

Vol. 9 | No. 1

Spring 2022

The Road Ahead

Reports, Analyses, and Interviews on Prospects for International Carbon Markets after the Glasgow Breakthrough

Towards IntegrityRegulating climate neutrality claims

Content

Spring 2022



4 "The Proof of the Pudding is in the Eating"

UNFCCC veteran John Kilani on the robustness of the Glasgow decisions, future market trends, and the carbon market potential of the Arab region

8 Digesting the Glasgow Outcome

A report on the International Conference for implementing Article 6 of the Paris Agreement

13 UNFCCC: The next Steps

The challenge of working off the list of the Glasgow mandates

17 Built on Experience

Transforming existing carbon market methodologies for Article 6 market-based cooperation

24 Towards Integrity

Regulating climate neutrality claims

editorial

Dear Reader!

It was with great relief that many observers welcomed the breakthrough at the climate summit in Glasgow, which yielded in the adoption of the Art. 6 rulebook governing the implementation of the Paris Agreement's cooperative approaches. The road ahead for international carbon markets therefore looks promising, while at the same time some obstacles still remain on the way to working off the Glasgow mandates regarding carbon markets.

Against this background, this issue of Carbon Mechanisms Review features an interview with UNFCCC veteran John Kilani on the robustness of the Glasgow decisions, future market trends, and the carbon market potential of the Arab region. We report on the Japanese conferences digesting the Glasgow outcome and analyze the next steps for the Art. 6-related negotiations.

Also in this issue, we present an initiative to transform existing carbon market methodologies and latest research on regulating carbon neutrality claims.

Enjoy the read!

Christof Arens Editor-in-chief



Carbon Mechanisms Review (CMR) is a specialist magazine on cooperative market-based climate action. CMR covers mainly the cooperative approaches under the Paris Agreement's Article 6, but also the broader carbon pricing debate worldwide. This includes, for example, emission trading schemes worldwide and their linkages, or project-based approaches such as Japan's bilateral offsetting mechanism, and the Kyoto Protocol's flexible mechanisms CDM/JI. CMR appears quarterly in electronic form. All articles undergo an editorial review process. The editors are pleased to receive suggestions for topics or articles.

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 $\label{prop:eq:entropy} \mbox{Editor responsible for the content:}$

Christof Arens, Energy, Transport and Climate Policy Division Wuppertal Institute for Climate, Environment and Energy E-Mail: christof.arens@wupperinst.org

Editorial team:

Christof Arens (Editor-in-Chief)

Thomas Forth, Lukas Hermwille, Nicolas Kreibich, Wolfgang Obergassel

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"The Proof of the Pudding is in the Eating"

UNFCCC veteran John Kilani on the robustness of the Glasgow decisions, future market trends, and the carbon market potential of the Arab region

Questions by Christof Arens and Thomas Forth

CMR – John, you've headed the UNFCCC's Sustainable Development Mechanisms Programme (SDM) for eight years and oversaw the negotiations on carbon markets, both for the Kyoto Protocol and the Paris Agreement. Despite all the differences between Art. 6 and the Kyoto mechanisms, what in your view is the most important aspect that Art. 6 should learn from the Kyoto era?

John Kilani – Throughout the course of negotiations, governments sought to ensure that new carbon market rules under the Paris Agreement would learn from the mixed record of the CDM and other flexibility mechanisms of the Kyoto Protocol. You are correct that there are differences between Art. 6 and the Kyoto Mechanisms, but there are also a lot of similarities. Now that the rulebook for Art. 6 has been adopted at COP26, it is important to build on the experiences from the Kyoto Mechanisms. The aspects of governance and institutional arrangements and engagement of stakeholders, particularly the private sector, are crucial.

CMR – What are in your view the incentives for host countries to engage in Art. 6 in the capped environment of the Paris Agreement world of today? Do the rules guarantee a higher influence of the host country on international mitigation activities and transfers with, say, the differentiation of conditional and unconditional NDCs? How to handle the risks, particularly with regard to the potential overselling of ITMOs?



John Kilani

Dr. John Kilani is currently Director of Sustainable Development at the Abdullah Bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development, which he joined November 2016. John holds a PhD in Civil Engineering from the University of Birmingham, United Kingdom.

He was previously the Director for the Sustainable Development Mechanisms (SDM) Programme at the United Nations Framework Convention on Climate Change (UNFCCC), where he was responsible for leading the UNFCCC work on carbon market.

Prior to joining the United Nations, Dr Kilani worked as Lead Environmental Engineer at Qatar Petroleum, Vice President for Sustainable Development at Anglovaal Mining Company in South Africa, and Senior Executive responsible for Safety, Health, and Environment at the South African Chamber of Mines. Before moving to the private sector, Dr Kilani had over 12 years of lecturing experience at Universities in Nigeria, Kenya, and South Africa, including serving as Dean of the Engineering Faculty at the University of Durban Westville.

He also served on the board of Johannesburg Water and the UN CDM Executive Board, for several years. Dr Kilani is an honorary Fellow of the International Emission Trading Association (IETA), a member of the Advisory Board of the Global Carbon Council (GCC), and a member of the Distinguished Advisory Group of the Integrity Council for Voluntary Carbon Market (ICVCM).

NTERVIEW 5



Raising ambition cooperatively: the example of geothermal energy.

JK – There are good incentives for host countries to engage in Art. 6, despite operating in a capped environment under the Paris Agreement. First of all, Art. 6 provides a framework for collaboration, which bodes well for collective global efforts to continually enhance mitigation actions. Also, Art. 6 may help promoting sustainable development, as host countries could decide on what projects to prioritize. Furthermore, the framework of Art. 6 could facilitate the mobilization of private sector finance for expensive mitigation activities, especially in hard to abate sectors. When it comes to the question of influence, my personal opinion is that the focus of both parties involved in Art. 6 should not be on who is guaranteed a higher influence, but rather on how to ensure that their interests and needs are adequately addressed. With regards to risks that could be associated with potential

overselling of ITMOs, I believe there is adequate provision in Art. 6.2 rules to guard against these, especially within the overall context of NDCs.

CMR – What is your take of the Glasgow decisions, especially with a view to safeguarding environmental integrity? Do we have a robust Art. 6 framework now?

JK – I think the Glasgow decisions are robust enough to ensure high integrity of ITMOs from Art. 6.2 and emissions reductions through Art. 6.4 (A6.4ERs). But as the saying goes, 'the proof of the pudding is in the eating'. Only time will tell what types of criticisms these Art. 6 units will face down the line. In December 2005, when the Marrake-ch Accords were adopted by CMP 1 in Montreal, everyone thought we had a robust framework for

operationalizing the Kyoto Mechanisms. But later we all saw the turbulent roll out of the mechanisms, particularly the CDM.

CMR – While heading the SDM, you oversaw the introduction of the Regional Collaboration Centres, regional carbon forums and other capacity-building efforts. Today, the capacity for performing carbon market projects under the UNFCCC in the Global South has decreased dramatically. How can inclusivity and a balanced regional distribution be achieved for Art. 6 and what would be the means to ensure early participation for every Party?

JK – The experience gained with the CDM could serve as useful foundation to build the capacity needed for widespread participation in Art. 6. It is true that due to the protracted process of negotiating the Art. 6 rulebook, we have seen a slump in carbon market project activities in many developing countries, but I believe things could quickly pick up once the benefits from Art. 6 become fully visible. It is good to see that the Regional Collaboration Centres (RCCs) have grown stronger and become more engaging on matters related to the Paris Agreement. The RCCs have important role to play in ensuring inclusive and broader participation in Art. 6 projects.

CMR – Compared to the Kyoto era, the so-called voluntary carbon market has gained considerable market volume in recent years. The Art. 6 rulebook does not regulate this market segment. How will the VCM in the future interact with authorization and non-authorization options under the Art. 6 framework?

JK – Yes, the Art. 6 rules do not apply to voluntary carbon market, but the fungibility of carbon credits from the voluntary and regulated markets would be much enhanced with Art. 6, as compared to the Kyoto era. In other words, when it comes to ensuring that carbon credits have high integrity, the dividing line between regulated and voluntary segments has narrowed significantly, and good

application of Art. 6 rules would further enhance this trend. While the Article 6 rules do not regulate the voluntary market, they clarify the space where voluntary carbon markets should operate. If implemented correctly, Article 6 rules can help perpetuate the standardization of carbon credit recognition principles and provide a framework for a truly global carbon market. Furthermore, ongoing initiatives like the Integrity Council for Voluntary Carbon Markets (IC-VCM), involving private and public sector participants, aimed at scaling up the voluntary carbon market, can help build compliance markets' capacity to access crucial voluntary carbon market financing opportunities.

CMR – One aim of further development of market-based climate action under UNFCCC has been for many the turn towards upscaled, sectoral approaches and policy crediting. Do you see this happening under Art. 6 and what would be the preconditions for achieving this goal?

JK – When I look at Art. 6 and the way the details have been fleshed out in the Glasgow decisions, I am afraid to say that personally, I do not see how the concepts of sectoral approach and policy crediting could work under Art. 6. I admit that I am not an expert in this area, so I leave this to the experts on sectoral approaches to look into.

CMR – With regard to the future market development, the sectoral focus of carbon market activity is going to turn towards nature-based solutions and technical solutions such as CCS and CCUS. What are the greatest challenges of these sectors in your view and how would you address them?

JK – Yes, the sectors you mentioned will receive greater focus, in the new dispensation of carbon market development. This is important because these sectors, by their very nature, provide greater assurance of additionality. When one examines the current climate actions embodied in NDCs, nature-based solutions, CCS and CCUS, do not con-



Into the future: the sectoral focus of carbon market activity is going to turn towards nature-based solutions and technical solutions such as CCS and CCUS.

stitute low-hanging fruit. In my view, the greatest challenge that projects from these sectors can face is cost-competitiveness, and one way in which this challenge could be addressed is to ensure a fair and robust carbon price.

CMR – There are concerns that the Article 6 cannot deliver substantially on the ambition of the Paris Agreement. The space for offsetting will vanish sooner than later, as a consequence of net zero emission goals and related pathways. What is your take?

JK – My take is simple: if Art. 6 takes us to such a scenario, where offsetting is no longer required, then Art. 6 would have achieved what it was designed for, meaning it has indeed contributed substantially to the realisation of the goal of the Paris Agreement.

CMR – John, our final question: With the upcoming two UNFCCC climate conferences in Egypt (COP27 in 2022) and in the UAE (COP28 in 2023), the Arab region finds itself in the spotlight of the climate negotiations. How should partners look at the region in terms of Art. 6 and the international carbon market?

JK – The region has enormous potential for the carbon market, which is still relatively untapped. It is worthwhile for partners that are serious about engaging on Art. 6 to look at the opportunities available within the region.

CMR – John, thank you very much for your time!

Digesting the Glasgow Outcome

A report on the International Conference for implementing Article 6 of the Paris Agreement

by Kazuhisa Koakutsu, Maiko Uga, and Masaki Nakayama, Market Mechanisms Office, Ministry of the Environment Japan (MOEJ); Kentaro Takahashi, Deputy Director, Climate and Energy Area of Institute for Global Environmental Strategies (IGES)





Discussing the Glasgow decisions: Minister Tsuyoshi Yamaguchi and UNFCCC Executive Secretary Patricia Espinosa. Source: IGES webcast

The 26th Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), held in Glasgow, UK from October 31 to November 13 2021, discussed the Article 6 of the Paris Agreement. Negotiations focused mainly on rules to prevent double counting of internationally transferred mitigations outcomes (ITMOs) and the transition of Clean Development Mechanism (CDM) project activities/credits under the Kyoto Protocol. At the end of the meeting, the implementation guidelines for Article 6 of the Paris Agreement were agreed upon.

With the agreement of the Article 6 rules at COP26, it is important to accelerate global implementation of the Article 6 cooperative approaches, in order to foster emission reductions through the

implementation of Article 6 in the near future. As the world's pioneer in implementing the Joint Crediting Mechanism (JCM), the Ministry of the Environment Japan (MOEJ) hosted an international conference for implementing Article 6 on 17 February (1st part) and 7 March 2022 (2nd part). This event was jointly organised with Institute for Global Environmental Strategies (IGES), and supported by the UNFCCC secretariat, the COP26 Presidency and the COP27 incoming Presidency.

There were 3 main objectives of the conference:

 Foster a common understanding of the decisions made on the Article 6 implementation guidelines at COP26 and the Article 6 work programme for 2022; REPORT 9

Conference Overview

Hosts: Ministry of the Environment, Japan

Institute for Global Environmental Strategies (IGES)

Support: UNFCCC Secretariat, COP26 and COP27 presidency

Dates: 17 February 2022 / 7 March 2022

Participants: UNFCCC parties, International organizations, private companies

Documentation: All presentations as well as video recordings of the two sessions are available at

https://www.iges.or.jp/en/events/20220217

 Discuss the development of institutional and governance frameworks as well as capacity-building needs based on the experience of Article 6 negotiations and piloting; and

Discover areas where implementation can be accelerated by collaborating with stakeholders.

Results of 1st conference part

The first part of the conference was held on 17 February, aiming at framing the discussions through presentations on future work and capacity-building needs based on the agreement of the Article 6 rules.

At the opening ceremony, high-level speakers delivered the key note speeches. The event was kicked off by H.E. Mr. Yamaguchi Tsuyoshi, Minister for the Environment Japan. Minister Yamaguchi underlined that Article 6 can stimulate private investment for global decarbonization, reduce CO2 emissions and promote economic growth at the same time. H.E. Patricia Espinosa, UNFCCC Executive Secretary highlighted that the UNFCCC Regional Collaboration Centres (RCC) can work with Parties and the Art. 6 Supervisory Body to develop support for ca-

pacity building. H.E Alok Sharma, COP26 President thanked Minister Yamaguchi and Japan's team for the important role at COP26. He also mentioned that it is needed to focus on capacity building. H.E. Wael Abulmagud, Ambassador, Personal representative of COP27 President, outlined remaining challenges that are to be addressed and highlighted that the technical work must be completed by the end of 2022.

At the beginning of the plenary session, the UNF-CCC Secretariat introduced the decisions made at COP26 and also shared the future work programme for Article 6 in 2022. This was followed by presentations from Parties that have been active pioneering cooperation under Article 6.2. These talks presented the respective activities and experiences made, as well as needs identified for developing institutional as well as governance arrangements. Japan introduced the Joint Crediting Mechanism (JCM), highlighting in particular efforts such as holding workshops on improving transparency and the domestic system. Switzerland reported on its bilateral agreements with Peru, Ghana, Senegal, Georgia, Vanuatu, and Dominica on Article 6.2 cooperations. Chile provided information on its carbon neutrality pathway, the possible role of Carbon Pricing and





Digesting the outcome: Alok Sharma, COP26 President and Wael Abulmagud, Ambassador and personal representative of COP27 President. Source: IGES webcast

Article 6 in the scheme as well as the policy and regulatory landscape for Article 6.

In the subsequent capacity building needs session, invited speakers mentioned that the development of teaching materials to explain Article 6 rules, holding workshops to improve understanding, and sharing advanced case studies were particularly important to support the implementation of Article 6. Brazil underlined that it is necessary to have the capacity development tailored to the different capacities of each country as the roles, requirements, and challenges of host countries vary significantly. Senegal emphasized the importance of preparing a national framework for participation in the various carbon markets as well as in Article 6. Singapore called for mutually agreed-upon environmental integrity criteria, and highlighted the need for supporting infrastructure to enable reliable market transactions.

The third part of day one focused on the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and voluntary markets. The United States explained ICAO's efforts to avoid double-counting through reporting requirements and also stressed that the experience of the CORSIA pilot phase can be useful, especially the reporting by countries and airlines. The EU present-

ed their priorities for capacity building and outlined possible avenues for the EU using Article 6, namely the linkage with the EU Emissions Trading System (ETS) and Switzerland ETS, proposed CORSIA, EU ETS Amendments, and voluntary market relevant initiatives while underlining that the bloc's NDC is to be attained domestically.

In the wrap-up session, five key takeaways were identified:

- 1) The importance of understanding the Article 6 decisions taken in Glasgow and how they relate to NDC implementation.
- 2) The discussion also focused on host country participation in Article 6, especially with regard to corresponding adjustments, authorisations, as well as institutional frameworks to govern Article 6 activities.
- Open questions also remain on what parties need to report on Article 6 activities including data collection and related capacity building needs.
- 4) The participation in the Article 6.4 mechanism also needs further attention and clarification. With the establishment of the 6.4 Supervisory

REPORT 11

Maps and Regions of the RCCs

- RCC Bangkok supports 40 countries from Asia and the Pacific (Hosted by IGES)
- RCC Dubai supports 22 Arab States and 8 South Asian countries (Hosted by WGEO)
- RCC Kampala supports 19 countries in Eastern and Southern Africa (Hosted by EADB)
- RCC Lomé supports 26 countries in15 ECOWAS member states and 11 francophone countries (Hosted by BOAD)
- RCC Panama provides support to Latin American countries (Hosted by UNEP)
- RCC St. Georges supports 16 countries in the Caribbean region (Hosted by WINDREF)





Sharing good practices and lessons learned among stakeholders: overviews of the UNFCCCs Regional Collaboration Centres. Source: UNFCCC

Body, further detailed rules are to be developed this year and expectations on the 6.4 mechanism as a tool to enhance ambition were mentioned by many participants.

5) Activities relating to CORSIA and the voluntary markets can benefit from lessons learned and various experience made so far.

Results of the 2nd conference part

The second part of the conference was held on 7 March. At the beginning of the opening session, Hiroshi Ono, Director-General of the Global Environment Bureau of the Ministry of the Environment, gave his remarks by recalling the high-level messages of the 1st conference. He also explained that Japan, as a pioneer in the JCM, will take the lead in supporting the implementation of Article 6 to promote decarbonization and the global market for technologies, infrastructure, and services. Summarizing the first

round of discussions and giving an outlook for this session, Maiko Uga of MOEJ stressed that it is important to prepare rules and guidelines for ensuring environmental integrity, the authorization of ITMOs, and corresponding adjustments at the implementation stage. A representative of the UNFCCC Regional Collaboration Centre Bangkok then introduced the outcomes and experiences of the RCC's activities regarding the host country's experience in capacity building programs for greenhouse gas emission reduction projects.

In the subsequent session on the capacity building support for early implementation of Article 6, IGES, Chile, the two African Alliances for Carbon Markets and Climate Finance, Asian Development Bank, the World Bank, and the International Emissions Trading Association (IETA) introduced their related initiatives. IGES shared experiences of mutual learning activities for enhanced transparency, which were conducted with Chile, Thailand, Mongolia, and Indonesia. Through the mutual learning programme, it became clear that there is a need to promote the understanding on the terminology of Article 6, preparing authorizations, as well

as the coordination to track JCM credits. Chile shared that the Pacific Alliance's activities including activities related to MRV. As a readiness activities, both the Eastern Africa Alliance on Carbon Markets and Climate Finance as well as its West African counterpart provided insights into their activities. They stressed, among others, the importance of domestic authorization procedures, developing tools and processes for corresponding adjustments, and the need for reporting templates.

The Asian Development Bank introduced the technical assistance being provided to seven countries (Bhutan, Indonesia, Mongolia, Pakistan, Philippines, Thailand and Vietnam) through the Article 6 Support Facility for the implementation of Article 6. The World Bank reported on their activities, including the Partnership for Market Readiness, the Partnership for Market Implementation Facility (PMIF), and the Climate Markets Club's experience in implementing Article 6. IETA shared their evaluation of the Article 6 agreement from the private sector perspective as well as the results of the model analysis on Article 6.

At the wrap-up session, several elements were identified regarding the way forward:

- Sharing good practices and lessons learned among stakeholders is key, and can be fostered through the RCCs as well as regional roundtables.
- 2) Regarding Art. 6 institutional arrangements, the role of replication and the scaling up of activities was underlined. Many Parties are facing technical work on Art. 6 reporting and domestic procedures for Art. 6.4. Templates, reporting procedures, and training modules, can be duplicated, again with support of the RCCs.
- The importance of the pilot initiatives and making use of their learning by doing for upscaling needs to be further promoted.

4) Finally, the coordination of efforts (RCCs, Parties, International Organizations, Private Sector, etc) will be crucial and further explored.

Towards COP27

There are several challenges remaining for fully operationalising Article 6. The work programme for Article 6.2 foresees an invitation to Parties for submissions by the end of March 2022. This will facilitate the discussion at the planned workshop on reporting and infrastructure during 56th Sessions of the UNFCCC Subsidiary Bodies. In parallel, participating Parties may need to consider how they will establish the institutional arrangements for preparing Article 6 reporting. For the work programme for Article 6.4, a series of Supervisory Body meetings will be scheduled in 2022. It is expected that the body will start the discussion by focusing on the operational provisions related to methodologies, accreditations, activity cycles.

SBSTA will also continue to discuss the technical issues on CDM transition and CER use this year. In this context, participating Parties may need to consider how they would like to establish the institutional arrangements to implement the requirements under Article 6.4. To accelerate the preparatory activities under Article 6.2 and 6.4, it is necessary to focus on the prioritized areas such as the institutional arrangement including participating requirements as well as Article 6 reporting.

ANALYSIS 13

UNFCCC: The next Steps

The challenge of working off the list of the Glasgow mandates

by Thomas Forth, Advisor to BMWK

Taking a very subjective view on the current negotiation situation

The UNFCCC community set a major milestone in Glasgow on the road to renewing international carbon markets. Tough negotiations, very different interests among the Parties and not least the challenge of negotiating in pandemic conditions led to a three-year delay in the delivery of the last chapter of the Paris Rulebook. Now the door is open for de-

cisions on the technical infrastructure for transferring mitigation outcomes, both with authorization for compliance and without such authorization. Decisions are also required for further accounting issues such as the accounting methods to be used and the non-GHG metrics. Both these items have been discussed for years without technical or political progress being achieved.



Preparing the outcome: Article 6 negotiations in Glasgow

On the accounting methods, my guess is that there are no further technical possibilities available to enable a compromise solution. The technical alternatives that were available found their way into the Glasgow decisions. Therefore, each of the technical options must be described in more detail to enable their immediate use for this current NDC period. However, further work on the economy-wide reference, budgeting opportunities and net-zero targets should be mandated for the upcoming conferences without blocking urgently-needed decisions to enable the commencement of mitigation activities under Article 6.

On the metrics question, my personal take is that this kind of trading makes little sense when it comes to accounting of results in non-GHG metrics for mitigation targets based on ITMO trading. The need to apply conversion factors after-the-fact would not only cause a heavy international administrative workload, it would also require political approval of the conversion factors. Who benefits from such a system? Why not leave the technical workload to activity participants' level in a cooperative bilateral setting and then introduce GHG metrics to the international markets?

For those insisting on the usability of other metrics, however, the UNFCCC could rebuild the same accounting structure as for GHG metrics, complete with appropriate target setting in the NDCs – generating a lot of work and a significant cost in the process. The question is how should this burden be distributed and whether the benefits are completely disproportionate. Nevertheless, it might make sense to consider the question of other metrics with a view to trading opportunities resulting from non-authorized activities approved in Glasgow as one of the usage options under Article 6.

Ultimately, this also means thinking through results-based carbon financing concepts (RBCF) in the context of climate finance and contribution claims in the voluntary carbon market, which assist countries in achieving more ambitious mitigation targets. This will be relevant for all NDC objectives of a host country if these targets can only be achieved in international cooperation. Overall, issues such as the accounting method or the non-GHG metrics must be kept out of the danger zone of the deadlocked negotiation discourses seen in the past.

Remaining political issues

In addition to the rather easy task of setting up the technical infrastructure or dispensing with ritualized discourse, which can only be solved pragmatically, there still exist purely political issues which are highly sensitive and not only in carbon markets. In my view, the most contentious issue is the avoidance of emissions. Any attribution of ITMOs in this case contradicts the carbon market principle that one tradable emission reduction unit equals one ton of GHG emissions reduced. Such a tradable unit must be certifiable based on the TACCC principles (Transparency, Accuracy, Consistency, Comparability and Completeness). Obviously, avoidance-based payments cannot deliver based on this rationale. As a consequence, no certified unit can be transferred internationally for the compliance of a Party's NDC or comparable obligation.

Otherwise, even if we consider the option of non-authorization for non-compliance purposes of Article 6.4 activities, meaning the administration of a corresponding adjustment is not requested, the failure of not being capable of quantifying the emission reductions remains. It may well be necessary for the quantification problem to be considered as almost technically unsolvable. This leads us to the question of, if the avoidance of emissions is accepted as a serious environmental concern, which instruments other than the carbon market are available or should be developed? This question needs to be answered in the course of the negotiations. In the absence of alternative solutions, simply omitting avoidance activities will not lead to UNFCCC-wide consent.

Further deliverables for renewing carbon markets

Rapid revival of the UNFCCC-led carbon market also depends on accompanying activities by Parties. Although these will be influenced by the further implementation rules, they can nonetheless be started now. Here, I believe that the following activities can be started right away:

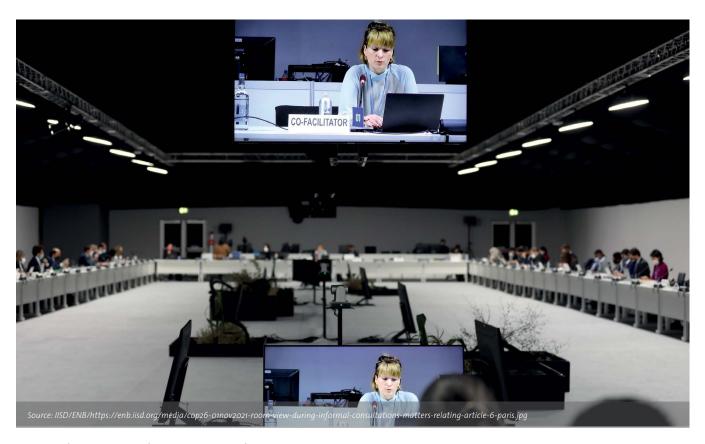
ANALYSIS 15

- Support for institutional capacity building in the host countries, with the understanding that these structures should be permanent and require permanent funding.
- Clarifying which of the still ongoing CDM projects can be expected to fully meet the Article 6.4 rules and criteria and be authorized by the host country for compliance purposes outside the host country. This batch of projects may come just at the right time to broaden market interest in Article 6.4.
- Supporting strategy development for the use of Article 6, with the understanding that cost-effective mitigation potential is needed by host countries to increase ambition themselves, and that Article 6 should support the host country's long-term transformation goals.
- Prepare methodologies for recognition under Article 6.4 so that Supervisory Body (SB) deliberations can be expeditious and applicable to both Article 6.4 and Article 6.2.

- Develop small-scale pilot projects for all interested host countries via a central funding solution to ensure an inclusive process.
- Furtherconsideration of supply and demand development, including the extent to which Article 6.4 can become a service provider of mitigation services for climate finance.
- Article 6.8 could evolve to identify non-marketable emission reduction potential, taking into account nationally-legislated sustainable development goals, where possible those SDGs that have not yet been covered by other UN-level instruments and programs.

The longer perspective

A whole range of other activities not scheduled for decision at the next two Conferences of the Parties should now be started or continued. These mainly concern the change in the supply structure in the international carbon market.



Preparing the outcome: Article 6 negotiations in Glasgow

International trading of emission reductions makes little sense when all Parties have embarked on a net-zero path. What matters now is that countries receive support in following that path.

Furthermore, it is already acknowledged that not all countries will have reached the absolute net-zero target by 2050. The same applies to international shipping and international aviation. In both cases, no decision has been made as yet, although the respective negotiators foresee considerable residual emissions. With the diminishing potential for offsetting by buyers investing in emission reduction projects in host countries, the question arises as to how the Paris Agreement's long-term goal of offsetting emissions and removals can be achieved.

Increasingly, the role of NBS and TBS is being discussed. Both approaches have a certain handicap. NBS can only make a positive contribution if they can perform slowly and stably in the longer term. TBS, on the other hand, are still not mature enough to be deployed at the necessary scale. This may change on the timeline of the next two decades, but it does not change their deployability at this present time. For NBS, framing under Article 6 needs to be developed, while for TBS, the IPCC has made an urgent appeal to all decision-makers to engage more fully with the various technical solution options available. In both approaches, there should be an increase in funding and piloting of measures at a significant scale.

But be that as it may, it makes little sense if this only comes in the form of individual projects. What is needed is the assumption of responsibility in the NDC and LT-LEDS, not least in the role of such measures being used as a contribution to their own neutrality strategy and the elaboration of a possible oversupply to safeguard a global neutrality strategy. Advanced countries and groups of countries seeking a neutrality strategy in their own territories do not require transfer for mitigation outcomes. However, they could redefine their role in third country target achievement and enable

them to achieve ambitious targets, including via carbon market instruments.

Of course, subsidizing unconditional targets would be like throwing money out the window. What is needed is quality control of the measures taken, linkage with the host country's ambitious actions, and assurance that the emission reductions achieved do not actually enter international trade. The COP26 decisions allow use of the Article for results-based carbon financing approaches. And with the non-authorization option under Article 6.4, its use has been made possible for purposes other than achieving state or comparable goals. If the mitigation services of the climate finance track are quantifiable and attributable, they could lead to a significant improvement in the performance and target achievement of mitigation services at scale.

Following the timelines of Article 6 mandates

In contrast to the slow mode outlined above, the expectations of Article 6 negotiators and practitioners are high now that the constructive outcome of Glasgow will motivate Parties to finalize mandated technical tasks. This will drive implementation to a point where the three cooperation tracks under Article 6 become applicable in the next two years – working off the list of mandates in their timelines as defined in Glasgow. This could well be seen as wishful thinking, but there is more to it than that because, as already mentioned, the list of mandates includes a number of controversial issues. The diplomatic issue is clear: let us refrain from blocking strategies and let us deliver to enable timely applicability for Article 6.4 and Article 6.8. Let us proceed with the understanding of deciding "first things first" for Article 6 as mandated in Glasgow.

MARKETS 17

Built on Experience

Transforming existing carbon market methodologies for Article 6 market-based cooperation

by Axel Michaelowa (Perspectives Climate Research, University of Zurich), Malte Winkler, Aglaja Espelage, Juliana Kessler, and Aayushi Singh (Perspectives Climate Research)

Over 250 baseline and monitoring methodologies and 33 related tools are currently approved under the Kyoto Protocol's Clean Development Mechanism (CDM). They are also applied in many other carbon crediting mechanisms around the globe and constitute the most important body of knowledge for operating projects and programmes that generate emissions credits.

The Paris Agreement (PA), and especially the Article 6 rules agreed at COP26 in Glasgow in 2021, establish a new regime of international carbon markets based on stringent principles, standards, and requirements. Should the international community now develop completely new methodological approaches for defining baselines, determining additionality, or monitoring of activity emissions? We do not think so: Instead of obliterating the existing body of methodologies and tools developed for the CDM, enabling their transition into the post-Kyoto era is crucial to prevent a "valley of death" for international carbon markets.

The "International Initiative for development of Article 6 Methodology Tools" (II-AMT) launched by Perspectives Climate Research in January 2022 aims to provide a pragmatic, yet robust approach to transition existing methodologies and make them fit for Article 6. It brings together a group of leading independent experts from all continents to develop a set of tools that complements CDM methodologies and tools. The approach is analogous to the application of CDM tools to a set of CDM methodologies. The Article 6 Methodology

Tools will thus enable Article 6 activity developers and regulators to use the large stock of existing methodologies while respecting the principles and approaches of Article 6. Thus, programme developers do not have to develop Article 6 methodologies "from scratch", which would take many years and would require significant financial and human resources. Any expert having developed a CDM methodology knows that this can easily cost 0.1 to 0.2 million Euros. Ditching the full set of CDM methodologies would thus destroy an intellectual capital of tens of millions of Euros.

The II-AMT aims to develop tools and guidance to tackle four key issues where the approaches under Article 6 have become more stringent than under the CDM: Determining additionality; setting the crediting baseline, monitoring, reporting and verification (MRV) of emissions and emission reductions; and contributions to the host country NDC and long-term strategies and goals (LT-LEDS). While acknowledging that these issues have been controversial in the past, we hope that the momentum emanating from Glasgow and the independence of the II-AMT from carbon market interest groups enables operationalization of the tools before the end of 2023.

Conceptualizing Article 6 Methodology Tools through an expert-led process

The Swedish Energy Agency, the Ministry of Environment of Japan, and the African Development Bank supported the concept phase of the II-AMT that ran from January to April 2022. During this period, a group of international experts, supported by Perspectives staff, elaborated concept notes for each of the four dimensions mentioned above. These notes describe the objective, scope, and key elements of each tool and identify central aspects, key challenges, and possible approaches to overcome them.

The international team of experts includes:

- Axel Michaelowa, Perspectives Climate Research, Switzerland
- Clayton Munnings, Munnings Consulting, US
- Derik Broekhoff, Stockholm Environment Institute, US
- Jessica Wade-Murphy, Atmosphere Alternative, Colombia
- Kentaro Takahashi, Institute for Global Environmental Strategies (IGES), Japan
- Martha Ntabadde Kasozi, freelance consultant and member of the CDM methodologies panel, Uganda
- Randall Spalding-Fecher, Carbon Limits, Norway

Prior to drafting the concept notes, the international expert group agreed on a set of key principles and guardrails to guide their development. They build on well-known and established principles for carbon crediting, including conservativeness, transparency, accuracy, consistency, and comparability.

The documents operationalize both the principles included in the Article 6.2 guidance on cooperative approaches, and the more detailed rules of the Article 6.4 mechanism. To ensure the tools follow a high integrity approach, both "shall" and "should" requirements in the regulatory documents are adhered to.

In an iterative approach, the concept notes were reviewed and sharpened by the experts. They received further input from the initiative's broad, interdisciplinary advisory group towards the end of the concept phase.

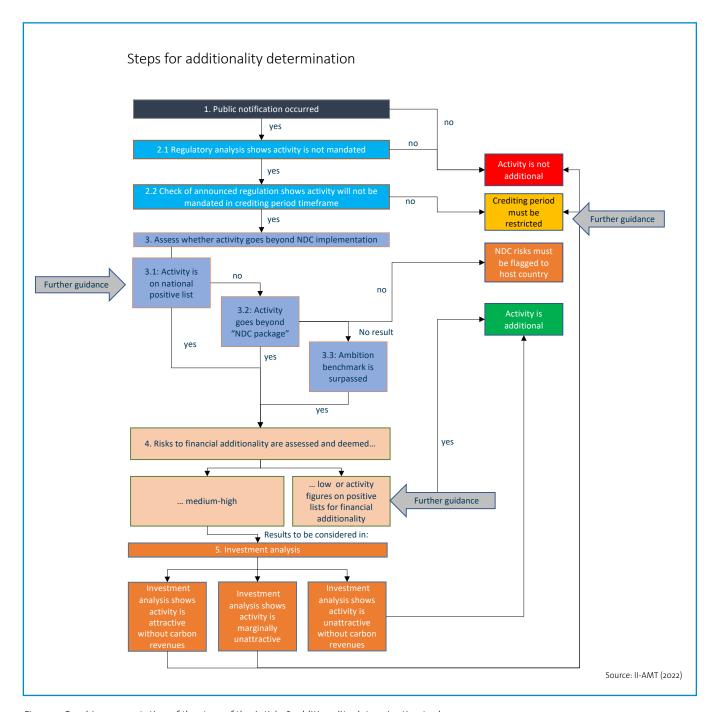
Key approaches for Article 6 Methodology Tools

The concept phase concluded that tools should be sector and technology agnostic and applicable for single and programmatic activities, but not for sectoral and/or policy crediting activities. While the tools cover broad areas and overarching concepts, they will have to be complemented by further sector specific guidance (e.g., for the land-use and forestry sector) to be applicable for all activity types.

It was decided to develop one transversal guidance note and three tools, whose key elements are described below. The II-AMT guidance note and the methodological tools will not cover generic considerations of host countries, e.g., on the impact of authorization and corresponding adjustments on NDC achievement or further conditions host countries may want to impose on Article 6 activities, such as sharing of credits.

Guidance on NDC and LT-LEDS alignment

Our expert group decided not to go for a distinct tool for NDC and LT-LEDS alignment due to transversal nature of this issue that impacts on all



 ${\it Figure 1: Graphic representation of the steps of the Article 6 additionality determination tool.}$

dimensions of the Article 6 Methodology Tools. The different methodological steps to enable the development of activities that align with and contribute to NDCs and LT-LEDS of the host countries will therefore be integrated into each tool.

This guidance note focuses on NDC alignment aspects that are within the scope of an overarching methodology. This includes:

 Assessing the planned activity's contribution towards achievement of the host country's NDC and LT-LEDS and ensuring the baseline is in line with the unconditional NDC target and LT-LEDS. The methodological steps proposed include options for programme developers to ensure their activity generates concrete contributions to NDC and LT-LEDS implementation.

- Aligning the planned activity with the NDC implementation periods, including guidance on updating key parameters with each new NDC implementation period and avoiding non-permanence
- 3. Cross-checking activity-level baselines with national and sectoral reference scenarios.

The three tools will contain specific details on the operationalization of these steps, and the guidance note brings the different pieces of required information into one reporting template for programme developers. The summary and overview of this information will make it easier for host countries to assess the implications of the activity on the NDC and support decision making processes related to approval of activities and authorization of ITMO transfers.

Tool for determination of additionality

The tool to determine additionality is to replace the currently used CDM additionality tool and shall be applicable to any CDM methodology. Its five steps allow a comprehensive evaluation of a proposed activity's additionality. An important new approach assesses the activity's target additionality, meaning that an Article 6 activity must go beyond the host-country's unconditional NDC.

As depicted in Figure 1, the first step required for additionality determination is a public notification from the activity developer showing that carbon market revenues were considered prior to embarking on the activity. As a second step, a regulatory

analysis must show that the planned activity goes beyond government regulations and is therefore additional to what is demanded by host country legislation. In the third step, the activity developer faces three sub-steps, which aim at identifying whether the proposed activity is required to reach the host country's unconditional NDC, in which case it would not be target additional. In a fourth and fifth step, to prove financial additionality, the developer is to credibly justify that its activity would not be financially attractive without the revenues from Article 6 crediting.

Unsurprisingly, there are challenges regarding the detailed specification of the additionality tool, mostly related to the treatment of activities in the grey zone between clearly being additional and not. Given that carbon market actors and regulators increasingly make use of positive lists containing activity types deemed automatically additional, a specific section of the tool proposes clear approaches for formulation of positive lists. They aim to prevent that activity types which might become non-additional during an NDC-period receive authorization for the whole period.

Tool for setting baselines

The concept note on baseline setting builds on Article 6.4 rules and principles including that the baselines must be set below business-as-usual (BAU), align with the long-term temperature goals of the PA, contribute to the reduction of emission levels in the host Party and align with its NDC and its LT-LEDS (if applicable) and consider policies and measures. It first specifies eligibility criteria that each Article 6 activity would need to fulfil under the tool including its alignment with the LT-LEDS and ensuring that the activity does not lead to a lock-in of current emission levels or a continuation of carbon-intensive practices. Subsequently, a stepwise approach to the setting of the crediting baselines is proposed that mainly builds on the three baseline setting options in the Article 6.4 decision

MARKETS 21

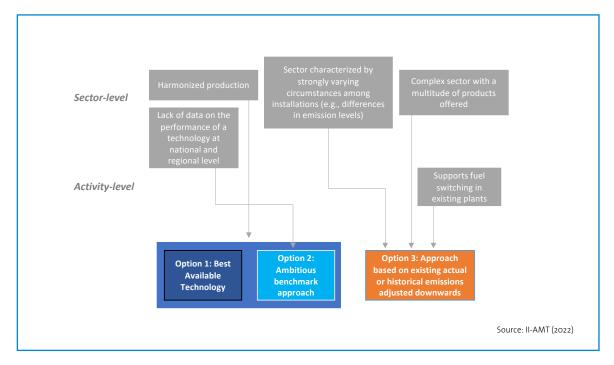


Figure 2: Proposed factors relevant to assess the relevant baseline-setting approach

text. First, the appropriateness of performance benchmarking at the sector-level is assessed (see Figure 2).

Option 1 will operationalize the best available technology approach, while Option 2 applies an ambitious benchmark approach. For both options, specific sub-steps are to be followed including the determination of performance parameters of the best technology or the calculation of the benchmark's emissions intensity and the subsequent downward adjustment of the baseline emissions intensity over the years. Option 3 operationalizes the downward adjustment of existing actual or historical emissions but can only be chosen if the host country has communicated a net-zero target, an LT-LEDS or official sectoral targets. Here, a linearly downward-sloping ambition coefficient is applied that reaches zero in the year of the net zero target. A third step foresees the adjustment of the activity baseline according to national or sectoral reference scenarios to ensure NDC alignment. Finally, step 4 stipulates a regular update of the determined baseline at the end of each crediting period and start of each new NDC period. An overview of the steps is provided in Figure 3.

A key challenge in the development of this tool will be t develop methodological requirements that are applicable across a broad range of different sectors. Most likely, the tool on baseline setting will require the addition of sector-specific guidance.

Tool for monitoring, reporting, and verification

The MRV tool focuses on reforming the existing CDM MRV framework considering the newly adopted Article 6 rulebook. Reinventing the wheel is unnecessary, as MRV protocols are generally considered robust for activity and programme-level crediting but may need revision to be applicable to sector and policy crediting. Where existing standards for monitoring, such as standards for monitoring equipment or sustainable development (SD)

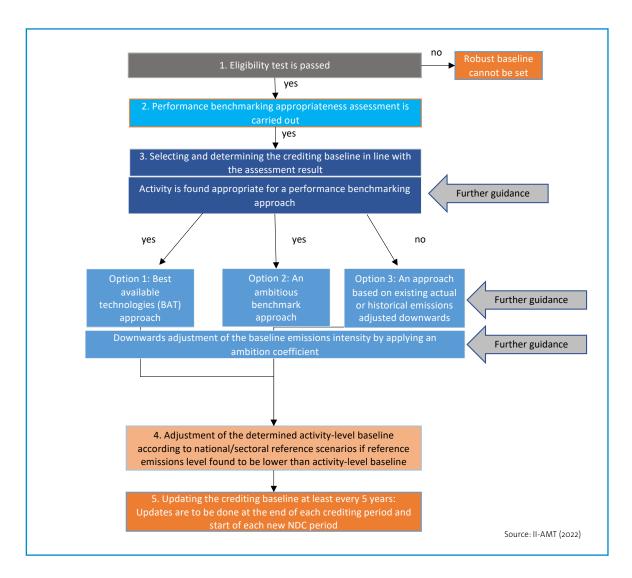


Figure 3: Graphic representation of the steps of the Article 6 baseline setting tool. Source: II-AMT (2022)

monitoring, appropriately capture the principles of Article 6, the tool shall provide a direct reference to such standards and/or processes to develop these.

Four key elements were identified that needed to be addressed and incorporated into the existing MRV framework for it to be in line with rules and principles of Article 6.

 a) Ensuring conservativeness of baselines and project emissions since baselines are expected to be more conservative under Article 6 than under the CDM. This includes baseline parameters that need to be monitored, ensuring that these parameters lead to a baseline below BAU and ensuring that monitoring emissions parameters leads to an overestimation of emissions of the activity and an underestimation of baseline emissions.

b) **Ensuring monitoring of all relevant policies,** including potential new policies by developing

a high-level criterion on what constitutes a relevant policy, the level of aggregation of policies at which they need to be monitored, frequency of policy monitoring and the relevant parameters of the policy universe that must be monitored.

- c) Ensuring full identification and monitoring of reversals by specifying reversal parameters; approaches for monitoring GHG reservoirs created by removal activities, and emission reduction activities including the capture of GHG emissions at source; and provisions of monitoring beyond the crediting period.
- d) Ensuring identification and monitoring of all relevant SD parameters through use of robust methodological guidance and tools.

In addition, the tool will include guidance to be provided to verifiers, to strengthen robustness of the validation and verification process.

The key challenge in the development of the MRV tool is integrating the elements proposed in the monitoring process and transforming them into steps to be followed by activity developers. Furthermore, there are specific challenges to be addressed for each element. For instance, the conservativeness module must be built in tandem with the baselines tool to avoid potential overlaps. Monitoring of policies is not an easy endeavour and achieving a robust monitoring approach without significant monitoring costs will be a challenge. Incorporating provisions for monitoring of reversals over long periods is another challenge that must be resolved. Finally, for the development of the SD tool, the tool must identify the boundaries of SD benefits and devise approaches for reporting on SD contributions, while recognising capacity constraints faced by developing countries in quantifying SD contributions.

Outlook on Article 6 Methodology Tools

Building on the outcomes of the concept phase, the NDC alignment guidance note, and the three methodological tools will be developed until early 2023. While striving for high integrity, the Article 6 Methodology Tools must be practical and not represent an undue burden for project developers. Their development needs to be accompanied by a thorough assessment of their applicability in different country contexts, and of related transaction costs. Therefore, the expert team will not develop the tools in a "vacuum" but will seek inputs and expertise from an advisory group of stakeholders involved in Article 6 cooperation. In addition, the insights and lessons generated by the initiative will be disseminated through policy briefs and discussed at international conferences.

After the development of the tools, a piloting phase is envisaged. We are looking forward to engaging with governments and private sector entities for testing the tools on their Article 6 pilots. Our team of experts will be involved in the test of the tools by activity developers, advise on questions related to the tools and provide clarifications.

Once finalised, the II-AMT products will be made publicly available and ready to be used by Article 6.2 cooperating Parties, be considered by the A6.4M Supervisory Body and independent standards for approval.

The outputs of the concept phase and regular updates on the initiative can be found on the II-AMT website (https://www.perspectives.cc/public/initiatives/international-initiative-for-development-of-article-6-methodology-tools-ii-amt/). If you have questions or are interested in getting involved with the work of the initiative, please contact project coordinator Jennifer Mora (mora@perspectives.cc) or project lead Axel Michaelowa (michaelowa@perspectives.cc).

Towards Integrity

Regulating climate neutrality claims

by Nicolas Kreibich and Franziska Jüde, Wuppertal Institute

In marketing, climate neutrality is the term of the day. More and more companies are setting net-zero targets, claim to be carbon neutral or even sell their products using such a label. Despite significant differences, terms such as 'climate neutrality', 'GHG neutral', 'carbon neutral' or 'net zero emissions' have one element in common: they indicate that a corporate, its activities or products have no net impact on either the climate, the global concentration of greenhouse gasses or parts thereof.

Since only very few companies will be able to completely eliminate their emissions, 'netting-out' residual emissions through carbon credits generated by the voluntary carbon market is inevitably a key step in achieving these neutrality targets. And it is even more important if claims related to the achievement of such targets are being made. However, claims such as climate neutrality say nothing about the relationship between a company's efforts to reduce its own emissions and the share of carbon credits purchased. A company that has first significantly reduced its own emissions through a number of climate change mitigation measures before using carbon credits to offset truly unavoidable emissions is in principle just as 'climate neutral' as a company that has achieved its climate neutrality solely through the purchase of credits. The concept of climate neutrality as such is not able to adequately account for the different commitment of the two companies.

More generally, there is a considerable lack of transparency and comparability of the targets set and the claims made by companies. They differ in terms

of the chosen timeframe, the emission sources and parts of the value chain covered and do often lack clear intermediate targets. Also, the type and quality of carbon credits used for offsetting residual emissions differ substantially. This does not only disadvantage companies that have adopted a more ambitious route. The respective claims made can also be misleading for consumers, making it difficult to assess the actual climate impact of a product or the climate action of a company.

At the international level, initiatives such as the Voluntary Carbon Markets Integrity Initiative (VCMI) and the High-Level Expert Group on the Net-Zero Emissions Commitments of Non State Entities recently launched by UN Secretary-General António Guterres aim to avoid these claims being used for greenwashing. In parallel to these and other international initiatives, climate-related claims are being increasingly regulated at the national level. As part of an ongoing research project commissioned by the German Ministry for Economic Affairs and Climate Action, Wuppertal Institute has analyzed how carbon neutrality and similar claims are dealt with at the national level and compiled a non-exhaustive list of examples from different countries.

Consumer rights and fair competition legislation as common ground

The findings indicate that existing legislation on consumer rights and fair competition provide a common basis for dealing with climate neutrality and similar claims. Legislation and non-legally bind-



Figure 1: Illustration of the countries analyzed, clustered according to the predominant regulation of claims

ing guidance usually require companies to adhere to basic criteria and principles when marketing their products and services. These require claims to be truthful, accurate, specific, substantiated and not exaggerated. In addition to establishing specific criteria for claims, many documents highlight that it is the overall impression that counts: ensuring that the claim as such is true is not sufficient, but companies must also ensure that the overall impression is not misleading.

More specific guidance on climate-related claims often limited

In many countries, generic guidelines on how to adhere to existing legislation have been developed. However, specific guidelines for climate-related claims only exist in a number of countries. These are either included in the generic guidelines for (green) claims (e.g. United Kingdom, Netherlands, New Zealand) or have been developed separately (e.g. Norway, Australia). The guidelines are general-

ly not legally binding, but intended to help companies interpret their obligations under existing law.

Approaches in dealing with (misleading) claims differ

The analysis finds different approaches in dealing with (misleading) allegations. Many countries rely on case law with courts having to assess whether climate-related claims are in line with companies' legal obligations deriving from consumer rights and fair competition legislation (e.g. Germany, USA, UK, Sweden, the Netherlands). In some countries, non-judicial cases are also relevant (Australia, New Zealand).

However, there are also countries that have adopted fundamentally different approaches: As the first country worldwide, France has adopted reporting obligations regarding climate neutrality and is currently agreeing on the provisions that companies must adhere to for making respective



Contributing to climate neutrality? Small scale solar power activity in Sub-Saharan Africa.

claims. Companies claiming carbon neutrality must inter alia make information on the following three elements publicly available:

- A greenhouse gas emission inventory
- A description of how greenhouse gas emissions of the product or service are first avoided, then reduced and finally offset, including a GHG reduction trajectory
- How offsetting of the remaining emissions complies with minimum standards.

While companies that publish this information can claim carbon neutrality, those using such a claim while failing to comply with the requirements will be confronted with sanctions.

A fundamentally different approach is applied in Australia, where the national government certifies climate neutral entities if they meet specific requirements. This reveals a fundamentally different stance towards climate-related claims: While in France the provisions on climate neutrality can be used as a basis for sanctioning misleading claims, Australia incentivizes companies to make such claims and supports them in becoming (certified) carbon neutral.

Enforcement: insufficient

In terms of enforcement, the analysis shows that in most countries, enforcement is built on a bottom-up approach, allowing entitled non-state (e.g. self-regulatory entities) as well as public actors (e.g. Consumer Protection Agencies) to file a lawsuit against companies that do not comply with

their legal obligations. While this has led to a growing number of cases before judicial and non-judicial courts, enforcement of companies' legal obligations is often being criticized as insufficient. In light of the experiences made in the past with the lack of enforcement together with the increasing relevance of climate-related claims in the future, there is an urgent need for better monitoring of claims and a significant potential for top-down enforcement.

Significant momentum for regulation - and increased need for coordination

More generally, there is a strong momentum for enhancing the regulation of climate-related claims in the future, with respective windows of opportunity being open in the world's two largest economies: In the United States, the ongoing revision of the 'Guides for the Use of Environmental Marketing Claims' represents an opportunity to specify what neutrality claims are and how misleading claims could be avoided. In the European Union, there are two ongoing legal initiatives that aim at avoiding greenwashing and require companies to substantiate their claims.

When deciding on how to regulate climate-related claims, policymakers in the US, the EU and elsewhere can not only build on the experiences made in other jurisdictions. They should also align their policies with the emerging best practices established at the international level by the numerous initiatives driven by private as well as public stakeholders.

The overarching objective of such regulation should be to address the risks of companies using misleading claims, while incentivizing companies to make such claims should not play a primordial role. This could be achieved by establishing criteria and requiring companies to use specific modes of communication that clearly indicate the climate performance of a company and its products. Policies should also specify eligibility criteria of carbon

credits that can be used for making such claims. Environmental integrity - including the avoidance of double claiming of emission reductions - as well as contributions to sustainable development and a broader transformational impact of activities should be considered fundamental principles to guide the eligibility of carbon credits. Such criteria can be expected to impact the nature of the voluntary carbon market, supporting it in driving ambition.

When adopting such a regulation, policymakers should take into account that by legally defining a term such as "climate neutrality", a standard is established that will enable companies to make respective claims on a legal basis. More fundamental concerns related to concepts that involve the notion of something being `neutral` should not be taken lightly. There might still be a risk that such claims obfuscate the actual climate impact, adversely impacting consumer behavior.

Further information

This text is an excerpt from ongoing research on the integrity of carbon neutrality claims. The full paper will be published in Mai / Juni 2022.

