

SUMMARY OF THE EXPERT DISCUSSION ON UPDATING AND TRANSFORMING CDM METHODOLOGY FOR ARTICLE 6

Background:

On March 11, 2021, Perspectives Climate Group (Perspectives) and the Swedish Energy Agency (SEA) organised an expert discussion on transforming CDM methodologies for use in an Article 6 context. Moderator **Axel Michaelowa (Perspectives)** introduced the objective of the expert discussion, which was to discuss key findings of the recently published study '[CDM method transformation](#)' by Perspectives, First Climate and Climate Focus and to reflect on the development of carbon market methodologies for Article 6 cooperation. In this process, CDM methodologies can provide a starting point for the development of Article 6 methodologies as they are the most important body of carbon market methodologies existing to date and were built upon and referred to in other domestic and international carbon market standards and systems. Developing methodologies is a costly and time-consuming exercise. Building on the experience gathered in the past 20 years is important to ensure carbon market activities can mobilize finance and safeguard environmental integrity in the near term.

In her opening remarks, **Sandra Lindström (SEA)** stressed that the integrity of carbon market activities is safeguarded through the methodology used to define mitigation outcomes resulting from the activities. Noting that these components, whether crediting baselines, testing additionality or quantifying emissions reductions, still lacked a governing 'rule-book' under Article 6 as of now, Sandra welcomed the unique opportunity to discuss how to develop Article 6 methodologies, which is also of relevance for SEA's engagement in Article 6 pilot activities, where the SEA strives to ensure that activities pursued fundamentally increase mitigation ambition in line with the Paris Agreement long term goals.

Key results of the study "CDM method transformation"

In her presentation, **Aglaja Espelage (Perspectives)** presented key messages and insights generated by the study 'CDM method transformation' that analysed a subset of selected CDM methodologies and tools for their congruency with expected Article 6 rules on additionality, baseline setting and monitoring and reporting. She highlighted that CDM methodologies were developed prior to the adoption of the Paris Agreement and CDM rules for methodology development mirror the context of the Kyoto Protocol in which developing countries had no mitigation commitments. Therefore, some rules and principles for methodology development are not compatible with the Paris Agreement context, where all countries have NDCs and will be implementing mitigation policies to achieve them. To make CDM methodologies 'fit for Paris', the study concluded that most revision needs the authors identified in the evaluation applied to the entire subset of methodologies (and tools, where applicable). The authors therefore suggest the development of specific 'Article 6 tools' which guide activity developers in the operationalization of key principles and criteria when applying CDM methodologies to Article 6 activities. Most importantly that would relate to a revision of the additionality tool; guidance to revise baseline setting approaches to result in below business-as-usual mitigation and guidance on how to consider policies and NDC targets in baselines. Lastly, monitoring and reporting should be aligned with the Enhanced Transparency Framework and there should be guidance on regular updates of key parameters.

Luca Lo Re of the International Energy Agency (IEA) provided a detailed comment on the study and how the results of the study can inform the debate in Article 6 negotiations on revision of CDM methodologies in the transition of CDM activities to the Article 6.4 mechanism. He stressed that given the limited time available to ensure a smooth transition of CDM activities, the study can help identifying the 'blind spots' of CDM methodologies. Beyond this, the study analyses a subset of methodologies and tools with results that are broad enough to be replicable and specific enough to draw concrete solutions from as well as help identifying pathways of how methodologies can develop over time. However, he stressed that not all methodologies need to be revised simultaneously and that there should be a prioritization of revision needs in the CDM transition process. He suggested that in the transition of CDM activities, the revision of baseline setting approaches should be done first. Furthermore, given that only nine host Parties under the CDM have more than 100 activities registered under the CDM, having cross-cutting 'Article 6 tools' for the transition of CDM activities may only be relevant for a handful Parties in the transition process.

In the discussions, participants noted that the Article 6 tools may rather be guidance documents that can accommodate the broad range of baseline setting approaches and differences in methodologies, but also the broad diversity in NDC targets and options how they can be considered in baselines. Article 6 tools could orient but maybe not prevent methodology specific revision needs. Other participants were worried about increased costs for project developers if methodologies for existing activities must be revised.

Applying CDM methodologies and tools in Article 6 pilots

Bringing a practical example to the discussions, **Yves Keller (First Climate)** explored the methodological framework for a Biogas to energy programme in Argentina, destined to be an Article 6.2 pilot activity. Building on the existing CDM methodologies on manure treatment and anaerobic waste, Yves noted both the potential to expand these methodologies and the importance of adjusting them to reflect on the reality of the Paris Agreement in the context of additionality determination, baseline setting and determination of the crediting period and considering the host country's NDC and policy landscape. Given the lack of any GHG emissions reductions targets in the Argentinean agricultural sector and the absence of any policy targets or support mechanisms, Yves described the two-phase approach guided by environmental integrity and investor security:

- Start Up Phase 2021-2025: Working with automatic additionality (as currently the case under the CDM) and a baseline to reflect the most likely course of development in the absence of carbon finance with safeguards to prevent against multiple funding.
- Scale-up Phase 2026-2030: Create a positive list to define the project characteristics that make the project additional this could include size, emissions reductions price and other key factors. Further assess which policies have been introduced and can be adapted to the dynamic baseline.

Yves concluded by stressing that predictability is a key requirement for investor security thus emphasising the need to avoid changing of baselines retrospectively and aim of keeping them as realistic as possible. Instead, shorter crediting periods could be the most straightforward way to ensure a contribution of activities to the host countries' NDCs.

Complementing this case study, **Dario Brescia (Perspectives)** added the example of an ongoing project to revise the grid emission factor (GEF) in Ethiopia. Providing an analysis of the key challenges to the power sector in Ethiopia, Dario noted that as the national grid is largely dominated by hydropower and the existing GEF, calculated based on the existing CDM tool, is close to zero. However, the grid is highly insufficient with frequent power outages and low electrification rates. He explained that the high usage of diesel gensets in frequently disconnected areas has led to a large volume of hidden emissions not reflected in the GEF. In consequence, the CDM did not provide sufficient incentives to implement grid connected renewable energy in Ethiopia although this is a key priority for the country and an area in which they wish to pursue market-based cooperation. In the context of their NDC, Ethiopia wants to cooperate under Article 6 to achieve a 100% clean energy infrastructure and expand the reliability of the grid. Taking the CDM Tool to "calculate the emission factor for an electricity system" as a solid starting point to provide a robust approach, Dario dissected how, despite including the back-up generators, the GEF only reached 0.15 tCO₂/MWh, likely still an underestimation of real emissions. Noting that the overall goal was to significantly increase renewable energy potential and political commitment, Dario concluded that except for hydropower there is a low penetration of renewables and consequently a large untapped potential for wind, solar and geothermal energy. Given that Ethiopia is an LDC, there is an increasing energy demand and low carbon energy access will significantly increase in the coming years. Therefore, a GEF must be developed that adequately reflects on the special circumstances of Ethiopia as an LDC.

In discussions, some participants questioned whether grid-connected renewable energy deployment should be supported by market-based cooperation, as levelized costs are lower than conventional sources in many jurisdictions. Other participants stressed the need to differentiate between activities in emerging economies and poorer country contexts, in which the grid- even if relatively clean- does not provide access of the population to clean electricity.

Filling the "blind spots" of CDM methodologies

Furthering the discussion, **Randall Spalding-Fecher (Carbon Limits)** discussed how emission reduction should be attributed to different sources of finance, when they are blended in a mitigation activity. As he stressed this will be more relevant in the future when climate finance and carbon markets are combined to achieve mitigation at scale. While under the CDM there usually was an 'iron curtain' between these two sources of finance, we will move from binary "go/no-go" projects to an implementation dependant on the total finance available requiring both climate finance and carbon markets to be fully realised.

For attribution, the total amount of mitigation mobilized must be linked back to the different finance sources proportionally to their contribution. Given that we typically define a baseline scenario by what is commercially deemed viable, conventional commercial financing cannot, by definition, cover the additional costs of low carbon projects, therefore the portion of climate finance that is like commercial financing does not contribute to the abatement costs and should not be considered in attribution. Randall further explored the options for large-scale programmes where it is difficult to identify all finance sources upfront, but it would be possible to estimate total abatement costs and attribute only based on their expected share of total financing for abatement.

In response to the presentation, one participant voiced concerns about not considering commercial sources of finance in the attribution of mitigation outcomes, if that would result in developed country governments that provide con-

cessional finance accruing the mitigation outcomes while developing country commercial sources of finance that finance the main activity not being awarded mitigation outcomes. Randall stressed that this is why the grant equivalent value of any concessional finance must be considered in attribution of mitigation outcomes- not the face value of funding provided.

In his presentation, **Martin Burian (GFA Consulting Group)** provided insights on the development of policy-driven mitigation approaches and how to develop dynamic baselines to attribute mitigation outcomes to ITMO buyers and host countries, depending on the implementation of policies. Noting that we need policies to drive private sector investment, Martin commented on the importance of suitable climate finance instruments to bridge the gap between what is economically and financially viable. Presenting an overview of estimated economically viable abatement potential through reducing technical losses in the South African Power Pool, Martin presented an approach to attribute emission reductions among the different host countries, based on their contributions through adopted feed-in tariffs (host country government) and to the carbon market investor. Dynamic baselines that consider ongoing monitoring of technical losses and the introduction of policies can set incentives for host countries to increase their share in emission reduction outcomes generated through adopting policies and contribute to raising ambition over time.

As the CDM took a bottom-up approach to assess single activities and did not require monitoring of negative impacts for sustainable development (SD), **Karen Holm Olsen (UNEP DTU)**, identified a new, top-down approach to the integration of sustainable development impacts in monitoring methodologies of activities under Article 6. The integration can either be pursued through the development of specific SD tools for activities and programmes or through a transparency-based approach, where the host country identifies interlinkages between its NDC and the achievement of the SDGs and on this basis, develops specific indicators. She stressed the importance of linking measuring, reporting and verification (MRV) of sustainable development at a systemic level to incentivise transformational change through Article 6 market-based cooperation. Transformational impact is achieved in two dimensions through processes of change and outcomes of change. Processes of change relate to technologies, agents, incentives, and norms that lead to the overarching outcomes of mitigation and sustainable development at scale and sustained over time. She highlighted the usefulness of the [ICAT series of assessment guides](#) to assess SD impacts. For example, in Costa Rica, the ICAT SD methodology was used to select impact categories, then identify indicators for measuring progress in SDG implementation. These indicators were then linked to the NDC and to the long-term national decarbonisation plan for Costa Rica.

In his presentation, **J. Felipe de León (Costa Rica)** emphasised the need to integrate social justice in long-term decarbonisation efforts with consideration of the lives and livelihoods of local communities, particularly the most vulnerable. Felipe further stressed the importance of consistently and systematically assessing the impact of SDGs to ensure that sustainable development is systematically integrated in decarbonisation. To this end, he emphasized that having a long-term framework for decarbonisation has become a prerequisite for evaluating environmental integrity and understanding the roles of different policies and potentially carbon market activities in decarbonisation. In his point of view, carbon market activities can contribute to a host country decarbonisation strategy, if they help the host country to reach certain milestones earlier in time as it would have been possible with domestic resources. Concluding, Felipe further emphasised the importance of reviewing baselines to ensure they are consistent with 1.5° compatible emission pathways as well as the necessity of recognising the complexity of this endeavour and ensuring that carbon market cooperation is fit for purpose.

Roundtable discussions: Ambition in Article 6 and investment security

In subsequent roundtable discussions, participants discussed how to balance ambition and investment security in Article 6 cooperation, especially in the context of dynamic baselines and NDC updates and how to embed Article 6 activities in national strategies and blend finance sources to mobilize mitigation at scale. Participants stressed that stringent baselines will either require longer crediting periods (which is not foreseen under Article 6) or higher carbon prices. Some also cautioned against dynamic and thereby unpredictable revisions of key parameters and instead pleaded for shorter crediting periods.

Participants expect a new calibration process in market-based cooperation in ambition on the seller side and willingness to sell on the other hand. Other participants questioned the role of emission reductions in the longer term, as emission pathways aligned with the long-term temperature goals of the Paris Agreement will only allow for removal activities within a relatively short time span. Some participants stressed that offsetting should not be done against 'realistic' baselines which reflect on the realistic scenario of ending up with 3-4°C global working globally.

Participants furthermore discussed whether additionality determination is still needed or could be disregarded in future methodologies and replaced by the commitment of the host country to undertake corresponding adjustments for the mitigation outcomes achieved. Other participants cautioned against this approach, both because this would mean leaving the host country with the responsibility to determine additionality of an activity and because host countries with unambitious mitigation targets would not have an incentive to ensure additionality of the activity.