaction cost, sufficient support and better regional distribution as a key result. How this can be achieved in the future depends now on choices by policy makers and international negotiators as well as sources of international support for climate action. Whether this will be achieved by instruments under Article 6 of the Paris Agreement remains to be seen. In this context, RCCs are currently conducting consultations with a broad range of non-state actors to identify concrete needs and expectations in relation to new instruments under Article 6 of the Paris agreement.

Next challenge: implementing the Nationally Determined Contributions

Adoption of the Paris Agreement and putting INDCs on the table will not solve the climate crisis. Success of the agreement will depend on Parties implementing the climate action stated in their INDCs. As Parties ratify the Paris Agreement, their contributions



Source: Lee / UNFCCC photo contest / CDM 1261

Proving the tools: the CDM framework could also be used for NDC financing and implementation.

will simply be called Nationally Determined Contribution (NDC), either by formally submitting an NDC or by implicitly letting the INDC submitted turn into an NDC. In determining how to deliver climate action, Parties will want to ensure efficiency, transparency and flexibility.

To support NDC implementation and respond to the needs of parties, the UNFCCC secretariat together with other partner organisations decided to repurpose its Nairobi Framework Partnership (NFP). The NFP will from now on support developing countries in implementing mitigation activities under NDCs in general, with a special focus on the use of market instruments and MRV systems. At the local level, sup-

port for the adoption of market mechanisms for NDC implementation will be delivered through RCCs.

MRV challenges

The Paris Agreement provides a general outline on mitigation actions and ways to report results but details still need to be elaborated. New tools for implementing climate action are expected, but may still be years away. What should Parties do in the meantime?

While most INDCs list post-2020 climate action, there are compelling reasons to start action before 2020, especially given the current mitigation gap. For this reason, detailed implementation frameworks for

climate action are immediately needed. This is even more so concerning supported climate action, where robust frameworks are needed to attract financing.

How the CDM could offer a way forward

So where can Parties find a framework for their mitigation action? An obvious solution could be to make use of existing ones, such as the CDM or Nationally Appropriate Mitigation Actions (NAMAs).

While the CDM created a market for mitigation outcomes, perhaps its greatest achievement is to have created a harmonized and trusted framework under international oversight for validating activities and verifying mitigation outcomes. These mitigation outcomes benefit from a high degree of transparency and recognition under the UNFCCC. The CDM framework is available to Parties, including as a domestic instrument, and can be used to achieve some of the key elements needed for NDC implementation.

Many Parties put forward INDCs

- (i) expressed as deviations from business-as-usual or
- (ii) listing projects and programmes they intend to implement as contributions to mitigation action.

In both cases, the CDM as an existing project- and programme-based mechanism for reducing emissions compared to the business-as-usual scenario provides a well-suited framework.

The CDM could also play a role for delivering climate finance, especially as it provided a well-known and trusted framework which comes with a ready-made MRV system.

Future of the CDM

Although the Paris Agreement establishes “a mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable develop-

ment,” this mechanism is not yet implemented. In the meantime, value remains in using the CDM for prompt climate action with international recognition. In particular, many of the principles listed for the new mechanism mirror those of the CDM. In fact, the Paris Agreement calls for taking into account “experience gained with and lessons learned from existing mechanisms and approaches adopted under the Convention and its related legal instruments” when developing the new mechanism. As such, the CDM is a working tool for use by Parties now and the expertise gained with the CDM is an asset for the future. While a number of stakeholders expect to see a bridge between the CDM and the new mechanism, it remains to be considered by Parties.

Outlooks

The time available between now and 2020 is to be used for enhanced climate action and channelling climate finance under transparent frameworks, without waiting for new instruments. New instruments under the Paris Agreement may come over time and replace the CDM, but the CDM framework and many of its features fit the purpose of immediate NDC financing and implementation.

Integrating the CDM in NDCs can allow a quick deployment of recognized and verifiable climate actions and has the potential to link national climate policies, international climate action and climate finance. RCCs stand to support parties, non-state actors and donors with a broad range of current and future instruments for climate action. It is now up to governments to use this framework for action to transform their engines of economic development and realize their full potential in meeting the global challenge of climate change.

Peatlands, Forests and the Climate Architecture: Market-based incentives

by Frank Wolke, German Emissions Trading Authority

Peatlands are a powerful source of greenhouse gas emissions. Estimates say they contribute 5% of global emissions. In Germany, emissions from peatlands are numerically comparable to those from the aviation sector. Little has been done so far, however, to develop means of encouraging reduction activities in this sector. A study by the German Environment Agency sheds light on options to promote peatland activities, with a special focus on market instruments such as result-based approaches. The study sees momentum for further engagement with the issue after Paris. This article summarises these views as food for thought.

One crucial aspect for integrating peatland activities into policy intervention is the question of accounting. Accounting and reporting for emissions from peatlands is somewhat cumbersome, especially as there are differences between reporting under UNFCCC and accounting under the Kyoto Protocol. While emissions from peatlands must be reported as emissions from organic soils under all UNFCCC categories, the Kyoto Protocol was mainly created as a mechanism to address industrial emissions, and merely offered parties the choice, on a voluntary basis, of using additional reductions activities through improved land management as an accounting option.

In this connection, accounting for wetland drainage and rewetting (WDR) activities –limited to organic soils drained or rewetted after 1990 – was introduced as a new possibility for the second commitment period, though only on voluntary basis. This new sector is not relevant for Germany, however. Germany chose instead to report on cropland and grassland. The most recent inventory shows that 73% of all German peatlands come under these two sectors (53% grassland and 20%

cropland). The accounting follows a net-net approach, meaning that it only tracks differences in emissions relative to the base year. As Germany, like most other Annex I countries, has not drained any previously undrained peatland since the 1990 base year, accounting for peatlands is ultimately a zero sum game. Following the incorporation of WDR into the Kyoto Protocol, the EU at least aligned its own accounting rules in Decision No 529/2013/EU of 21 May 2013.

Bearing in mind these challenges for the promotion of peatland activities, the German Environment Agency has conducted a study to explore policy options for mapping and integrating greenhouse gas-sensitive interventions in peatlands and forests in the emerging international climate change architecture. The underlying purpose is to present incentives for tapping into the vast emission reduction potential presented by peatlands and forests, and to feed the results into the ongoing climate negotiations on implementation of the 2015 Paris Agreement.

In terms of existing instruments and incentives, the only carbon market options for the sector were the flexible mechanisms under the Kyoto Protocol.

With regard to JI, it was questioned whether peatland activities were eligible at all as they (predominantly) aim at emissions reductions, whereas only actual removals are recognised for LULUCF projects under JI. A number of country-level LULUCF practices have emerged in recent years, however, though mostly under the domestic development track ('Track 1'), which has recently drawn a lot of criticism for lack of transparency and integrity. The EU ETS excluded any ERUs from LULUCF.

The other international market mechanism, CDM, likewise cannot be used for peatlands. The Marrakesh Accords exclude most LULUCF interventions from the scope of the CDM: “The eligibility of land use, land-use change and forestry project activities under [the CDM] is limited to afforestation and reforestation.” Although this has since been contested by some parties, there is still no overwhelming appetite in the political landscape to change it. In addition, the annual ceiling for Annex I parties wishing to use CDM LULUCF credits from A/R projects for compliance purposes is set at 1% of base-year emissions and is thus very tight. Moreover, credits issued are limited in time: Afforestation and reforestation projects can only generate either temporary CERs (tCERs) or long-term CERs (ICERs), which expire at the end of the following commitment period or project crediting period, respectively. This limitation requires Annex I parties wishing to use CDM LULUCF credits for compliance purposes to replace them each time they are about to expire.

This problem of permanence is a general material disadvantage for LULUCF credits. In case of the CDM, it adds a persistent handicap to the credits that other CDM credits do not have. Furthermore, the rules for issuance of tCERs and ICERs are highly complex and anything but self-explanatory. The CDM Executive Board just recently had to deal with the applicability of the pro rata approach for both types of certificates in its last meeting (see meeting report CDM-EB89, para. 49) with a view to potential flexibility in the timing of verification of afforestation and reforestation project activities. This relates to the differing rates of increase and decrease in carbon stocks over a monitoring period. The EB finally agreed to issue removals for the commitment period in which the monitoring period ends instead of applying a pro rata approach. The issue nonetheless highlights the problem of reliability and predictability of project outcomes for participants. The general limited duration of credits is related to the issue of “non-permanence of afforestation and reforestation project activities” in the Marrakesh Accords, addressing the possibility of removals from afforestation or reforestation being reversed (through fire, logging, or otherwise).

The same concerns would apply to peatland conservation and restoration if they were not disqualified from the mechanism from the outset. In consequence, any (new) market approach for peatland mitigation would have to carefully consider how to manage the issue of permanence in a practical matter while safeguarding environmental integrity.



Exploring the options – peatland restoration and conservation has long been neglected.

In the voluntary market, peatland activities are also a relatively new phenomenon. Only one peatland-related methodology for rewetting of tropical peatlands is applicable under the Verified Carbon Standard (VCS); more are currently under validation. The UK launched a Peatland Carbon Code in November 2015, thus incentivising the restoration of UK peatlands, over 80% of which have been degraded due to agriculture, forestry, track building or peat extraction.

Just as with mitigation activities in Annex I countries, peatland restoration and conservation has long been a neglected topic in developing countries – at least with regard to the climate change abatement potential. This is unfortunate, not least because actual emissions from degraded peatlands in such countries are disproportionately high. However, peatlands in tropical countries have received growing attention from climate policy makers in recent years.

All in all, the ground is there to think more carefully about options to create direct and indirect incentives for peatland-related mitigation actions. But what would be a suitable approach?

Different areas of activities may be looked at. The German Environment Agency study identified a portfolio of approaches and a wealth of strong conceptual ideas that are technically feasible and may prove politically acceptable. The approaches cited include accounting improvements, ideas for flexible market mechanisms, regional solutions such as incorporating the sector in emissions trading schemes, and ways of strengthening the voluntary market for related activities. On the other side of the coin, these considerations also show that

there is no silver bullet for incentivising mitigation in peatlands.

Addressing aspects of accounting to tackle LULUCF as mitigation source is a controversial issue in global negotiations. The EU commitment (INDC) still omits any determination on how to handle this while stating that a “policy on how to include Land use, Land Use Change and Forestry into the 2030 greenhouse gas mitigation framework will be established as soon as technical conditions allow and in any case before 2020”.

The European Commission will present proposals on how to integrate the LULUCF sectors into the framework together with proposals for a new Effort Sharing Decision for 2021-2030.

The EU climate target of at least 40% domestic reductions below 1990 levels by 2030 was decided in the October 2014 Council and communicated as part of the EU INDC. This target and its sub-targets for the emission trading and non-emission-trading sectors were calculated without taking LULUCF into account. Counting LULUCF towards the target in any way would therefore simply weaken the target.

One option to solve the fundamental problem of permanence in comparison to mitigation in other sectors would be a more sectoral approach, e.g. with separate targets for LULUCF and trading within the sector. This is something that could theoretically work both in the EU and internationally.

Another option consists of result based payments for mitigation effects of peatland restoration. These could be provided on a national basis, but could also be part of an EU-wide strategy or program.

The option of a sectoral market approach has strong transformational potential if and when it is defined in further detail and carefully shaped according to technical needs (such as reporting/monitoring questions and a solution for the issue of permanence) and political realities.

Bearing in mind that Article 6 (4) of the Paris Agreement (unlike CDM) has already established a mechanism for all and not necessarily only for developing parties, there may be momentum for a sectoral approach for peatland emissions. These differ from REDD emissions in that they occur in significant amounts in both industrialised and developing countries and therefore have potential for a common mechanism.

The overall aim, however, should be to help achieve higher ambition. With this aim in mind, it may be worth considering a sectoral Peatland Market Mechanism (PMM) either as a sector window or as a standalone approach. Quite apart from any REDD+ considerations with regard to markets, demand for a peatland market approach can come from within the same sector (peat offsets for peat-related emissions). Demand and supply could thus be directly linked. To illustrate this with an example: Assume Iceland and Malaysia were to participate in a (bilateral or multilateral) PMM, possibly linked through their respective INDCs. Both countries would then set national peatland emissions targets (based on historic emissions, projections and national circumstances) for a period of, say, 10 years. During that period, Iceland (whose annual peat-related emissions are around 5.7 mt CO₂eq) could combine its domestic peatland restoration efforts with conservation and restoration activities in Malaysia. Credits generated with the support of Iceland could be used under the Icelandic target while being deducted from the reduction efforts implemented by Malaysia (‘nesting’ to avoid double-counting).

The challenge still remains of how to discuss these aspects separately from the general REDD+/LULUCF negotiations. The unclear position on LULUCF poses the risk of discussions on sublevel aspects also being postponed. But by looking for alliances like a Peatland Partnership, it may be possible to foster the development of a specific peatland approach to achieve higher ambition.

A detailed description of different peatland approaches can be found in the study mentioned above, see:

<https://www.umweltbundesamt.de/publikationen/peatlands-forests-the-climate-architecture-setting>

Disclaimer:

This article is a personal contribution by Frank Wolke and does not necessarily express the opinions of the German Environmental Agency (UBA) / the German Emissions Trading Authority (DEHSt).

CARBON MECHANISMS REVIEW

Carbon Expo Report online

An analysis of this year's Carbon Expo as well as all presentations in the German Pavilion and at the side events can be found at

www.carbon-mechanisms.de/en/2016/carbon-expo-2016/

Research library updated

The JIKO website offers a comprehensive library of Carbon Market-related research, accessible via an easy-to-use database at

www.carbon-mechanisms.de/nc/en/publications/research/

Glossary

All Carbon Market terms and abbreviations are explained in detail in the glossary on the JIKO website.

You can view the glossary here:

www.carbon-mechanisms.de/en/service/glossary/