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Final report

Development of guidance for non- market approaches in the Paris Agreement

**Operationalizing Articles 6.8 and 6.9 of the Paris
Agreement**

by:

Axel Michaelowa, Aglaja Espelage, Anne-Kathrin Weber, Juliana Kessler, Stephan Hoch
Perspectives Climate Research gGmbH, Freiburg im Breisgau

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This project aimed to deliver a contribution to the discussions about Article 6 of the Paris Agreement under the UNFCCC. The report is intended to show the interrelationships and backgrounds in individual questions concerning the design of cooperative approaches under Article 6 and thus contributes to informed decision-making. Selected design options are elaborated and presented by the authors as examples. This report does not represent a position of the German government.

The responsibility for the content of this publication lies with the authors.

Abstract: Development of guidance for non-market approaches in the Paris Agreement

While market-based forms of cooperation are enshrined in Articles 6.2–6.7, Article 6.8 of the Paris Agreement recognizes the importance of non-market approaches (NMAs) in international cooperation on climate change mitigation and adaptation in a variety of fields. Article 6.9 establishes the NMA framework that promotes NMAs described in Article 6.8. The Parties to the Paris Agreement are currently negotiating a work program to further elaborate on this. If properly designed, fostering the accelerated diffusion of non-market based international cooperation on technology development and transfer, capacity-building and finance in both adaptation and mitigation can provide a relevant contribution to NDC implementation and ratcheting up of ambition. Having that goal in mind, this report provides recommendations on the operationalization of the NMA framework and the work program and the identification of concrete NMAs for consideration by the negotiating Parties. We provide concrete examples of NMAs in various fields Parties have identified as relevant under the framework, including forests, resilience, removals, energy efficiency and the cross cutting topics mentioned above. The NMA work program should be designed as a meaningful addition to ongoing work under the United Nations Framework Convention on Climate Change. The focus must be on activities that are not duplicating ongoing efforts, not implementable through markets, transformative, and have so far been side-lined by international public climate finance. The NMAs' relevance will ultimately depend on Parties' active engagement in the identification of concrete NMAs and their submission to the NMA forum envisaged in the latest iterations of the Presidency draft texts from COP25. The NMA forum should operate in a flexible but results-oriented manner to allow for the consideration of emerging concepts and pilot activities. In the end, the role of finance will also be pivotal for the work program's relevance. According to the current status of negotiations, the work program will not have own financial resources but the consideration of finance is essential to avoid that the NMA work program becomes a mere 'talk shop'.

Kurzbeschreibung: Ausgestaltung von nicht-marktbezogenen Ansätzen im Pariser Übereinkommen

Während marktbasierter Formen der Zusammenarbeit in den Artikeln 6.2-6.7 des Pariser Abkommens verankert sind, betont Artikel 6.8 die Bedeutung von nicht-marktbasierten Ansätzen (Non-Market Approaches, NMAs) in unterschiedlichen Bereichen der internationalen Zusammenarbeit zu Minderung und zur Anpassung an den Klimawandel. Artikel 6.9 legt die Rahmenbedingungen für die in Artikel 6.8 beschriebenen NMAs fest. Die Vertragsparteien des Pariser Abkommens verhandeln derzeit ein Arbeitsprogramm zu NMAs. Bei richtiger Konzeption kann eine zügige Verbreitung nicht-marktbasierter internationaler Zusammenarbeit in den Bereichen Technologieentwicklung und -transfer, Kapazitätsaufbau und Finanzierung einen wichtigen Beitrag zur Umsetzung der nationalen Klimabeiträge (Nationally Determined Contributions, NDCs) und zur Steigerung der Klimaambitionen leisten. Vor diesem Hintergrund formuliert dieser Bericht Empfehlungen zur Ausgestaltung des NMA-Rahmenwerks und des Arbeitsprogramms sowie zur Identifizierung konkreter NMAs, die von den verhandelnden Vertragsparteien in Betracht gezogen werden können. Der Bericht nennt konkrete Beispiele für NMAs in Bereichen, die von den Vertragsparteien bereits als relevant identifiziert wurden, darunter Waldschutz, Resilienz, Minderung, Energieeffizienz sowie die bereits genannten Querschnittsthemen Technologieentwicklung und -transfer, Kapazitätsaufbau und Finanzierung. Das NMA-Arbeitsprogramm sollte als sinnvolle Ergänzung zur laufenden Arbeit unter der Klimarahmenkonvention der Vereinten Nationen (United Nations Framework Convention on Climate Change, UNFCCC) gestaltet werden. Der Fokus sollte deshalb auf Aktivitäten liegen, die laufende Bemühungen nicht duplizieren, nicht durch Marktmechanismen umsetzbar sind, transformativ sind und von der internationalen öffentlichen Klimafinanzierung bislang nicht bzw. nur bedingt berücksichtigt wurden. Die Relevanz der NMAs wird letztlich davon abhängen,

inwieweit sich die Vertragsparteien aktiv an der Identifizierung konkreter NMAs beteiligen und diese im NMA-Forum einreichen. Ein solches Forum wird im letzten Textentwurf der Präsidentschaft der 25. Vertragsstaatenkonferenz (25th Conference of the Parties, COP25) vorgesehen. Das NMA-Forum sollte flexibel, aber dennoch ergebnisorientiert arbeiten, um die Berücksichtigung von neuen Konzepten und Pilotaktivitäten zu ermöglichen. Letztlich wird auch die Rolle der Finanzierung entscheidend für die Bedeutung des NMA-Arbeitsprogramms sein. Nach dem derzeitigen Stand der Verhandlungen wird das NMA-Arbeitsprogramm über keine eigenen finanziellen Mittel verfügen. Die Finanzierungskomponente muss dennoch berücksichtigt werden, um zu vermeiden, dass das NMA-Arbeitsprogramm sich zu einem reinen ‚Talkshop‘ entwickelt.

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List of abbreviations

AB	Adaptation Benefit
ABM	Adaptation Benefits Mechanism
AC	Adaptation Committee
AF	Adaptation Fund
AGN	African Group of Negotiators
ALBA	Bolivarian Alliance for the Peoples of our America
BTR	Biennial Transparency Report
CAN	Climate Adaptation Notes
CAPS	Corporate Air Passenger Solidarity
CBIT	Capacity Building Initiative for Transparency
CDM	Clean Development Mechanism
CIF	Climate Investment Funds
CMA	Conference of the Parties serving as Meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
CTF	Clean Technology Fund
EBI	Environmental Balance Index
EIG	Environmental Integrity Group
EU	European Union
FIP	Forest Investment Program
FLEGT	Forest Law Enforcement, Governance and Trade
FSF	Fast-Start-Finance
FVA	Framework for Various Approaches
GCF	Green Climate Fund
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GEF	Global Environment Facility
IATAL	International Air Travel Adaptation Levy
IAPAL	International Air Passenger Adaptation Levy
ICI / IKI	International Climate Initiative / Internationale Klimaschutzinitiative
ILO	International Labour Organisation
IMO	International Maritime Organisation
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
ITER	International Thermonuclear Experimental Reactor
IUCN	International Union for Conservation of Nature

ITMO	Internationally Transferred Mitigation Outcome
KCI	Katowice Committee of Experts on the Impacts of the Implementation of Response Measures
KJWA	Koronivia Joint Work on Agriculture
LCIPP	Local Communities and Indigenous Peoples Platform
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries Expert Group
LMDC	Like Minded Group of Developing Countries
LTF	Long-term climate finance
LULUCF	Land use, land use change and forestry
MDB	Multilateral development bank
MRV	Monitoring, Reporting and Verification
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NDC	Nationally Determined Contribution
NET	Negative Emission Technology
NGO	Non-governmental organization
NIR	National Inventory Report
NMA	Non-market-based approach
NMM	New market mechanism
NWP	Nairobi Work Programme on impacts, vulnerability and adaptation to climate change
OECD	Organisation for Economic Co-operation and Development
PA	Paris Agreement
PCCB	Paris Committee on Capacity Building
PPCR	Pilot Program for Climate Resilience
PSP	Poznan Strategic Programme on Technology Transfer
R&D	Research and development
RBF	Results-based finance
RBP	Results-based payment
RCC	Regional Collaboration Centre
REDD+	Reducing Emissions from Deforestation and Forest Degradation in developing countries
ROI	Return of investment
SB	Subsidiary Body
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCCF	Special Climate Change Fund

SCF	Standing Committee on Finance
SREP	Scaling Up Renewable Energy in Low Income Countries
TEC	Technology Executive Committee
TEP-A	Technical Examination Process on Adaptation
TEP-M	Technical Examination Process on Mitigation
TNA	Technology Needs Assessments
UNCCD	UN Convention to Combat Desertification
UNDESA	UN Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change

Summary

This report summarizes the results of a research project implemented by Perspectives Climate Research between July 2019 and March 2021, commissioned by the German Environment Agency.

Aims of this study

In this report, we explore how the non-market-based approach (NMA) framework and its associated work program can be designed to complement existing approaches of (market-based) international cooperation under the Paris Agreement (PA). The report develops recommendations for the operationalization of Article 6.8 and 6.9 of the PA and the development of NMAs under Article 6.8 and aims to inform Article 6 negotiators and other delegates and observers to the United Nations Framework Convention (UNFCCC) as well as the larger public.

Development of negotiations on non-market-based approaches

After being discussed for the first time in the context of international climate negotiations at the 16th Conference of the Parties (COP16) in Cancun in 2010, negotiations on NMAs have advanced decisively.

Prior to the adoption of the PA, the relevance of a work program on NMAs had been questioned by some Parties that fear the duplication of already existing initiatives and instruments under the UNFCCC most of which represent non-market forms of cooperation. Some Parties also feared that the work program would mainly serve as a leverage mechanism to increase demands for international climate finance. This concern is not too far-fetched as the main driving Parties behind the NMA framework – Bolivia and Venezuela – wanted to create a lever for expanding international public climate financing.

Support for these commitments was growing prior to COP21 as more ideas and initiatives that supported Article 6.8 emerged. The discussions resulted in the recognition of non-market-based approaches to international cooperation next to market approaches under Article 6 of the PA. According to Article 6.8 of the PA, NMAs shall aim to (a) promote mitigation and adaptation ambition, (b) enhance public and private sector participation in the implementation of nationally determined contributions, and (c) enable opportunities for coordination across instruments and relevant institutional arrangements. Under the Article 6.9 framework, the Subsidiary Body for Scientific and Technological Advice (SBSTA) has been requested in paragraph 39 of the decision 1/CP.21 to undertake a work program with the objective of considering how to enhance linkages and create synergies between, inter alia, mitigation, adaptation, finance, technology transfer and capacity-building, and how to facilitate the implementation and coordination of NMAs.

Since the entry into force of the PA, Parties are negotiating the operationalization of both, the NMA framework and the work program. In 2019, at COP25 in Madrid, Parties reached a clean draft for the operationalization of Article 6.8 and 6.9. Due to controversies on market-based forms of cooperation and the inability of Parties to reach an agreement on these matters, the draft Presidency text was not adopted.

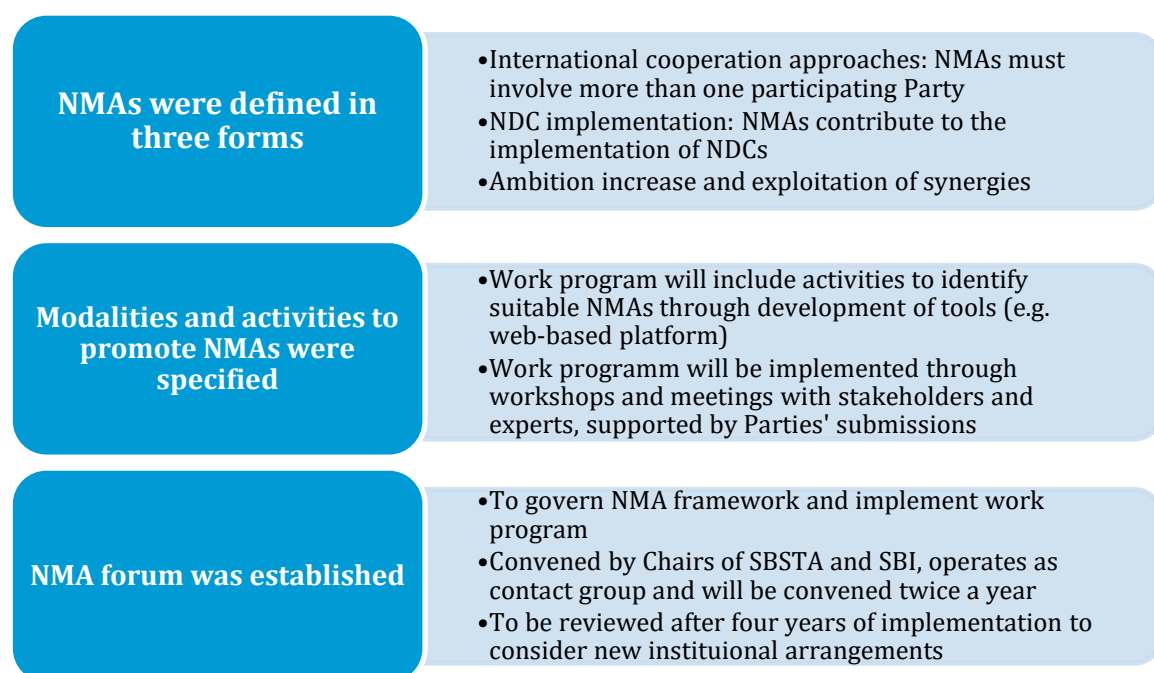
The operationalization of the NMA framework and work program

The main contentious issues in Article 6.8 negotiations on the operationalization of the NMA framework and work program revolved around the definition of NMAs in international cooperation, the establishment of an appropriate governance structure for the NMA framework and the modalities and procedures of the NMA work program.

Regarding governance, the different options that were discussed, ranged from a permanent steering by a separate institution to the promotion of a decentralised exchange of information. The latter was mainly supported by the EU, the US, Japan, New Zealand, Thailand and Australia as they argued for clarification of modalities before the establishment of an institution. Many developing countries were, however, of the opinion that a permanent institution would be required to implement the work program quickly and effectively. Many questions revolved also around the concrete nature of NMAs in terms of whether approaches need to envisage international cooperation or could also focus on national advances. Against the background that even firm advocates of Article 6.8 could not present many concrete proposals for NMAs and their implementation, negotiations focused mainly on resolving these contentious issues than on specific initiatives and ideas. However, it quickly became clear that Article 6.8 represents a high priority for some Parties and negotiation groups and that the course of discussions on NMAs will, therefore, also be decisive for their positions and willingness to compromise on the design of market mechanisms.

As mentioned above, negotiations on Article 6.8 at COP25 progressed well and the latest iteration of the COP25 Presidency includes the following elements:

Figure 1: Elements of the latest iteration of the COP25 Presidency



Source: own illustration, Perspectives Climate Research gGmbH.

Regarding the next steps, the NMA forum is tasked to develop a schedule, including specific deliverables for the implementation of the work program and to identify focus areas of the work program activities. The list of possible modalities for the implementation of the work program is rather vague and includes workshops, meetings, submissions, technical papers and coordinative efforts.

The establishment of the NMA forum in the draft COP25 decision represents a big compromise for some Parties that also expressed some degrees of discomfort with it. Many developing countries were aiming for a more robust governance approach. With the NMA forum, a soft form of institutionalization is established at least in the beginning, until Parties agree on focus areas and have a shared understanding of NMAs and their importance.

Considerations emerging from the negotiation process

- ▶ In light of future negotiations at COP26 on this matter, it should be considered that Article 6 is mainly negotiated by carbon market experts and, therefore, an emphasis on mitigation could be inherent in Article 6.8 negotiations. Therefore, it would be valuable to bring in relevant experts from other fields such as adaptation, climate finance, technology transfers and capacity building to improve discussions on complementary activities in the respective areas.
- ▶ Proactive engagement with non-Party stakeholders, observer organizations and relevant ongoing processes and institutions under the UNFCCC, should be sought in order to prevent a duplication of existing efforts and to enable complementary activities.

Proposing focus areas and potential NMAs to be promoted

Despite the fact that Parties reached a clean draft text on the timing and tasks of a work program and a first identification of NMA forms, a clear definition of NMAs was not narrowed down and agreed upon. Starting from the premise that the NMA work program should be designed to be a meaningful addition to ongoing work under the UNFCCC, we first identify specific forms NMAs could potentially take and subsequently provide some examples of activities in identified focus areas.

Conceptually, we describe seven potential forms of NMAs (see first column of Table 2) under the two broad fields of approaches with a financing component or focused on other means of implementation of climate change-related action, i.e. technology development and transfer as well as capacity building. As this is a typology for analysis purposes, actual approaches to international cooperation may include aspects of all different means of mitigation and adaptation implementation.

When identifying potential NMAs to be facilitated under the framework, we followed the negotiation text that foresees two steps: (1) Identification of focus areas of work program activities and (2) Identification of existing NMAs. To account for the broad scope of Article 6.8, referring to the fields of adaptation, mitigation, sustainable development and eradication of poverty and the respective means of implementation (e.g. capacity building, technology development and transfer, financial aspects), we based the analysis on four criteria.

- ▶ Non-duplicative: The criterion of non-duplication has also been recognized in the latest iteration of the negotiation text and stipulates that the framework should only design and facilitate NMAs that are not addressed elsewhere.
- ▶ Not implementable through market mechanism: In practice this would mean that the following topics could be addressed: Adaptation measures that are currently not addressed by market-based instruments; measures that simultaneously address adaptation and mitigation (e.g. sustainable forest management); mitigation measures that are difficult to quantify (e.g. information and awareness raising) and mitigation measures that are less suitable to be implemented through market-based cooperation (e.g. activities in the land use sector or industrial gas projects).
- ▶ Transformative: It should be ensured that the approaches are innovative and contribute to ambition raising in Nationally Determined Contributions (NDCs) and provide long-term benefits in low carbon and resilient development.
- ▶ Side-lined by international public climate finance: The framework should focus on areas where there is little public international climate finance available.

In a second step, these criteria were applied against the focus areas introduced by the last iteration of the Presidency draft text on the Article 6.8 work program at COP25. Five broad focus areas could be derived from the text:

1. Integral and sustainable management of forests
2. Social-ecological resilience
3. Reduction of emissions by sources and enhancement of removals
4. Energy efficiency
5. Finance, technology development and transfer, capacity-building support for mitigation

It is shown that most of the focus areas listed in the Presidency draft text are too broad and unspecific to match the criteria laid out. Therefore, we specified the focus areas based on our assessment of other initiatives in the UNFCCC regime to guide the identification of non-duplicative NMAs:

Table 1: Identification of specified focus areas for NMAs

Broad focus areas	Specified areas
Forests	While REDD+ activities would not meet the criterion not to be implementable through carbon markets, there is a need for more demand-side and transnational non-market measures in the forestry sector, such as deforestation-free supply chains.
Social-ecological resilience	It is recognized that particularly innovative financing sources for broader approaches to resilience are scarce. In addition, resilience with regards to mitigation is not sufficiently addressed within the UNFCCC regime (e.g. “just transition” as a starting point). Social-ecological resilience includes approaches to protect ecosystems, biodiversity and communities. As sub-issues under the adaptation part of resilience, ecosystem-based adaptation and integrated water management could be addressed. It is therefore a very complex field that needs further delimitation and focus on priority areas.
Removals	Emerging removal technologies such as bioenergy and carbon capture and storage, direct air carbon capture and storage, ocean fertilization, enhanced weathering etc. are necessary for transformative mitigation action in line with the 1.5°C temperature goal. However, there are issues on mobilizing funding, developing technologies and on trans- and international governance of the deployment of these technologies, including on sustainable development safeguards.
Energy efficiency	International cooperation could be undertaken on ways how to remove non-monetary barriers to energy efficiency improvements. An important aspect would be the harmonization and improvement of energy efficiency standards and energy efficiency testing procedures on an international level as well as legal approaches to remove barriers for energy service companies to accelerate the diffusion of standards.
Capacity building and technology transfer	There is a need for more specific capacity building initiatives that address cross-cutting issues and means of implementation. Capacity-building should always be coupled with the implementation of concrete action in mitigation and adaptation. Actual technology transfer is hampered by a lack of resources and many Technology Needs Assessments remain ‘dead letters’, not being able to attract private investments. Therefore, international cooperation should focus on accessing innovative finance sources.

Source: own compilation, Perspectives Climate Research gGmbH.

In order to meet the ‘non-duplicative’ criterion introduced above, we carried out a comprehensive mapping exercise that looked at relevant PA Articles and UNFCCC decisions to prevent the duplication of ongoing work in the NMA framework and work program and to generate relevant NMAs. The analysis was also done to assess how NMAs can strengthen linkages and synergies between existing activities. Relevant PA Articles that were looked at are Article 11 (capacity building), Article 4 (mitigation contributions through NDCs), Article 7 (adaptation), Article 5 (mitigation and adaptation through forests), Article 9 (climate finance), Articles 6.2 and 6.4 (market-based cooperation) and Article 10 (technology development). The results of this analysis are summarized in the second column of Table 2.

Table 2: Proposals of NMAs differentiated by type

NMA type	Examples
I.A: A mechanism that comprises specific financial instruments	<ul style="list-style-type: none"> ▶ instruments that provide funding to mainstream resilience in mitigation and adaptation measures (<i>area: adaptation</i>) ▶ instruments (e.g. Adaptation Benefits Mechanism) that mobilize additional finance for adaptation benefits, including from the private sector (<i>area: adaptation</i>) ▶ instruments that provide funding for emerging technologies in the context of mitigation and adaptation (<i>area: technology</i>)
I.B: A mechanism for coordination of existing finance streams on a multi-country level	<ul style="list-style-type: none"> ▶ instruments that aim at maximizing synergies and increasing efficiency in the deployment of financial and technical resources (<i>area: climate finance</i>) ▶ instruments that aim to increase Parties’ capacities to mobilize public and private investments through NMAs, potentially including their abilities to blend market- and non-market sources of finance (<i>area: carbon markets</i>)
I.C: A mechanism for coordination of financial assistance from multiple countries to one country	<ul style="list-style-type: none"> ▶ roadmaps to include a specific sector in the next revision of the NDC (<i>cross-area</i>) ▶ guidance for coordinating different available funding sources for a specific sector or region, while supporting proper climate finance accounting and transparency of the resources mobilized (<i>cross-area</i>)
II.A: A mechanism for coordination of mitigation/adaptation technology development and/or diffusion on the multilateral level	<ul style="list-style-type: none"> ▶ an accelerator for diffusion of international energy efficiency standards (<i>area: mitigation</i>)

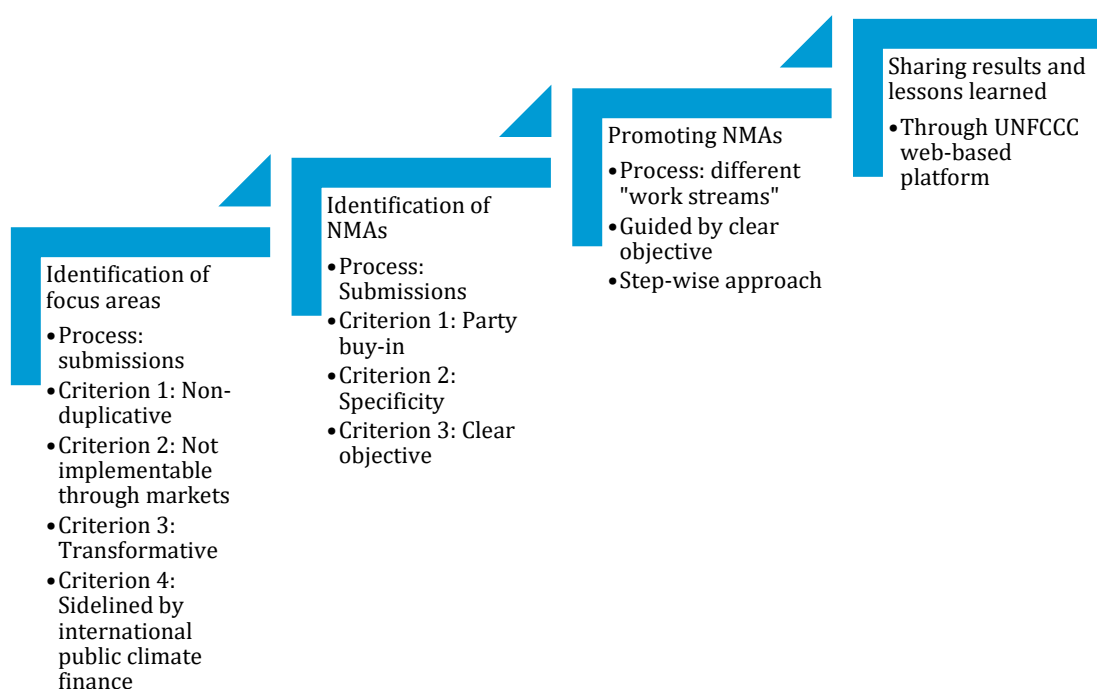
NMA type	Examples
	<ul style="list-style-type: none"> ▶ an international program for capacity building on specific technologies such as rooftop solar photovoltaic or offshore wind (<i>area: technology</i>)
II.B: A mechanism for coordination of mitigation and adaptation policies across countries	<ul style="list-style-type: none"> ▶ a multi-country policy that promotes early stage technologies, e.g. negative emissions technologies (NETs) (<i>area: mitigation</i>) ▶ the diffusion of international safeguards and standards for resilience programs (<i>area: adaptation</i>) ▶ public-private partnerships across boundaries to tackle drivers of deforestation for large forest biomes (<i>area: forestry</i>) ▶ multi-country policies that promote technologies with cross-cutting (adaptation and mitigation) impacts, e.g. solar water pumping, including NETs/ establish common standards and safeguards for NETs (<i>area: technology</i>)
II.C: A mechanism for coordination of capacity building across countries on multiple levels.	<ul style="list-style-type: none"> ▶ an international expert group on mitigation co-benefits in broad adaptation measures as well as a training program for adaptation specialists (<i>area: mitigation</i>) ▶ the development and training on methodologies to assess vulnerability and impacts in specific sectors such as the health sector (<i>area: adaptation</i>) ▶ capacity-building programs on participation in the Article 6.4 mechanism or on emissions trading scheme (ETS) development and linking (<i>area: mitigation</i>)
II.D: A mechanism for general information sharing on cross-boundary mitigation and adaptation actions.	<ul style="list-style-type: none"> ▶ international research consortia and networks on promising and emerging mitigation technologies (<i>area: mitigation</i>) ▶ the coordination of submissions on communicating adaptation information in the context of the PA (<i>area: adaptation</i>) ▶ share lessons learned from various approaches on deforestation-free supply chains (<i>area: forestry</i>)

Source: own compilation, Perspectives Climate Research gGmbH.

Key messages regarding the operationalization of the NMA framework and work program

We derive six key messages from our analysis of the iterations of the Presidency draft texts and the development of concrete NMA proposals.

1. The work program should focus on specific and implementable NMAs that rely on international cooperation on financial aspects or on technologies and capacity building rather than discussing generic concepts. Therefore, the work program should focus on innovative NMAs, where there is a lack of knowledge, technological know-how, awareness and financing to implement them. In addition, the NMA work program should focus on NMAs that are already successfully implemented by Parties and identified by these as relevant for the NMA work program. The work program should be results-oriented in its activities and support the implementation, scaling-up or replication of specific NMAs.
2. It is particularly important to find an answer to the lack of practical proposals and ideas for the work program. Therefore, Parties should make specific submissions to the NMA forum by reporting on their own experiences in international cooperation and innovative approaches they are pursuing.
3. The NMA work program should be designed to be a meaningful addition to ongoing work under the UNFCCC. Focus must be on activities that are non-duplicative, not implementable through markets, transformative, and have so far been side-lined by international public climate finance.
4. We recommend that the NMA forum should implement a rolling work plan that is implemented through iterations of four steps. These steps comprise the identification of potential focus areas followed by the identification of NMAs within these focus areas, the establishment of a work stream for each selected NMA guided by clear objectives and finally the gathering of key recommendations and lessons learned.

Figure 2: Proposal for a rolling work plan for the NMA forum

Source: own illustration, Perspectives Climate Research gGmbH.

5. The NMA framework and work program should aim to demonstrate how NMAs under Article 6.8 can contribute to more ambitious climate action. To this end, it has to ensure that thematic linkages between NMAs and NDC implementation are taken into account. We recommend that the NMA forum prepares a submission template that considers the four criteria established above, including how the NMA promotes the implementation and ratcheting up of NDCs rather than duplicating existing institutions and measures.
6. The NMA forum should develop its modalities and work program and be equipped with the resources and support it needs to undertake these activities. Mobilizing sufficient resources is a challenge encountered by all new activity streams at the UNFCCC. There is a risk, however, that due to a perception of low relevance of the NMA issue by a number of Parties the NMA forum will be seen as of low priority, lack resources and thus ultimately function only as a 'talk shop'. We therefore recommend to develop a clear position and vision for steering and activities under the work program, and always maintain a focus on implementation, upscaling or replication of concrete activities. Financial and technological capacity needs of different country groups should be considered by the NMA forum in promoting specific activities.

The work program should keep a clear focus on the implementation of the NMAs and should promote the mobilization of private finance through NMAs

Regarding the last key message, it is important to mention that the work program will not have own financial resources, but it should keep a clear focus on the implementation of the NMAs it promotes. This includes the assessment and the discussion of the financial aspects of existing and emerging NMAs. The work program is a success if it focuses on NMAs that do not duplicate international financing efforts, and if it promotes and facilitates the identification of synergies

and opportunities in financing specific NMAs through international cooperation. In this context, the work program should in particular promote the mobilization of private finance through NMAs.

There are various existing approaches for financing activities involving multiple countries both inside and outside climate policy that are developed and implemented independently from each other. In this regard, the NMA work program can play an important role in assessing existing approaches (also in terms of their potential of being upscaled or replicated) and making them more visible. Based on this assessment, the NMA work program could bring together relevant actors (financing institutions, private sector and NMA proponents) and enhance the coordination and synergies between them. Finally, the NMA work program can be a catalyst for the development and realization of innovative ideas for new forms of cooperation that involve financial instruments. The work program would benefit greatly if the Parties would share their practical experiences and lessons learned, in particular if they are piloting innovative NMAs with a financing component.

Zusammenfassung

Dieser Bericht fasst die Ergebnisse eines Forschungsprojekts zusammen, das die Perspectives Climate Research gGmbH im Auftrag des Umweltbundesamtes (UBA) zwischen Juli 2019 und März 2021 durchgeführt hat.

Ziele dieser Studie

In diesem Bericht wird untersucht, wie das Rahmenwerk nicht-marktbasierter Ansätze (Non-Market Approaches, NMAs) und das dazugehörige Arbeitsprogramm gestaltet werden können, um bestehende Ansätze der (marktbasierten) internationalen Zusammenarbeit unter dem Übereinkommen von Paris (ÜvP) zu ergänzen. Der Bericht enthält Empfehlungen für die Operationalisierung von Artikel 6.8 und 6.9 des ÜvP und für die Entwicklung konkreter NMAs unter Artikel 6.8. Er zielt darauf ab, Artikel 6-Verhandlungsführende, Delegierte und Beobachtende der Klimarahmenkonvention der Vereinten Nationen (KRK) sowie die breite Öffentlichkeit zu informieren.

Entwicklung der Verhandlungen zu nicht-marktbasierten Ansätzen

Seitdem nicht-marktbasierte Ansätze erstmals auf der 16. Vertragsstaatenkonferenz (VSK16) in Cancun im Jahr 2010 diskutiert wurden, sind die entsprechenden Verhandlungen zwischen Vertragsparteien maßgeblich fortgeschritten. Vor der Verabschiedung des ÜvP wurde die Relevanz eines Arbeitsprogramms zu NMAs von einigen Vertragsparteien noch in Frage gestellt, da eine Überschneidung mit bereits bestehenden Initiativen und Instrumenten unter der KRK – von denen die meisten nicht-marktbasierte Formen der Zusammenarbeit darstellen – befürchtet wurde. Einige Vertragsparteien äußerten zudem die Sorge, dass das Arbeitsprogramm vor allem als Druckmittel dienen könnte, um die Forderungen nach internationaler Klimafinanzierung auszuweiten. Diese Sorge ist naheliegend, da die wichtigsten Impulsgeber hinter dem NMA-Rahmenwerk – Bolivien und Venezuela – einen Mechanismus zur Ausweitung der internationalen öffentlichen Klimafinanzierung schaffen wollten.

Die Unterstützung für ein NMA-Rahmenwerk wuchs im Vorfeld der 21. VSK, da mehr und mehr Ideen und Initiativen aufkamen, die Artikel 6.8 untermauerten. Die Diskussionen führten schließlich zur Anerkennung von NMAs neben den marktbasierten Ansätzen unter Artikel 6 des ÜvP. Gemäß Artikel 6.8 des ÜvP sollen NMAs darauf abzielen, (a) Minderung und Anpassung an den Klimawandel zu fördern, (b) die Beteiligung des öffentlichen und privaten Sektors an der Umsetzung nationaler Klimabeiträge (Nationally Determined Contributions, NDCs) zu stärken und (c) Möglichkeiten zur Koordination über verschiedene Instrumente und relevante institutionelle Vereinbarungen hinweg zu schaffen. Im Rahmen von Artikel 6.9 wurde das Nebenorgan für wissenschaftliche und technologische Beratung (Subsidiary Body for Scientific and Technological Advice, SBSTA) in Absatz 39 der Entscheidung 1/CP.21 aufgefordert, ein Arbeitsprogramm zu erstellen. Dabei soll geprüft werden, wie Verbindungen und Synergien zwischen u.a. Minderung, Anpassung, Finanzierung, Technologietransfer und Kapazitätsaufbau verbessert werden können, und wie die Umsetzung und Koordination von NMAs erleichtert werden kann.

Seit dem Inkrafttreten des ÜvP wird über die Ausgestaltung des NMA-Rahmenwerks und des zugehörigen Arbeitsprogramms verhandelt. Ende 2019 einigten sich die Vertragsparteien auf der 25. VSK in Madrid auf einen bereinigten Textentwurf für die Ausgestaltung von Artikel 6.8 und 6.9. Aufgrund von Differenzen bezüglich marktbasierter Formen der internationalen Zusammenarbeit und der Unfähigkeit der Vertragsparteien, eine Einigung in diesen Fragen zu erzielen, wurde der gesamte Textentwurf der VSK25-Präsidentschaft jedoch nicht verabschiedet.

Die Ausgestaltung des NMA-Rahmenwerks und des Arbeitsprogramms

Die Hauptstreitpunkte in den Artikel 6.8-Verhandlungen über die Ausgestaltung des NMA-Rahmenwerks und des Arbeitsprogramms bezogen sich auf die Definition von NMAs, die Festlegung einer geeigneten Governance-Struktur für das NMA-Rahmenwerk sowie die Arbeitsweise und Prozesse des NMA-Arbeitsprogramms.

Hinsichtlich der Governance-Struktur reichten die diskutierten Optionen von einer permanenten Kontrolle durch eine separate Institution bis hin zur Förderung eines dezentralen Informationsaustauschs. Letzterer wurde vor allem von der Europäischen Union (EU), den USA, Japan, Neuseeland, Thailand und Australien unterstützt, da diese Vertragsparteien dafür plädierten, dass vor der Gründung einer Institution alle Bedingungen, Modalitäten und Verfahrensweisen final geklärt sein müssten. Viele Entwicklungsländer vertraten derweil die Meinung, dass eine ständige Institution notwendig sei, um das Arbeitsprogramm schnell und effektiv umzusetzen. Darüber hinaus wurde die konkrete Ausgestaltung der NMAs diskutiert, ebenso wie die Frage, ob NMAs zwingend internationale Zusammenarbeit vorsehen müssen oder auch auf nationale Maßnahmen fokussiert sein können. Da selbst überzeugte Befürwortende von Artikel 6.8 nur wenige konkrete Vorschläge für NMAs und deren Umsetzung präsentieren konnten, konzentrierten sich die Verhandlungen eher auf die Lösung der strittigen Fragen, als auf konkrete Initiativen und Ideen. Es wurde jedoch schnell deutlich, dass Artikel 6.8 für einige Vertragsparteien und Verhandlungsgruppen eine hohe Priorität darstellt und der Verlauf der Diskussionen über NMAs daher auch entscheidend für deren Positionierung und Kompromissbereitschaft bei der Ausgestaltung der Marktmechanismen sein würde.

Wie bereits beschrieben, wurden bei den Artikel 6.8-Verhandlungen in Madrid dennoch signifikante Fortschritte gemacht. So beinhaltet der letzte Textentwurf der VSK25-Präsidentschaft die folgenden Elemente:

Abbildung 1: Elemente des letzten Textentwurfs der VSK25-Präsidentschaft

Drei Arten von NMAs wurden definiert	<ul style="list-style-type: none"> • Internationale Kooperationsansätze (NMAs müssen mehr als eine teilnehmende Vertragspartei einbeziehen) • NMAs tragen zur Umsetzung der NDCs bei • Ambitionssteigerung und Nutzung von Synergien
Die Bedingungen und Aktivitäten zur Förderung von NMAs wurden spezifiziert	<ul style="list-style-type: none"> • Das Arbeitsprogramm wird Aktivitäten zur Identifizierung geeigneter NMAs durch die Entwicklung von Hilfsmitteln (z. B. webbasierte Plattform) beinhalten • Das Arbeitsprogramm wird durch Workshops und Meetings mit Interessenvertretung und Sachverständigen umgesetzt, unterstützt durch die Beiträge der Vertragsparteien
Das NMA-Forum wurde gegründet	<ul style="list-style-type: none"> • Regelt das NMA-Rahmenwerk und die Umsetzung des Arbeitsprogramms • Wird von den SBSTA- und SBI-Vorsitzenden zwei mal im Jahr einberufen; arbeitet als Kontaktgruppe; • Wird vier Jahre nach der Einführung geprüft, um neue institutionelle Arrangements in Betracht zu ziehen

Quelle: eigene Darstellung, Perspectives Climate Research gGmbH.

Hinsichtlich der nächsten Schritte ist das NMA-Forum damit beauftragt, einen Zeitplan mit spezifischen Zielvorgaben für die Umsetzung des Arbeitsprogramms entwickeln sowie Schwerpunktbereiche der Aktivitäten des Arbeitsprogramms zu identifizieren. Die Liste der möglichen Verfahren für die Umsetzung des Arbeitsprogramms ist eher vage und umfasst Workshops, Meetings, Beiträge, technische Papiere und koordinative Bemühungen.

Die Etablierung des NMA-Forums stellt einen großen Kompromiss für einige Vertragsparteien dar und sorgte bei ihnen für ein gewisses Maß an Unzufriedenheit. Viele Entwicklungsländer strebten einen robusteren Governance-Ansatz an. Mit dem NMA-Forum wird jedoch zunächst eine eher schwache Form der Institutionalisierung geschaffen. Eine Änderung ist erst zu erwarten, wenn sich die Vertragsparteien auf Schwerpunktbereiche geeinigt und ein gemeinsames Verständnis von NMAs und ihrer Bedeutung erlangt haben.

Erwägungen, die sich aus dem Verhandlungsprozess ergeben

- ▶ Im Hinblick auf künftige Verhandlungen auf der 26. VSK sollte berücksichtigt werden, dass Artikel 6 hauptsächlich von Kohlenstoffmarktfachleuten verhandelt wird. Daher könnte die Betonung von Minderung auch den Verhandlungen zu Artikel 6.8 inhärent sein. Es wäre wichtig, relevante Experten aus anderen Bereichen – speziell Anpassung, Klimafinanzierung, Technologietransfer und Kapazitätsaufbau – hinzuzuziehen, um die Diskussionen über komplementäre Aktivitäten in den jeweiligen Bereichen zu verbessern.
- ▶ Es sollte ein proaktives Engagement mit Akteuren außerhalb der Vertragsparteien, Beobachterorganisationen und laufenden Prozessen und Institutionen unter der KRK angestrebt werden, um eine Überschneidung bestehender Bemühungen zu vermeiden und ergänzende Aktivitäten zu ermöglichen.

Vorschläge für Schwerpunktbereiche und potenzielle NMAs

Obwohl die Vertragsparteien sich auf einen Textentwurf über den Zeitplan und die Aufgaben des Arbeitsprogramms geeinigt sowie erste NMA-Formen identifiziert haben, ist es bislang nicht gelungen, eine klare Definition von NMAs einzugrenzen und zu vereinbaren. Ausgehend von der Prämisse, dass das NMA-Arbeitsprogramm so gestaltet werden sollte, dass es eine sinnvolle Ergänzung zur laufenden Arbeit unter der KRK darstellt, identifizieren wir zunächst spezifische Formen, die NMAs potenziell annehmen könnten, und geben anschließend einige Beispiele für Aktivitäten in den identifizierten Schwerpunktbereichen.

Wir beschreiben im Folgenden sieben mögliche Formen von NMAs (siehe erste Spalte in Tabelle 2), die sich in zwei übergeordnete Kategorien einordnen lassen: Ansätze mit und ohne Finanzierungskomponente. Letztere fokussieren sich auf andere Mittel zur Umsetzung von klimarelevanten Maßnahmen, darunter Technologieentwicklung und -transfer sowie Kapazitätsaufbau. Diese Klassifizierung dient ausschließlich zu Analyse Zwecken; in der Praxis können Ansätze Elemente unterschiedlicher Instrumente zur Umsetzung von Minderung und Anpassung beinhalten.

Bei der Identifizierung potenzieller NMAs, die durch das Rahmenwerk gefördert werden sollen, richteten sich die Autoren nach dem Verhandlungstext, der zwei Schritte vorsieht: (1) Identifizierung von Schwerpunktbereichen der Aktivitäten des Arbeitsprogramms und (2) Identifizierung von bestehenden NMAs. Um dem breiten Anwendungsbereich von Artikel 6.8 – welcher sich auf die Bereiche Minderung, Anpassung, nachhaltige Entwicklung und Armutsbekämpfung sowie die jeweiligen Mittel zur Umsetzung (Technologieentwicklung und -transfer, Kapazitätsaufbau und Finanzierung) bezieht – Rechnung zu tragen, orientiert sich unsere Analyse an den folgenden vier Kriterien:

- ▶ Nicht-duplizierend: Das Kriterium der Nicht-Duplizierung wurde in der letzten Fassung des Verhandlungstextes anerkannt und legt fest, dass das NMA-Rahmenwerk nur NMAs entwickeln und ermöglichen soll, die nicht an anderer Stelle berücksichtigt werden.
- ▶ Nicht durch Marktmechanismen umsetzbar: In der Praxis würde dies bedeuten, dass die folgenden Themen abgedeckt werden könnten: Anpassungsmaßnahmen, die derzeit nicht von marktbasierten Instrumenten erfasst werden; Maßnahmen, die gleichzeitig Anpassung und Minderung adressieren (z. B. nachhaltige Waldbewirtschaftung); Minderungsmaßnahmen, die schwer zu quantifizieren sind (z. B. Informationsvermittlung und Sensibilisierungs- bzw. Bewusstseinsförderung); sowie Minderungsmaßnahmen, die nur bedingt dazu geeignet sind, durch marktbasierte Kooperationen umgesetzt zu werden (z. B. Aktivitäten im Landnutzungsbereich oder Industriegasprojekte).
- ▶ Transformativ: Es sollte sichergestellt werden, dass die Ansätze innovativ sind, zur Ambitionssteigerung der NDCs beitragen und langfristigen Nutzen für eine kohlenstoffarme und resiliente Entwicklung bieten.
- ▶ Von der internationalen öffentlichen Klimafinanzierung nicht bzw. nur bedingt berücksichtigt: Das NMA-Rahmenwerk sollte sich auf Bereiche konzentrieren, in denen wenig öffentliche internationale Klimafinanzierung zur Verfügung steht.

In einem zweiten Schritt wurden diese Kriterien auf die fünf Schwerpunktbereiche angewandt, die in der letzten Fassung des Textentwurfs der VSK25-Präsidentschaft zum Artikel 6.8-Arbeitsprogramm eingeführt wurden:

1. Ganzheitliche und nachhaltige Bewirtschaftung der Wälder
2. Sozial-ökologische Resilienz
3. Emissionsreduktionen und Erhöhung der Entnahme von Treibhausgasen aus der Atmosphäre (Removals)
4. Energieeffizienz
5. Finanzierung, Technologieentwicklung und -transfer, sowie Unterstützung des Aufbaus von Kapazitäten für Minderung

Es zeigt sich jedoch, dass die meisten der im Textentwurf der VSK25-Präsidentschaft aufgeführten Schwerpunktbereiche zu breit und unspezifisch sind, um den vorab benannten Kriterien zu entsprechen. Daher wurden im Rahmen der Studie die Schwerpunktbereiche auf der Grundlage der Einschätzung anderer Initiativen im KRK-Regelwerk spezifiziert, um die Identifizierung von nicht-duplizierenden NMAs anzuleiten:

Tabelle 1: Identifizierung von spezifischen Schwerpunktbereichen für NMAs

Breite Schwerpunktbereiche	Spezifische Schwerpunktbereiche
Wälder	Es besteht ein Bedarf an nachfrageorientierten und transnationalen Maßnahmen im Forstbereich, die nicht im Rahmen von Kohlenstoffmärkten umgesetzt werden können. Dazu zählen zum Beispiel entwaldungsfreie Lieferketten. Aktivitäten im Kontext von REDD+ erfüllen dieses Kriterium nicht.
Sozial-ökologische Resilienz	Es ist weithin anerkannt, dass besonders innovative Finanzierungsquellen für breitere Ansätze zu Resilienz rar sind. Zudem wird Resilienz in Bezug auf Minderung im Rahmen des KRK-Regimes nicht ausreichend adressiert (z. B. "gerechter Wandel" (just transition) als Ausgangspunkt). Sozial-ökologische Resilienz umfasst Ansätze, die Ökosysteme, biologische Vielfalt und

Breite Schwerpunktbereiche	Spezifische Schwerpunktbereiche
	Bevölkerungsgruppen schützen. Als Unterthemen im Bereich Anpassung könnten beispielsweise Ansätze zur ökosystembasierten Anpassung und zu integriertem Wassermanagement aufgegriffen werden. Da es sich insgesamt um ein komplexes Feld handelt, bedarf es einer weiteren Abgrenzung und Fokussierung auf Schwerpunktbereiche.
Emissionsreduktionen und Erhöhung der Entnahme von Treibhausgasen aus der Atmosphäre (Removals)	Neu entstehende Technologien zur Entnahme von Treibhausgasen aus der Atmosphäre wie beispielsweise Bioenergie mit anschließender Kohlenstoffabscheidung und -speicherung (Bioenergy with Carbon Capture and Storage, BECCS), direkte Kohlenstoffabscheidung aus der Atmosphäre mit anschließender Abscheidung und Speicherung (Direct Air Capture with Carbon Capture and Storage, DACCS), Ozeandüngung sowie künstlich beschleunigte Verwitterung von Gesteinen (Enhanced Weathering) sind für transformative Minderungsmaßnahmen im Einklang mit dem 1,5°C-Temperaturziel notwendig. Es gibt jedoch Handlungsbedarf bei der Mobilisierung von Finanzmitteln, der Entwicklung von Technologien sowie bei der trans- und internationalen Steuerung des Einsatzes dieser Technologien. Dies beinhaltet auch die Sicherstellung einer nachhaltigen Entwicklung.
Energieeffizienz	Nicht-marktbasierte Formen der internationalen Zusammenarbeit könnten sich mit der Frage befassen, wie nicht-monetäre Barrieren für die Verbesserung von Energieeffizienz beseitigt werden können. Wichtige Aspekte wären die Harmonisierung und Verbesserung von Energieeffizienzstandards und -prüfverfahren auf internationaler Ebene sowie rechtliche Ansätze zum Abbau von Barrieren für Energiedienstleistungsunternehmen, um die Verbreitung von Standards zu beschleunigen.
Kapazitätsaufbau und Technologietransfer	Es besteht ein Bedarf an spezifischen Initiativen zum Kapazitätsaufbau, die Querschnittsthemen und Umsetzungsmöglichkeiten aufgreifen. Der Aufbau von Kapazitäten sollte immer an die Umsetzung konkreter Maßnahmen zur Minderung und Anpassung gekoppelt sein. Technologietransfer wird durch einen Mangel an Ressourcen erschwert und viele Technologiebedarfsanalysen bleiben ohne Konsequenzen, da sie nicht dazu in der Lage sind, private Investitionen anzuziehen. Daher sollte sich die internationale Zusammenarbeit auf die Erschließung innovativer Finanzierungsquellen konzentrieren.

Quelle: eigene Darstellung, Perspectives Climate Research gGmbH.

Um das oben eingeführte Kriterium der Nicht-Duplizierung zu erfüllen, wurde eine umfassende Bestandsaufnahme durchgeführt. Alle relevanten ÜvP-Artikel und KRK-Entscheidungen wurden analysiert, so dass Dopplungen mit bereits laufenden Bemühungen und Aktivitäten vermieden und ausschließlich relevante NMAs vorgeschlagen werden können. Die Analyse wurde auch durchgeführt, um zu beurteilen, wie NMAs Verknüpfungen und Synergien zwischen bestehenden Aktivitäten weiter stärken können. Die folgenden ÜVP-Artikel waren Teil der Analyse: Artikel 4 (Minderungsbeiträge durch NDCs), Artikel 5 (Minderung und Anpassung durch Wälder), Artikel 6.2 und 6.4 (marktbasierte Kooperation), Artikel 7 (Anpassung), Artikel 9 (Klimafinanzierung), Artikel 10 (Technologieentwicklung) und Artikel 11 (Kapazitätsaufbau). Die Ergebnisse der Analyse sind in der zweiten Spalte von Tabelle 2 zusammengefasst.

Tabelle 2: Vorschläge für NMAs unterschieden nach verschiedenen Typen

NMA-Typ	Beispiele
I.A: Ein Mechanismus, der spezifische Finanzinstrumente umfasst	<ul style="list-style-type: none"> ▶ Instrumente, die Finanzmittel zur breiten Verankerung von Resilienz in Minderungs- und Anpassungsmaßnahmen bereitstellen (<i>Bereich: Anpassung</i>) ▶ Instrumente (z. B. der Anpassungsnutzen-Mechanismus, ABM), die zusätzlichen Finanzmittel für Anpassungsleistungen, auch aus dem Privatsektor, mobilisieren (<i>Bereich: Anpassung</i>) ▶ Instrumente, die Finanzmittel für neu entstehende Technologien im Kontext von Minderung und Anpassung bereitstellen (<i>Bereich: Technologie</i>)
I.B: Ein Mechanismus zur Koordinierung bestehender Finanzierungsströme auf länderübergreifender Ebene	<ul style="list-style-type: none"> ▶ Instrumente, die darauf abzielen, Synergien zu maximieren und die Effizienz beim Einsatz finanzieller und technischer Ressourcen zu erhöhen (<i>Bereich: Klimafinanzierung</i>) ▶ Instrumente, die darauf abzielen, durch NMAs die Kapazitäten der Vertragsparteien zur Mobilisierung öffentlicher und privater Investitionen zu erhöhen, einschließlich ihrer Fähigkeiten, marktbasierte und nicht-marktbasierte Finanzierungsquellen zu kombinieren (<i>Bereich: Kohlenstoffmärkte</i>)
I.C: Ein Mechanismus zur Koordinierung der finanziellen Unterstützung mehrerer Länder für ein Land	<ul style="list-style-type: none"> ▶ Aktionspläne zur Einbeziehung eines bestimmten Sektors in die nächste NDC-Revision (<i>bereichsübergreifend</i>) ▶ Anleitung zur Koordination verschiedener verfügbarer Finanzierungsquellen für einen bestimmten Sektor oder eine bestimmte Region, bei gleichzeitiger Unterstützung einer ordnungsgemäßen Klimafinanzierungsbuchhaltung und transparenter Berichterstattung über zur Verfügung gestellten Ressourcen (<i>bereichsübergreifend</i>)
II.A: Ein Mechanismus zur Koordinierung der Entwicklung und/oder Verbreitung von Minderungs- und/oder Anpassungstechnologien auf multilateraler Ebene	<ul style="list-style-type: none"> ▶ Einen Katalysator für die Verbreitung von internationalen Energieeffizienzstandards (<i>Bereich: Minderung</i>) ▶ Ein internationales Programm zum Kapazitätsaufbau für spezifische Technologien wie Aufdach-Solar-Photovoltaik oder Offshore-Wind (<i>Bereich: Technologie</i>)

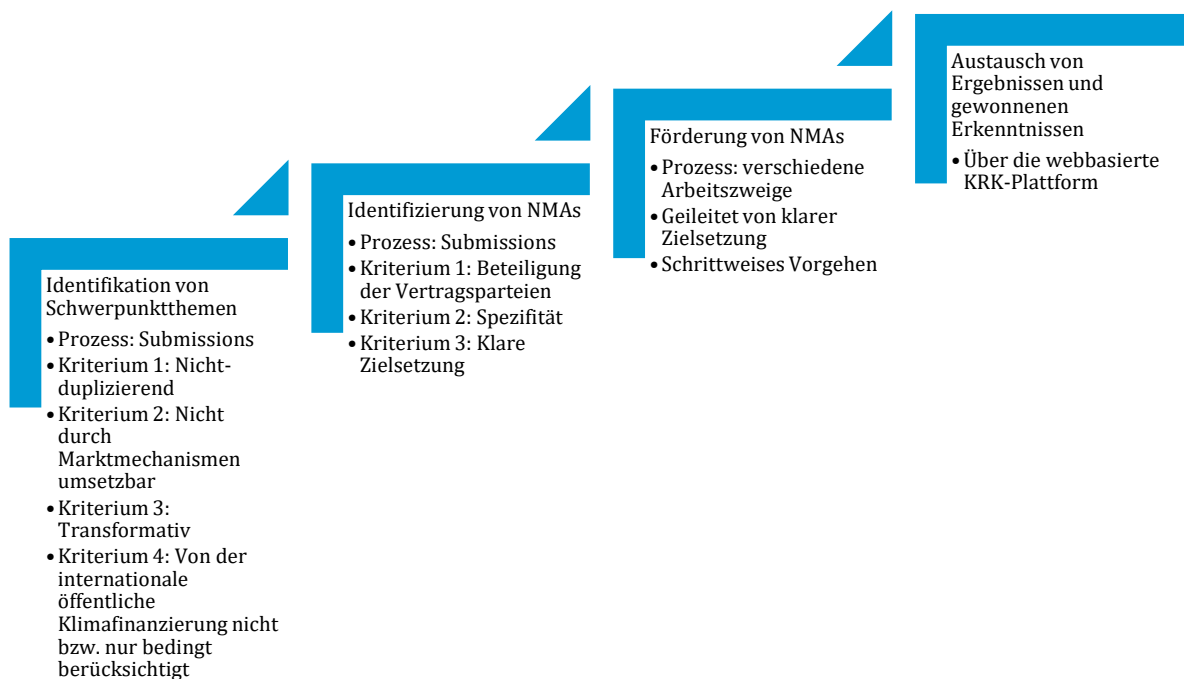
NMA-Typ	Beispiele
<p>II.B: Ein Mechanismus zur Koordinierung länderübergreifender Minderungs- und/oder Anpassungspolitik</p>	<ul style="list-style-type: none"> ▶ Eine länderübergreifende Politik, die Technologien im Frühstadium fördert, z. B. negative Emissionstechnologien (NETs) (Bereich: Minderung). ▶ Die Verbreitung von internationalen Absicherungen und Standards für Resilienz-Programme (Bereich: Anpassung) ▶ Grenzüberschreitende öffentlich-private Partnerschaften zur Bekämpfung der Treiber von Entwaldung (Bereich: Forstwirtschaft) ▶ Länderübergreifende Politiken, die Technologien mit bereichsübergreifenden Auswirkungen (Anpassung und Minderung) fördern, z. B. solare Wasserpumpen, NETs (z. B. Etablierung gemeinsamer Standards und Schutzmaßnahmen für NETs) (Bereich: Technologie)
<p>II.C: Ein Mechanismus zur Koordination von länderübergreifendem Kapazitätsaufbau auf verschiedenen Ebenen</p>	<ul style="list-style-type: none"> ▶ Eine internationale Expertengruppe zu zusätzlichem Nutzen (Co-Benefits) von Minderungsmaßnahmen in breitangelegten Anpassungsmaßnahmen sowie ein Trainingsprogramm für Anpassungsfachleute (Bereich: Minderung) ▶ Die Entwicklung von und Schulungen zu Methoden zur Bewertung von Vulnerabilität und Auswirkungen des Klimawandels in spezifischen Sektoren wie dem Gesundheitssektor (Bereich: Anpassung) ▶ Programme zum Kapazitätsaufbau im Rahmen der Teilnahme am Artikel 6.4-Mechanismus oder zur Entwicklung und Verknüpfung von Emissionshandelssystemen (Bereich: Minderung)
<p>II.D: Ein Mechanismus zum allgemeinen Informationsaustausch zu grenzüberschreitenden Minderungs- und Anpassungsaktivitäten</p>	<ul style="list-style-type: none"> ▶ Internationale Forschungskonsortien und Netzwerke zu vielversprechenden und neu entstehenden Minderungstechnologien (Bereich: Minderung) ▶ Die Koordination von Einreichungen (Submissions) zur Kommunikation von Anpassungsmaßnahmen im Rahmen des ÜvP (Bereich: Anpassung) ▶ Austausch von Erfahrungen und Lerneffekten aus verschiedenen Ansätzen zu entwaldungsfreien Lieferketten (Bereich: Forstwirtschaft)

Quelle: eigene Darstellung, Perspectives Climate Research gGmbH.

Schlüsselbotschaften bezüglich der Ausgestaltung des NMA-Rahmenwerks und des NMA-Arbeitsprogramms

Aus der Analyse der Textentwürfe der VSK25-Präsidentschaft und der Entwicklung konkreter NMA-Vorschläge leitet die Studie sechs Kernaussagen ab.

1. Das NMA-Arbeitsprogramm sollte sich auf spezifische und umsetzbare NMAs konzentrieren, die auf internationale Zusammenarbeit zu finanziellen Aspekten oder zu Technologien und Kapazitätsaufbau abzielen, anstatt generische Konzepte zu diskutieren. Daher sollte sich das Arbeitsprogramm auf innovative NMAs in Bereichen, in denen Wissen, technologisches Know-how, Bewusstsein und Finanzierung fehlt, konzentrieren und diese umsetzen. Darüber hinaus sollte sich das Arbeitsprogramm auf NMAs konzentrieren, die von den Vertragsparteien bereits erfolgreich umgesetzt werden und von diesen als relevant für das Arbeitsprogramm identifiziert wurden. Das Arbeitsprogramm sollte in seinen Aktivitäten ergebnisorientiert sein und die Umsetzung, die Skalierung oder die Verbreitung von spezifischen NMAs unterstützen.
2. Es ist besonders wichtig, eine Antwort auf den Mangel an praktischen Vorschlägen und Ideen für das Arbeitsprogramm zu finden. Daher sollten die Vertragsparteien dem NMA-Forum konkrete Vorschläge unterbreiten, in denen sie über ihre eigenen Erfahrungen in der internationalen Zusammenarbeit sowie über innovative Ansätze, die sie verfolgen, berichten.
3. Das Arbeitsprogramm sollte so gestaltet sein, dass es eine sinnvolle Ergänzung zur laufenden Arbeit im Rahmen der KRK darstellt. Der Fokus muss auf Aktivitäten liegen, die laufende Bemühungen nicht duplizieren, nicht durch Marktmechanismen umsetzbar sind, transformativ sind und von der internationalen öffentlichen Klimafinanzierung bislang nicht bzw. nur bedingt berücksichtigt wurden.
4. Wir empfehlen, dass das NMA-Forum einen fortlaufenden Arbeitsplan einführt, der in vier Schritten implementiert wird. Diese Schritte umfassen die Identifizierung potenzieller Schwerpunktbereiche, die Identifizierung von NMAs innerhalb dieser Schwerpunktbereiche, die Einrichtung eines Arbeitszweigs (Workstream) für alle ausgewählten NMAs mit klaren Zielen und schließlich die Erfassung der wichtigsten Empfehlungen und gewonnenen Erkenntnissen.

Abbildung 2: Vorschlag für einen fortlaufenden Arbeitsplan für das NMA-Forum

Quelle: eigene Darstellung, Perspectives Climate Research gGmbH.

- Das NMA-Rahmenwerk und Arbeitsprogramm sollte aufzeigen, wie NMAs unter Artikel 6.8 zu ambitionierterem Klimaschutz beitragen können. Zu diesem Zweck muss sichergestellt werden, dass thematische Verknüpfungen zwischen NMAs und der Umsetzung der NDCs berücksichtigt werden. Wir empfehlen, dass das NMA-Forum eine Vorlage erstellt, die die vier oben genannten Kriterien berücksichtigt, einschließlich der Frage, inwieweit die NMA die Umsetzung und Ambitionssteigerung der NDCs fördert und bestehende Institutionen und Maßnahmen nicht dupliziert.
- Das NMA-Forum sollte seine Arbeitsweise und sein Arbeitsprogramm entwickeln und mit den Ressourcen und der Unterstützung ausgestattet werden, die es zur Durchführung dieser Aktivitäten benötigt. Die Mobilisierung ausreichender Ressourcen ist eine Herausforderung, der sich alle neuen Aktivitäten unterhalb der KRK stellen müssen. Es besteht jedoch das Risiko, dass das NMA-Forum aufgrund der Wahrnehmung der geringen Relevanz des NMA-Themas durch eine gewisse Anzahl Vertragsparteien als wenig prioritär angesehen wird, sodass es an Ressourcen mangelt und das Forum somit letztlich nur als Debattierklub ("talk shop") fungiert. Wir empfehlen daher, eine klare Position und Vision für die Steuerung und die Aktivitäten des Arbeitsprogramms zu entwickeln und den Fokus stets auf die Umsetzung, Aufstockung oder Replikation konkreter Aktivitäten zu legen. Die finanziellen und technologischen Kapazitätsbedürfnisse der verschiedenen Ländergruppen sollten vom NMA-Forum bei der Förderung spezifischer Aktivitäten berücksichtigt werden.

Das Arbeitsprogramm sollte einen klaren Fokus auf die Umsetzung von NMAs legen und die Bereitstellung privater Finanzmittel durch NMAs fördern

In Bezug auf die letzte Kernaussage ist es wichtig zu erwähnen, dass das NMA-Arbeitsprogramm keine eigenen finanziellen Ressourcen haben wird. Dennoch sollte es einen klaren Fokus auf die Umsetzung der NMAs legen, die es fördert. Dies schließt die Bewertung und die Diskussion der finanziellen Aspekte von bestehenden und entstehenden NMAs ein. Das Arbeitsprogramm ist ein Erfolg, wenn es sich auf NMAs konzentriert, die keine internationalen

Finanzierungsbemühungen duplizieren, und wenn es die Identifizierung von Synergien und Möglichkeiten der Finanzierung bestimmter NMAs durch internationale Zusammenarbeit fördert und erleichtert. In diesem Zusammenhang sollte das Arbeitsprogramm insbesondere die Mobilisierung von privaten Finanzmitteln durch NMAs fördern.

Für die Finanzierung von Aktivitäten, an denen mehrere Länder beteiligt sind, gibt es sowohl innerhalb als auch außerhalb der Klimapolitik verschiedene bestehende Ansätze, die unabhängig voneinander entwickelt und umgesetzt werden können. In dieser Hinsicht kann das NMA-Arbeitsprogramm eine wichtige Rolle spielen, bestehende Ansätze zu bewerten (auch im Hinblick auf ihr Potenzial, skaliert oder repliziert zu werden) und besser sichtbar zu machen. Basierend auf dieser Bewertung könnte das NMA-Arbeitsprogramm relevante Akteure (Finanzierungsinstitutionen, Privatsektor und NMA-Befürwortende) zusammenbringen und die Koordination und Synergien zwischen ihnen verbessern. Schließlich kann das NMA-Arbeitsprogramm ein Katalysator für die Entwicklung und Umsetzung innovativer Ideen für neue Formen der Zusammenarbeit sein, die finanzielle Instrumente beinhalten. Das Arbeitsprogramm würde sehr davon profitieren, wenn die Vertragsparteien ihre praktischen Erfahrungen und Erkenntnisse teilen würden, insbesondere wenn sie innovative NMAs mit einer Finanzierungskomponente pilotieren.

1 Introduction

Article 6 of the Paris Agreement (PA) allows for the voluntary cooperation of Parties in the implementation of their Nationally Determined Contributions (NDCs). The cooperation should serve to increase the ambition with regard to mitigation and adaptation as well as to promote sustainable development. The environmental integrity and transparent accounting of the outcomes of the cooperation shall be ensured by the Article 6 rulebook. While market-based forms of cooperation are enshrined in Articles 6.2–6.7, Article 6.8 recognizes the importance of non-market-based approaches (NMAs) to international cooperation on climate change mitigation and adaptation in a variety of fields. Article 6.9 establishes a framework for NMAs to sustainable development to promote the NMAs described in Article 6.8.

In the following, more context on NMAs is provided before the second sub-section outlines the objective of the research project, the guiding research question as well as the applied methodologies.

1.1 Context

Since the adoption of the PA Parties are negotiating the operationalization of Article 6 – including Articles 6.8 and 6.9 – under the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the United Nations Framework Convention on Climate Change (UNFCCC). The SBSTA has been requested to undertake a work program on NMAs which is currently being negotiated by Parties together with the rest of the Article 6 rulebook. At the 25th Conference of the Parties (COP25), Parties reached a clean draft text on key questions regarding the timing and tasks of the NMA work program. The Presidency draft text also foresees the establishment of the NMA forum to govern the NMA framework and implement the NMA work program.

The scope of NMAs described in Article 6.8 is very broad and covers various fields, namely adaptation, mitigation, sustainable development, finance, capacity building, technology development and transfer. Theoretically, NMAs could relate to very different instruments with different objectives, having a broad or narrow scope. Some NMAs could aim for the mobilization of new financial resources for mitigation or adaptation. Others could focus on coordinating existing sources of finance or enhancing their effectiveness, rather than mobilizing new sources. Even others could be less finance-oriented and facilitate the exchange of information on ongoing or planned cross-boundary mitigation or adaptation action. Generally, all NMAs promoted shall serve the purpose of advancing sustainable development and poverty eradication.

1.2 Research objective and methodology

Commissioned by the German Environment agency (UBA), the objective of this research project has been the assessment of the “State of Play” and the development of proposals for the guidance regarding the implementation of the NMA framework. The project was carried out between July 2019 and March 2021. The negotiation process on Article 6.8 of the PA requires accompanying scientific support which analyzes and summarizes proposed NMAs and Parties’ positions on those to inform Article 6 negotiators and other delegates and observers to the UNFCCC as well as the larger public. The authors explore how the NMA framework and its associated work program can be designed to complement existing approaches of (market-based) international cooperation under the PA. The guidance provides recommendations for the operationalization of Article 6.8 and 6.9 of the PA and the development of NMAs under Article 6.8.

Within the realm of the research project, the evolution of negotiations on non-market-based approaches was assessed, its cross-linkages to the Paris Agreement rulebook identified and opportunities for the operationalization of the draft negotiation texts were discussed. In addition, a mapping exercise was carried out to identify focus areas and specific approaches which are not addressed yet by other mechanisms and instruments in the context of the UNFCCC. Besides, the role of finance was assessed in the NMA work program. The different outcomes are all reflected in this project's final report.

The methodological approach included:

- ▶ Participant observation of the negotiations on Article 6.8 during COP25, complemented by the assessment of the draft negotiation texts as well as white papers and submissions by Parties since COP21. The analysis was undertaken against the background of an extensive desk research comprising grey and academic literature as well as UNFCCC decisions.
- ▶ A comprehensive desk research to map ongoing initiatives under the UNFCCC and identify potential NMAs.
- ▶ Semi-structured interviews with key experts and stakeholders proposing specific NMAs to be promoted by the Article 6.8 work programme.
- ▶ The conduct of an expert discussion at the beginning of the project in November 2019 and a virtual workshop with approximately 70 participants to discuss preliminary results of the project in December 2020.

1.3 Structure of the report

This report will first provide an overview on the course of Article 6 negotiations to give insights into how NMAs got included and which Parties were the driving forces behind it. Chapter 2 will also summarize the different positions of Parties on the operationalization of Article 6.8 and Article 6.9. In addition, chapter 2 analyses the latest Presidency draft texts to establish the basis for the development of proposals for the operationalization of the NMA work program in Chapter 3.

In Chapter 3, the authors make thorough suggestions on the operationalization of the NMA work program. Seven different types of NMAs are introduced, of which three include a financing component and four focus on the enhancement of technology development or transfer and capacity building. In order to identify specific activities for the different types of NMAs, the authors of this report introduced four criteria for the selection of so-called focus areas. The criteria are applied in a comprehensive analysis to the broad areas listed in the latest Presidency draft text to identify more specific focus areas. The results of this analysis are also presented in Chapter 3. Finally, the recommendations on the operationalization of the NMA framework forum and work program are outlined by the authors.

Chapter 4 sets Article 6.8 and Article 6.9 in perspective to other relevant Articles of the PA, particularly Article 4, 5, 7, 9, 10, 11 and 13. The purpose is to narrow down the potential focus areas for NMAs since these should not duplicate existing efforts under the UNFCCC but rather provide added value as compared to further work. The chapter thus provides more insights into how existing efforts could be complemented by NMAs.

The authors argue that in order to prevent the NMA work program from becoming a strand of 'shallow' workshops with limited relevance for concrete implementation, the role of finance in non-market international cooperation needs to be addressed. This issue is covered by Chapter 5

which provides a comprehensive discussion of how NMAs with and without a finance component can be promoted.

Chapter 6 covers important aspects of the Article 6.8 status of negotiations, proposing potential NMA focus areas as well as design options for the NMA work program and addresses the question of finance.

The report concludes with an overarching discussion of the results from the individual chapters as well as an outlook on the future role of the NMA work program. This includes a reflection on the virtual seminar “Operationalizing Article 6.8 and 6.9 of the PA” which was held on 8 December 2020 to discuss preliminary findings of the research project.

2 Status of negotiations on Articles 6.8 and 6.9 of the Paris Agreement

Before going into design questions, this chapter provides an overview of the status of Article 6.8 negotiations, spanning the time frame from the surge of first discussions on NMAs back in 2010 to their inclusion into Article 6.8 of the PA and to the latest negotiation outcomes on their operationalization at COP25.

2.1 Negotiating the inclusion of Articles 6.8 and 6.9 in the Paris Agreement and their operationalization

2.1.1 Discussing the role and relevance of NMAs in the run-up to COP21

The discussion about the role and relevance of NMAs has been part of the international climate policy agenda since the COP16 in Cancun in 2010. Within the framework of the Cancun Agreements, the Parties of the UNFCCC agreed to consider the establishment of non-market-based mechanisms to expand mitigation efforts and make them more cost-effective (UNFCCC 2010). Since the 18th COP in Doha in 2012, NMAs have been negotiated under the SBSTA of the UNFCCC (Bagchi 2015).

The work program on NMAs was discussed in parallel with the Framework for Various Approaches (FVA) and the modalities and procedures for the New Market Based Mechanism (NMM). The Joint Workshop on the Framework for Various Approaches, Non-Market-Based Approaches and the New Market-Based Mechanism took place in Bonn in October 2013. Here, concrete examples of NMAs - such as Bolivia's Joint Mitigation and Adaptation Mechanism (JMA mechanism – see Annex A) - were presented for the first time, and cases were discussed in which the use of NMAs appears particularly useful. In the context of emission reduction this includes, for example:

- ▶ Cases in which emission reductions are not quantifiable or are difficult to quantify (e.g. projects in the field of land use, land use change and forestry (LULUCF)).
- ▶ Cases in which emission reductions can lead to leakage (e.g. projects in the industrial gases sector or avoided deforestation).
- ▶ Cases in which markets are expected to be flooded with cheap credits (as happened with land use and industrial gas projects).

In addition, during the workshop four core elements for the work program on NMAs were defined: (1) Exchange of information on activities and experiences, (2) development of guidelines and tools for NMAs, (3) support of existing NMA activities that contribute to the UNFCCC objectives, and (4) discussion of the JMA mechanism (UNFCCC 2013).

At the 19th COP in Warsaw in 2013, Senegal, Brazil, Bolivia and the Environmental Integrity Group (EIG) explicitly advocated for the integration of NMAs into the FVA. Bolivia also demanded that NMAs should be defined as non-financial, non-market-oriented, non-marketable, non-tradable and non-transferable. Other states - including Angola, Ecuador and Saudi Arabia - called for greater efforts in developing the agenda for NMAs (Stott 2014). In September 2014, the contracting Parties were again called upon to submit their views and experiences on the design and implementation of NMAs (UNFCCC 2014). At the 20th COP in Lima, however, many questions remained unanswered - e.g. on cooperation and coordination as well as on the

additional benefits (co-benefits) of NMAs - so that no concrete results could be achieved before the 21st COP in Paris (Bagchi 2015).

The discussions and demands on NMAs eventually resulted in Article 6 of the PA covering both market-based and non-market-based possibilities for cooperation. Initially included in Article 6 purely for tactical reasons, the negotiations on the design of the associated work program gained momentum. Many actors started to see Article 6.8 as an opportunity to develop and implement measures that are given little or no consideration in other articles of the PA. These include activities in the context of emission reduction in urban planning, capacity building, restructuring or ending fossil energy subsidies, technology transfers, and national adaptation strategies and loss and damage activities (Stott 2014; Bhandary 2017). In this context, a proposal has already been made to establish a register that would record the Parties' needs for the implementation of their NDCs and link these to opportunities for the mobilization of funding, technology transfer and capacity building. The need for information exchange - especially with regard to best practice examples and learning effects - is also part of the general discussions on Article 6.8 (Obergassel 2017).

The discussions and demands on NMAs described above eventually led to Article 6 of the PA covering both market-based and non-market-based possibilities for cooperation. See Box 1 for the exact wording.

Box 1: Article 6.8 and 6.9 of the PA (UNFCCC 2015)

8. Parties recognize the importance of integrated, holistic and balanced non-market approaches being available to Parties to assist in the implementation of their nationally determined contributions, in the context of sustainable development and poverty eradication, in a coordinated and effective manner, including through, inter alia, mitigation, adaptation, finance, technology transfer and capacity-building, as appropriate. These approaches shall aim to:

- a) Promote mitigation and adaptation ambition;
- b) Enhance public and private sector participation in the implementation of nationally determined contributions; and
- c) Enable opportunities for coordination across instruments and relevant institutional arrangements.

9. A framework for non-market approaches to sustainable development is hereby defined to promote the non-market approaches referred to in paragraph 8 of this Article.

2.1.2 Key issues in negotiations and Party positions since COP21

Since the adoption of the PA, Parties to the Agreement have been negotiating the operationalization of Article 6 under SBSTA, including Articles 6.8 and 6.9 (see Box 1). The Conference of the Parties tasked SBSTA at its first session to “undertake a work programme under the framework for non-market approaches to sustainable development [...], with the objective of considering how to enhance linkages and create synergy between, inter alia, mitigation, adaptation, finance, technology transfer and capacity-building, and how to facilitate the implementation and coordination of non-market approaches” (UNFCCC 2015, decision 1/CP.21, paragraph 39). Parties were negotiating a draft decision for the Conference of the Parties serving as meeting of the Parties to the PA (CMA) on this work program fulfilling the criteria agreed by Parties.

Contrary to expectations, the work program for Article 6.8 could not be adopted at COP24 in Katowice. Nevertheless, some countries and organizations submitted proposals for NMAs as well as for the design of the work program. These include:

- ▶ An Adaptation Benefits Mechanism (ABM)
- ▶ Results-based payments (RBP)
- ▶ Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests (JMA Mechanism)
- ▶ Environmental Balance Index (EBI)

(For more details on these proposals, see Annex A).

The large number of ideas and initiatives showed that support for Article 6.8 had certainly grown, even if some Parties to the agreement - including the European Union (EU) - have been sceptical about the relevance of the component. In particular, they fear a duplication of existing initiatives and instruments, both within the UNFCCC regime and in other multilateral forums (Oberghassel 2017), and increasing pressure from developing countries on industrialized countries to increase climate finance commitments.

Discussions at COP24 and afterwards revolved around three central discussion points, (a) the definition of NMAs, (b) the structure and governance of Article 6.8, and (c) the objectives, modalities and instruments of the NMA work program. In the following section, these key issues are outlined, together with corresponding Party positions.

The Parties and negotiating groups disagreed on the extent to which the establishment of a permanent control mechanism or institution for Article 6.8 is necessary or useful. At the interim negotiations in June 2019 Bolivia, Tuvalu, Saudi Arabia, Senegal, Ecuador, Costa Rica, the Like Minded Group of Developing Countries¹ (LMDC), the Independent Alliance of Latin America and the Caribbean (AILAC) and the Group of Arab States (Arab Group) supported a permanent arrangement. The main reason given was that the implementation of Article 6.8 would require significant resources on all levels. Since NMAs should not be limited to just a few activities, the governance structure must be designed to promote a variety of approaches.

Meanwhile, other Parties - including the EU - argued that other points need to be clarified before the type of governance can be determined; in particular, the question regarding which activities were considered as NMAs. Altogether, however, a non-permanent governance structure was also conceivable, for example in the context of promoting the exchange of information and experience.

In general, discussions related to the choice between independent institutionalization and decentralized implementation. Autonomous institutionalization would mean that a specific, centralized institution with clearly defined functions and roles is created for the implementation of the work program. In the case of decentralized implementation, NMAs and accompanying activities would be implemented purely at the level of the member states - or within the framework of international institutions if it is only a matter of exchanging information and experience.

Four concrete options were discussed:

¹ A group of countries comprising Algeria, Bangladesh, Bolivia, China, Cuba, Ecuador, Egypt, El Salvador, India, Indonesia, Iran, Iraq, Jordan, Kuwait, Malaysia, Mali, Nicaragua, Pakistan, Saudi Arabia, Sri Lanka, Sudan, Syria, Venezuela and Vietnam

- ▶ Option A: Implementation of the framework and work program initially by the SBSTA; decision on the need for (permanent) institutionalization at COP26.
- ▶ Option B: Installation of a working group or forum for an indefinite period of time to be headed by the chairperson of the SBSTA; decision on the necessity of a (permanent) institutionalization at COP26.
- ▶ Option C: Establishment of a task force whose composition is geographically balanced and which meets twice a year (meetings are always chaired by an industrialized and a developing country in accordance with the UNFCCC). The task force would work together with existing processes and institutions (e.g. Standing Committee on Finance (SCF), Technology Executive Committee (TEC)) and would in addition elaborate further voluntary cooperation possibilities as alternatives to the activities under Articles 6.2 and 6.4.
- ▶ Option D: Establishment of a forum on NMAs under the SBSTA and the Subsidiary Body for Implementation (SBI) to exchange information and experience. Permanent institutionalization can still be considered; a decision by the CMA should be worked out.

In addition to the EU, the USA, Japan, New Zealand, Thailand and Australia also preferred option A or B. The justification for this is that before an institution can be established, its tasks and modalities must be clarified. Meanwhile, Option C was the preferred option of the LMDC, Bolivia, the Arab Group and the African Group of Negotiators (AGN). They were of the opinion that a permanent institution is needed to implement the work program quickly and effectively. The group of Least Developed Countries (LDCs) finally preferred option D. The reasoning behind this was that the focus should initially be on the exchange of experience and coordination with ongoing initiatives and programs.

2.1.3 Linkages to negotiations on market-based approaches under Article 6

Regarding the tactical cross connection to market mechanisms, various Parties and negotiating groups (LMDC, the Arab Group, AGN, Ecuador and Bolivia) were calling for a balanced allocation of negotiating time for Article 6.2, 6.4 and 6.8. At the interim negotiations in July 2019, the LDC group made it clear that it would not consider a further postponement of the decision on the structure and governance of Article 6.8 with a mandate for the SBSTA to be acceptable. Instead, the set of rules for Article 6.8 should be adopted as an overall package at an equally advanced stage. The problem, however, was that even the advocates lacked concrete proposals for NMAs and their implementation. For this reason, Article 6.8 was only being negotiated regarding the points of contention described above.

The negotiations on Article 6.8 are a high priority for some Parties and negotiating groups. The course of the discussions on Article 6.8 has therefore been decisive for their position and willingness to compromise on the design of market mechanisms. This applies among others for the Bolivarian Alliance for the Peoples of our America (ALBA), although there have not been specific demands from this side regarding the negotiations on Article 6.2 and 6.4. For the LMDC group, Article 6.8 is a central element of the negotiations. But the group also has other priorities. Firstly, this includes the requirement that results which cannot be quantified as GHG reduction effects, may also be traded in market-based cooperation. Secondly, the Group sees Article 6.8 as a possibility to compensate for negative effects of response measures². For this reason, a clear

² In principle, *response measures* are all activities that countries undertake with the aim of reducing their emissions. States are encouraged to take measures to avoid negative ecological, social and economic impacts of *response measures* wherever possible. For further information, see also: <https://unfccc.int/topics/mitigation/workstreams/response-measures#eq-3> (last accessed October 10, 2019).

reference of Article 6 to response measures and especially to the newly established Forum on Response Measures should be established. Thirdly, the Group has called for transfers not to be credited against emissions or NDC targets, but to be collected in a central buffer registry.

The core demand of ALBA, the Alliance of Small Island States, AGN, AILAC, LMDC and LDCs consisted in particular in a clear work program for Article 6.8 and a permanent institutional anchoring. Meanwhile, neither the Umbrella Group nor the EU had made a clear commitment or rejection regarding institutionalization. This has therefore been a tactical element for other types of concessions. However, it should be noted that an NMA type in the form of a financing mechanism under Article 6.8 is clearly rejected. As described above, the compromise proposal has been to postpone the permanent institutionalization and to establish an interim work plan instead that will provide clearer ideas and proposals for NMAs.

2.2 Negotiating the operationalization of Article 6.8 and 6.9 at COP25

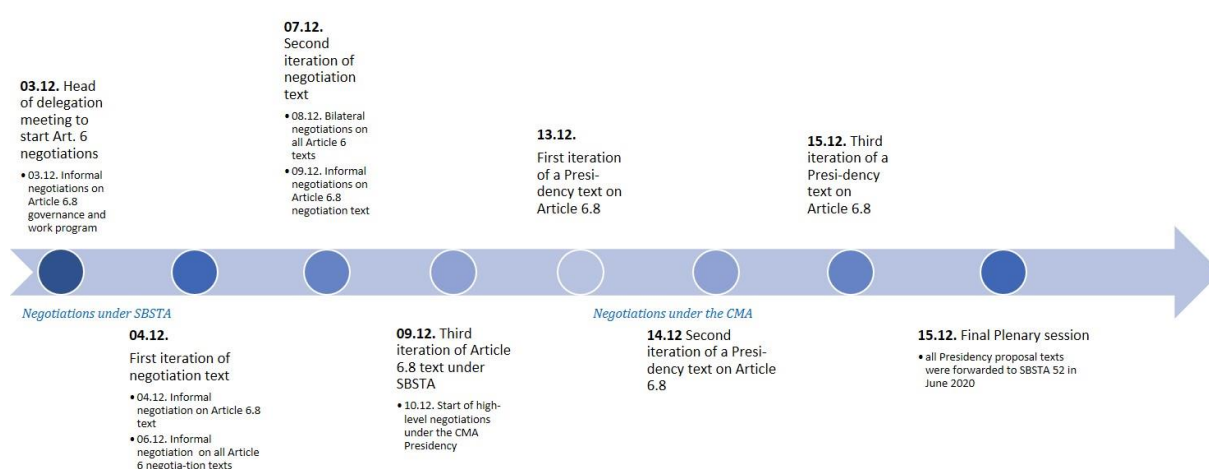
In the following, the developments at COP25 are summarized, including Parties' positions and progress made in the final Presidency draft text that was forwarded for SBSTA to be considered at its next meeting.

2.2.1 Status of negotiations on rules for non-market based international cooperation

In the run-up to COP25, Bolivia left ALBA following a change in government triggered by domestic political turbulences. At COP25, the Bolivian delegation was not active in the negotiations on the NMA work program. The LMDC, the Arab Group, the AGN and the LDC group continued to stress the importance of NMAs in the negotiations but none of these countries was willing or able to take up a leadership role. Thus, the negotiations on Article 6.8 became a 'side stream' which garnered substantial less attention than the negotiations on Article 6.2 and 6.4.

During the COP25, six iterations of the negotiation text on Article 6.8/6.9 were published, three iterations elaborated by SBSTA and three proposals by the Chilean CMA Presidency (see Figure 3). The SBSTA text iterations were based on bilateral discussions of the SBSTA chair and co-facilitators with Parties and negotiation groups, meetings with the head of delegations and informal negotiations. The Presidency then put forward proposals in the second week based on discussions it had directly with Parties and written input it received.

Figure 3: Timeline - negotiation process on Article 6.8 and 6.9 at COP25



Source: own illustration, Perspectives Climate Research gGmbH

2.2.2 Key issues in negotiations and Party positions at COP25

In the following section we discuss the major issues that Parties had to resolve in Article 6.8 negotiations regarding principles, the governance arrangements for the implementation of the work program under Article 6.9 and the activities of the work program.

On a **principle level**, the LDC group stressed that some elements should be operationalized in a similar manner across all cooperation modalities under Article 6: transparency, accountability, international oversight, the principle of overall mitigation of global emissions, the support to adaptation and the recognition of special needs of the LDCs. Saudi Arabia, on behalf of the LMDCs, stressed the importance of the work program to identify cooperation opportunities in the field of adaptation, which is a priority for many countries. Both the Arab Group and LMDC stressed the importance of having a process that identifies and addresses needs through matching opportunities and needs in relation to climate finance, technology transfer and capacity building. New Zealand stressed the importance of a broad participation including non-state actors. Japan showed its concern with a persisting lack of clarity of the purpose of NMAs. Therefore, it proposed to first agree on the purpose of NMAs and subsequently design them to be effective and supportive of the implementation of the objectives of the PA.

On the **governance arrangements for the implementation of the work program**, many Parties stressed the importance of having a clear decision on this issue with the adoption of the work program, including the LDC group, the AGN, the LMDC and Arab Group, as well as the US. The discussion centred around the appropriate form of governance as well as the potential need to establish further institutions at a later stage.

- Japan, the EU, Mexico, Russia and the US supported the implementation of the work program under SBSTA, while recognizing that a decision on further institutions could be needed at a later point in time. Clarity on the focus areas of the work program and the most suitable instruments to promote these priority NMAs would be required. Japan proposed to already clarify the timeline and process of deciding on the need for further institutional arrangements. Thailand supported this first governance option in principle, while suggesting to having joint governance by both SBSTA and SBI given the work program focuses on ways to implement NDCs.
- The LDC group expressed its support for the establishment of an NMA forum with the option to agree on further institutional arrangements at a later stage. The AGN, supporting the proposal of the establishment of a task force, showed willingness to support this institution if the decision was not delayed any further.

The Arab Group and LMDC stressed the importance of a constituted body with a clear membership that is responsible for the governance of the framework and the implementation of the work program. Therefore, they suggested the establishment of a task force. The LMDC stressed that having another round of submissions before deciding on a governance structure was not acceptable for them. Such a task force was also supported by the AGN. The AGN saw the establishment of expert groups that complement the implementation of a work program under SBSTA as a compromise. The US opposed the idea of a task force as in their view it would not allow for an inclusive participation of different Parties and actors. In this context, Parties also reflected on the space of the work program and its governance in the wider UNFCCC context. Saudi Arabia on behalf of the LMDC stressed the importance of linking the framework and the work program to existing constituted bodies under the UNFCCC and integrating it in the overall architecture. Mexico highlighted the importance to consider work done by other institutions and

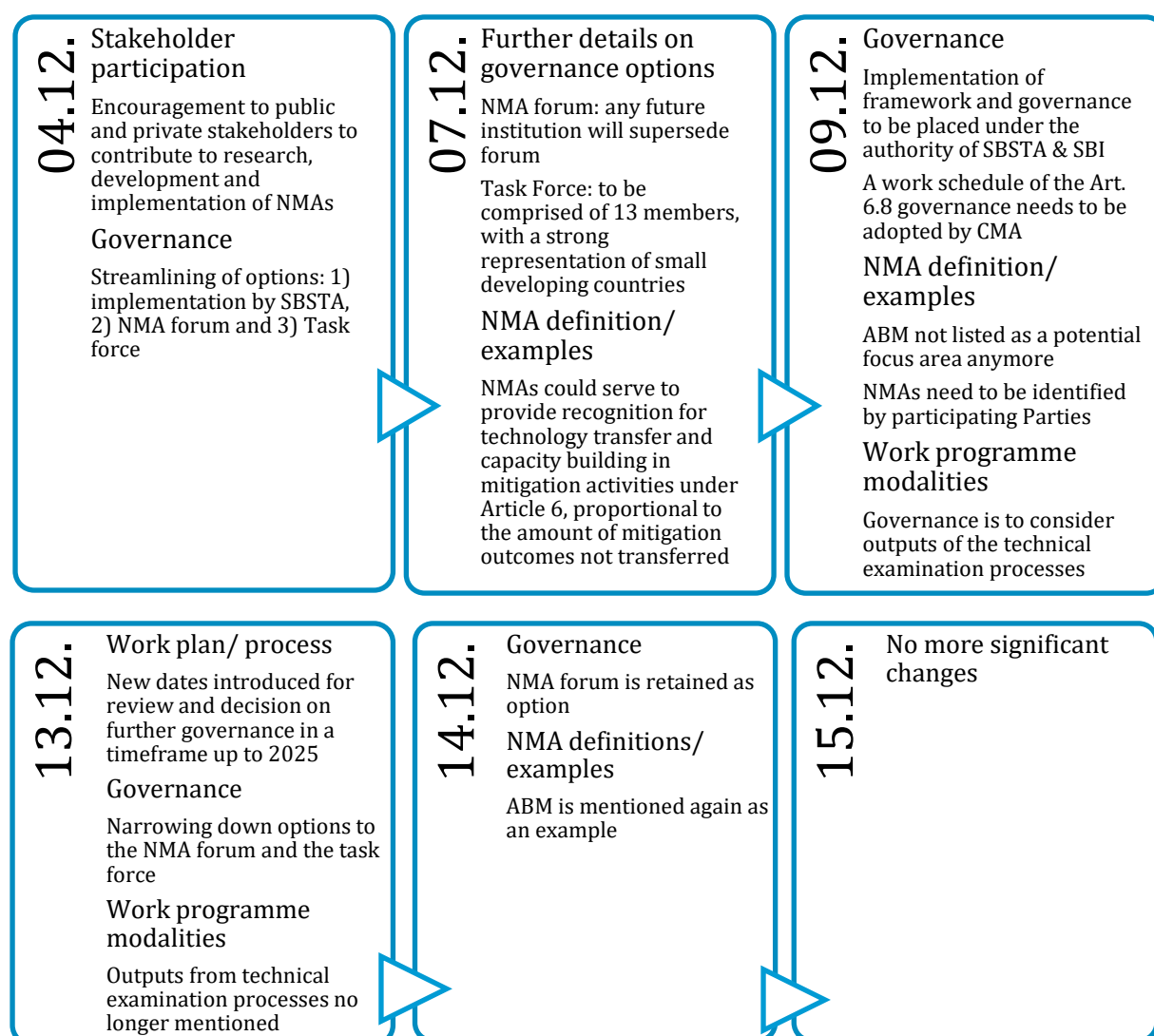
named in particular the Climate Technology Centre and Network (CTCN) and the Local Communities and Indigenous Peoples Platform (LCIPP). The institutional arrangements should be elaborated with having ongoing efforts in mind. The EU, member countries of the Umbrella Group, Thailand and Japan argued in favour of a loose platform without dedicated institution meaning that the framework would serve as a platform for the exchange of information, mostly among experts. NMAs identified to be of greater relevance could be institutionalized, funded or implemented in the context of the UNFCCC or by institutions of the financial mechanism of the UNFCCC.

On the **purpose and activities of the work program**, the Arab Group and LMDC stressed that the program should focus on leveraging and generating mitigation and adaptation co-benefits that assist in NDC implementation. The work program should develop and implement tools, including a registry of different NMAs that is accompanied by a mechanism of matching existing opportunities (i.e. support available for the implementation of NMAs) and needs of developing countries. The aim is to facilitate holistic approaches to the implementation of the PA in the context of sustainable development. The EU wanted to keep the scope of the work program activities broad and not restrict it to mitigation or adaptation co-benefits but rather any kind of co-benefits that can help NDC implementation. It also stressed the importance of having a work program that facilitates information sharing and the exchange of best practices rather than duplicating ongoing efforts under the UNFCCC.

On **focus areas** of the work program, the US suggested not to narrow down potential focus areas of the work program but to keep the discussion at a generic level in the text while listing some examples, so the governance of the work program could propose focus areas at a later stage. Egypt, on behalf of the Arab Group, proposed to enhance complementarities across Article 6 through one of the focus areas. Egypt proposed that Parties engaged in bilateral or multilateral cooperative approaches³ could seek recognition for the proportion of finance, technology transfer and capacity building provided that led to the proportion of mitigation outcomes that stayed with the host country (i.e. they were not exported). There was some controversy around the specification of the ABM as one potential focus area. The EU wanted more general reference to “mechanisms that support adaptation”, while Uganda and other African countries insisted on listing this specific approach, the first and only international activity that is officially framed as a NMA to fall under 6.8. (apart from the Bolivian JMA, which is a national initiative).

Based on these discussions, a draft decision and annex text was developed in an iterative drafting process throughout both weeks of COP25 (see Figure 4).

³ Cooperative approaches are described in Article 6.2 and refer the implementation of mitigation activities whose mitigation outcomes are (partially) transferred as ITMOs outside of the host country.

Figure 4: Evolution of key issues in the Article 6.8/6.9 negotiation texts

Source: own illustration, Perspectives Climate Research gGmbH, based on UNFCCC 2019 c-e

A more detailed overview on the last three iterations of the draft text and the changes made from each version can be found in Annex B.

2.2.3 The Presidency draft text

As shown by Figure 4, negotiations underwent very little changes in the last two days of negotiation and in the final hours no Party or negotiation group expressed their unwillingness to accept the draft proposal by the CMA Presidency. This chapter discusses the elements laid out in the draft text of December, 15th (UNFCCC 2019e), as it seemed to be an acceptable way forward in the operationalization of the framework and work program on NMAs. Three aspects are considered in more detail in the following:

Defining NMAs that are to be facilitated under the framework

NMAs were defined in three forms:

- ▶ International cooperation approaches: NMAs must involve more than one participating Party (i.e. being an approach of international cooperation), be identified as an NMA by the participating Parties, and shall not include the transfer of mitigation outcomes outside of the host Party.
- ▶ NDC implementation: NMAs must contribute to the implementation of NDCs in a holistic, integrated and balanced manner in the fields of mitigation, adaptation, finance, technology development and transfer as well as capacity building, while promoting sustainable development and poverty eradication
- ▶ Ambition increase and exploitation of synergies: NMAs must aim to increase ambition in mitigation and adaptation, enhance public and private sector participation and enable coordination across instruments and institutional arrangements.

Specifying the modalities and activities to promote NMAs

The work program will include activities to identify suitable NMAs and measures to promote them as well as implement these measures through the development of tools and sharing of information.

One concrete tool proposed is the development of a UNFCCC web-based platform for recording and exchanging information on NMAs, to support the identification of opportunities to develop and implement NMAs, including through supporting the matching of NMAs with the opportunities identified.

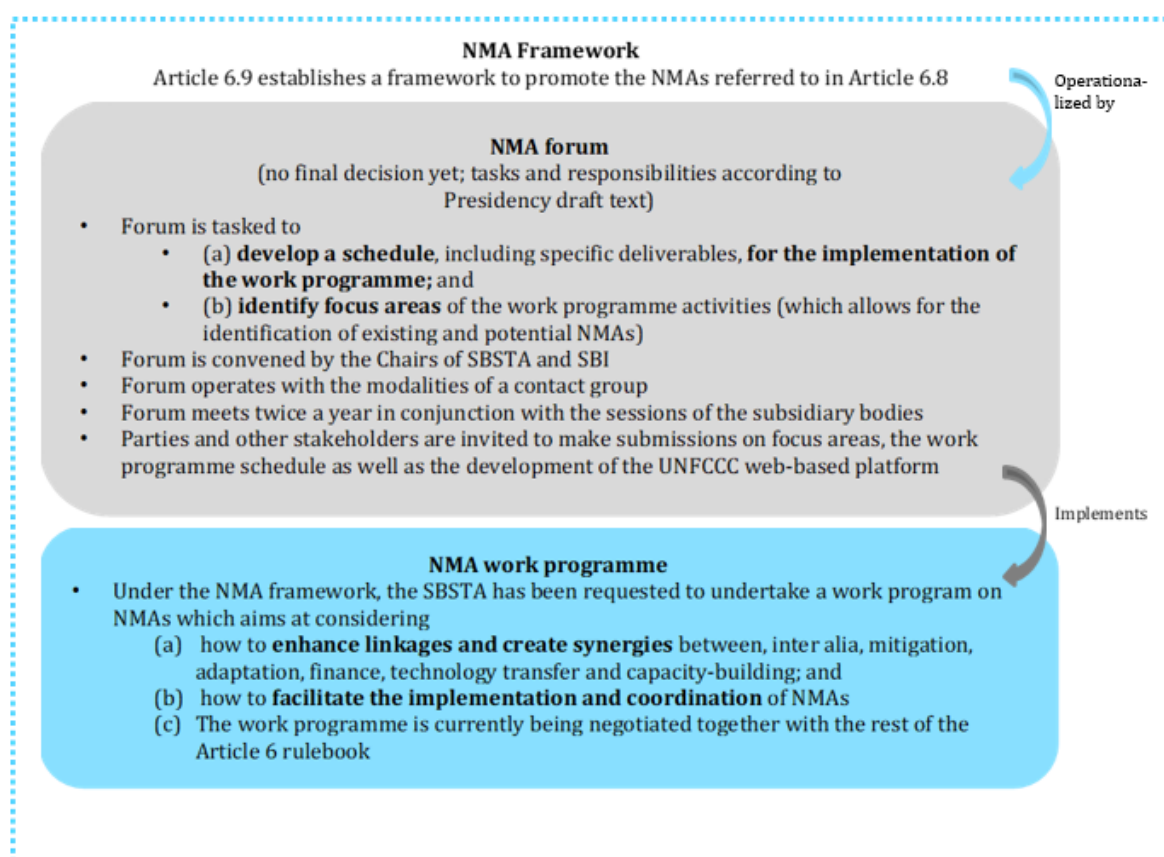
The work program will be implemented through workshops and meetings with stakeholders and experts and will benefit from submissions by Parties and stakeholders as well as technical papers by the Secretariat. Where needed, the NMA forum might coordinate with relevant existing bodies and processes under the Convention, Kyoto Protocol and PA.

Establishment of the NMA forum

The draft proposal establishes an NMA forum to govern the framework and implement the workprogram. The forum is convened by the Chairs of SBSTA and SBI, and operates according to the modalities of a contact group⁴. The forum will meet twice a year in conjunction with the sessions of the subsidiary bodies. Figure 5 shows the relationship between the NMA framework, forum and work program.

The forum and the work program will undergo a one-year review process after four years of implementation, conducted by SBSTA and SBI, after which both bodies will consider whether new institutional arrangements that supersede the NMA forum are needed and forward a draft decision for consideration and adoption by the CMA. Parties and other stakeholders are invited to make submissions on institutional arrangements in this process.

⁴ A contact group is open to all Parties, but can be closed for observers (non-Party stakeholders) upon the request from Parties. A contact group is usually co-facilitated by delegates from one developing and one developed country Party. A contact group develops a text that is then forwarded to the respective plenary (In this case, SBSTA, SBI and CMA if appropriate) to get adopted (in the case of a draft decision) or approved (in the case of draft conclusions).

Figure 5: Relationship between the NMA framework, forum and work program

Source: own illustration, Perspectives Climate Research gGmbH, based on UNFCCC 2019e

Next steps in the implementation of the NMA forum and its work program

The draft decision text sketches out the next steps to follow. The NMA forum is tasked to develop a schedule, including specific deliverables, for the implementation of the work program and identify focus areas of the work program activities. Parties and other stakeholders are invited to make submissions on focus areas, the work program schedule as well as the development of the UNFCCC web-based platform. The Secretariat is tasked to write a technical paper taking these submissions into consideration and to organize a workshop on these issues, to serve as an input to the NMA forum.

2.2.4 Reactions to the negotiation outcome

While the last draft proposal of the Presidency on Article 6.8/6.9 was no longer questioned in principle, Parties did express some degrees of discomfort with the draft agreement. The LMDCs expressed their concern as the draft agreement on governance was not as robust as they had hoped, and would only have a long-term perspective for new institutions. The EU on the other hand, expressed discomfort with establishing an institution without a clear understanding of its purpose. This reflects lingering concerns that NMAs could be seen as new financing mechanisms, putting pressure on industrialized countries. Brazil stressed that all items on Article 6 would be negotiated as a package.

In the procedural decision taken by the CMA, all three Presidency proposal texts were forwarded to SBSTA to serve as a basis for further negotiations. As the text underwent little changes in the three Presidency proposals, the issues open for negotiations are very limited.

However, Parties might choose to re-open some of the issues and introduce old or new proposals.

Initially, it was planned to continue negotiations at the next session of the subsidiary bodies, scheduled for June 2020 and to adopt a decision at COP26 in Glasgow, scheduled for November 2020. However, in light of the COVID-19 pandemic, all negotiation sessions were suspended for 2020 and scheduled for 2021. This results in a regulatory uncertainty on the operationalization of modalities of international cooperation under the PA, enshrined in Article 6. The overall rulebook will only be adopted in November 2021, at the earliest, while the implementation of the first NDCs submitted by Parties will start in January 2021. While the regulatory uncertainty is particularly affecting international carbon markets, the work program on NMAs through international cooperation will also not be able to deliver on its objectives, despite an agreement within reach.

In the run-up to the session of the subsidiary bodies in 2021, Parties will have to re-evaluate their negotiation position in the finalization of the negotiations on the NMA framework and work program. One key challenge is that Article 6 is mainly being negotiated by carbon market experts of the respective delegations, which are historically mitigation-centric, while Article 6.8 touches upon a wide array of topics that are being negotiated mainly elsewhere, such as adaptation, climate finance, technology transfer and capacity building. It is therefore important that the delegations bring relevant experts from these fields into the negotiations on Article 6.8 as a first step to develop a proactive and – most importantly – coherent position. Ideally, delegations would develop a vision on how Article 6.8 could support and complement their activities and priorities in these areas in innovative ways. At the next in-person meeting of the subsidiary bodies, Parties will have to agree on a consolidated textual basis for further negotiations, ideally without reverting to compromises but eventually further clarifying and advancing the text. This should allow Parties to adopt a common acceptable decision at COP26, now scheduled for November 2021.

Chapter 2 | Key messages

- ▶ Article 6.8 has been an important area of negotiation in the context of cooperation between industrialized and developing countries, in particular with regard to countries that reject market mechanisms.
- ▶ Before COP25, the consideration of NMAs was mainly driven by the commitment of individual states – especially Bolivia and Venezuela – that wanted to create a lever for expanding international public climate financing. Since then, the number of ideas and initiatives that support Article 6.8 has grown.
- ▶ Some (developed) Parties have questioned the relevance of Article 6.8 as they fear the duplications of existing initiatives and instruments under the Convention and additional pressure from developing countries to increase climate finance commitments.
- ▶ At COP25, the Presidency presented a clean draft decision and annex text during the last hours of COP25, outlining the activities and modalities of a work program to promote non-market-based approaches implemented by a forum under SBSTA and SBI. However, the complete Article 6 package was deferred to COP26.
- ▶ Three different forms of NMAs were established by the Presidency draft text at COP25: NMAs that promote international cooperation approaches; NMAs that contribute to the implementation of NDCs in a holistic, integrated and balanced manner; NMAs that aim to increase ambition in mitigation and adaptation, enhance public and private sector participation and enable coordination across instruments and institutional arrangements.
- ▶ The COP25 Presidency text establishes an NMA forum to govern the framework and implement the work program which operates according to the modalities of a contact group and will convene twice a year. As a next step, the NMA forum has to develop a schedule for the implementation of the work program and identify focus areas of the work program activities.

3 Proposals for the design and operationalization of the NMA work program

Based on the three Presidency draft texts introduced in chapter 2, chapter 3 discusses the breadth of international non-market-based approaches and provides suggestions regarding which NMAs should be promoted in the context of the framework and work program.

3.1 Potential purposes of Article 6.8 and resulting forms of NMAs

Before designing a framework for operationalization of Article 6.8 and a work program under this framework, the purpose of Article 6.8 and the range of possible forms of NMAs need to be discussed. The purpose of Article 6.8 is the recognition of the importance of non-market-based forms of international cooperation in a variety of fields and serves to emphasize the need for holistic and synergistic approaches.

The purpose of NMAs can theoretically include a broad range of approaches and therefore also a wide range of forms of institutionalization and set up of international cooperation. Below, we describe seven potential forms of NMAs under the two broad fields of approaches with a financing component or focused on other means of implementation of climate action, i.e. technology development and transfer, as well as capacity building. This is a conceptual typology developed by the authors for analytical purposes, and it should be noted that international cooperation implemented on the ground may combine elements of various forms and include aspects of all different means of mitigation and adaptation implementation.

The same ‘issues’ (or focus areas as they are referred to below) can be addressed by different forms of NMAs. For instance, a mechanism that comprises a specific financial instrument, as well as a mechanism for information sharing, could both focus on water management projects. In the following, all forms of NMAs could theoretically be introduced whose relevance is recognized by Article 6.8. These general forms of NMAs come without a mandate for activities as the NMA framework shall only promote specific NMAs (see Chapter 3.3).

I. Approaches with a financing component

I.A A mechanism that comprises specific financial instruments: The broadest form of NMAs with a financing component, would be a mechanism comprising specific financial instruments for cross-boundary financing and implementation of mitigation or adaptation action. The clearest examples for such a ‘mechanism’ would be the UNFCCC financial mechanism with the Global Environment Facility (GEF) or the Green Climate Fund (GCF). New NMAs to be promoted in this field under the PA could focus on “blind spots” that the other mechanisms have been unable to address. Such a mechanism could be established in bilateral or multilateral cooperation or even under the UNFCCC itself.

I.B A mechanism for coordination of existing finance streams on a multi-country level: An absence of transparency regarding the different flows of public international climate finance is generally criticized by recipient countries, NGOs and researchers (Ellis and Moarif 2017). This absence leads to duplication and inefficiencies in the use of such scarce funds. It is also highly contentious what constitutes a stream of private finance mobilized by public interventions. One example for such an NMA is the SCF that has been implemented to improve the coordination of climate financing. At the country-level, specialized funds have been established to coordinate climate finance and mainstream climate finance in the host countries’ activities. New NMAs could have the task to coordinate various streams of public climate finance and private finance mobilized by public interventions in order to maximize their effectiveness, focusing thereby on

maximizing synergies between mitigation and adaptation finance. Such a mechanism could be established between cooperating Parties or for specific regions, and could also have a sectoral focus that is important for both adaptation and mitigation, for instance the LULUCF or energy sector.

I.C A mechanism for coordination of financial assistance from multiple countries to one country: Over the last 20 years, a lack of coordination of different donors and funding programs active on climate change has been flagged in many countries. Thus, coordination of these actors is generally seen as desirable. While in some countries, informal donor roundtables exist, they are usually informal and have no decision-making power. New coordination mechanisms could be established that build on existing, or promote new, country needs assessments.

II. Approaches focused on technology development or transfer, and capacity building

II.A A mechanism for coordination of mitigation/adaptation technology development and/or diffusion on the multilateral level: An example for such an approach to international cooperation is the CTCN that promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries. The CTCN is hosted by the UN Environment Programme in collaboration with the UN Industrial Development Organization (UNIDO) and supported by 11 further partner institutions. The Centre facilitates a network of national, regional, sectoral and international technology centres, networks, organizations and private sector entities (CTCN n.d.). Such coordinative mechanisms can be established inside or outside the UNFCCC at a regional or global level.

II.B A mechanism for coordination of mitigation and adaptation policies across countries: These mechanisms help countries to build the preconditions to link emission trading schemes, to develop a joint carbon tax, align energy efficiency performance standards, etc. An important aspect would be that mitigation policy coordination is done to optimize mitigation in the context of NDCs, but not to generate ITMOs. Similarly, adjacent coastal states could align their adaptation policies against sea level rise.

II.C A mechanism for coordination of capacity building across countries on multiple levels: These mechanisms try to align capacity building efforts to respond to climate change on a multilateral, regional and country-specific level. They are particularly useful given the fragmentation of international capacity building efforts. An example is the UNFCCC technology mechanism that supports countries through technology needs assessments.

II.D A mechanism for general information sharing on cross-boundary mitigation and adaptation actions: Such NMAs establish a mechanism for collection and sharing of information on mitigation and adaptation action undertaken across country boundaries. This could focus on identifying success stories and learning from failures. Such a loose cooperation could focus on specific topics or regions and be established inside or outside the UNFCCC such as the Koronivia Joint Work on Agriculture or the Lima Work program on Gender.

3.2 Agreed objectives of the NMA framework

Besides the recognition of the importance of NMAs under Article 6.8, Parties established a framework for their promotion under Article 6.9. The distinction between the NMA as such (as defined by Article 6.8) and the international structure to promote specific NMAs (Article 6.9) is an important one in the context of this study.

The COP tasked SBSTA at its twenty-first session to “undertake a work program under the framework for non-market approaches to sustainable development [...], with the objective of considering how to enhance linkages and create synergy between, inter alia, mitigation,

adaptation, finance, technology transfer and capacity-building, and how to facilitate the implementation and coordination of non-market approaches” (UNFCCC 2015, decision 1/CP.21, paragraph 39). Currently, Parties are negotiating a decision of the CMA on this work program fulfilling the criteria agreed by Parties.

3.3 Possible NMAs to be facilitated under the framework

As outlined above, the NMA framework shall only promote specific NMAs. This chapter, therefore, has a closer look at potential criteria which could be used to identify focus areas and concrete examples of innovative NMAs.

3.3.1 Criteria for the identification of focus areas

Based on the negotiation text and the principles laid out in Articles 6.8 and 6.9 of the PA, we propose four criteria for the selection of focus areas.

Criterion 1: non-duplicative

Most importantly, the framework should be designed to facilitate NMAs that are not addressed elsewhere in the UNFCCC system, in order not to promote further institutional fragmentation and divert resources and attention. Reforming and revising existing fora and institutions should be preferred to establishing new ones that work on the same issue. The criterion of non-duplication is also recognized by the negotiation text (UNFCCC 2019e, paragraph 1a(ii)).

In order to identify areas that are currently not being addressed in work under the UNFCCC or only addressed from a mitigation- or adaptation-centric perspective, we mapped ongoing work under the UNFCCC (please see Annex C). The following bodies and processes were identified as relevant:

Table 3: Identified non-market processes and bodies in the UNFCCC context

	Adaptation-centric	Both and/or cross-cutting issues	Mitigation-centric
Bodies	Adaptation Committee (AC); Least Developed Countries Expert Group (LEG)	Katowice Committee of Experts on the Impacts of the Implementation of Response Measures; Paris Committee on Capacity Building (PCCB) Technology Executive Committee (TEC)	
Processes/ work streams/ regular events	Nairobi Work program on impacts, vulnerability and adaptation to climate change (NWP); Technical examination process on adaptation (TEP-A)	CTCN Durban Forum on Capacity Building; Forum and work program on the impact of the implementation of response measures; Koronivia Joint Work on Agriculture; Lima Work Programme on Gender;	Reducing emissions from deforestation and forest degradation in developing countries (REDD+), guided by the Warsaw Framework for REDD+; Technical Examination Process on Mitigation (TEP-M)

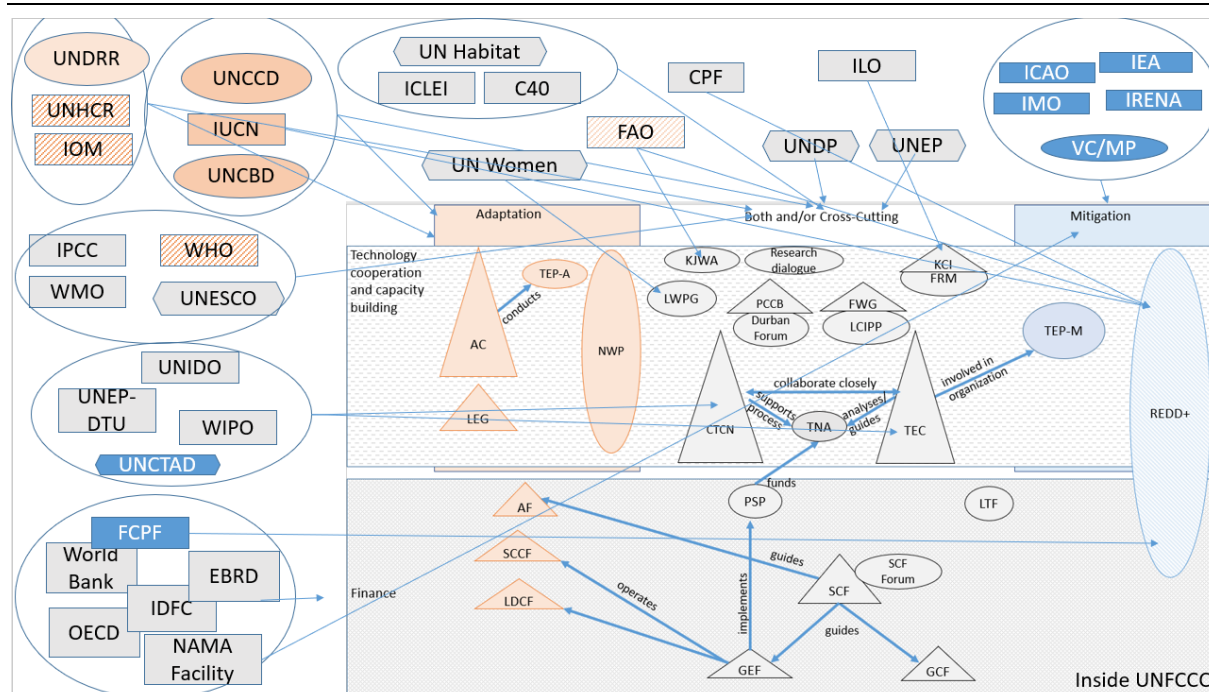
	Adaptation-centric	Both and/or cross-cutting issues	Mitigation-centric
		LCIPP with the Facilitative Working Group on the LCIPP; Long-term climate finance in-session workshops and ministerial high-level dialogues (LTF); Research dialogue; SCF Forum; Technology Needs Assessments (TNA)	
Funds/ financial instruments and related bodies	AF LDCF (Least Developed Countries Fund); Special Climate Change Fund (SCCF)	GEF; GCF; Poznan Strategic Program on Technology Transfer (PSP); Strategic Climate Fund	

Source: own compilation, Perspectives Climate Research gGmbH.

Work streams, processes and bodies that relate to market-based forms of cooperation (e.g. Clean Development Mechanism (CDM) and its Executive Board) or that relate to transparency (e.g. the Consultative Group of Experts) were excluded from the mapping exercise. Based on the ongoing work in the context of the UNFCCC, focus areas for the framework and work program should be selected, if:

- ▶ They are currently not addressed by any work process or body. However, if they fall within the scope of some of the funds, this might even be an advantage, as the work under the framework could build capacities to access funds or give guidance with regard to innovative projects the funds could provide finance for.
- ▶ They are addressed partially but either from a predominantly mitigation or adaptation-centric perspective, while there would be merit in developing a synergistic approach in these sectors or identifying/assessing co-benefits from adaptation or mitigation measures.

It should be noted that usually coordination among experts and with other processes and bodies is already included in the mandate of most institutions under the UNFCCC. In addition, there are many links and coordinative processes with processes and institutions outside of the UNFCCC (see Figure 6). Therefore, an NMA that mainly focuses on coordination may be duplicative with ongoing work in other processes if it relates to already covered focus areas.

Figure 6: Mapping relevant bodies and processes under the UNFCCC

Source: own illustration, Perspectives Climate Research gGmbH.

Criterion 2: not implementable through market mechanisms

Article 6 offers Parties three forms of international cooperation, two of which are market-based and may lead to the transfer of mitigation outcomes. Market-based cooperation is a tool to mobilize investments in low emission development, in particular from the private sector. The framework and work program on NMAs in cooperation should focus in particular on areas, sectors and instruments that cannot be addressed by cooperative approaches (Article 6.2) or through the Article 6.4 crediting mechanism. This would include in practice:

- ▶ Adaptation measures, as these are currently not addressed by market-based climate policy instruments.
- ▶ Measures that simultaneously address adaptation and mitigation, for instance sustainable forest management or resilient and low emission water management systems, as their adaptation component cannot generate revenues through market mechanisms.
- ▶ Mitigation measures that are difficult or impossible to quantify, for instance projects that focus on measures that do not have a direct impact on emissions, but a potentially indirect or time-lagged one. Such measures include information and awareness raising, e.g. through labelling.
- ▶ Mitigation measures in sectors that are often not deemed suitable for market-based cooperation due to market imbalance risks (for instance in the land use sector or industrial gas projects).

Criterion 3: transformative

The framework should focus on innovative approaches in the areas that are currently not or not sufficiently addressed by work under the UNFCCC. The framework could then promote the pilot phase of these new approaches. A focus area of the framework should have been identified by Parties and the research community as a driver for transformation and climate resilient and low

emissions development. One example would be the land sector, where the IPCC recently highlighted the significance of the sector for climate action while also acknowledging the barriers to effective adaptation and mitigation measures in this sector (IPCC 2020).

Criterion 4: side-lined by international public climate finance

Lastly, the framework should focus on sectors and issues for which there is little public international climate finance available, such as when they are currently not identified by or do not fall within the scope of any institution of the financial mechanism. This for example applies to large-scale mitigation in the agricultural sector which is often misunderstood as a sector without significant mitigation potential (e.g. soil sequestration, rice field irrigation). Likewise, the transport sector has been side-lined by many financing institutions due to highly diffuse emissions sources, high transaction costs and complicated institutional structures.

3.3.2 Focus areas as identified in the negotiation text

The latest version of the negotiation text already lists some potential focus areas, building on previous submissions and propositions by different Parties as well as examples of what Parties could submit as proposals for focus areas. From this list, the following broad focus areas can be derived (UNFCCC 2019e, paragraph 5):

1. (Integral and sustainable management of) forests
2. (Social-ecological) resilience
3. (Reduction of emissions by sources and) enhancement of removals
4. Energy efficiency
5. Finance, technology development and transfer, capacity-building in support for mitigation

These focus areas meet our proposed criteria to different extents (see Annex D). The brackets have been used to summarise the focus areas briefly and succinctly for the following in-depth discussion. With regard to focus area (3), we will in particular discuss the aspect of ‘removals’ to narrow its scope.

Most of the focus areas listed in the negotiation text are too broad to match the criteria laid out. The proposal on a focus area on recognition of support in the context of market-based mitigation measures, in contrast, is a very specific proposal. We suggest that the broader proposed focus areas should be specified to guide the identification of NMAs.

Potential focus areas related to forests:

We would argue that REDD+ related activities would most probably not meet criterion 1, as the REDD+ expert community is already well connected within and outside the UNFCCC context, so there would be a high risk of duplication.

However, international efforts on forest protection are not limited to REDD+. In fact, the high expectations initially linked to REDD+ have so far not been fulfilled and most countries are still in the preparatory phase. There is evidence that the mechanism’s focus on national policy reforms, and thus supply side measures, does not lead to enhanced forest protection as it does not tackle the powerful drivers of deforestation and forest degradation. Therefore, governments, international organizations and public-private partnerships (such as the Tropical Forest Alliance, TFA) have recently started to put demand side measures, and thus global supply chains, on the international agenda. In recent years, hundreds of companies with operations in forest-risk commodities (in particular soy, beef, palm oil, timber, pulp and paper) have committed to reduce or even eliminate deforestation in their supply chains. Apart from private self-regulation at company level, public procurement policies in consumer countries can also contribute to

improved forest protection. A prominent example is the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan published by the EU in 2003. FLEGT aims to prevent the trade of illegally logged wood by regulating timber imports into the EU. The main tools are Voluntary Partnership Agreements, i.e. bilateral trade deals negotiated between a producer country and the EU.

If deforestation-free supply chains would be identified as a focus area, the NMA framework could be a venue to share lessons learned from FLEGT with other developed countries that may consider establishing a similar regulation on tropical timber or other forest-risk commodities. It could also serve as a forum to discuss how trade agreements could be applied for other forest-risk commodities.

Potential focus areas related to social-ecological resilience:

Resilience as a broader concept is often neglected, given that it is difficult to “operationalize”. Resilience can relate to the ability to withstand meteorological extreme events, but also the ability to cope with the economic and social transition required to implement mitigation consistent with the ambitious long-term goals of the PA. Making a society resilient requires many distinct interventions, many of which are not linked to climate change in an obvious way. Many aspects of resilience relate to the overall degree of development of a society, but also distinct cultural characteristics. For example, as starkly illustrated by the recent Coronavirus epidemic, some countries and regions are “used” to deal with external shocks and thus more resilient than others that did not experience external shocks in their recent history. While resilience as a broader topic is addressed by several adaptation-related bodies and processes, in particular the Nairobi Work Programme on impacts, vulnerability and adaptation to climate change (NWP), it is recognized that in particular innovative financing sources for broader approaches to resilience are scarce, as the implementation of resilience activities is mostly reliant on public finance. Other than in the context of the “response measures” topic, resilience with regards to mitigation is treated nowhere in the UNFCCC regime. In addition, there is often a sectoral “curtain” between mitigation and adaptation/resilience focus areas in the work ongoing under the UNFCCC. Resilience to economic and social shocks from the shift from fossil fuels to zero carbon technologies should be addressed in the context of mitigation instruments. Here the discussion on “just transition” is a starting point, also now increasingly recognized in the UNFCCC system, for instance the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI). In the context of adaptation, disaster risk reduction, the protection of ecosystems and biodiversity as well as the protection of vulnerable communities and climate-induced migration would have to be addressed. Any focus area selected in this regard should be specific and not replicate work ongoing under the TEP-A, the NWP and the KCI.

As sub-issues under the adaptation part of resilience, ecosystem-based adaptation and integrated water management are listed as examples for potential focus areas in guidance to Parties for the submission process (UNFCCC 2019e, decision text, paragraph 7a(ii)). Both issues are, however, already addressed by ongoing work under the UNFCCC.

Potential focus areas related to removals:

Focus areas in the context of removals should address specifically emerging removal approaches (see Honegger et al. 2018 for an assessment of the different technologies) and those that are particularly challenging to monitor and have permanence challenges and are therefore not suitable for market-based activities. Focus areas regarding the enhancement of natural sinks should focus on approaches in the context of oceans, soils and/or peatlands that are not or

insufficiently addressed by the NWP, TEP-A and the Koronivia Joint Work on Agriculture (KJWA). In addition, the framework could work on focus areas related to emerging technological solutions and their sustainable development safeguards and contributions. An important issue would relate to work on the governance of such approaches in the context of the PA (see Honegger et al. 2019).

It has to be noted that a new focus area is being proposed in the academic literature which has not been addressed in international negotiations yet and that relates to the protection of sinks. Gogarty et al. (2020) support the development of an NMA which focuses on the protection of the vast blue carbon sink around Antarctica. Blue carbon, the carbon captured and stored by marine ecosystems in the form of living biomass, represents the largest natural negative feedback on climate change if properly protected (e.g. through avoidance of harvesting) (Gogarty et al. 2020). According to the authors, the blue carbon NMA shall take the form of an inter-regime NMA between the UNFCCC and the Antarctic Treaty System which governs marine ecosystems (Gogarty et al. 2020). Through the NMA political and diplomatic barriers to conservation shall be overcome by granting Antarctic fishing states the permission to account for blue carbon activities in their NDCs. This would present an NMA type II.B. as per the author's typology.

Potential focus areas related to energy efficiency:

Energy efficient technologies are promoted through the technology framework and through existing market mechanisms, such as the CDM. However, a challenge is that many energy efficiency interventions formally do not fulfil the additionality criterion due to the economic attractiveness of the energy efficiency improvements. Thus, international cooperation could be undertaken on ways how to remove non-monetary barriers to energy efficiency improvement. An important aspect would be the harmonization and or improvement of energy efficiency standards and testing procedures as well as legal approaches to remove barriers for energy service companies. Such a focus area could help countries to learn from each other (e.g. the Japanese frontrunner strategy for standard setting). In addition, the framework could set up a cooperation among national standard organizations and agencies to accelerate diffusion of standards.

Potential focus areas related to capacity building and technology transfer:

There are a lot of different capacity building initiatives both multi- and bilaterally. The challenge is that they often do not address the needs of different stakeholder groups and are not specific enough. Often, they are limited to workshops that do not really generate in-depth knowledge. Capacity building should be addressed as a cross-cutting issue and means of implementation in the context of other focus areas. It should be a necessary condition for any activity linked to technology transfer. The latter would have to go beyond pure capacity building, as economic conditions in the receiving country would have to be addressed as well.

3.3.3 Specific NMAs according to focus areas

The negotiation text details conditions to the eligibility of NMAs that can be used as guidance for the identification process. Following the text, the framework shall only facilitate an NMA that:

- ▶ “provide(s) a basis for voluntary collective actions” (UNFCCC 2019e, paragraph 1b)
- ▶ “is identified by participating Parties” (UNFCCC 2019e, paragraph 3a)
- ▶ “involves more than one participating Party” (UNFCCC 2019e, paragraph 3b)

In addition, the NMA shall aim to promote mitigation and adaptation ambition, enhance public and private sector participation in the implementation of NDCs, and enable opportunities for coordination across instruments and relevant institutional arrangements (UNFCCC 2019e, paragraph 2a).

The NMAs should be identified and linked to the selected focus areas of the framework and work program. In our view, the NMA would be a specific form of international cooperation or a specific instrument available to Parties in international cooperation on finance or on technological development and transfer and capacity building. The current negotiation text is unclear with regard to this differentiation, listing both instruments (adaptation benefit mechanisms, energy efficiency schemes, etc.) as well as broad areas (removals, avoidance, etc.) as focus areas.

- ▶ Depending on the selected focus areas, specific NMAs could be for instance: NMAs with a financing component:
 - Mechanisms that mobilize private finance for adaptation projects through developing adaptation certificates and related monitoring, reporting and verification standards, as does the ABM which is currently in development and piloted by the African Development Bank (AfDB n.d.).
 - Mechanisms for funding multi-country research and development (R&D) programs for mitigation and adaptation technologies (a potential institutional blueprint could be the multinational research program on nuclear fusion (ITER)).
 - Mechanisms that provide funding to areas currently side-lined by international public climate finance (e.g. mitigation in agriculture through changes in rice field irrigation, or use of inoculants that reduced fertilizer consumption).
 - Mechanisms that coordinate multilateral finance for a specific region (e.g. LDCs), large country (e.g. India) or for specific mitigation or adaptation actions (e.g. negative emission technologies; synergetic mitigation and adaptation).
- ▶ In the context of technology development or transfer and capacity building:
 - An international program for capacity building on specific technologies (e.g. rooftop solar PV or offshore wind).
 - An accelerator for diffusion of international energy efficiency standards.
 - A regional or landscape-specific (e.g. deltaic regions) coastal zone adaptation technology roll-out initiative.
 - Public-private partnerships across boundaries to tackle drivers of deforestation for large forest biomes.
 - Multi-country policies that promote negative emissions technologies, e.g. through identification of cross-boundary storage zones. International safeguards and standards for emerging negative emissions technologies.

It is important to note that NMAs must be identified by the Parties themselves and already “existing”, i.e. being implemented or piloted.

3.4 Modalities for effective promotion of NMAs through the work program

The list of possible modalities for the implementation of the work program is rather vague and includes workshops, meetings, submissions, technical papers and coordinative efforts (UNFCCC 2019e, paragraph 7). When further detailing and operationalizing the work program, the modalities of ongoing processes and bodies should be reviewed and successful formats replicated.

3.4.1 Meetings and events

The current draft negotiation text foresees that the NMA forum is convened twice a year, in conjunction with the meetings of the subsidiary bodies to the UNFCCC. If the NMA forum operates according to the modalities of a contact group, the meetings would be open to observers unless a Party requests that the meeting is restricted to Parties. More direct engagement with observers in the context of a contact group setting could also be fostered through breakout group sessions, which is done for instance in the context of the SCF.

The NMA forum may decide to organize further meetings and events and workshops. The following meetings and events were identified in the context of the mapping exercise:

- ▶ Focused technical expert meetings, following the model of the technical examination processes on adaptation and mitigation. These could be complemented through specific technical follow-up work and focused dialogues, as done under the technical examination process on mitigation.
- ▶ Knowledge events that target governmental and non-governmental stakeholders and disseminate lessons learned that could take the form of webinars, training workshops and seminars, exhibits and side events.
- ▶ Multi-stakeholder workshops that bring together researchers, practitioners, international institutions, government, civil society and private sector representatives. Multi-stakeholder workshops are for instance implemented in the context of the LCIPP.
- ▶ Participation in events such as 'Climate Action Fair', as for instance done in the context of the TEP-A and TEP-M or the 'NAP Expo', as done by the LEG.
- ▶ Promote voluntary meetings on the coordination of support for the implementation of activities, as it is done in the context of REDD+.

In addition, the forum could set up working groups, which is done by various processes and bodies. These working groups usually include representatives of both Annex I and Non-Annex I Parties as well as from LDCs and SIDS, but can also include representatives of other relevant processes and bodies. Besides working groups, the forum could also make use of ad-hoc technical expert groups, as is done in the context of the Forum on Response Measures. These working groups would undertake work in between meetings of the NMA forum and report back on their activities.

Regardless of the type of event, it is important that any meeting or event has a specific agenda and objective, and concludes on the next steps and actions to be taken.

3.4.2 Communications and knowledge sharing

Communication can either be pursued through oral briefings or presentations, or through written material and disseminated both offline and online.

Offline knowledge sharing

The forum can provide a platform for Parties and relevant experts to share, in an interactive manner, information, experiences, case studies, best practices and views through presentations and Q&A sessions.

Based on these exchanges, the forum could produce or mandate technical guidance to countries on the promotion of specific NMAs. In addition, the forum could produce summaries on identified Parties' priorities and needs expressed in the context of the work program, in a similar way as the TEC provides guidance and summaries following the technical needs assessment processes.

Online knowledge sharing

Most processes and bodies have a webpage or portal within or linked to the UNFCCC webpage. These pages serve to:

- ▶ Compile and synthesize Party submissions
- ▶ Record and provide links to webcasts, presentation slides, statements from both Parties and observers as well as interventions from in-session workshops and other meetings
- ▶ Provide links to relevant COP/CMA decisions and conclusions by the Subsidiary Bodies
- ▶ Collect key outcomes of the work undertaken

In addition, some processes established online platforms. Such a web-based platform is also suggested in the current negotiation text. Examples for platforms under ongoing processes would be:

- ▶ The REDD+ web-based platform contains an info hub that publishes activity-specific information for REDD+ projects (country, period, results in terms of emission reductions, funding received and further information). In addition, the platform contains a discussion forum to enable direct interaction on the use of guidance and guidelines.
- ▶ The information repository of the SCF that, besides meeting reports, also contains publications and reports provided by interested stakeholders.
- ▶ The knowledge and Learning Platform of the GEF that contains good practice briefs.
- ▶ The adaptation knowledge portal of the NWP. This portal provides free and open access to a curated database of knowledge resources including case studies, methods and tools, publications and technical documents. The information is provided by policy-makers, practitioners and researchers. In addition, the portal allows users to browse portals and action pledges of potential partner organizations with recognized expertise or activities in the given field.
- ▶ The capacity-building portal that collects, compiles and disseminates country-driven information, and allows the display of information from the submissions of the non-Party stakeholders.

3.4.3 Interaction with Parties

The interaction with Parties will be important as the NMAs to be promoted must be identified and implemented by Parties. Usually, interaction with Parties is pursued through regular calls (biennial, quarterly, monthly) for submissions and participation in meetings.

In addition, and particular if (offline or online) meetings are held between sessions, Parties could also be invited to appoint an official representative or focal point to the NMA forum that coordinates the participation of relevant national experts in the process.

3.4.4 Interaction with non-Party stakeholders

The draft negotiation text states that NMAs facilitated under the framework shall enhance public and private sector participation in the implementation of NDCs. Also, the draft decision text encourages the participation of public and private stakeholders in research, development and implementation of NMAs. The work program can also include coordination with relevant bodies, institutional arrangements and processes under the UNFCCC (UNFCCC 2019e).

The interaction with other institutions and processes under the Convention and further non-Party stakeholders can be promoted through:

- ▶ Organizing workshops and meetings with the participation of non-Party stakeholders. For instance, the Durban Forum on Capacity-building has the objective to exchange ideas, lessons learned and good practices to work together in a more coordinated manner.
- ▶ Regular calls (biennial, quarterly, monthly) for submissions from constituted bodies under the UNFCCC and other interested stakeholders. This is for instance implemented under the LWPG.
- ▶ The facilitation and promotion of specific partnerships that are open to various actors. In the context of these partnerships, stakeholders might engage through expert working groups and consultations on specific issue, joint knowledge products, joint events and sharing knowledge on a joint platform. This is being pursued in the context of the NWP.
- ▶ Inviting relevant research organizations to regularly provide information on developments on specific research activities, which is done in the context of the Research dialogue.

3.5 Recommendations for the operationalization of the NMA framework, forum and work program

Based on the preceding analysis, this chapter proposes a set of recommendations for the operationalization of the NMA framework and work program. The recommendations refer to the identification of focus areas and NMAs as well as to the NMA forum and its work program, and are guided by three objectives:

1. Ensuring the NMA work program is a meaningful addition to ongoing work under the UNFCCC framework. Therefore, it should focus on existing approaches in international cooperation with a view to support their implementation, upscale or replicate them.
2. Designing an institutional framework that allows for the promotion of different forms of NMAs, in order to flexibly and adequately take up instruments identified by Parties.
3. Organizing the work process in an efficient, implementation-oriented manner with clear milestones and steps.

According to the Presidency draft text, the NMA forum would be tasked to identify focus areas of the NMA work program through submissions from Parties and other stakeholders. The authors argue that the NMA forum should implement a kind of a rolling work plan which, in turn, could be implemented through iterations of four steps which are described in more detail below and summarized in Figure 8. It must be noted that all ideas and suggestions have been developed by the authors and are not stipulated in the Presidency draft text.

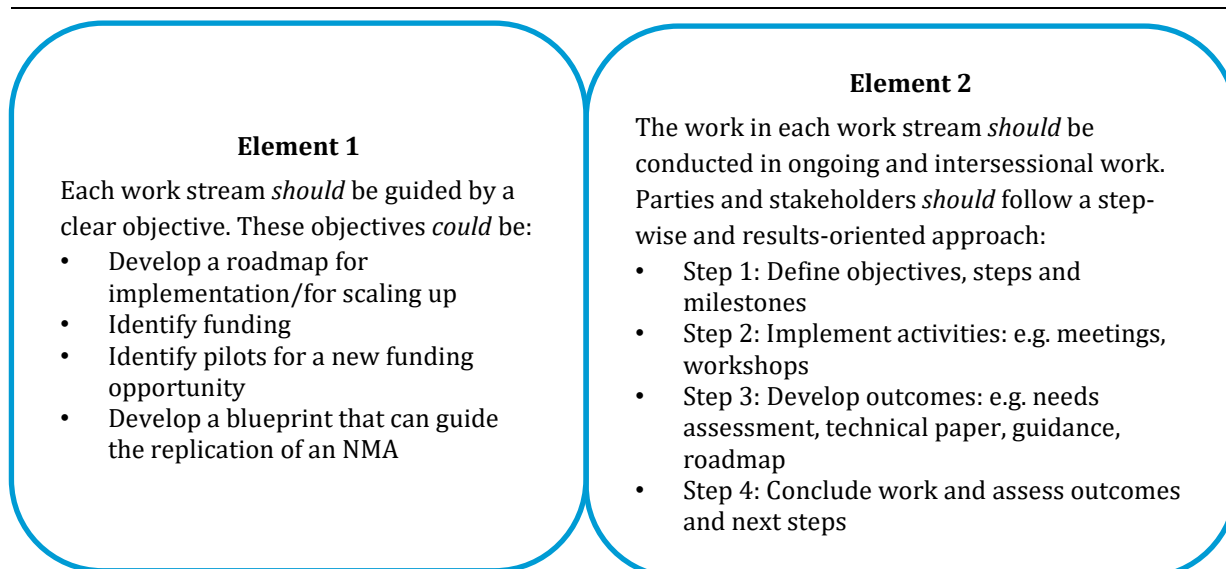
1. Identification of focus areas

- ▶ The NMA forum should give Parties and other stakeholders clear guidance for the submission process. The forum could for instance prepare a submission template taking up the four criteria discussed in the previous section.

2. Identification of NMAs

- ▶ The identification of NMAs should be guided by the following criteria: (1) Party buy-in, (2) specificity, and (3) clear objective. Regarding part-buy in, NMAs can be proposed by non-Party stakeholders but should be supported by Parties. In addition, NMAs should be a concrete tool for international cooperation, including more than one Party in the implementation.
- ▶ NMAs selected by the NMA forum are then considered in the work program. We propose that each NMA shall be promoted through the establishment of a specific “work stream”. Figure 7 summarizes the authors’ recommendations in this regard.

Figure 7: Setting up modalities for the promotion of specific NMAs



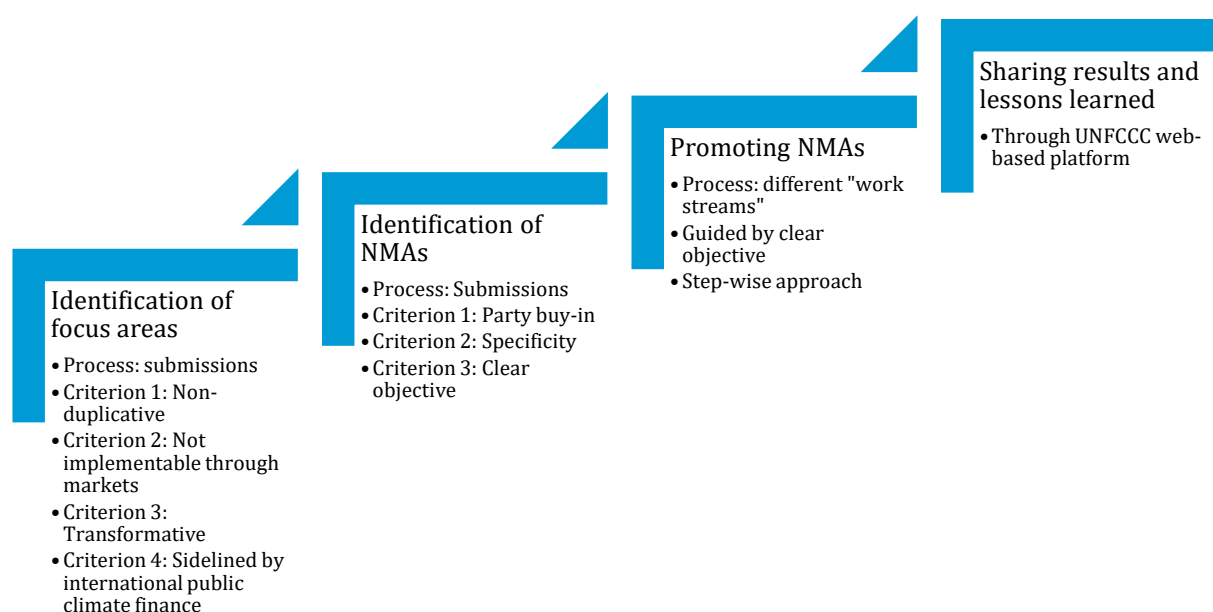
Source: own illustration, Perspectives Climate Research gGmbH.

3. Promoting NMAs

- ▶ Each selected NMA could be promoted through the establishment of a specific work stream that is guided by a clear objective (e.g. developing a roadmap for implementation, assessing funding options, identifying pilots for a new funding opportunity or developing a blueprint) that can guide the replication of an NMA.
- ▶ The work in each work stream should be conducted in ongoing and intersessional work in offline and online meetings, workshops, webinars etc. Parties and stakeholders participating in a work stream should follow a step-wise and results-oriented approach:
 - Step 1: Define objectives, steps and milestones
 - Step 2: Implement activities: e.g. meetings, workshops

- Step 3: Develop outcomes: e.g. technical paper, guidance, roadmap
 - Step 4: Conclude work and assess outcomes and next steps
4. Sharing results and lessons learned
- ▶ The NMA forum should summarize work undertaken in the different work streams and identify lessons learned and recommendations on a regular basis. Outcomes of the work pursued in the different work stream should be shared and communicated through a UNFCCC web-based platform, as foreseen in the negotiation text.
 - ▶ The platform should also include specific portals for each work stream that summarizes knowledge material, such as:
 - Fact sheets on the NMA
 - Links to participating entities in the NMA
 - Discussion forum on the NMA
 - Repository of outcomes of the work undertaken

Figure 8: Step-wise approach to implement the NMA work program

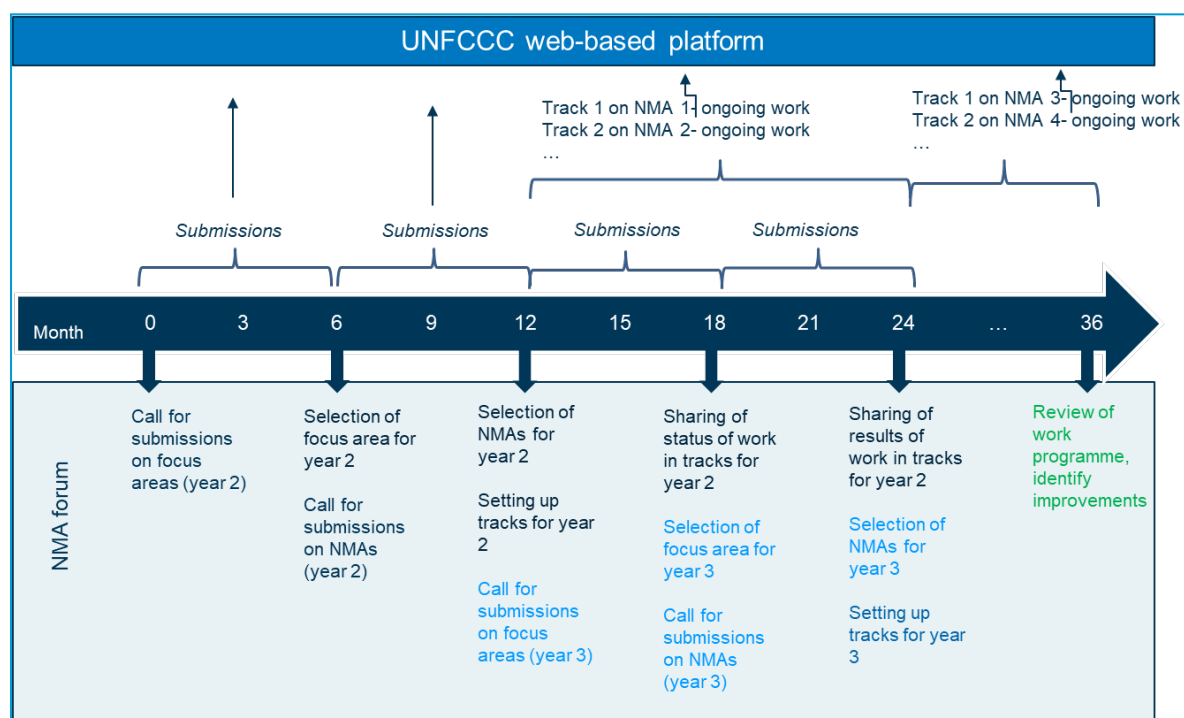


Source: own illustration, Perspectives Climate Research gGmbH.

These four steps should be implemented in a rolling fashion, giving way to the following implementation timeline (see Figure 9). After a year of preparation with calls for submissions at the beginning of the work plan ($t=0$) and a subsequent selection of focus areas after six months, the first tracks are set up for the first cycle of NMA forum discussions. While the first one-year cycle is running, new submissions are made at the beginning of the second year of the work plan ($t=12$) and new topics are selected for each of which a new track is starting in year 3 and so forth. After 36 months and the completion of two cycles, the NMA forum should review the work

programme and identify options for improving its efficiency and relevance. If necessary, it should adopt recommendations for Parties to be considered in the foreseen review of the NMA forum and work program.

Figure 9: Proposal for the rolling work plan of the NMA forum



Source: own illustration, Perspectives Climate Research gGmbH.

The NMA forum should be equipped with the resources and support its needs to undertake these activities. Mobilizing sufficient resources is a challenge encountered by all new activity streams at the UNFCCC. Once such resources have been mobilized, proactive engagement with non-Part stakeholders, observer organizations and relevant ongoing processes and institutions under the UNFCCC is of great importance. This will ensure the work of the NMA forum complements ongoing cooperation efforts without duplicating them, and contribute in an effective manner to the implementation of NDCs in both mitigation and adaptation.

Chapter 3 | Key Messages

- ▶ The NMA work program should be designed to be a meaningful addition to ongoing work under the UNFCCC. The focus must lie on activities that are non-duplicative, not implementable through markets, transformative and have so far been side-lined by international public climate finance.
- ▶ NMAs promoted by the work program should be identified or supported by Parties and represent a specific instrument or activity. The promotion should be guided by a clear objective: either support its implementation, or upscale/ replicate the NMA.
- ▶ The NMA work program should discuss specific proposals rather than generic concepts.
- ▶ The NMA forum should operate in a flexible manner to be able to take up emerging concepts and pilot activities in the broad and constantly evolving context of non-market cooperation. Simultaneously, this flexibility must be paired with a results-oriented approach and the implementation of specific actions to promote the identified NMAs.

4 Making NMAs under Article 6.8 relevant for Paris Agreement implementation

While many carbon market negotiators and observers see Article 6.8 negotiations as a ‘side show’ distracting from the implementation of the PA, NMAs can play an important role in implementation of NDCs and increasing mitigation ambition over time, if designed properly. Therefore, this chapter shows how the NMA framework and work program can contribute to the implementation of the PA.

4.1 Potential contributions of Article 6.8 to Paris Agreement implementation

In the following, especially the NMA framework’s and work program’s contribution to the Article 4, 5, 7, 9, 10, 11 and 13 is addressed. Specific NMA examples are outlined that would contribute to the respective Article’s implementation. Due to the overarching nature of capacity building, first Article 6.8’s contributions to Article 11 are discussed.

4.1.1 Overarching enabling factor for mitigation and adaptation: capacity building (Article 11)

Capacity-building is a precondition before many developing countries can meaningfully engage in mitigation and adaptation. Since many of the identified forms of NMAs proposed by the authors involve capacity-building, it is clear that the work program will contribute decisively to Article 11. This work should be based on lessons learned from capacity-building efforts under the CDM under the Kyoto Protocol and general development cooperation. In the past, capacity-building activities have been distributed unevenly across the world, with many donors concentrating their efforts on a few ‘promising’ countries. Frequently, efforts have overlapped or even been duplicated. Moreover, workshops have sometimes generated perverse incentives for officials to participate and collect attractive per diems instead of serving real training needs (Michaelowa 2005). Therefore, NMAs should focus on long-term generation of knowledge through ‘learning by doing’ and relegate pure ‘dissemination’ of theoretical information to a lower priority.

In the previous chapter, we emphasized that NMAs should not duplicate existing efforts. Regarding capacity building, this means that none of the promoted NMAs under the work program should focus on the same efforts as the PCCB and the Durban Forum and have a specific capacity building activity in mind, instead of an overarching emphasis.

An international program for capacity building on specific technologies such as rooftop solar photovoltaic or offshore wind would be an example for a specific NMA involving capacity building. These NMAs type II.A directly contribute to the implementation of Article 11 of the PA. The same accounts for NMAs type II.C (mechanisms for coordination of capacity building across countries on multiple levels) like for example the development and implementation of training courses on specific knowledge gaps and targeting specific audiences such as university staff.

Capacity-building efforts undertaken under the NMA framework and work program should be reported by Parties to the Secretariat in the context of biennial transparency reports (BTRs) (see Decision 18/CMA.1).

4.1.2 Implementing national strategies and enhancing targets

Mitigation contributions through NDCs (Article 4)

In general, Parties and other stakeholders proposing an NMA need to ensure that it supports the implementation of NDCs, ideally focussing on ratcheting up mitigation ambition every five years (as required by Article 4.3 PA). The following table shows which types of NMAs including specific NMA examples would contribute to the implementation of Article 4.

Table 4: Potential contribution of Article 6.8 to Article 4

Contribution to Article 4	Type of NMA	Concrete NMA example
Replication of successful mitigation measures in country contexts	NMA type II.A NMAs type II.B	Accelerated diffusion of international energy efficiency standards; Multi-country policy for negative emissions technologies
Development of roadmaps to include new sectors in the next NDC revision; Building of capacities to include specific sectors in inventories, calculate baselines and adopt mitigation measures	NMA type I.C	A mechanism that provides funding to areas currently sidelined by international public climate finance (e.g. mitigation in agriculture through changes in rice field irrigation, or use of inoculants that reduces fertilizer consumption)
Setting up of international research consortia and networks on emerging mitigation technologies, generating the necessary conditions for diffusion of such technologies (Article 4.1)	NMA type II.A NMA type II.D	International research collaboration on specific mitigation technologies
Development and testing of methodologies to quantify mitigation co-benefits of adaptation action and economic diversification plans that contribute to mitigation outcomes according to Article 4.7; Replication of such methodologies in other countries and contexts	NMA type II.B NMA type II.C	An international working group of experts developing recommendations to take into account mitigation co-benefits in wide-spread adaptation measures as well as a training program for adaptation specialists to apply methodologies to quantify mitigation co-benefits of adaptation actions

Source: own compilation, Perspectives Climate Research gGmbH.

Adaptation (Article 7)

Under the UNFCCC, there are already multiple frameworks focusing on adaptation, notably the Cancun Adaptation Framework which includes National Adaptation Programmes of Action, National Adaptation Plans, the Adaptation Committee (AC), the LEG, the NWP as well as the TEP-A.

In general, Parties and other stakeholders proposing an adaptation-related NMA need to check linkages to the Cancun Adaptation Framework. Instead of replicating the general forum for adaptation, proposed NMAs should promote specific instruments. Also, the NMA work program should take into account the reports on specific adaptation themes as well as on relevant lessons learned and good practices provided by the AC and LEG (Article 7.3). An overview of new NMAs that would contribute to Article 7 is given in the subsequent table.

Table 5: Potential contribution of Article 6.8 to Article 7

Contribution to Article 7	Type of NMA	Concrete NMA example
Support the submission process of adaptation information	NMA type II.D	Provision of a forum for countries that want to share their knowledge, engage with experts that have been working on methodologies for measuring outcomes of adaptation action and/or work on joint submissions
Enhancement of countries' capacities to prepare and implement adaptation communications through the development of methodologies as well as vulnerability assessments, for instance for sectors where the need for adaptation is still difficult to estimate	NMA type II.C	Capacity-building programs that are focused on the application of methodologies to determine adaptation needs in different regions and/or sectors
Support approaches to resilience and approaches that initiate and guarantee a just transition	NMA type I.A NMA type II.C NMA type II.B	Specific financial instruments that fund resilience measures or mainstreaming in climate action; Training courses on mainstreaming resilience in mitigation and adaptation planning; Diffusion of international safeguards and standards for resilience programs
Development and testing of methodologies to quantify mitigation co-benefits of adaptation action and economic diversification plans that contribute to mitigation outcomes according to Article 4.7; Replication of such methodologies in other countries and contexts	NMA type II.B NMA type II.C	An international working group of experts developing recommendations to take into account mitigation co-benefits in wide-spread adaptation measures as well as a training program for adaptation specialists to apply methodologies to quantify mitigation co-benefits of adaptation actions

Source: own compilation, Perspectives Climate Research gGmbH.

Mitigation and adaptation through forests (Article 5)

Forestry has traditionally been a much discussed but underfinanced issue, not really embedded in UNFCCC mechanisms. As such, it presents a particularly interesting focus area for the NMA work program, also because the Agriculture, Forestry, and Other Land Use sector is key for NDC ambition and the ratcheting up of ambition over time through NDC revision. NMAs could tackle forest-related mitigation and adaptation issues not covered by REDD+, in particular those with a cross-boundary nature that require international cooperation to be addressed properly. This applies, for instance, to deforestation-free supply chains. The NMA framework could be a venue to share lessons learned from various approaches on deforestation-free supply chains. It could also serve as a forum to discuss in how far trade agreements could be applied for commodities whose production is often linked to deforestation (in particular soy, beef, palm oil, timber, pulp and paper), see also section 3.3.2.

NMAs of the type II.B – *mechanisms for coordination of mitigation and adaptation policies across countries* – could serve this purpose, while public-private partnerships across boundaries to tackle drivers of deforestation for large forest biomes could be a specific NMA. Where applicable, coordination with other processes under the UNFCCC, such as the LCIPP, should be promoted. Notably, smallholders and forest-dependent people – including indigenous communities – are usually directly affected by measures related to deforestation-free supply chains (Weber and Partzsch 2018). In this view, it is important that NMAs relating to forestry adhere to safeguards and guidance adopted for forestry-related mitigation measures under the UNFCCC, namely the Cancun Safeguards (i.e. consistency with national and international priorities, transparent governance, respect for the rights of indigenous peoples and local communities, effective participation of relevant stakeholders, conservation of biological diversity, addressing risks of reversals, reduction of displacement of emissions) (UNFCCC 2010).

Climate Finance (Article 9)

Climate finance remains the ‘elephant in the room’ in all UNFCCC negotiations and conferences. The Copenhagen Accord promised USD 30 billion in fast-start finance (FSF) for the period 2010 to 2012 with balanced allocation between adaptation and mitigation. Furthermore, developed countries committed to “a goal of mobilizing jointly USD 100 billion a year by 2020” (UNFCCC 2009, Article 8). While developed countries exceeded their FSF pledge by delivering more than USD 33 billion between 2010 and 2012 (Fransen and Nakhooda 2013), long-term climate finance – i.e. USD 100 billion goal – is very controversial due to questions of accounting. The PA failed in operationalizing the USD 100 billion goal but reached agreement on transparency of climate finance provisions in Article 9.5 (ex-ante) and 9.7 (ex-post, see chapter 2.3 on transparency). At COP25, Parties were once again not able to reach an agreement on long-term climate finance and discussions on the next long-term goal (after 2025) were postponed to COP26 in 2021. A group of 51 finance ministers (the ‘Coalition of Finance Ministers for Climate Action’) presented a Santiago Action Plan to integrate climate change considerations into all economic and financial policy decisions. Several other funding initiatives have been announced, such as pledges to the AF by national and regional governments, the Partnership for Market Implementation (successor to the Partnership for Market Readiness, PMR), and a new call for projects under the international climate initiative (ICI) of the German government (Michaelowa 2019).

In general, Parties and other stakeholders proposing an NMA in the context of financing mitigation and adaptation should show how the proposed NMA is a valuable addition to current climate finance efforts. NMAs with a financial component shall be designed to mobilize additional sources of finance. Given that public funds alone will not be sufficient to meet the investment requirements of a successful climate mitigation and adaptation strategy, harnessing private sector resources is indispensable. In this view, it has been discussed in how far quantitative performance indicators – can be a vehicle for mobilizing private sector finance (Ghosh et al. 2012). The following table provides examples of concrete NMAs contributing to this goal.

Table 6: Potential contribution of Article 6.8 to Article 9

Contribution to Article 9	Type of NMA	Concrete NMA example
Enhancement of cooperation with private sector investors; coordination of existing private finance initiatives and	NMA type I.A NMA type I.B	A mechanism that mobilizes private finance for adaptation projects through developing adaptation certificates and related

Contribution to Article 9	Type of NMA	Concrete NMA example
mobilization of additional climate finance from private sources		monitoring, reporting and verification standards, as does the ABM
Support of country-driven strategies with coordination of donors and private funding sources being a key issue	NMA type I.B NMA type I.C	Development of a coordination strategy or mechanism for funding aimed at a specific sector or region and; Development of tools and guidance for enhancing coordination in this sector or region

Source: own compilation, Perspectives Climate Research gGmbH.

In general, NMAs which include financial instruments should be designed in a way that proper accounting is feasible and transparency on the mobilized resources is ensured. Here, the quantification of mitigation achieved is important, as it could be linked to the financing streams provided, in order to enable investors or donors to check the effectiveness of their financing. Such information is also a precondition for complete reporting of finance under Art. 9.5 and 9.7 of the PA. In addition, the quantification of mitigation achieved is relevant in the context of national inventories: Article 13 requires Parties to provide a national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases.

Market-based cooperation (Articles 6.2 and 6.4)

Generally speaking, every action that does not fall under Articles 6.2 and 6.4 could potentially be considered as an NMA. Yet NMAs are not 'opposed' to market mechanisms but can be used to enhance their impacts. In this view, the NMA work program could cover capacity-building measures that are needed for effectively implementing Articles 6.2 and 6.4 but do not get sufficient funding. More specifically, NMAs could be developed to lower market entry barriers and undertake the 'preparatory work' to increase Parties' capacity to mobilize private investments through markets. As such, there are three potential scenarios of NMAs of the type II.C – *mechanisms for coordination of capacity building across countries*: Capacity building for Article 6.2 ETS linking, capacity building for participation in the Article 6.4 mechanism and promotion of adaptation ambition in markets.

Technology development and transfer (Article 10)

Technology development and transfer has been at the core of UNFCCC discussions since its inception. While the advanced institutionalization of the issue, actual technology transfer is hampered by a lack of resources. Notably, there is no international finance cooperation on technology development outside general climate finance. This also applies for TNAs. While recent TNAs have produced action plans and project ideas for implementation, these efforts have not been able to attract public and/or private investments, most TNAs thus remain a 'dead letter'. One reason for this lack of interest is that "many investors hold the view that technology projects are often developed in ways that is not sensitive to their needs. In turn the return or business case for investors to engage with technology development processes has not always been made clear" (Barnard and Nakhooda 2015, p.4).

In general, Parties and other stakeholders proposing an NMA need to check linkages to Article 10 and show how the proposed NMA is a valuable addition to existing efforts. NMAs on technology development and transfer must be coordinated with the CTCN and the Technology Executive Committee (TEC) and should be linked to specific sectors and technologies deployed in bilateral or regional coordination. Since CTCN and TEC offer the best conditions to bring action forward, the focus of the NMA work program should be on mobilizing financial support. Notably, it could be a vehicle to link TNAs and corresponding recommendations with financing

opportunities, for instance by coordinating available funding sources for specific countries and needs. In addition, the NMA work program could be responsible for the ‘follow-up’ by feeding lessons learned and experiences into the technology mechanism (Article 10.2; Article 10.4; 15/CMA.1).

This could be realized under NMAs of the type II.A – *mechanisms for coordination of mitigation/adaptation technology development and/or diffusion on the multilateral level* – as well as II.B – *mechanisms for coordination of mitigation and adaptation policies across countries*. Specific examples for NMAs under II.A and II.B include an international program for capacity building on specific technologies (e.g. rooftop solar photovoltaic or offshore wind), multi-country policies that promote negative emissions technologies (NETs) (e.g. through identification of cross-boundary storage zones), as well as international safeguards and standards for emerging negative emissions technologies.

Existing examples for bilateral cooperation on technology development and transfer outside the UNFCCC include the networking activities between Denmark on the one hand, and India and China on the other, on wind turbine technology (Lewis 2007). Furthermore, there are multi-decade experiences with USD multi-billion cross-boundary programs in technology development, including ITER.

Ensuring transparency of action and support (Article 13)

In general, the NMA work program should promote transparency of action and support and facilitate proper reporting by Parties on measures promoted under the framework. The identification of priority NMAs should also be guided by identified gaps and challenges in NDC implementation as reported by Parties in BTRs or as flagged in the context of technical expert review reports and the records of the facilitative, multilateral consideration of progress. This includes, for instance, challenges in adhering to UNFCCC guidelines in specific sectors due to capacity gaps. NMAs that are implemented by Parties should be reported in the BTRs. Parties could also be encouraged to include in their reporting if the 6.8 work program has facilitated the implementation of a certain NMA in the context of their NDCs.

In communicating their NDC, Parties have a binding obligation under Article 4.8 to provide the “information necessary for clarity, transparency and understanding”. NMAs promoted under the work program and framework should adhere to these guidelines. This means they should provide information on time frames for implementation, scope and coverage, planning processes, assumptions as well as methodologies. Since this will facilitate proper reporting (and accounting) by Parties, it allows results from NMAs to be monitored, reported and verified to the extent possible.

Furthermore, Parties should be encouraged to report on NMAs with a financing component in their ex-ante and ex-post communications on climate finance (Article 9.5; Article 9.7). On a more general note, Parties should be encouraged to report on their activities in the context of the NMA work program, showing which NMAs have proven to be effective. Also, the environmental integrity of NMAs must be guarded and this will largely depend on transparency rules. The effectiveness of the work program can be assessed through the review by SBI and SBSTA, but the Parties also reports themselves and through the global stocktaking process.

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- ▶ If designed properly, NMAs can become relevant for NDC implementation and ratcheting up.
- ▶ The scope of NMAs described in Article 6.8 is very broad and covers various fields (i.e. adaptation, mitigation, sustainable development, finance, capacity building, technology development and transfer). NMAs could have broad or rather narrow targets. It must be ensured that the NMA work program does not duplicate efforts that have already been undertaken elsewhere within the UNFCCC process.
- ▶ NMAs developed under a properly designed NMA framework and work program can be a meaningful addition to efforts already undertaken within the UNFCCC process and contribute to the implementation of other Articles under the PA. NMAs can also enhance linkages and create synergies between existing activities.
- ▶ In practical terms, this means that the NMA framework and work program should aim at demonstrating how NMAs under Article 6.8 can contribute to more ambitious climate action. Within the proposal process, Parties and other involved stakeholders should be required to show in how far the proposed NMA is promoting the implementation of and ratcheting up of NDCs, rather than duplicating existing approaches, coordinating institutions and underlying measures.

5 The role of finance in the NMA work program

Finance is crucial for the implementation of the selected NMAs discussed in the work program. On the one hand, discussions on financial aspects of international cooperation should not lead to controversial and ultimately fruitless debates how to set up new finance mechanisms. On the other hand, if the work program was to ignore the role of finance in non-market international cooperation, it risks becoming just another strand of ‘shallow’ workshops with limited relevance for concrete implementation. This could, in the worst case, lead to a resurgence of opposition to market-based approaches by Parties who have traditionally been sceptical of markets and have therefore advocated for NMAs.

According to the current status of negotiations, the work program does not provide finance for NMAs itself and is implemented by an NMA forum. Finance is, however, part of the NMA work program according to the current draft text proposals. These proposals also include “supporting the identification of opportunities for participating Parties to develop and implement NMAs, including in relation to finance, technology development and transfer and capacity building, and supporting matching of the NMAs and the opportunities” (UNFCCC 2019e, annex, paragraph 8bi).

In the context of finance, the NMA work program could:

- ▶ Encourage the implementation of new, or replication of existing, NMAs that comprise financing instruments. The work program should in particular assess those NMAs that are designed to mobilize additional and innovative sources of finance that support country-driven strategies, in particular in the context of mobilizing private finance. See chapter 5.1 for further discussion.
- ▶ Identify opportunities for NMAs that lack financing and share information on existing funding opportunities. See chapters 3 and 4 for further discussion.

These options are discussed in more detail in the following.

5.1 Promoting NMAs with a financing component

In chapter 3, we described three potential types of NMAs that include a financing component: (I.A) NMAs that comprise specific financial instruments such as the ABM; (I.B) approaches for international coordination of existing finance streams on a multi-country level or for specific sectors, such as an international research collaboration for mitigation and/or adaptation technologies; (I.C) approaches for international coordination of financial assistance from multiple countries to one country or for specific sectors (e.g. the establishment of a donor roundtable). This section discusses the role of the work program regarding NMAs with a financing component, considering the four aspects listed below.

5.1.1 Promoting results-based climate finance approaches

The NMA forum should in particular select NMAs that are based on results-based climate finance and proper monitoring, reporting and verification (MRV) of results achieved. Thereby, work program activities can promote innovative ideas for appropriate financial instruments and the effective, result-oriented deployment of finance.

One option of doing so would be to focus on NMAs that enhance the linkages to market-based modalities of international cooperation. When identifying NMAs that can be considered in the NMA work program, the NMA forum could select those for further work that include a financing

component that builds on the infrastructure and methodologies that will be established under the Article 6.4 mechanism. To this date, its predecessor, the CDM, has proven to be the most robust and transparent results-based financing (RBF) mechanism functioning in developing countries, and is therefore expected to influence the design of future market-based cooperation (Climate Focus et al. 2017). However, there should be a clear demarcation from market-based cooperation. Therefore, credits generated under the Article 6.4 mechanism but used in the context of NMAs should be cancelled and not transferred on the international carbon market. While the CDM and Article 6.4 only relate to mitigation, the NMA forum should furthermore encourage the submission of NMAs that use monitoring and verification methodologies in the context of adaptation.

5.1.2 Promoting the mobilization of private finance

As described in chapter 3, NMAs with a financial component that are promoted under the work program, shall be designed to mobilize additional sources of finance rather than duplicate existing finance efforts. Given that public funds are limited and will not be sufficient to meet the investment requirements of a successful climate mitigation and adaptation strategy, harnessing private sector resources is indispensable. Moreover, the private sector can deploy sectoral expertise that facilitates innovation.

In this view, the mobilization of private sector finance for NMAs could be a key focus of discussions in work streams that relate to NMAs with a financing component. The work program could assess in how far existing private sector initiatives can contribute to implementation, upscaling or replication of NMAs with a financing component. In a first step, it will be important to improve the dialogue with private sector investors – a group of actors that only recently became more visible and present at UNFCCC negotiations. Traditionally broad private sector associations accredited as UNFCCC observers – such as the *International Chamber of Commerce* – are unable to develop a detailed engagement strategy due to the ‘lowest common denominator problem’ in positioning themselves.

Narrow associations – such as the International Emissions Trading Association – usually just lobby to get negotiation results that are directly beneficial for their members. Although there have been various side events and parallel meetings regarding the private sector and financing – such as the Green Bonds Roundtable at COP21 or World Climate Ltd.’s World Climate Summit: The Investment COP alongside COP25 –, the engagement of the private sector with regards to financing remains generic and largely informal.

Here, the NMA forum meetings should encourage the participation of non-state actors, in particular the private sector. Beyond this, specific work program activities could contribute to strengthen dialogue and cooperation with private sector investors, focusing in particular on harnessing joint financing strategies. The cooperation with non-Party stakeholders can be promoted through workshops and meetings, calls for submissions and partnerships of Parties with non-Party stakeholders on specific NMAs, as it is done in the context of the Nairobi Work Programme.

5.1.3 Catalyse innovative ideas for NMAs with a financing component

There are also potential activities under the NMA work program to catalyse innovative ideas for NMAs with a financing component. A first step would be to assess existing research and encourage new research on innovative financing sources in a multi-country context. The overall objective of this approach is to identify which innovative financing efforts already exist and have the potential to be promoted, upscaled or replicated in other contexts. This objective is based on

the observation that a lot of innovative ideas have already been developed at a small scale (for instance in one country or sector). Through dedicated calls for proposals, Parties and non-Party stakeholders could then be encouraged to share innovative ideas that they are planning to implement (see chapter 3). There could also be a work program ‘work stream’ that deals with specific NMAs with a financing component in a specific sector (e.g. forestry).

This could be realized in cooperation with existing initiatives. One example would be the Global Innovation Lab for Climate Finance, a public-private partnership that seeks to accelerate well-designed financial instruments. However, they do not focus on multi-country collaboration. The Innovation Lab could be invited to share its experiences and the work program could assess which of the ideas would be suited for cross-country collaboration.

If Parties find merit in one or several instruments for collaboration, they could propose to set up a work stream to discuss the multi-country implementation of these ideas and assess their ‘success’ from different viewpoints (e.g. effectiveness, efficiency and sustainability). Also, the proponents of innovative ideas could be invited to share experiences made and lessons learned from (early) implementation, focusing in particular on the potential replication of the approaches in other countries. This way, the NMA work program could spread innovative ideas across countries and bring proponents together with climate finance experts, government institutions and other relevant actors, including private investors of several countries.

In addition, the NMA work program could focus on the identification of institutions that are well placed to implement innovative financing in a multi-country context. Here, the main objective would be to further enhance coordination and synergies of existing initiatives. On the one hand, proponents of innovative ideas for NMAs with a financing component are often not aware that (a variety of) institutions exist that might be interested in providing financial support. On the other hand, institutions often lack the resources to map and assess the various innovative ideas that already exist. One reason for this lack of overview is that some ideas have been proposed for a specific country, region or sector and are therefore not recognized by institutions that are active in another country, region or sector. By raising awareness for a specific idea and bringing together its proponents and potentially interested institutions in workshops and meetings, the NMA work program could catalyse the implementation, upscaling or replication of innovative ideas for NMAs with a financing component.

5.1.4 Promoting the coordination of existing funding sources

As outlined in chapter 3, the coordination of donors and funding sources is of particular importance, especially for implementing country-driven NDC-related financing strategies. To this end, the NMA work program could:

- ▶ assess and discuss NMAs that aim to increase coordination among donors and financial resources; and
- ▶ share information on available funding sources to increase coordination in international cooperation through knowledge sharing.

With regard to the first option, the NMA work program could set up a work stream that focuses on NMAs within the focus area of “coordination of existing funding sources”. Parties and non-Party stakeholders would be invited to share information on emerging or existing NMAs in this area.

Promising NMAs that involve coordinative mechanisms on available resources and needs, could be selected and further discussed in technical follow-up work. Within a specific work stream,

Parties and non-Party stakeholder could work together to develop tools and guidance for enhancing coordination on a country, region or sector level, or to elaborate best practice guidance or blueprints for the establishment of such coordinative structures on a country, region or sector level.

These coordinative structures could be set up and used by Parties in their international cooperation to regularly assess:

- ▶ the availability of financial resources;
- ▶ options for coordinating resources; and
- ▶ the extent to which different financing programs and channels can be systematically linked with NDC implementation of a given country or region.

Information sharing would not require the NMA forum to make the coordination of funding opportunities a separate focus area. But it can pursue the same objective through a specific focus on the information it shares through its UNFCCC web-based platform. The platform should list all climate finance work streams, funds, entities and bodies, events and meetings, as well as relevant resources for NMAs.

The latter includes the UNFCCC Climate Finance Data Portal which “aims to assist Parties in tracking the Financial Mechanism of the Convention and to inform the intergovernmental process under the UNFCCC and relevant stakeholders on the mobilization of resources” (UNFCCC n.d.). However, the information is at a relatively aggregated level and not seen as relevant by private sector actors.

Furthermore, activities under the NMA work program could initiate and intensify exchanges between institutions, finance experts and actors proposing NMAs with a financing component. The main goal would be to ensure that the proposed NMA is a valuable addition to current climate finance efforts, for instance through providing clear guidance for Parties how to identify NMAs suitable to be addressed in a work program work stream. Furthermore, the NMAs proponents could learn from experiences and case studies shared by other participants of the forum, and establish new or intensify existing contacts with (potential) cooperation partners.

5.2 Promoting financing of NMAs without a financing component

Four of the seven potential types of NMAs introduced in chapter 3 do not relate to finance. There are multiple financial sources and instruments at both national and international level, which could be used to finance NMAs without a financing component. When the implementation, upscaling or replication of a specific instrument is discussed in a work stream under the work program (see step-wise implementation of rolling work plan suggested in chapter 3.5), the financing options should be assessed. Where possible, participants should identify and assess existing opportunities in a multi-country context, aiming to optimize the use of available resources at different levels and promote access to them. This chapter discusses the role of the work program regarding these NMAs, considering national sources of finance (public and private), international sources of finance (public and private) and the suitability of financial instruments for NMAs without a financing component.

5.2.1 National sources of finance (public and private)

Public national sources are determined by the annual national budgets allocated to climate-related issues. Instruments which are used at the national level to finance mitigation and

adaptation activities, comprise subsidy instruments such as grants, concessional loans and guarantees. Private sources comprise both profit-oriented organizations such as private equity, social investors, banks and institutional investors, including insurance companies, pension funds and asset managers, as well as the non-profit sector (e.g. faith-based organizations) and philanthropy. Private actors and entities should incrementally be encouraged and enabled to use RBPs. NMAs, implemented at a country or regional level that support unconditional NDC targets, should be financed primarily through national sources of finance, while the NMA work program should promote the mobilization of private financing sources.

5.2.2 International sources of finance (public and private)

International climate finance comprises multilateral climate funds, bilateral funds (grant funding) and multilateral development banks (MDBs). Article 9 of the PA makes clear that climate finance should not only come from public but also from private sources (UNFCCC 2015). Sources of international private finance include private equity, social investors, institutional investors (insurance companies and pension funds), international banks and multinational corporations. International climate finance, complemented by funding through international market-based mechanisms, will be critical for the implementation of measures to achieve conditional NDC targets in developing country Parties.

The UNFCCC's operating entities of the Financial Mechanism include the GEF and the GCF (UNFCCC 2011, paragraph 102). The GEF is currently also administrating the AF. The Climate Investment Funds (CIF) are hosted by the World Bank, thus operating outside the UNFCCC. MDBs act as implementing entities for the multilateral climate funds, often next to UN agencies, international commercial banks and National Implementing Entities. Further climate-related funds are operated by MDBs such as the BioCarbon Fund Initiative for Sustainable Forest Landscapes (World Bank) or the Global Energy Efficiency and Renewable Energy Fund (GEEREF) of the European Investment Bank. The GEF has three climate-specific funds through which it distributes grants: The Capacity Building Initiative for Transparency (CBIT) fund, the LDCF and SCCF. The LDCF supports the poorest and most vulnerable countries by providing funding for their work program including the development of National Adaptation Plans. The SCCF is open to all vulnerable developing countries.

The GCF aims at becoming the key channel for international climate finance for adaptation, mitigation and cross-cutting activities in developing countries. It should provide the same amount of funding to mitigation and adaptation. The GCF could thus be a good funding source for NMAs promoted through the NMA work program, potentially focusing on adaptation-related activities as it has to expand its adaptation portfolio (26%) compared to its mitigation portfolio (39%) (GCF 2020). The GCF works with grants (48%), loans, equity and guarantees (GCF 2020). The GCF has also experimented with different forms of direct access and has initiated a RBF track.

The AF finances projects and programmes that help vulnerable communities in developing countries to adapt to climate change. It is thus the only fund which is exclusively supporting adaptation and resilience activities in developing countries.

The CIF comprise the Clean Technology Fund (CTF) and the Strategic Climate Fund, which hosts a number of thematic funding windows: Scaling Up Renewable Energy in Low Income Countries (SREP), the Forest Investment Program (FIP) and the Pilot Program for Climate Resilience (PPCR) (CIF 2018). The CTF forms the largest fund but only provides money for mitigation in emerging economies, while SREP focuses on low-income countries. The PPCR, on the contrary, only distributes grants for adaptation projects, while FIP focuses on the forest sector.

MDBs provide the majority of international climate finance (Buchner et al. 2019). MDBs can raise additional finance through the issuance of bonds but must pay attention to their repayment and credit ratings which is why they tend to favor low-risk investments.

The NMA work program should, in accordance with the current proposal in negotiations, include the coordination with relevant bodies and processes related to finance in its workshops and meetings (UNFCCC 2019e, annex, paragraph 7e). Through coordination with the UNFCCC financial mechanism and financing institutions outside the UNFCCC, the work program can support the identification and coordination of international financing sources. As mentioned in the previous chapter, the NMA forum should further promote RBF and proper MRV of results achieved by making use of methodologies and infrastructure of market-based cooperation, for instance by the Article 6.4 mechanism, or adaptation-related methodologies.

In this context, the activities of the NMA work program should promote a thorough assessment of the financing options and transparency in the provision and accounting of international climate finance. This is particularly important to implement Article 9 of the PA. According to the UNFCCC, climate finance should be “new and additional” (UNFCCC 2009). The SCF of the UNFCCC has started to push for some methodological work on accounting (UNFCCC 2018). This methodological work should be considered by Parties and other stakeholders cooperating under the NMA work program when identifying suitable international funding sources for the implementation of NMA instruments and elaborate guidance for Parties on how to report on financing needs and finance provided in this regard.

5.2.3 Suitability of financial instruments for NMAs without a financing component

In general, it can be said that grants are suitable for activities with a zero or low return on investment (ROI) such as capacity building activities, upstream technical assistance, early-stage technologies, pilot activities and feasibility studies. In the area of adaptation this would for example include programs focusing on climate-resilient infrastructure. Grants are therefore a good instrument to finance mechanisms for the coordination of mitigation and adaptation activities (NMA II.B), mechanisms for the coordination of capacity building across countries (NMA II.C) and mechanisms which aim to promote general information sharing on cross-boundary mitigation and adaptation actions (NMA II.D). This would mean that the majority of NMAs discussed in this section would tend more towards grants, however, this would also depend on the addressed area. In general, an observable tendency is that mitigation finance mostly comes in the form of loans, blended finance or equity, whereas adaptation finance is heavily grant-based (UNFCCC 2018). However, there are also adaptation projects with a foreseeable ROI and low risk which receive private finance, usually in the climate-sensitive sectors such as agriculture and fisheries. Nonetheless, private climate finance spending remains skewed towards mitigation. Therefore, when promoting NMAs in the area of resilience and adaptation, the NMA work program should pay particular attention to the possibilities of mobilizing private finance sources in this regard.

The CBIT fund is addressing the specific needs of developing countries regarding the enhanced transparency requirements of the PA and could play an important role for the funding of NMAs II.C ii (development and training on methodologies to assess vulnerability in specific sectors). One program operating under the GEF which has also been approved by the LDCF/SCCF Council is the PSP to finance the climate technology development and transfer activities, notably technology needs assessments, and could thus be relevant for the funding of NMAs II.A. Both the LDCF and the SCCF are only authorized to provide finance in the form of grants. All adaptation-related NMAs of type II.A., II.B and II.C could potentially receive funding from the AF in the form

of grants which is the only financial instrument the AF is authorized to distribute. A comprehensive overview on suitable funding sources for specific types of NMAs without a financing component is provided in Annex E.

5.3 Promote access to existing funding sources

There are some barriers which could potentially reduce access to public and private sources of finance relevant for NMAs. This section discusses these barriers and provides proposals how the work program could help to overcome this through its activities.

First, the NMA work program could share information on existing NMAs that are being implemented by international funding institutions that aim at lowering the barriers to access further finance sources, including for non-finance related NMAs. In order to access finance from multilateral climate funds, developing countries need to have a specific institutional engagement, e.g. through a National Designated Authority or Focal Point (GCF). Moreover, entities that want to submit project proposals need to be accredited, and only few funds allow “direct access” of recipient governments. Both accreditation and funding proposal processes are often described as lengthy and burdensome by developing countries. Therefore, for most funds, MDBs and private banks have been accredited but few governments or NGOs from developing countries. To counteract this, the AF and CGF distribute so-called readiness grants to support aspiring implementing agencies in enhancing their capabilities to receive and manage climate finance. The availability of readiness grants could also be shared on the web-based platform to increase the notification’s reach. Other countries from the same region could for example share best practices as part of the work program, so that countries in need can benefit from them.

The NMA work program could also include activities that invite UNFCCC and non-UNFCCC financing institutions (e.g. regional institutions) to share information and work on streamlining and simplifying application and approval procedures for specific sectors or types of activities. One topic could be a differentiation between application procedures for micro and small projects compared to medium-sized and large projects. This may also include efforts to harmonize result indicators across different sources of finance in order to enable comparability of accounting of climate results in the context of reporting on progress towards NDC goals.

As mentioned above, private sector investment is essential and will need to be scaled up. Private actors and entities should be encouraged and enabled to use RBP. The work program should see this as a chance and raise awareness for promoted NMAs to attract more private investment and increase the activity proponents’ awareness regarding new finance possibilities. The awareness of private investors could be gained by also inviting them to participate in the NMA forum and by actively involving them into multi-stakeholder workshops.

The NMA work program could initiate further discussions on how the provision of public funding to support mitigation or adaptation processes could be a vehicle to attract private investors who would then pay for results where they are able to secure a ROI. This way, public funding could increase the feasibility of adaptation and mitigation activities. A technical expert group in a specific work stream of the work program could review existing NMAs in this area, in order to develop guidelines and provide best practices on how to design programs with sufficient incentives for private actors and on how to gradually phase out public financing. Especially the international programme for capacity building on specific technologies such as renewable energies under NMA type II.A would allow for more private investment. In case the results of the NMA are aligned with business goals as in the case of NMA type II.B iii (public-private partnership across boundaries to tackle drivers of deforestation for large forest biomes),

the work program could focus on its communication and workshops on business key terms such as value chain improvements and sustainable sourcing. In general, the work program could put an emphasis on communicating the importance of public finance for starting up projects with a low ROI as some technologies once developed and upscaled, might later on generate a higher ROI and thus be more attractive to private investors.

Emerging technologies will not be attractive to many private investors without public support. Private philanthropies play an important role in financing resources on emerging technologies. However, the risk is here that technologies are not researched and developed in the public's interest. Therefore, the involvement of public authorities in early research and development could be essential, especially if emerging technologies are controversially discussed among scientists. A barrier in this case is usually that public funding for R&D processes is limited and emerging technologies require a well-funded program. The NMA work program could play an important role in promoting NMAs that aim to coordinate limited public resources of Parties for specific technologies to ensure that research endeavours are at least pursued collectively. Best practices with regards to the efficient coordination of international research programs and their funding could be assessed as part of the work program.

Some funds which have also been identified as potential providers of funding for the four NMAs without a financial component are lacking funding themselves. Therefore, the work program should promote NMAs that provide best practices on the combination of available funding sources and the mobilization of additional private finance. As mentioned above, the coordination between the existing funding sources is key. The proliferation of climate finance mechanisms has had adverse impacts, such as the obstruction of access to finance and resulting challenges with regards to coordination and monitoring. The NMA work program can work against this by promoting coordination and inclusion of relevant institutions, for instance in the context of different work streams.

5.4 Case Studies

This chapter discusses the potential role of the NMA work program regarding the facilitation of different NMAs using the example of four case studies. The discussed NMAs are based on concrete examples in terms of the activity's design that have in some cases already been picked up by Parties. It is important to mention though that focus areas will only materialise as NMAs of the work program, if these are identified as such by the NMA forum. Submissions on focus areas and concrete examples can be undertaken by Parties and observers (UNFCCC 2019e, paragraph 7).

5.4.1 Innovative finance for adaptation

Many NMA focus areas proposed by Parties in the context of Article 6.8 negotiations relate to adaptation and resilience (e.g. integral and sustainable management of forest, social-ecological resilience, integrated water management, see UNFCCC 2019e, paragraphs 5 and 7). As discussed above, funding of adaptation is scarce and mostly relies on grants. Mobilizing private finance and combining public and private sources of finance are important to increase resources for adaptation and should be a focus of work program activities, when finances for adaptation-related instruments are discussed. Concrete proposals regarding private finance and public-private finance are discussed in the following.

The Adaptation Benefits Mechanism

One proposal for mobilizing private finance for adaptation is the ABM. The ABM was established in 2016 by the AfDB in collaboration with the governments of Uganda and Côte d'Ivoire and other stakeholders with the goal to mobilize public and private funding to enhance adaptation action in any relevant sector (AfDB 2020). Uganda and Côte d'Ivoire proposed the mechanism to be one of the focus areas for the NMA work program in the UNFCCC negotiations (see Hoch et al. 2019, UNFCCC 2019e, paragraph 7).

The mechanism aims to quantify, verify and certify social, economic and environmental benefits generated by adaptation activities, so-called adaptation benefits (ABs), which are sold to an interested third party, thus generating revenue for project developers. Interested third parties such as private sector actors can use the certificates e.g. for their reporting on Corporate Social Responsibility targets or other contributions towards the achievement of the PA and the SDGs. The ABM is a non-market-based mechanism and generated ABs are, therefore, not internationally tradable but delivered directly to the interested third party in exchange for RBF. The buyer will receive the cancellation codes of acquired ABs to ensure that no further trade is taking place. The price of the generated ABs depends on the activity type and location of specific adaptation actions. Activities carried out under the ABM should be additional and strive towards the implementation of the adaptation component of the host country's NDC and the SDGs.

From 2019 to 2023, 10-12 demonstration projects in several African countries are carried out based on approved methodologies to test the ABM's effectiveness in mobilizing new and additional finance. Pilot methodologies have been developed for renewable energy water pumping technologies, clean cooking, grid extension, watershed management and off-grid electrification (Greiner et al. 2019, p. 50). For the pilot phase, an interim ABM Executive Committee and a Secretariat have been established (AfDB 2019). The ABM Secretariat will develop and maintain an ABM registry in order to track the use of certified ABs (AfDB 2019). Also, a Methodology Panel will be established to address technical issues which could enable improved results-orientation beyond the ABM (AfDB n.d.).

Climate Adaptation Notes mechanism

Another innovative approach to raise private adaptation funding has been identified by the Global Innovation Lab for Climate Finance, a public-private partnership that seeks to accelerate well-designed financial instruments. Among the winning ideas to be taken forward in 2020 is the Climate Adaptation Notes (CAN) mechanism. The project developer issues so-called CANs or climate adaptation benefits in the amount of the long-term debt capital required for an investment in adaptation projects. In principle, CANs are bonds to commercial banks that provide short-term loans and face technology risk for early-stage water and waste-related climate adaptation projects in South Africa (Global Innovation Lab for Climate Finance 2020). These infrastructure-related adaptation projects would also result in mitigation co-benefits due to improved water re-use and waste management.

The notes are designed in such a way that they are tradable and can be repaid with interest. The period is adapted to the project duration and the cash flow of the project. This guarantees institutional investors (e.g. commercial banks) a stable and reliable repayment flow. As a result of the sale of CANs, the bankability (creditworthiness) of the projects improves, making them more attractive to private and institutional investors. The mechanism thus attracts reliable investments from institutional investors and impact investment funds. The investment value of the benefit units or notes is enhanced through the concessional loans to attract more large-scale private investment. The next step would be to pilot the mechanism which would require USD

125 million of investment by commercial banks and institutional investors according to the GFA Climate & Infrastructure and Ashburton Investments that submitted the proposal (Global Innovation Lab for Climate Finance 2020).

Voluntary adaptation contributions from individuals

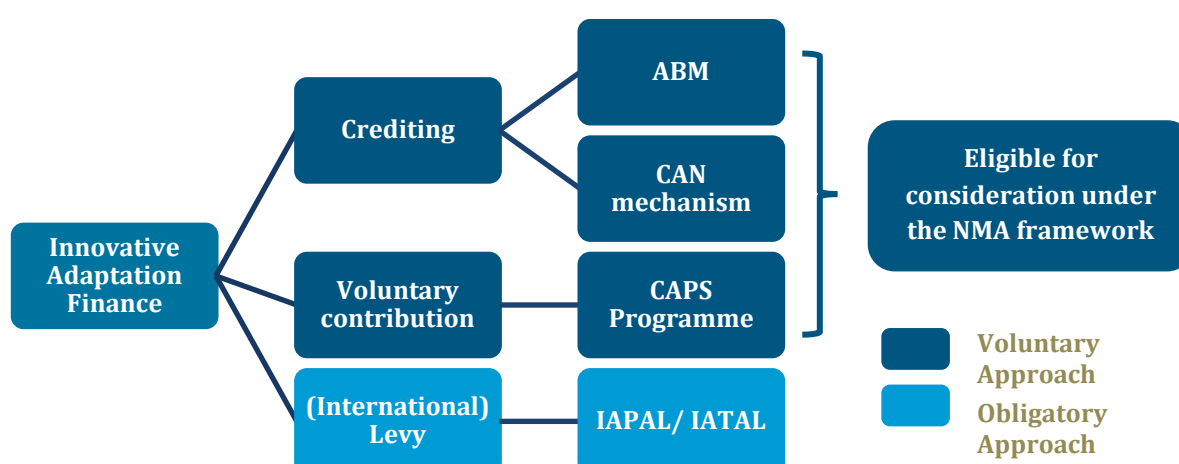
Regarding public-private finance for adaptation, the International Air Travel Adaptation Levy (IATAL), also known as International Air Passenger Adaptation Levy (IAPAL) falls under this category. The idea of an IATAL was first put forward by two research fellows from the Oxford Institute for Energy Studies (Müller and Hepburn 2006). In order to close the adaptation funding gap at the multilateral level and to address the impacts of aviation emissions, they argued that a levy on air passengers should be adopted (Müller and Hepburn 2006, p. 7). In 2008, this proposal was taken up by the Group of LDCs and promoted as an adaptation solidarity levy on international air passengers within the framework of the Bali Action Plan (Group of LDCs 2008).

As a universal passenger levy, this proposal would not be eligible for consideration under the NMA work program, as it would not be an approach to voluntary international cooperation. However, voluntary collective action could take place if governments would jointly agree to set adaptation levies on a national level.

While focusing on voluntary contributions, the government of Luxembourg is currently financially supporting the bottom-up idea of the original IAPAL concept, the Corporate Air Passenger Solidarity (CAPS) Programme (Oxford Climate Policy Blog n.d.). The program promotes the idea that corporates voluntarily contribute 1% of their annual air travel expenses to the AF, thus providing USD 100 million annually (CAPS Programme n.d.). The program is currently carrying out a feasibility study and developing a marketing strategy to disseminate the narrative that climate neutrality should be more than carbon neutrality (mitigation) by also emphasizing the need for impact solidarity towards the most vulnerable (adaptation) (Oxford Climate Policy Blog n.d.). To market this idea more effectively, the initiative seeks a network partner such as the UN Global Compact, the largest initiative to support corporate social responsibility efforts.

Not all proposals discussed in this chapter could be addressed in this form under the NMA work program as shown in Figure 10.

Figure 10: Proposals for innovative adaptation finance



Source: own illustration, Perspectives Climate Research gGmbH.

The assessment of the potential role of the work program regarding these NMAs will focus on the proposals eligible under the NMA framework.

Potential role of the work program

In the following, examples of activities under the work program are discussed. It should be noted that these activities only materialize if the concrete NMA or focus area is identified as relevant by Parties in the context of the NMA forum.

If the ABM was selected to be discussed further in a “work stream”

A dedicated work stream under the NMA work program on the ABM might choose to focus on scaling up African efforts or to replicate it in other contexts. For this purpose, the work program should convene meetings during which members of the ABM Executive Committee can present lessons learned, best practices and other insights. Pilot methodologies of the ABM demonstration projects could be shared on the web-based platform and serve as inputs for an ad-hoc technical expert group.

The upscaling or replication of the ABM would require a new or existing body to take over the tasks of the interim ABM bodies. Here, the work program could facilitate discussions on the identification of appropriate institutions at the regional or international level that would be interested in building on the lessons with the ABM and replicate similar approaches. Efforts in this context should be closely coordinated with the AC, as this body pursues the implementation of enhanced adaptation activities in a coherent manner under the Convention.

The work program could also pursue multi-stakeholder workshops to see whether there would be an interest by ABM credit buyers in linking offsetting schemes for GHG emissions with a wider Corporate Social Responsibility Strategy that addresses both mitigation and adaptation. If so, the NMA work program could promote that such a scheme is piloted by interested stakeholders and Parties.

If the CAN mechanism was to be discussed further in a “work stream”

Regarding the CAN, the work program could increase the visibility and support the identification of funding opportunities of the Global Innovation Lab for Climate Finance, so that the pilot could actually be implemented. Discussions under the work program could focus on the mobilization of financing options (public, private, philanthropic) and options to blend these. With the help of such discussions, the work program could raise more awareness for such innovative proposals and for other proposals submitted to the Global Innovation Lab for Climate Finance.

If CAPS was to be discussed further in a “work stream”

Regarding the CAPS Programme, a work stream under the work program could organize multi-stakeholder workshops that bring together business associations, private and public actors. In the context of these workshops, the design of a pilot activity and the development of the marketing strategy could be discussed. Since Luxembourg has already been financing a feasibility study, key outcomes of this study and lessons learned could be presented at meetings under the work program by the Party. In addition, the conceptualization and roadmap of the pilot study could be shared on the web-based platform. The work program could also mobilize contributions from global corporates, by reaching out to international and national business associations and inviting them to regularly share information with the NMA program to enhance transparency. This could also be linked to the Global Climate Action’s portal as UN Global Compact constitutes one of the portal’s data partners.

5.4.2 Public finance for international research collaboration

Innovation and transformation are often intrinsically linked with advances in international research. The current Presidency proposal on the NMA forum and work program encourages Parties and other stakeholders to actively engage in research of NMAs (UNFCCC 2019e, paragraph 6). International research collaboration can also be a non-market approach to cooperation in itself.

Many R&D processes rely on public funding, especially in the absence of commercial research. Private finance has played an important role in the development of energy-efficient technologies and renewable energies. However, there are also some emerging technologies with a substantial mitigation potential which are not attractive to commercial research due to their stage of development. Also, the development of adaptation technologies has been lagging behind the one of mitigation technologies. Therefore, the combination of public finance from different states in an international R&D programme could be an efficient means to roll out emerging adaptation and mitigation technologies.

The focus on international research collaboration could help to use limited public finance more efficiently. The design of such a collaborative format is decisive for its success. The multinational research program on nuclear fusion (ITER) is an example of best practice in this space. The ITER Agreement on a multinational R&D program was signed in 2006 by China, the EU, India, Japan, Korea, Russia and the United States. The goal of this collaboration between 35 nations is to prove the feasibility of nuclear fusion energy. For this purpose, sizeable public resources of double digit billion USD have been combined. The members of the agreement do not only share the costs of the entire project but also the trial results and intellectual property generated throughout the project by its staff members (ITER, 2020). R&D efforts around the world are efficiently coordinated to ensure the successful integration and assembly of the one million components the fusion reactor consists of and which have been built by different members.

The multinational R&D program thus demonstrates that limited public funding for research can be coordinated and channelled in an efficient manner to maximize the output. The International Renewable Energy Agency (IRENA) is another positive example in this context as the intergovernmental organization's emphasis lies on joint knowledge generation and knowledge exchange. There are emerging technologies in the climate realm which would benefit from such research collaboration. Regarding mitigation, a potential multinational R&D program could focus on immature NETs. Identified research gaps range from the potential implications of large-scale deployment of NETs, to a broad range of topics such as socio-economic impacts, policy instrument design and governance (see Honegger et al. 2018). There are some NETs which are already deployed, such as soil carbon sequestration and afforestation. However, bioenergy with carbon capture and storage and direct air carbon capture and storage are still in development and could benefit from an international R&D program. The same accounts for NETs which are in the early research stages such as ocean fertilization and enhanced weathering.

Potential role of the work program

The work program could facilitate the identification of available public finance for an identified NMA on common research. In promoting research-related NMAs, the work program should consider how public finance can be combined efficiently to achieve the best possible outcome in a well-coordinated effort. For this purpose, multi-stakeholder workshops that bring researchers, practitioners and governments together could be promoted for the development of a research roadmap with clear milestones and steps to allocate available public resources efficiently to each step. The roadmap should also clarify the coordination of international research efforts. Here,

best practices such as the ITER can serve as guidance. In addition, a potential work stream could examine existing bi- or multilateral research and innovation framework programs such as Horizon Europe, with regard to their established links with research bodies and industrial partners and to ensure a better coordination in general.

The work program could also assess existing research-related NMAs and analyse ways to improve joint efforts in the next phase. In addition, the NMA forum, in close collaboration with the Research Dialogue under the UNFCCC, could serve as a platform for international research teams to share their insights and matters relevant for the implementation of NMAs, for instance through including information in the UNFCCC web-based platform.

5.4.3 Private finance for collaboration on deforestation-free supply chains

The integral and sustainable management of forests is one of five focus areas proposed in the Presidency draft text on the Article 6.8 work program (version 3, December 15). As described in chapter 3, forestry has traditionally been a much discussed but underfinanced issue not really embedded in UNFCCC mechanisms, and therefore presents a particularly interesting focus area for the NMA work program. Potential NMAs could tackle forest-related mitigation and adaptation issues not covered by REDD+, in particular those with a cross-boundary nature that require international cooperation to be addressed properly. This applies, for instance, to deforestation-free supply chains.

As of April 2020, over 500 companies with operations in major forest-risk commodities – i.e. cattle, soy, palm oil, timber, pulp and paper – have committed to reduce and eliminate deforestation from their supply chains (Forest Trends 2020). Many of them argue that the complexity and opacity of global supply chains are the main challenges for implementing these commitments. In particular, downstream companies – i.e. manufacturers and retailers – often do not know where exactly, how and by whom commodities are sourced, processed and traded (Weber and Partzsch 2018). NGO-led initiatives like ‘Transparency for Sustainable Economies’ (Trase) seek to increase supply chain transparency by accessing and publicly sharing relevant data. Meanwhile, companies have launched joint initiatives, assuming that they can facilitate implementation through better collaboration. For instance, Danone, Mars, Nestlé and Unilever launched the ‘Sustainable Food Policy Alliance’ in 2018. One key objective of this alliance is to “[explore] the economics of sustainability” and “support emerging business models that use financial incentives to reduce emissions and transition to low-carbon alternatives” (Sustainable Food Policy Alliance 2020).

The (expected) shift towards deforestation-free supply chains has also influenced investment decisions and created new investment opportunities. The Tropical Forest Alliance (TFA) 2020 identified six emerging models for deforestation-free finance:

- ▶ compliance requirements applied by financial institutions that aim to ensure that lending in forest-risk supply chains meets certain standards;
- ▶ compliance requirements applied by companies buying from and investing in commodity suppliers;
- ▶ revision of the financial institution’s risk-assessment methods to incorporate the benefits of deforestation-free supply chains;

- ▶ innovative and ‘green’ financial instruments that reduce the costs or increase the pool of finance for deforestation-free supply chains (e.g. green bonds, green guarantees and sustainable shipment letters of credit);
- ▶ offtake agreements (e.g. with smallholder farmers) linked to sustainable production practices; and
- ▶ publicly-funded facilities to provide long-term capital, enhance returns (e.g. by incorporating payments for ecosystem services) or reduce risks (e.g. through guarantees) (TFA 2020 2017). One example for this model is public climate finance in the forestry and land use sector that is used for sustainable agriculture and forest management (TFA 2020 2017).

Given the cross-boundary nature of commodity-driven deforestation, the different financing models can only drive change if they are implemented at scale. This requires international coordination and cooperation. The finance industry, supply chain players and governments must work together to “identify opportunities for deforestation-free investments, develop a pipeline of projects and design scalable financing models” (TFA 2020 2017, p. 16).

Potential role of the work program

The work program can promote coordination and cooperation on deforestation-free finance, inter alia, by facilitating the exploration of financing models of different existing NMAs and, on this basis, elaborate ways to combine private and existing public finance. Through a dedicated work stream on deforestation-free-supply chains, the work program could organize multi-stakeholder workshops that bring together the finance industry, supply chain players and governments. Apart from sharing best practices and lessons learned, the workshops could aim at developing a roadmap with clear milestones for deforestation-free finance. These milestones could include the identification and assessment of country-, region- or sector-specific investment opportunities as well as the development and implementation of multi-stakeholder projects using the different financing models presented above (e.g. several buyer companies negotiating offtake agreements with producers in a specific jurisdiction, country or sector). The work program could ask Parties participating in a work stream on deforestation-free-supply chains to submit regular information on the provision of enabling conditions for deforestation-free finance, which would then subsequently be recorded in the web-based platform. The most relevant enabling conditions include robust forest regulation and law enforcement (in particular with regard to land tenure), the facilitation of payments for ecosystem services as well as the provision of technical and credit support for small producers (TFA 2020 2017).

Chapter 5 | Key Messages

- ▶ The consideration of finance is essential to avoid that the NMA work program becomes a mere ‘talk shop’ that does not promote the implementation of NMAs and risks an imbalance among various components of Article 6 of the PA.
- ▶ The work program will not have own financial resources, but it should keep a clear focus on implementation of the NMAs it promotes. This includes the assessment and the discussion of the financial aspects of existing and emerging NMAs.
- ▶ The work program is a success if it focuses on NMAs that do not duplicate international financing efforts, and if it promotes and facilitates the identification of synergies and opportunities in financing specific NMAs through international cooperation.
- ▶ In this context, the work program should in particular promote the mobilization of private finance through NMAs.
- ▶ The case studies have shown that there are various existing approaches for financing activities involving multiple countries both inside and outside climate policy that are developed and implemented independently from each other. In this regard, the NMA work program can play an important role in assessing existing approaches (also in terms of their potential of being upscaled or replicated) and making them more visible.

6 Discussion and outlook

Even if an Article 6 rulebook will be adopted at COP26, the operationalization of the NMA framework (Article 6.9) and the identification of concrete NMAs (Article 6.8) to be promoted under the NMA work program will require further work by Parties. Despite being discussed for multiple years now in the context of international climate negotiations, even firm advocates of the NMA concept are lacking concrete proposals for NMAs. The NMA framework's relevance will, therefore, also depend on the ability to identify focus areas and concrete activities, and on reaching a shared understanding of NMAs and their importance among Parties. Only if it becomes clearer what activities will be supported under the NMA work program, a more robust governance structure will be conceivable. The little changes that were undertaken from one iteration to another at COP25 hint towards more or less consolidated positions of Party groups. For developing Parties, the consent to a loose governance structure across the next four years, represents a big compromise. Nevertheless, sudden shifts in future Article 6 negotiations are rather unlikely.

The NMA work program should be designed to be a meaningful addition to ongoing work under the UNFCCC. Focus must be on activities that are non-duplicative, not implementable through markets, transformative and have so far been side-lined by international public climate finance. The authors' analysis of the most recent iterations of the Presidency draft texts and the mapping exercise of ongoing initiatives under the UNFCCC have made it clear that there are focus areas which still need addressing. Also, the NMA work program could be designed in such a manner that it draws on linkages and synergies between the different instruments. This could be achieved through the implementation of specific forms of international cooperation on financial aspects, or on technology development and transfer, or on capacity building.

Against the background of current gaps, Parties' willingness to support this process through their active involvement is crucial. Parties should support the NMA forum through submissions of concrete NMA proposals. Especially ongoing pilot activities that might be scaled up could be a good starting point. Parties should be encouraged to share experiences and lessons learned in the context of the NMA forum to trigger replication processes. In our view, the promotion of NMAs should be guided by a clear objective of either supporting NMA implementation, or up-scaling and replicating the activities. In addition, the NMA forum should operate in a flexible manner to be able to take up emerging concepts and pilot activities. However, such an approach should be paired with a results-oriented approach and the implementation of specific actions.

Some developing Parties will make their consent to the market-based approaches under Article 6.2 and 6.4 of the PA dependent on the consideration of NMAs. Instead of considering Article 6.8 negotiations as a self-referential process, the emphasis should be put on the potential of NMAs in terms of contributing to NDC implementation and ratcheting up of ambition in mitigation and adaptation. There are many issues that are currently falling 'through the cracks' of the current climate regime and Article 6.8 represents a unique chance to cover those aspects. The "cracks" that have been identified for approaches with a financing component comprise the mobilization of private finance for adaptation projects, multi-country R&D programs for mitigation and adaptation technologies (e.g. NETs), the provision of funding for side-lined fields such as agriculture and a mechanism for coordination of multilateral finance at the regional or national level. Regarding approaches without a finance component, the need for capacity building programs for specific technologies (e.g. rooftop solar PV or offshore wind), accelerated diffusion of international energy efficiency standards, a roll-out initiative for regional landscape-specific

coastal zone adaptation technology, public-private partnerships for deforestation-free supply chain initiatives and multi-country policies that promote NETs have been identified.

The role of finance is a sensitive topic in Article 6.8 negotiations. To prevent that the NMA work program becomes a mere ‘talk shop’, it is essential that finance is considered. However, using the NMA work program as one of many venues to discuss climate finance commitments risks to block the process and prevent a results-oriented approach that delivers action on the ground.

The identified NMA types comprise both NMA with and without a financing component. For NMAs with a financing component, their success will depend on the mobilization of private finance and RBF approaches. In the case of NMAs without a financing component, existing funding sources or new funding opportunities can be identified through information sharing and cooperation of relevant stakeholders.

As mentioned above, the NMA work program is a Party-driven process whose relevance will be decided by Parties’ engagement. Chapter 4 has clearly shown that the contribution of concrete NMAs under Article 6.8 can support the implementation of other Articles of the PA. The fact that the NMA work program can contribute to enhanced ambition should be reason enough for the active support of NMAs. We hope that Parties recognize the added value the NMA framework and work program could provide. In this report, we provided a toolbox to ensure the proper design of the NMA work program and forum which Parties could use as guidance in this process. Now it is in Parties’ hands to take out the tools and apply them to realize the potential of the NMA framework, work program and forum.

There seems to be an interest among researchers, climate negotiators and the public in the operationalization of Article 6.8 and 6.9 of the PA as shown by the large attendance of a virtual seminar organized by UBA and Perspectives Climate Research in December 2020. Participants raised the need for an exchange of experiences from the Global South in water resources management and forestry and noted that the Article 6.8 work program could serve as a catalyst for emerging technologies. It was reinforced that innovative approaches for the mobilization of funding are required in order to ensure that a concrete NMA proposal is successful. In general, the provision of concrete examples was appreciated by participants as it helped to get a better understanding of the different possibilities for operationalizing Article 6.8 and 6.9 (see Annex F for further information).

7 List of references

- AfDB (2019): First meeting of the interim Adaptation Benefits Mechanism Executive Committee. Rules of procedures of the interim Adaptation Benefits Mechanism Executive Committee. https://www.afdb.org/sites/default/files/2019/11/29/20191128_2_annotated_agenda_first_meeting_of_the_interim_adaptation_benefits_mechanism_executive_committee.pdf (16.10.2020)
- AfDB (2020): Adaptation Benefits Mechanism (ABM). <https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/adaptation-benefit-mechanism-abm> (08.04.2020)
- AfDB (n.d.): Adaptation Benefits Mechanism: Giving Resilience a Value – Pilot Phase Information Notes. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/ABM - Giving resilience a value - Pilot phase information note.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/ABM_-_Giving_resilience_a_value_-_Pilot_phase_information_note.pdf) (08.04.2020)
- Bagchi, C. (2015): Non-Market Based Approaches: Status of Discussions under the UNFCCC. <http://climatepolicyinfohub.eu/non-market-based-approaches-status-discussions-under-unfccc> (07.10.2019)
- Barnard, S.; Nakhooda, S. (2015): Financing climate technology transfer: Lessons from efforts under the UNFCCC. <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10053.pdf> (16.03.2020)
- Bhandary, R. (2017): Markets and Non-Market Approaches for International Cooperation in the Paris Agreement: Open Questions in the International Negotiations. <https://www.climatepolicylab.org/communityvoices/2017/8/25/markets-and-non-market-approaches-for-international-cooperation-in-the-paris-agreement-open-questions-in-the-international-negotiations> (07.10.2019)
- Berry, P.; Enright, P.; Shumake-Guillemot, J.; Villalobos Prats, E.; Campbell-Lendrum, D. (2018): Assessing Health Vulnerabilities and Adaptation to Climate Change - A Review of International Progress. In: International Journal of Environmental Research and Public Health, 2018, 15, p. 2626
- CAPS Programme (n.d.): Aligning Air Travel with SDGs. <https://capsprogramme.org/> (08.04.2020)
- CIF (2018): Governance. <https://www.climateinvestmentfunds.org/governance> (24.04.2020)
- Climate Focus; Perspectives; Aera Group (2017): Linking the Clean Development Mechanism with the Green Climate Fund: Insights from Practitioners and Decision Makers in Africa. https://www.perspectives.cc/fileadmin/Publications/Linking_the_clean_development_mechanism_with_the_GCF_Brescia_Dario_Galt_Hilda_Mayr_Sebastian_2017.pdf (24.04.2020)
- CTCN (n.d.): About the Climate Technology Centre and Network (CTCN). <https://www.ctc-n.org/about-ctcn> (06.03.2020)
- Ellis, J.; Moarif, S. Enhancing transparency of climate finance under the Paris Agreement: Lessons learned from experience. <http://www.oecd.org/environment/cc/Enhancing-transparency-climate%20finance-V2%20.pdf> (16.10.2020)
- Forest Trends (2018): Global Market Overview. <http://www.supply-change.org/> (15.04.2020)
- Fransen, T.; Nakhooda, S. (2013): 5 insights from developed countries' Fast-Start Finance contributions, WRI blog, <https://www.wri.org/blog/2013/06/5-insights-developed-countries-fast-start-finance-contributions> (16.03.2020)
- Gogarty, Brendan; McGee, Jeff; Barnes, David K.A.; Sands, Chester J.; Bax, Narissa; Haward, Marcus; Downey, Rachel; Moreau, Camille; Moreno, Bernabé; Held; Christoph; Paulsen, Maria Lund (2020): Protecting Antarctic blue carbon: as marine ice retreats can the law fill the gap?, Climate Policy, 20:2, p. 149-162

Greiner, S.; Chagas, T.; Krämer, N.; Michaelowa, A.; Brescia, D.; Hoch, S. (2019): Moving towards next generation carbon markets. Observations from Article 6 Pilots.

https://www.perspectives.cc/fileadmin/Publications/IKI_Art_6_Update_Juni_2019.pdf (08.04.2020)

Honegger, M.; Derwent, H.; Harrison, N.; Michaelowa, A.; Schäfer, S. (2018): Carbon removal and solar geoengineering: potential implications for delivery of the sustainable development goals.

https://www.c2g2.net/wp-content/uploads/C2G2-Geoeng-SDGs_20180521.pdf (16.10.2020)

IPCC (2020): Climate change and land: an IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, summary for policymakers, https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf (06.03.2020)

Lewis, J. (2007): Technology Acquisition and Innovation in the Developing World: Wind Turbine Development in China and India, In: Studies in Comparative International Development 42, Springer, p. 208–232

Michaelowa, A. (2005): Creating the foundations for host country participation in the CDM. Experiences and challenges in CDM capacity building, In: Yamin, Farhana (ed.), Climate change and carbon markets. A hand book of emission reduction mechanisms, Earthscan, London, 2005, p. 305-320

Michaelowa, A.; Espelage, A.; Hoch, S.; Greiner, S.; Krämer, N. (2019): Operationalizing the Share of Proceeds for Article 6. https://www.perspectives.cc/fileadmin/Publications/Operationalizing-the-SoP_web_version_FINAL.pdf (07.10.2020)

Müller, B.; Hepburn, C. (2006): IATAL – an outline proposal for an International Air Travel Adaptation Levy.

<https://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/03/EV36-IATALanoutlineproposalforanInternational-AirTravelAdaptationLevy-BMullerCHepburn-2006.pdf?v=3a52f3c22ed6> (06.04.2020)

Obergassel, W. (2017): Shaping the Paris Mechanisms Part II. An Update on Submissions on Article 6 of the Paris Agreement.

https://epub.wupperinst.org/frontdoor/deliver/index/docId/6682/file/6682_Paris_Mechanisms.pdf (07.10.2020)

Oxford Climate Policy Blog (n.d.): Innovative Sources for Multilateral Climate Finance,

https://oxfordclimatepolicy.com/blog/innovative-sources-for-multilateral-climate-finance/#The_Corporate_Air_Passenger_Solidarity_Programme (accessed April 8, 2020)

Stott, C. (2014): Framework for Various Approaches including Non-Market Based Approaches and the New Market Mechanism, [http://www.cambioclimatico-regatta.org/index.php/en/unfccc-negotiations?task=callelement&format=raw&item_id=2848&element=8ae5cbaf-1573-418f-a23b-df50846cf2ed&method=download&args\[0\]=0](http://www.cambioclimatico-regatta.org/index.php/en/unfccc-negotiations?task=callelement&format=raw&item_id=2848&element=8ae5cbaf-1573-418f-a23b-df50846cf2ed&method=download&args[0]=0) (07.10.2019)

[http://www.cambioclimatico-regatta.org/index.php/en/unfccc-negotiations?task=callelement&format=raw&item_id=2848&element=8ae5cbaf-1573-418f-a23b-df50846cf2ed&method=download&args\[0\]=0](http://www.cambioclimatico-regatta.org/index.php/en/unfccc-negotiations?task=callelement&format=raw&item_id=2848&element=8ae5cbaf-1573-418f-a23b-df50846cf2ed&method=download&args[0]=0) (07.10.2019)

Sustainable Food Policy Alliance (2020): Environment. <https://foodpolicyalliance.org/issue/environment/> (15.04.2020)

TFA 2020 (2017): The Role of the Financial Sector in Deforestation-free Supply Chains,

<https://www.weforum.org/whitepapers/the-role-of-the-financial-sector-in-deforestation-free-supply-chains> (16.10.2020)

UNFCCC (2009): Copenhagen Accord, FCCC/CP/2009/L.7,

<https://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf> (accessed March 16, 2020)

UNFCCC (2010): Decision 1/CP.16, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. FCCC/CP/2010/7/Add.1.

<https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf> (07.10.2020)

UNFCCC (2011): Report on the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Part Two: Action taken by the Conference of the Parties at its sixteenth session. 1/CP.16. <https://unfccc.int/sites/default/files/resource/docs/2010/cop16/eng/07a01.pdf> (16.10.2020)

UNFCCC (2013): Thirty-Ninth Session of SBSTA, Warsaw, 11–16 November 2013, Item 13(b) of the Provisional Agenda, Market and Non-Market Mechanisms under the Convention, FCCC/SBSTA/2014/L.11, <https://unfccc.int/resource/docs/2013/sbsta/eng/inf12.pdf> (16.10.2020)

UNFCCC (2014): Fortieth Session of SBSTA, Bonn, 4–15 June 2014, Agenda Item 13(b), Market and Non-Market Mechanisms under the Convention. FCCC/SBSTA/2014/L.11. <https://unfccc.int/resource/docs/2014/sbsta/eng/l11.pdf> (16.10.2020)

UNFCCC (2015): Adoption of the Paris Agreement, decision 1/CP.21, FCCC/CP/2015/10/Add.1

UNFCCC (2019ab): Cooperative activities with United Nations entities and other intergovernmental organizations that contribute to the work under the Convention, the Kyoto Protocol and the Paris Agreement. Note by the Secretariat, FCCC/SBSTA/2019/INF.2. https://unfccc.int/sites/default/files/resource/inf02_2.pdf (16.10.2020)

UNFCCC (2019a): Draft CMA Decision on the Work Programme Under the Framework for Non-Market Approaches Referred to in Article 6, Paragraph 8, of the Paris Agreement, https://unfccc.int/sites/default/files/resource/SBSTA50.DT_i11c.1_0.pdf (16.10.2020)

UNFCCC (2019b): Draft Conclusions, Agenda Item 11(c), Matters Relating to Article 6 of the Paris Agreement, Work Programme Under the Framework for Non-Market Approaches Referred to in Article 6, Paragraph 8, of the Paris Agreement, <https://unfccc.int/process-and-meetings/conferences/bonn-climate-change-conference-june-2019/sessions/sbsta-50#eq-32> (16.10.2020)

UNFCCC (2019c): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, draft text from the Presidency, version 1 of 13 December 11:15 hs. https://unfccc.int/sites/default/files/resource/DT.CMA2_i11c_13Dec_0.pdf (16.10.2020)

UNFCCC (2019d): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, Proposal by the President, version 2 of 14 December 08:30 hs. https://unfccc.int/sites/default/files/resource/DT.CMA2_i11c.pdf (16.10.2020)

UNFCCC (2019e): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, Proposal by the President, version 3 of 15.12. 00:20 hs, https://unfccc.int/sites/default/files/resource/DT.CMA2_i11c.v3.pdf (last accessed January 21, 2020)

UNFCCC (2019f): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, draft text, version 1 December 06:00 hs.

UNFCCC (2019g): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, draft text, version 2 of 7 December 18:00 hs.

UNFCCC (2019h): Matters relating to Article 6 of the Paris Agreement: Work programme under the framework for non-market approaches referred to in Article 6, paragraph 8, of the Paris Agreement, draft text, version 3 of 9 December 18:30 hs, <https://unfccc.int/sites/default/files/resource/DT.SBSTA51.i12c.2.pdf> (16.10.2020)

UNFCCC (2020): REDD+ Web Platform. <https://redd.unfccc.int/> (16.10.2020)

UNFCCC (n.d.a): Poznan Strategic Programme on technology transfer,
<https://unfccc.int/ttclear/support/poznan-strategic-programme.html> (16.10.2020)

UNFCCC (n.d.b): Nairobi work programme on impacts, vulnerability and adaptation to climate change,
<https://unfccc.int/topics/adaptation-and-resilience/workstreams/nairobi-work-programme-on-impacts-vulnerability-and-adaptation-to-climate-change> (16.10.2020)

Weber, A.; Partzsch, L. (2018): Barking Up the Right Tree? NGOs and Corporate Power for Deforestation-Free Supply Chains, In: Sustainability 2018, 10, MDPI, p. 1-18

Weikmans, R.; Roberts, T. (2019): The international climate finance accounting muddle: is there hope on the horizon?, In: Climate and Development, 11, p. 97-111

A Scope, modalities and instruments for an international Article 6.8 work program

Table 7: Adaptation Benefits Mechanism

General information	<p>Initiated by the African Development Bank (AfDB) with funding from the Climate Investment Funds and support from the Governments of Uganda and Cote d'Ivoire</p> <p>Key objective: incentivize private sector investment in adaptation by facilitating payments for delivery of adaptation benefits</p> <p>The social, economic and environmental benefits of adaptation activities will be quantified, verified and issued as Adaptation Benefit Units (ABUs)</p>
Design features	<p>ABUs could be priced based on the cost of generation including the cost of capital and risk premium</p> <p>ABUs from different projects may have different prices</p> <p>Buyers may buy ABUs not because of the price but because of the story behind the unit</p> <p>ABUs could be sold to: donors (who are obliged to provide finance for adaptation); impact investment funds (who need to provide third party verification to investors); multilateral funds like GCF who have pledged to invest in adaptation; companies who seek to meet their voluntary commitments as part of corporate social responsibility strategies</p> <p>ABM could run in parallel to existing CDM, using CDM modalities and procedures</p>
Non-market elements	<p>ABUs are not designed as a compliance instrument</p> <p>ABUs would not be fungible with one-another or with any compliance obligation</p> <p>ABUs will be issued by the ABM Executive Board into the registry for cancellation only (i.e., ABUs cannot be transferred out of the registry)</p> <p>No scope for speculation or secondary trading</p>
Role of host countries	<p>Adaptation is independent of the targets and accounting units of NDCs</p> <p>Adaptation can be financed without impacting on host country policies and measures</p>
Status	<p>2019 to 2023: pilot phase with 10-12 demonstration projects in Africa</p> <p>Early concepts include climate resilient agriculture, weather information systems to provide farmers with accurate weather forecasts, job creation for the most vulnerable groups, clean energy technologies as well as coastal protection through afforestation</p>
Sources	<p>https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/adaptation-benefit-mechanism-abm</p> <p>https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Intro_to_ABM_I4C_May_2018.pdf</p> <p>https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/ABM_submission_SBSTA_45.pdf</p> <p>http://unfccc.int/files/adaptation/groups_committees/adaptation_committee/application/pdf/adbg_abm_conceptnote.pdf</p> <p>https://unfccc.int/sites/default/files/abm_presentation_art_6.8_roundtable_5_november_uganda.pdf</p>

Table 8: RBP and the examples of REDD+

General information	Key principle: payments are conditional on the achievement of results (no intention to compensate opportunity costs) REDD+: payments are conditional upon demonstrated and verified emissions reductions from deforestation and forest degradation Donors do not finance activities that lead to emissions reductions – e.g., measures to protect forests – but provide ex post reward The prospect of reward is believed to provide an additional incentive to countries that seek to reduce forest-based emissions
Key challenge of RBF in general	Investment gap: in order to achieve results, recipient countries need to make significant investments Donors may help close investment gap, e.g., through initial non-performance-based grants as well as advanced or interim payments
Design features of REDD+ RBF	Results to be achieved: emissions reductions (ERs) measured in tons of CO ₂ eq Conditionalities: adherence to international safeguard standards Scale: mostly large-scale, i.e., at national or regional level Status of ERs: ERs are currently not traded in international carbon markets (instead credits are retired or cancelled) This may actually change in the future given current discussions on integrating REDD+ into article 6 mechanisms California has recently adopted a decision that would allow REDD+ credits to be used by companies in the state's emissions trading scheme
Key challenges of REDD+ RBF	Non-permanence: how to ensure that area protected in supported measure isn't deforested or degraded at a later point in time? Leakage: how to ensure that supported protection measure does not cause deforestation or forest degradation elsewhere? Environmental additionality: how to ensure that ERs would not have occurred in the absence of the protection measure? Need for solid MRV system as well as reference levels (as benchmark for performance of implemented activities)
Existing REDD+ RBF initiatives	Norwegian International Climate and Forests Initiative (NICFI): around USD 1 billion in RBF disbursed through contributions to Amazon Fund German REDD for Early Movers Program (REM): USD 23.5 million in RBF for Acre (Brazil) Other initiatives support countries in preparing systems to access and manage RBF
Sources	Climate Focus (2015): Results-based Finance for REDD+: Emerging approaches. REDD+ Expert Dialogue 7. URL: https://www.climatefocus.com/publications/results-based-finance-redd-emerging-approaches https://forestsnews.cifor.org/50326/redd-results-based-finance?fnl=en Streck, Charlotte and Costenbader, John (2012): Standards for Results-Based REDD+ Finance Overview and Design Parameters. URL: https://climatefocus.com/sites/default/files/standards_for_resultsbased_redd_finance.pdf

Table 9: RBF and potential linkages between CDM and GCF

Key thoughts	<p>CDM offers years of experience as well as successful modalities and procedures, and is beginning to serve as a framework for results-based finance in which Certified Emissions Reductions (CERs) are cancelled</p> <p>GCF will become key vehicle for international climate finance but is still at an early stage of institutional development</p> <p>GCF could strengthen results-based approach to climate finance by applying CDM's MRV framework to demonstrate achieved mitigation outcomes activities</p> <p>Linking GCF and CDM could contribute to overall global GHG mitigation results by cancelling purchased credits</p>
Engagement models	<p>Grant financing: grant disbursements are linked to GHG impacts either indirectly (upfront finance) or directly (RBF)</p> <p>Debt funding: GCF defines debt terms and conditions to mitigation results tracked under the CDM</p> <p>Green bond financing: GCF offers credit enhancement by extending a credit guarantee to cover a portion of the debt marketed through a green bond</p> <p>Equity financing: GCF defines its equity terms and conditions to mitigation results tracked under the CDM</p> <p>Guarantees: GCF offers revenue support through price guarantees linked to CERs</p> <p>Non-financial engagement model: applying CDM methodologies to streamline MRV activities within GCF funded activities</p>
Sources	<p>Mikolajczyk, Szymon, et al. (2016): Linking the Clean Development Mechanism with the Green Climate Fund Models for scaling up mitigation action. URL: https://www.perspectives.cc/fileadmin/Publications/Linking the Clean Development Mechanism with the Green Climate Fund Brescia Dario Hoch Stephan 2016.pdf</p>

Table 10: JMA Mechanism

General information	<p>Proposed by Bolivia in 2010</p> <p>Key principles: rejection of REDD+ as a carbon trading mechanism and intention to develop an alternative policy approach that focuses on the rights of communities and indigenous peoples</p> <p>combines and advances mitigation and adaptation through sustainable management of forests</p>
Funding	<p>Ex ante finance instead of ex post payments</p> <p>Public funding for countries that want to implement JMA mechanism would be available via GCF</p> <p>Private funds outside carbon markets would be channeled directly to national stakeholders</p> <p>Transfer of ex ante funding from developed to developing countries would be based on the trustworthiness of agreements with host governments</p>

Design features	<p>JMA mechanism is based on the implementation of three successive components at the national level:</p> <ul style="list-style-type: none"> Planning and reaching common agreements Evaluate forest mitigation potential (without inventory) and prepare adaptation elements Agree on common objectives between public and private actors regarding integral and sustainable management of forests Implementation of actions Identify the rights, obligations and duties of both state and society as well as instruments of regulation, control and promotion Transfer finance and technology for the implementation of actions Measure mitigation outcomes through proxies and identify adaptation outcomes (criteria to be developed) Monitor indicators More general estimate of carbon sources and sinks as opposed to technical accounting and MRV requirements under UNFCCC
Status	<p>Addendum to the UN-REDD agreement enables the funds that were originally to be used for REDD+ to be used to implement JMA mechanism</p> <p>Bolivia started implementation of mechanism in 2014 with four pilot projects along Amazon and Cerrado (Chiquitano) forest</p> <p>So far, no other countries have implemented JMA mechanism</p>
Sources	<p>Chia, Eugene, et al. (2016): Exploring Opportunities for Promoting Synergies between Climate Change Adaptation and Mitigation in Forest Carbon Initiatives. <i>Forests</i> 7 (24), doi:10.3390/f7010024</p> <p>https://unfccc.int/files/bodies/awg-lca/application/pdf/3_background_information_mecanismo-medium_(1)_bolivia.pdf</p> <p>https://www.ecosystemmarketplace.com/articles/crossroads-in-climate-negotiations-when-adaptation-and-mitigation-meet-in-bonn-and-lima/</p> <p>https://forestsnews.cifor.org/29000/the-redd-framework-finally-complete-after-almost-10-years?fnl=en</p> <p>http://awsassets.panda.org/downloads/r3_bolivia_survey.pdf</p>

Table 11: Environmental Balance Index

General information	<p>Proposed by Ukraine in 2016</p> <p>Objective: make the well-being of ecosystems a key factor of economy and its prosperity</p> <p>EBI is a sustainability indicator that reflects the balance of production of services to ecosystems and consumption of ecosystem services</p> <p>Services to ecosystems are benefits ecosystems obtain from people (e.g., services that reduce human activities' impacts on ecosystems and as well as activities related to recovery and protection of ecosystems)</p> <p>Ecosystems services are benefits people obtain from ecosystems (e.g., provisioning services such as food, water and timber)</p>
Calculation	<p>EBI is the ratio of the intensity of production of services to ecosystem to the intensity of consumption of ecosystem services:</p> <p>ERI: Intensity index of production of services to ecosystem (generalized indicator of the recovery and protection of ecosystems)</p> <p>EEI: Intensity index of consumption of services to ecosystem (generalized indicator of consumption (exploitation) of ecosystem services)</p> <p>$EBI = ERI / EEI$</p> <p>EBI<1 means environmental debtor</p> <p>EBI=1 is an indicative of environmental neutrality</p> <p>EBI>1 means environmental creditor</p>
Application	<p>Nationally, EBI could be used to determine corporate taxation or as a basis for establishing ETS</p> <p>Internationally, EBI could serve as basis for determining the cross-currency exchange rates in foreign trade operations (value of currencies would be based on the correlation of one Party's EBI to other Parties' EBIs)</p>
Status	No further developments or decisions after s
Sources	<p>https://epub.wupperinst.org/frontdoor/deliver/index/docId/6576/file/6576_Shaping_Paris.pdf</p> <p>https://www.climatecolab.org/contests/2011/contest-2011-global/c/proposal/15009</p>

B A comparison of the three Presidency text proposals

Table 12: Changes made: Iterations of the COP25 Presidency draft text

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
Annex Chapter I: Principles	<p>The following guiding principles on framework and NMAs guide the implementation of the framework, in addition to the elements reflected in Articles 6.8 and 6.9 and decision 1/CP.21, paragraph 39:</p> <p>The framework:</p> <ul style="list-style-type: none"> Facilitates the use and coordination of NMAs in the implementation of NDCs in the context of sustainable development and poverty eradication; Enhances linkages and creates synergies between, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building, while avoiding duplication with the work of the subsidiary and constituted bodies under the Convention, the Kyoto Protocol and the Paris Agreement; NMAs facilitated under the framework provide a basis for voluntary collective actions that are not reliant on market-based approaches and that do not include transactions or quid pro quo operations; The work programme aims to identify measures to facilitate NMAs and enhance linkages and create synergies 	<i>Only editorial changes</i>	<i>No changes</i>
Annex Chapter II: NMAs under the framework	<p>Each NMA facilitated under the framework aims to:</p> <ul style="list-style-type: none"> Promote mitigation and adaptation ambitions; Enhance public and private sector participation in the implementation of NDCs; Enable opportunities for coordination across instruments and relevant institutional arrangements; Each NMA facilitated under the framework assists participating Parties in implementing their NDCs in an integrated, holistic and balanced manner including through, inter alia: Mitigation, adaptation, finance, technology development and transfer, and capacity-building, as appropriate; 	<p>Small changes:</p> <ul style="list-style-type: none"> Each NMA promotes mitigation and adaptation ambition. Each NMA does not involve the transfer of mitigation outcomes. 	<i>No changes</i>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
	<p>Contribution to sustainable development and poverty eradication in participating Parties.</p> <p>In addition, each NMA facilitated under the framework is identified by participating Parties; involves more than one participating Party; and does not involve the transfer of any mitigation outcomes or mitigation achieved.</p>		
Annex Chapter III: Governance of the framework	<p>Option 1: Establishment of a NMA forum to implement the framework and work programme.</p> <p>The NMA forum will be convened by the Chairs of SBSTA and SBI and operate in accordance with the procedures applicable to contact groups and under the guidance of the Chairs.</p> <p>The NMA forum will meet in conjunction with the first and second sessional period meeting of the subsidiary bodies each year, with its first meeting to take place in conjunction with SB 52 (June 2020).</p> <p>Sub-Option: The subsidiary bodies will consider establishing other institutional arrangements for the framework that will supersede the NMA forum and make recommendations for consideration and adoption by the CMA in November 2025</p> <p>Option 2: Establishment of a task force for the framework under the authority and guidance of the CMA</p> <p>The task force addresses linkages between mitigation and adaptation and matches them to finance, technology development and transfer and capacity-building needs of developing country Parties by building on existing processes and institutional arrangements such as the Strategic Climate Fund, TEC, CTCN, PCCB and the LCIPP</p> <p>The task force also provides alternative opportunities for voluntary cooperation of Parties other than cooperative approaches and Article 6.4 activities</p> <p>The rules of procedure of the task force are to be adopted by the CMA. The task force will meet twice a year, with its first meeting at the SB52 in June 2020</p> <p>The task force will comprise 13 members with equal representation from developed and developing country Parties and include</p>	<p>Unbracketed, clean text. Option 2 (task force) deleted.</p> <p>Establishment of a NMA forum to implement the framework and work programme</p> <p>The NMA forum will be convened by the Chairs of SBSTA and SBI and operate in accordance with the procedures applicable to contact groups and under the guidance of the Chairs.</p> <p>The NMA forum will meet in conjunction with the first and second sessional period meeting of the subsidiary bodies each year, with its first meeting to take place in conjunction with SB 52 (June 2020).</p> <p>Unbracketed provision: The subsidiary bodies will consider whether establishing other institutional arrangements for the framework that will supersede the NMA forum are needed and make recommendations for consideration and adoption by the CMA in November 2025</p>	<p><i>Small, editorial changes, most importantly deletion of the word "other":</i></p> <p>The subsidiary bodies will consider whether establishing institutional arrangements for the framework that will supersede the NMA forum are needed and make recommendations for consideration and adoption by the CMA in November 2025</p>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
	<p>members from social organizations and the boards of GCF, TEC and PCCB</p> <p>The task force will be chaired by one member from developed country Parties and one member from developing country Parties. Chairs shall serve for maximum one year, members for two years.</p>		
Annex Chapter IV: Modalities of the work programme	<p>The modalities of the work programme may include, as appropriate:</p> <p>Workshops</p> <p>Meetings with public and private sector stakeholders, including technical experts, businesses, civil society organizations and financial institutions, and publication of the outcomes of such meetings</p> <p>Submissions from Parties, observers and public and private sector stakeholders</p> <p>Technical papers and synthesis reports prepared by the secretariat;</p> <p>The coordination of the 6.8 governance and relevant bodies, institutional arrangements and processes under the Convention, the Kyoto Protocol and the Paris Agreement related to, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building and the impact of the implementation of response measures.</p>	<p><i>Only editorial changes (replacing 6.8 governance with NMA forum)</i></p>	<p><i>No changes</i></p>
Annex Chapter V: Work programme activities	<p>The work programme is to be initiated in 2020. Activities include, but are not limited to:</p> <p>First, activities for identifying measures to enhance existing linkages, create synergies and facilitate coordination and implementation of NMAs:</p> <p>Identification of NMAs through identifying focus areas of the activities and identifying existing NMAs</p> <p>Identification of measures through identifying and evaluating of existing linkages, synergies, coordination and implementation in relation to NMAs and through identifying measures to enhance these, including in the local, subnational, national and global context.</p> <p>Second, activities for implementing the measures through:</p>	<p>Small, editorial changes: activities include identifying measures and implementing the measures.</p>	<p><i>No changes</i></p>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
	<p>Developing and implementing tools, including a UNFCCC web-based platform for recording and exchanging information on NMAs, supporting the identification of opportunities for participating Parties to develop and implement NMAs, including in relation to finance, technology development and transfer and capacity-building, and supporting matching of the NMAs and the opportunities;</p> <p>Identifying and sharing relevant information, best practices, lessons learned and case studies for developing and implementing NMAs, including on how to:</p> <p>Replicate successful NMAs, including in the local, subnational, national and global context;</p> <p>Facilitate enabling environments and successful policy frameworks and regulatory approaches;</p> <p>Enhance the engagement in NMAs of the private sector, and vulnerable and impacted sectors and communities;</p> <p>Leverage and generate mitigation co-benefits that assist the implementation of NDCs.</p>		
Annex Chapter VI: Reporting	<p>The progress and outcomes of the work programme will be reported to the CMA on the basis of information resulting from the implementation of the work programme activities by the A6.8 governance at each session of the CMA, as appropriate, and including as inputs to the review of the work programme at CMA 6, including, as relevant:</p> <p>The results of the implementation of the work programme activities;</p> <p>Recommendations on how to enhance existing linkages and create synergies and how to facilitate coordination and implementation of NMAs;</p> <p>Recommendations on how to enhance support for NMAs including through engagement with relevant bodies, institutional arrangements and processes under the Convention, the Kyoto Protocol and the Paris Agreement related to, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building;</p>	<i>Fully unbracketed text, small editorial changes (replacing 6.8 governance with NMA forum)</i>	<i>No changes</i>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
Decision text §3: Work programme for SBSTA and SBI	<p>Recommendations on enhancing the effectiveness of the work programme in implementing the framework, including its [institutional and] reporting arrangements</p> <p>SBSTA and SBI are requested to undertake further work on other institutional arrangements for the framework, taking into account any decisions resulting from the review of the work programme by the CMA, with a view to making recommendations for consideration and adoption by the CMA either in 2020 or 2025</p>	<p>SBSTA and SBI are requested to undertake further work on the need for other institutional arrangements for the framework, , taking into account any decisions resulting from the review of the work programme by the CMA, with a view to making recommendations for consideration and adoption by the CMA in 2025.</p>	<p><i>Small, editorial changes: deletion of the word "other":</i> <i>SBSTA and SBI are requested to undertake further work on the need for institutional arrangements for the framework, taking into account any decisions resulting from the review of the work programme by the CMA, with a view to making recommendations for consideration and adoption by the CMA in 2025.</i></p>
Decision text §4: Work programme for 6.8 governance	<p>Requests the governance of the framework to develop and recommend a schedule for implementing the work programme activities referred to in chapter V of the annex, which may contain the timeline and specific deliverables for each activity. This schedule is to be considered and adopted by SBSTA and SBI in November 2020.</p>	<p><i>Only editorial changes (replacing 6.8 governance with NMA forum)</i></p>	<p><i>No change</i></p>
Decision text §5: List of potential focus areas of the work programme activities	<p>6.8 governance is requested to identify focus areas of work programme activities, for consideration and adoption by the CMA in 2020, which may include:</p> <ul style="list-style-type: none"> Joined mitigation and adaptation for the integral and sustainable management of forests; Social ecological resilience; Reduction of emissions by sources and enhancement of removals; Energy-efficiency schemes; Recognition of finance, technology development and transfer and/or capacity building support provided in the context of 6.2 cooperative 	<p>The NMA forum is requested to identify focus areas of work programme activities, for consideration and adoption by the CMA in 2020, which may include:</p> <ul style="list-style-type: none"> Joined mitigation and adaptation for the integral and sustainable management of forests; Social ecological resilience; Reduction of emissions by sources and enhancement of removals; Energy-efficiency schemes; 	<p><i>No change</i></p>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
	approaches or 6.4 activities if the mitigation outcomes/mitigation achieved is not transferred and used by the host Party towards its NDC. The recognition of support is proportional to the mitigation outcomes retained by the host Party.	Recognition of finance, technology development and transfer and/or capacity building support provided in the context of mitigation activities, if the mitigation outcomes/mitigation achieved is not transferred and used by the host Party towards its NDC. The recognition of support is proportional to the mitigation outcomes retained by the host Party.	
Decision text §6: broad stakeholder participation	Encourages Parties and public and private sector stakeholders to actively engage in the research, development and implementation of non-market approaches;	No change	<i>No change</i>
Decision text §7: Call for submissions	Invites Parties and observers to submit via the submission portal: a) Views and information, by 30 March 2020 or 2021, on: The focus areas of the work programme activities and existing relevant NMAs; Examples of potential focus area of NMAs to be facilitated under the framework (e.g. avoidance of greenhouse gas emissions, mechanisms that support adaptation, ecosystem-based adaptation, integrated water management); The UNFCCC web-based platform, including how to operationalize it The schedule for implementing the work programme activities; b) Views and information, by 30 March 2020 or 2025, on the <i>Option 1</i> : other institutional arrangements for the framework, referred to in paragraph 3 above, including functions, membership and rules of procedure, as appropriate <i>Option 2</i> : rules of procedure of the task force for the framework, referred to in paragraph 3 above];	Invites Parties and observers to submit via the submission portal: Views and information, by 30 March 2020, on: The focus areas of the work programme activities and existing relevant NMAs; Examples of potential focus area of NMAs to be facilitated under the framework (e.g. avoidance of greenhouse gas emissions, adaptation benefit mechanism, ecosystem-based adaptation, integrated water management); The UNFCCC web-based platform, including how to operationalize it The schedule for implementing the work programme activities; Views and information, by 30 March 2025, on the other institutional arrangements for the framework, referred to in paragraph 3 above, including functions, membership and rules of procedure, as appropriate	<i>Only editorial changes Deletion of the word “other” in the context of institutional arrangements.</i>
Decision text §8-9: Requests to	Requests the Secretariat to develop a technical paper for consideration by the Article 6.8 governance in the session of the subsidiary organs in 2020 or 2021 on the following subjects:	Requests the Secretariat to develop the technical paper for consideration by the NMA forum at its first meeting in 2020.	<i>No changes</i>

Issue	Presidency text 13.12.2019	Presidency text 14.12.2019	Presidency text 15.12.2019
the Secretariat	<p>Focus areas of work programme activities</p> <p>Focus areas of NMAs</p> <p>The UNFCCC web-based platform</p> <p>The schedule for implementing the work programme activities</p> <p>Requests the Secretariat to organize an in-session workshop in the session of the subsidiary organs in 2020 or 2021 on the matters above, ensuring broad participation of experts. Also requests the secretariat to prepare a report on that workshop for consideration by the A6.8 governance in November 2020.</p>	<p>Requests the Secretariat to organize the in-session workshop in June 2020. The report of the workshop is to be considered by the NMA forum at its second meeting in November 2020.</p>	
Decision text §10-11: Provisions for the review of the work programme	<p>Parties decide to review the report of the A6.8 governance and provide guidance on the framework and the work programme, where appropriate.</p> <p>Parties request SBSTA and SBI to undertake a review of the work programme including its [institutional and] reporting arrangements in June and November 2024 with a view to enhancing the effectiveness of the work programme in implementing the framework, taking into account relevant inputs, including those of the A6.8 governance and the outcome of the global stocktake, and to make recommendations for consideration and adoption by the CMA by no later than November 2024;</p>	<p>Parties decide to review the report of the NMA forum and provide guidance on the framework and the work programme, where appropriate;</p> <p>Parties request SBSTA and SBI to undertake a review of the work programme including its institutional and reporting arrangements in June and November 2024 with a view to enhancing the effectiveness of the work programme in implementing the framework, taking into account relevant inputs, including those of the NMA forum and the outcome of the global stocktake, and to make recommendations for consideration and adoption by the CMA by no later than November 2024;</p>	<i>No changes</i>

C Mapping relevant bodies and processes inside and outside the UNFCCC that could serve as a blueprint for the framework

The Article 6.9 framework and work program is designed to promote NMAs available to Parties to assist in the implementation of their NDCs in the context of sustainable development, mitigation, adaptation, finance, technology transfer and capacity-building.

The latest iteration of the Article 6.8 negotiation text stipulates that the framework “enhances linkages and creates synergies (...), while avoiding duplication with the work of the subsidiary and constituted bodies under the Convention, the Kyoto Protocol and the Paris Agreement” (UNFCCC 2019a).

In order to identify NMAs the framework could promote while avoiding duplication, bodies and processes that are already established under the UNFCCC and fall within the scope of the Article 6.9 framework (adaptation, mitigation, capacity-building, technology development and transfer, finance) are identified and mapped. In addition, bodies and processes that address cross-cutting issues of sustainable development (e.g. gender, just transition, indigenous rights) or sectors from both an adaptation and mitigation perspective (e.g. agriculture) are included in the mapping. Not included in the mapping are matters related to transparency, including capacity-building for Parties to meet their reporting obligations.

Relevant processes and bodies established and pursued under the UNFCCC

This mapping of relevant bodies and ongoing processes lists the focus areas in these bodies and processes, and the resources that are elaborated and/or provided in this context. Where relevant, cross-linkages between bodies and processes or ongoing cooperation among processes and/or bodies are highlighted. The mapping includes key messages from reviews and assessments where available, in particular with regard to the effectiveness of the institution and persisting gaps in implementation.

All documents and webpages consulted in the context of the mapping exercise are embedded through URLs in the text.

Table 13: Finance-related bodies and processes

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
<u>Long-Term Climate Finance (LTF)</u>	<ul style="list-style-type: none"> High-level ministerial dialogues (HLMD) 2014: Vision for climate finance (scale-up funding and investments) HLMD 2015: Mobilization and delivery of adaptation finance HLMD 2018: Translating climate finance needs into action 	<p>Work Programme on LTF (2012)</p> <ul style="list-style-type: none"> Contribute to the on-going efforts to scale up the mobilization of climate change finance after 2012 Analyse options for the mobilization of resources from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources and relevant analytical work on climate-related financing needs of developing countries <p>Extended Work Programme on LTF (2013)</p> <ul style="list-style-type: none"> Inform developed country Parties in their efforts to identify pathways for mobilizing scaled-up climate finance to USD 100 billion per year by 2020 from public, private and alternative sources in the context of meaningful mitigation actions and transparency on implementation, and to inform Parties in enhancing their enabling environments and policy frameworks to facilitate the mobilization and effective deployment of climate finance in developing countries 	<p>Pre-2020 arrangement on LTF Three core elements for the period 2014 to 2020:</p> <ul style="list-style-type: none"> Biennial submissions by developed country Parties on their updated approaches and strategies for scaling up climate finance Annual in-session workshops (open to all Parties and observers attending UNFCCC negotiations) Biennial HLMD on climate finance (open to all Parties and observers attending UNFCCC negotiations) <p>Post-2020 arrangement on LTF</p> <ul style="list-style-type: none"> Biennial communications Dedicated online portal Compilation and synthesis of the biennial communication Biennial in-session workshops Biennial high-level ministerial dialogues 	<ul style="list-style-type: none"> Compilation and synthesis of the biennial submission Annual in-session workshops: webcasts, summary reports, presentation slides HLMD: webcasts, presentation slides, statements from Parties and observers, interventions Separate webpage for relevant documents and information

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
<u>Forum of the Standing Committee on Finance (SCF)</u>	<ul style="list-style-type: none"> • 2013: Mobilizing Finance & Investment for Climate Action Now • 2014: Mobilizing Adaptation Finance • 2015: Enhancing Coherence & Coordination of Forest Financing • 2016: Financial instruments that address the risks of Loss & Damage • 2017: Mobilizing Finance for Climate-Resilient Infrastructure • 2018: Climate Finance Architecture - Enhancing collaboration, seizing opportunities • 2019: Climate Finance and Sustainable Cities 	<ul style="list-style-type: none"> • Provide a platform for wide range of stakeholders from governments, climate funds, financial institutions, civil society, think tanks, the private sector, financial institutions and academia to discuss a topic of interest in climate finance and promote linkages and coherence in the mobilization and delivery of climate finance. • Facilitate communication and continued exchange of information among bodies and entities dealing with climate change finance in order to promote linkages and coherence 	<ul style="list-style-type: none"> • Annual meetings • SCF reports on the Forum in its annual reports to the COP • Stakeholders interested in contributing to the information repository (see column to the right) can send information and contributions (e.g., reports, publications, videos and links) 	<ul style="list-style-type: none"> • Information on and reports of the meetings of the forum of the SCF, as well as publications and reports provided to the SCF by interested stakeholders on various issues related to climate finance
Bodies				
<u>Adaptation Fund (AF)</u>	<ul style="list-style-type: none"> • Agriculture • Coastal Zone Management • Disaster Risk Reduction • Food Security • Forests • Multisector Projects • Rural Development 	<ul style="list-style-type: none"> • Finance projects and programmes that help vulnerable communities in developing countries adapt to climate change 	<ul style="list-style-type: none"> • Supervised and managed by the <u>Adaptation Fund Board (AFB)</u> which is composed of 16 members and 16 alternates and meets at least twice a year • The AFB Secretariat provides research, advisory, 	<ul style="list-style-type: none"> • <u>Knowledge Products</u> • e.g., Annual Performance Reports, Briefing Notes, E-learning courses, Infographics & Flyers, Knowledge Platforms, Project Performance Reports, Mid-term and

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<ul style="list-style-type: none"> Urban Development Water Management 		<p>administrative, and an array of other services to the Board</p> <ul style="list-style-type: none"> The World Bank serves as trustee of the Adaptation Fund on an interim basis. The Technical Evaluation Reference Group of the Adaptation Fund (AF-TERG) is an independent evaluation advisory group established to ensure the independent implementation of the Fund's evaluation framework 	<p>Terminal Evaluation Reports, Project stories, Strategies and Studies</p> <ul style="list-style-type: none"> <u>Knowledge Events</u> e.g., AFB Meetings, Webinars, Training Workshops and Seminars, Exhibits, Side Events at UNFCCC negotiations and other conferences Relevant documents and publications (meeting documents, intersessional decisions, meeting reports) available on separate <u>webpage</u>
<u>Green Climate Fund (GCF)</u>	<ul style="list-style-type: none"> Adaptation, mitigation and cross-cutting activities in developing countries 8 so-called 'result areas': Agriculture, Forestry and Other Land Use (AFOLU); Buildings, cities, industries and appliances; Ecosystems and ecosystem services; Energy; Health, food and water security; Infrastructure; Livelihoods of vulnerable communities; Transport 	<ul style="list-style-type: none"> Catalyse a flow of climate finance to invest in low-emission and climate-resilient development, driving a paradigm shift in the global response to climate change Use public investment to stimulate private finance, unlocking the power of climate-friendly investment for low emission, climate resilient development 	<ul style="list-style-type: none"> Governed by the GCF Board which typically meets three times a year GCF is accountable to and functions under the guidance of the COP 	<ul style="list-style-type: none"> <u>Publications</u> for direct and indirect stakeholders as well as for the general public and industry experts <u>Operational documents</u> (reports, proposals, agreements, and other documents that facilitate and formalise working arrangements) <u>Board documents</u> (decisions, workplans, considerations of funding proposals, reports, reviews, etc.)

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
<u>Global Environmental Facility (GEF)</u>	<ul style="list-style-type: none"> 6 main working areas: Biodiversity; Chemicals and waste; Climate change; Forests; International waters; Land degradation 2 work programmes: Country support programme; GEF small grants programme 	<ul style="list-style-type: none"> Provide funding to assist developing countries in meeting the objectives of five international environmental conventions, namely UNFCCC, Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD), Stockholm Convention on Persistent Organic Pollutants (POPs) and Minamata Convention on Mercury 	<ul style="list-style-type: none"> COP provides regular guidance to the GEF GEF is accountable to COP Annual reports to COP cover all GEF-financed activities carried out in implementing the Convention and include specific information on how GEF has applied the guidance and decisions of the COP in its work related to the Convention 	<ul style="list-style-type: none"> Relevant COP decisions, GEF annual reports to COP, relevant documents and links available on UNFCCC webpage Knowledge and Learning Platform with Good Practice Briefs, other publications and information on events (workshops, trainings, seminars)
<u>Least Developed Countries Fund (LDCF)</u>	<ul style="list-style-type: none"> Preparation and implementation of national adaptation programs of action (NAPA) Support towards elements of the LDC work program other than NAPAs Support towards the national adaptation plan (NAP) process Undertaking pilot concrete climate change activities that are particularly relevant for the LDCs Enhancing longer-term institutional capacity to design and execute 	<ul style="list-style-type: none"> Support the implementation of urgent and immediate activities identified in NAPAs, as a way of enhancing adaptive capacity Promote the integration of adaptation measures in national development and poverty reduction strategies, plans or policies, with a view to increasing resilience to the adverse effects of climate change 	<ul style="list-style-type: none"> Operated by the GEF As part of its annual reports, the GEF informs the COP about specific steps it has taken with regard to the operation of the LDCF 	<ul style="list-style-type: none"> GEF LDCF page Relevant COP decisions as well as relevant documents and links available on UNFCCC webpage

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	concrete climate change activities that are particularly relevant for the LDCs			
<u>Special Climate Change Fund (SCCF)</u>	<ul style="list-style-type: none"> Adaptation (top priority): Water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems and integrated coastal zone management; Monitoring of diseases and vectors, and related early warning systems; Capacity-building for disaster prevention; Catastrophe risk insurance Technology transfer and capacity building for both mitigation and adaptation Energy, transport, industry, agriculture, forestry and waste management Economic diversification 	<ul style="list-style-type: none"> Support climate change projects in all developing countries (the only adaptation fund open to all vulnerable developing countries) 	<ul style="list-style-type: none"> Operated by the GEF SCCF complements LDCF (e.g., by providing funding for the first steps of the NAP process in non-LDC countries) <p><u>Review</u></p> <ul style="list-style-type: none"> The SCCF's catalytic effect of scaling-up often demands further investment The SCCF's effectiveness and efficiency have been seriously undermined by limited and unpredictable resources The gender performance of SCCF projects has improved The Project Management Information System (PMIS) has significant discrepancies 	<ul style="list-style-type: none"> GEF SCCF page Relevant COP decisions as well as relevant documents and links available on UNFCCC webpage
<u>Standing Committee on Finance (SCF)</u>	<ul style="list-style-type: none"> No priority areas 	<ul style="list-style-type: none"> Assist the COP in exercising its functions in relation to the Financial Mechanism of the Convention. This involves: 	<ul style="list-style-type: none"> Meets at least twice a year, or more if necessary Adopts its annual workplan at the first meeting of every year 	<ul style="list-style-type: none"> Develops technical findings and recommendations for the COP

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
		<ul style="list-style-type: none"> Improving coherence and coordination in the delivery of climate change financing Rationalisation of the Financial Mechanism Mobilisation of financial resources Measurement, reporting and verification of support provided to developing country Parties 	<ul style="list-style-type: none"> Makes use of dedicated working groups, co-facilitated by two members of the SCF Does not have separate rules of procedure, draft rules of procedure of the COP apply mutatis mutandis to the SCF During plenary sessions, the floor is given to observers, usually towards the end of deliberations on an agenda item. Most interaction takes place during breakout group sessions, where observers can actively engage in discussions and directly interact with members Meetings are webcast SCF regularly makes calls for submission 	<ul style="list-style-type: none"> Biennial Assessment and Overview of Climate Finance Flows Periodic Reviews of the Financial Mechanism Guidance to Operating Entities of the Financial Mechanism Determination of the needs of developing country Parties related to implementing the Convention and Paris Agreement SCF Forum Stakeholder Engagement SCF reports, meeting documents, other documents and finance-related decisions available on UNFCCC webpage Review of the functions of the SCF

Table 14: Adaptation

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
<u>Technical examination process on adaptation (TEP-A)</u>	<ul style="list-style-type: none"> • 2019 TEP-A: Adaptation Finance, including the Private Sector • 2018 TEP-A: Adaptation planning for vulnerable groups, communities and ecosystems • 2017 TEP-A: Integrating climate change adaptation with the Sustainable Development Goals and the Sendai Framework on Disaster Risk Reduction • 2016 TEP-A: Reducing vulnerability and mainstreaming climate change adaptation 	<ul style="list-style-type: none"> • Identify opportunities for strengthening resilience, reducing vulnerabilities, and increasing the understanding and implementation of adaptation actions • Facilitating the sharing of good practices, experiences and lessons learned • Promoting cooperative action on adaptation • Identify actions, including actions that could enhance economic diversification and have mitigation co-benefits • Identifying opportunities to strengthen enabling environments and enhance the provision of support for adaptation 	<ul style="list-style-type: none"> • Taking place 2016-2020 • Organized by the subsidiary bodies, conducted by the Adaptation Committee (AC) and supported by the secretariat • Working group currently consisting of AC and non-AC members (representatives of Technology Executive Committee, Least Developed Countries Expert Group, SCF, RINGOs, ENGOs, BINGOs) • Annual technical expert meetings • Review • Make the technical expert meetings more interactive, including by means of round tables, thematic dialogues and virtual participation • Make the agenda and guiding questions for the technical expert meetings available well in advance thereof • Conclude the technical expert meetings with a session on proposing ways forward and necessary 	<ul style="list-style-type: none"> • Annual technical paper • Annual summary for policymakers • TEP-A agendas, technical papers, concept notes, progress reports, etc. available on UNFCCC webpage • Climate Action Fair 2016: Two Adaptation Technical Expert Meetings (TEMs) • Adaptation TEM - Implementation • Adaptation TEM - Policy Frameworks

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			actions in relation to the identified policy options and opportunities	
<u>Nairobi Work Programme (NWP)</u>	<ul style="list-style-type: none"> • 2 work areas • Impacts and vulnerability • Adaptation planning, measures, and actions • sub-work areas • Methods and tools • Data and observations • Climate modelling, scenarios and downscaling • Climate related risks and extreme events • Socio-economic information • Adaptation planning and practices • Research • Technologies for adaptation • Economic diversification • 17 thematic and cross-cutting issues • Ecosystems • Human settlements • Water resources • Health • Extreme weather events • Oceans, coastal areas & ecosystems 	<ul style="list-style-type: none"> • Assist Parties, and particularly LDCs and Small Island Developing States (SIDS) to: • Improve their understanding and assessment of impacts, vulnerability, and adaptation • Make informed decisions on practical adaptation actions and measures in response to climate change on a sound, scientific, technical, and socioeconomic basis in consideration of current and future climate change and variability • Contribute to advancing adaptation implementation by providing knowledge support through four key functions: <ul style="list-style-type: none"> • Engaging stakeholders • Synthesising knowledge • Disseminating knowledge • Fostering collaboration 	<ul style="list-style-type: none"> • Implementation of work programme under the guidance of SBSTA, with assistance from the secretariat, and with contributions from Parties and other adaptation stakeholders • Established as a 'knowledge-to-action hub' for adaptation and resilience • Work programme is implemented through various modalities: • Workshops and meetings (including the Focal Point Forums) • Expertise and input from experts, practitioners and relevant organizations • Compendiums and web-based resources (including Adaptation Knowledge Portal, AKP, see column to the right) • Targeted submissions from Parties and organizations • Reports, technical papers, and assessments 	<ul style="list-style-type: none"> • Documents and reports prepared by the NWP available on UNFCCC website • Decisions and conclusions about the NWP available on UNFCCC website • Agenda, presentation slides and other documents prepared for fora, workshops, meetings and events available on UNFCCC website • Adaptation Knowledge Portal (AKP) provides access to information and knowledge on climate change adaptation, and on the work of related workstreams under the UNFCCC • Builds on the contributions of policy-makers, practitioners and researchers to offer first-hand information and

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<ul style="list-style-type: none"> • Drought, water scarcity, and land degradation neutrality • Agriculture and food security • Slow onset events • Forests and grasslands • Wetlands • Rural systems and communities • Cities/urban systems • Livelihood and socioeconomic dimensions • Gender issues • Indigenous and traditional knowledge • Impacts on ecosystems 		<ul style="list-style-type: none"> • Other modalities, such as a group(s) of experts, upon agreement by the SBSTA • NWP partnership is open to non-governmental and civil society organizations, community organizations, private sector entities, research institutions, regional centres or networks, UN and intergovernmental organizations, national and subnational governments, and the media • NWP partners engage with the NWP trough: • Expert working groups and consultations to address special requests and needs from Parties • Joint knowledge products • Joint events including technical workshops to share knowledge and build capacity • Calls for submissions on adaptation information and resources • Participation in events including the annual NWP Focal Point Forum, side events and workshops 	<ul style="list-style-type: none"> • actionable knowledge for end-users • Provides free and open access to a curated database of adaptation knowledge resources including case studies, methods and tools, publications and technical documents • Users can browse the profiles and action pledges of NWP partner organizations with recognized expertise or activities in the field of climate adaptation • Both NWP partners and non-NWP partners can contribute knowledge to the AKP either by using online forms por by filling out offline templates

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			<ul style="list-style-type: none"> Submitting action pledges in response to identified knowledge needs Sharing knowledge resources on the AKP 	
Bodies				
<u>Least Developed Countries Expert Group (LEG)</u>	<ul style="list-style-type: none"> NAPs NAPAs 	<ul style="list-style-type: none"> Provide technical guidance and support to the LDCs on the process to formulate and implement NAPs, the preparation and implementation NAPAs, and the implementation of the LDC work programme Provide technical guidance and advice on accessing GCF funding for the process to formulate and implement NAPs, in collaboration with the GCF secretariat 	<ul style="list-style-type: none"> The LEG meets twice a year to develop and review progress on the implementation of its work programme The LEG implements its work programme through a variety of modalities: Technical guidance to the countries (technical guidelines and papers, training activities, workshops) Expert meetings NAP Expos Case studies Capturing and sharing of experiences, best practices and lessons learned NAP Central Monitoring of progress, effectiveness and gaps Collaboration with other bodies, programmes and organizations 	<ul style="list-style-type: none"> Least Developed Countries Portal provides links to information that is of specific interest to LDCs Decisions and conclusions about the LEG, information on (regional) workshops and meetings as well as key documents are available on UNFCCC website

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			<ul style="list-style-type: none"> Promotion of coherence and synergy 13 members: 5 from African LDC Parties, 2 from Asian LDC Parties, 2 from small island LDC Parties, 3 from Annex II Parties and 1 from an LDC Party 	
<u>Adaptation Committee (AC)</u>	<ul style="list-style-type: none"> Coherence and collaboration Regional centres and networks on adaptation Technical support and guidance Means of implementation Communication and outreach 	<ul style="list-style-type: none"> Promote the implementation of enhanced action on adaptation in a coherent manner under the Convention, inter alia, through the following functions: Providing technical support and guidance to the Parties Sharing of relevant information, knowledge, experience and good practices Promoting synergy and strengthening engagement with national, regional and international organizations, centres and networks Providing information and recommendations, drawing on adaptation good practices, for consideration by the COP when providing guidance on means to incentivize the implementation of adaptation actions, including finance, technology and capacity-building 	<ul style="list-style-type: none"> The AC makes use of the following modalities in exercising its functions: <ul style="list-style-type: none"> Workshops and meetings Expert groups Compilation, review, synthesis, analysis reports of information, knowledge, experience, good practice Channels for sharing information, knowledge and expertise Coordination and linkages with all relevant bodies, programmes, institutions and networks, within and outside the Convention The AC reports annually to the COP The AC meets at least twice a year (meetings are open to attendance by accredited observer organizations, 	<ul style="list-style-type: none"> Decisions and conclusions about the AX, information on workshops and meetings as well as reports and documentation are available on UNFCCC website

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
		<ul style="list-style-type: none"> Considering information communicated by Parties on their monitoring and review of adaptation actions, support provided and received 	<p>except where otherwise decided by the AC)</p> <ul style="list-style-type: none"> 16 members 2 from each of the 5 UN regional groups 1 from the LDCs 1 from the SIDS 2 from Parties included in Annex I to the Convention 2 from Parties not included in Annex I to the Convention 	

Table 15: Mitigation

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
<u>Technical examination process on mitigation (TEP-M)</u>	<p>Topics identified for the period 2018-2020:</p> <ul style="list-style-type: none"> 2018: Industry: implementation of circular economies and industrial waste reuse and prevention solutions 2019: Energy: off-grid and decentralized energy solutions for smart energy and water use in the agrifood chain 	<ul style="list-style-type: none"> Implement scalable best practice policies and bridge the ambition gap 	<ul style="list-style-type: none"> Secretariat organizes the TEP-M and disseminate its result by organizing regular technical expert meetings on mitigation (focusing on specific policies, practices and actions that represent best practice and can potentially be upscaled and replicated) Regular in-session thematic (regional) technical expert meetings and focused follow 	<ul style="list-style-type: none"> Technical papers Presentations and recording of technical expert meetings available on UNFCCC webpage Climate Action Fair 2016: Two Mitigation TEMs Mitigation TEM - Social and Economic Value of Carbon Mitigation TEM - Transport

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<ul style="list-style-type: none"> 2020: Human settlements: sustainable low-emission housing and building solutions 		<p>up work to be conducted by Parties, international organizations and partnerships throughout the year</p> <ul style="list-style-type: none"> Follow-up dialogues <p>Review</p> <ul style="list-style-type: none"> Make the technical expert meetings more interactive, including by means of round tables, thematic dialogues and virtual participation Make the agenda and guiding questions for the technical expert meetings available well in advance thereof Conclude the technical expert meetings with a session on proposing ways forward and necessary actions in relation to the identified policy options and opportunities 	
REDD+	<p>Forests</p> <ul style="list-style-type: none"> Reducing emissions from deforestation Reducing emissions from forest degradation Conservation of forest carbon stocks 	<ul style="list-style-type: none"> Slow, halt and reverse forest cover and carbon loss, consistent with the ultimate objective of the Convention to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous 	<ul style="list-style-type: none"> Methodological guidance (SBSTA) COP work programme on REDD finance In-session workshop Submissions of views by Parties and admitted observer organizations 	<p>REDD+ Web Platform (launched after COP 13 to allow Parties and other stakeholders to share outcomes, experiences and lessons learned from their REDD+ efforts)</p>

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<ul style="list-style-type: none"> Sustainable management of forests Enhancement of forest carbon stocks 	anthropogenic interference with the climate system	<ul style="list-style-type: none"> National entities and focal points to serve as liaison with the secretariat and bodies under the Convention Voluntary meetings on the coordination of support for the implementation of REDD+ activities (see column to the right) 	<ul style="list-style-type: none"> Fact Sheets providing basic information on important topics related to REDD+ implementation The Lima REDD+ Information Hub publishes information on the results of REDD+ activities and corresponding results-based payments (one entry for each REDD+ result en reported in a technical annex on REDD+ results to the biennial update reports) The REDD+ Discussion Forum (an interactive discussion forum on the use of guidance and guidelines for REDD+) Information material on meetings and events related to REDD+ (including UNFCCC negotiations, Forest Days, Global Landscape Forum, World Forestry Congresses, etc.) Information material on voluntary meetings on the coordination of support to

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
				<p>the implementation of REDD+</p> <ul style="list-style-type: none"> UNFCCC documents relating to REDD+ (decisions, workshop reports, technical papers, submissions) Decision booklet REDD+

Table 16: Technology development and transfer

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
<u>Poznan Strategic Program on Technology Transfer</u>	<p>Poznan Strategic Program established three funding windows within the GEF in support of technology transfer:</p> <ul style="list-style-type: none"> Conduct Technology Needs Assessments (TNAs) Support pilot priority technology projects linked to TNAs Disseminate GEF experience and successfully 	<ul style="list-style-type: none"> Scale up the level of investment in technology transfer in order to help developing countries address their needs for ESTs Enhance technology transfer activities under the Convention 	<ul style="list-style-type: none"> Documents summarizing the most up to date progress on the implementation of the Poznan Strategic Program are regularly reported to Subsidiary Body for Implementation (SBI) and COP 	<ul style="list-style-type: none"> Brochure on the implementation status of the Poznan and Long-Term Programs on Technology Transfer

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	demonstrated environmentally sound technologies (ESTs)			
<u>Technology Needs Assessments (TNAs)</u>	Prioritized sectors <ul style="list-style-type: none"> • Mitigation: Energy, AFOLU, Waste, Industrial Processes and Product Use • Adaptation: Agriculture, Water, Infrastructure / Settlement, Climate Observation 	<ul style="list-style-type: none"> • Determine countries' climate technology priorities • Support national sustainable development, builds national capacity and facilitates the implementation of prioritized climate technologies 	<ul style="list-style-type: none"> • United Nations Environment Programme (UNEP) Danish Technical University Partnership (DTU) provides technical and methodological support to developing countries undertaking TNAs • GEF provides support for TNA projects through its Poznan Strategic Programme on Technology Transfer • Technology Executive Committee (TEC) works with the TNA community on enhancing and monitoring TAP implementation in developing countries 	<ul style="list-style-type: none"> • Technology action plans (TAPs) (= concise plans for the uptake and diffusion of prioritized technologies, often containing project ideas) • Guidance for Preparing a TAP • Summary of country priorities: technology needs assessments 2015-2018 • Synthesis reports on technology needs identified by Parties not included in Annex I to the Convention
Bodies				
<u>Technology Executive Committee (TEC)</u> (policy body of the Technology Mechanism)	<ul style="list-style-type: none"> • Policies that can accelerate the development and transfer of low-emission and climate resilient technologies 	<ul style="list-style-type: none"> • Provide an overview of countries' climate technology needs and analyse policy and technical issues related to climate technology development and transfer • Recommend actions to promote climate technology development and transfer 	<ul style="list-style-type: none"> • 20 technology experts representing developed and developing countries • Meets at least twice a year and holds climate technology events to support efforts to address technology-related policy issues 	<ul style="list-style-type: none"> • Web-based communication channel TT:CLEAR • Annual technology-related recommendations to the COP that highlight proven measures that countries may take to speed up climate technology action

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
		<ul style="list-style-type: none"> Recommend guidance on climate technology policies and programmes Promote and facilitate collaboration between climate technology stakeholders Recommend actions to address barriers to climate technology development and transfer Seek cooperation with climate technology stakeholders and promote coherence across technology activities Catalyse the development and use of climate technology road maps and action plans 	<ul style="list-style-type: none"> Annually reports to the COP on its performance and activities Works closely with partners and stakeholders: Climate Technology Centre & Network (CTCN), AC, GEF, GCF, Strategic Climate Fund, Executive Committee of the Warsaw International Mechanism for Loss and Damage Calls for inputs Invitations to take part in TEC meetings, task forces, workshops, thematic dialogues, expert meetings and side events TEC meetings are webcast and open to observers 20 members from Annex I Parties 3 from each of the three regions of non-Annex I Parties, namely Africa, Asia and the Pacific, and Latin America and the Caribbean 1 from the LDCs 1 from the SIDS 	<ul style="list-style-type: none"> Policy briefs (TEC Briefs) and other technical documents to enhance information sharing on climate technology efforts Analysis of policy options emanating from the UNFCCC technical examination process. Publications on key issues related to technology development and transfer Meeting reports Workplans Stakeholders documents
<u>Climate Technology Centre & Network (CTCN)</u>	<ul style="list-style-type: none"> Technology solutions, capacity building and advice on policy, legal 	<ul style="list-style-type: none"> Address barriers that hinder the development and transfer of climate technologies, and to 	<ul style="list-style-type: none"> Guided by an advisory board, which meets at least twice each year 	<ul style="list-style-type: none"> Brochures Webinars Progress reports

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
(implementation body of the Technology Mechanism)	and regulatory frameworks tailored to the needs of individual countries	<p>thereby help create an enabling environment for: Reduced greenhouse gas emissions and climate vulnerability; Improved local innovation capacities</p> <ul style="list-style-type: none"> Increased investments in climate technology projects Provide technical assistance at the request of developing countries to accelerate the transfer of climate technologies Create access to information and knowledge on climate technologies. Foster collaboration among climate technology stakeholders via the Centre's network of regional and sectoral experts from academia, the private sector, and public and research institutions 	<ul style="list-style-type: none"> Hosted by UNEP and the UN Industrial Development Organization (UNIDO) Two parts: a centre (a coordinating entity located in Copenhagen) and a worldwide network of organizations that delivers CTCN services (both virtually and actually) Review Awareness of services in developing countries should be raised Governance of CTCN should be enhanced Additional funding necessary Efficiency of the CTCN's provision of technical assistance should be increased Transparency of funding arrangements should be strengthened Reporting and evaluating of impact should be enhanced 	<ul style="list-style-type: none"> Publications Open data CTCN Taxonomy consisting of nearly 500 climate mitigation and adaptation technologies CTCN Technical Assistance

Table 17: Capacity Building

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
Capacity-building portal	No priority areas	<ul style="list-style-type: none"> Provide an overview of activities and the intention to gather information on capacity-building support provided to developing countries 	<ul style="list-style-type: none"> PCCB provides guidance to the secretariat on the maintenance and further development of the web-based capacity-building portal Call for submissions 	<ul style="list-style-type: none"> Interactive tool that collects, compiles and disseminates country-driven information and allows the display of information from the submissions of the non-Party stakeholders that support the capacity and ability of developing countries Complementary resources: additional information related to capacity-building activities (list of webpages)
Durban Forum on Capacity Building	<ul style="list-style-type: none"> 1st Durban Forum: Building the capacity of developing countries to respond to climate change 2nd Durban Forum: Delivering capacity-building to enable adaptation and mitigation actions and to implement the Kyoto Protocol 3rd Durban Forum: Building capacity to 	<ul style="list-style-type: none"> Fill in information gaps Provide an overview of the type of capacity-building support provided to developing countries and the corresponding implementation efforts by Parties Improve the monitoring and review of the effectiveness of capacity-building within the international climate change regime 	<ul style="list-style-type: none"> Annual, in-session event organized under the auspices of the SBI Events are open to the participation of Parties and other stakeholders involved in the implementation of capacity-building activities in developing countries Participants have the opportunity to 	<ul style="list-style-type: none"> Synthesis Reports published prior to the Forum Decisions relating to the establishment, the organization and the work of the Durban Forum on Capacity-building

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<p>mitigate and adapt to climate change – success stories and innovative approaches</p> <ul style="list-style-type: none"> • 4th Durban Forum: Support for the preparation of INDCs • 5th Durban Forum: Enhancing existing national and regional capacity for the Paris Agreement • 6th Durban Forum: Enhancing capacities for adaptation in the context of NAPs and NDCs • 7th Durban Forum: Enhancing capacities for the implementation NDCs in the context of the PA • 8th Durban Forum: Strengthening institutions at the national level to support capacity-building activities for the implementation of NDCs in developing countries 			
Bodies				
Paris Committee on Capacity Building	<ul style="list-style-type: none"> • 2017: Capacity-building activities for the implementation of NDCs in the context of the PA 	<ul style="list-style-type: none"> • Identify capacity gaps and needs and potential solutions, including enhancing the coherence and 	<ul style="list-style-type: none"> • 12 members nominated by Parties and elected by the COP for a term of two years (2 members are nominated 	<ul style="list-style-type: none"> • Meeting and Annual Reports as well as other PCCB documents

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
		<p>coordination of capacity-building efforts related to climate change</p> <ul style="list-style-type: none"> • Foster collaboration between actors at all levels (local, national, regional and global) • Strengthen networks and partnerships to enhance synergies and promote knowledge- and experience-sharing • Facilitate access to information and knowledge for enhancing climate action in developing countries and for measuring progress on capacity-building to ensure continuous improvement over time 	<p>from each of the five United Nations regional groups, 1 from the LDCs, and 1 from the SIDS)</p> <ul style="list-style-type: none"> • Working groups support the implementation of the rolling workplan • WG1: Coherence and coordination on capacity-building under and outside the convention • WG2: Cross-cutting issues • WG3: Awareness-raising, communications and stakeholder engagement • WG4: Identifying capacity gaps and needs • PCCB invites submissions on themes related to capacity-building from Parties, constituted bodies under the UNFCCC as well as other interested stakeholders 	<ul style="list-style-type: none"> • Agendas, background papers and other documents for PCCB meetings • Submissions received • PCCB Workplan

Table 18: Sustainable development/ cross-cutting issues

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Processes and workstreams				
Local Communities and Indigenous Peoples Platform (LCIPP)	<p>Knowledge</p> <ul style="list-style-type: none"> Traditional knowledge, knowledge of indigenous peoples and local knowledge systems Technologies, practices and efforts of local communities and indigenous peoples <p>Capacity for engagement</p> <p>Climate change policies and actions</p> <p>2019: Joint event with AC, NWP and LEG</p>	<ul style="list-style-type: none"> Strengthen the knowledge, technologies, practices, and efforts of local communities and indigenous peoples related to addressing and responding to climate change Facilitate the exchange of experience and the sharing of best practices and lessons learned on mitigation and adaptation in a holistic and integrated manner Enhance the engagement of local communities and indigenous peoples in the UNFCCC process 	<ul style="list-style-type: none"> Initial multi-stakeholder workshop co-moderated by the SBSTA Chair and a representative of local communities and indigenous peoples' organizations Facilitative working group in charge of further operationalizing the LCIPP Workplan for the full implementation of the intended functions with balanced representation of local communities and indigenous peoples and Parties 	<ul style="list-style-type: none"> List with fora, workshops, meetings, and events in relation to the Local communities and indigenous peoples' platform Access to relevant documents (summary reports, meeting reports, workshop reports, COP reports, etc.)
Forum and work programme on the impact of the implementation of response measures	<p>Two work areas</p> <ul style="list-style-type: none"> Economic diversification and transformation Just transition of the workforce (creation of decent work and quality jobs) 	<ul style="list-style-type: none"> Improve the understanding of the impact of the implementation of response measures in the following areas Share information and expertise, including reporting and promoting understanding of positive and negative impacts of response measures Cooperate on response strategies Assess and analyse impacts 	<ul style="list-style-type: none"> Forum on the impact of the implementation of response measures Convened by the Chairs of the subsidiary bodies In charge of implementing the work programme and Shall provide a platform allowing Parties to share, in an interactive manner, information, experiences, case studies, best practices and views 	<ul style="list-style-type: none"> 2016 Workshop on sharing views and experiences on two work areas Three year workplan Relevant documents and decisions available on UNFCCC webpage

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
		<ul style="list-style-type: none"> • Exchange experience and discuss opportunities for economic diversification and transformation • Economic modelling and socio-economic trends • Relevant aspects relating to the implementation of decisions 1/CP.10, 1/CP.13 and 1/CP.16 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol • Just transition of the workforce, and the creation of decent work and quality jobs • Build collective and individual learning towards a transition to a low greenhouse gas emitting society 	<ul style="list-style-type: none"> • Shall facilitate assessment and analysis of the impact of the implementation of response measures, with a view to recommending specific actions • Ad Hoc Technical Expert Group (TEG) • 2017: First ad hoc TEG to elaborate on technical work of the areas contained in the work programme • Katowice Committee of Experts on Impacts of Implementation of Response Measures (KCI) to support the forum by undertaking technical work (see below) 	
Research Dialogue	<ul style="list-style-type: none"> • Emerging scientific findings • Research planning activities • Research priorities and gaps • Research capacity building activities particularly in developing countries • Regional climate change research networks • Relevant communication issues 	<ul style="list-style-type: none"> • Inform Parties about on-going and planned activities of regional and international climate change research programmes and organizations • Communicate Parties' views on research needs and priorities to the scientific community 	<ul style="list-style-type: none"> • Annual meetings • Relevant research programmes and organizations are invited to regularly inform the SBSTA of developments in research activities relevant to the needs of the Convention • Parties report on research and systematic observation via their National Communications • Research is usually considered by the SBSTA at 	<ul style="list-style-type: none"> • Compilation of all mandates (decisions and conclusions) on research • Information notes and summary reports of meetings of the research dialogue and other events, including workshops and side events, under the research agenda • List of contributors, themes and presentations

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			the first sessional period of the year	from all meetings of the research dialogue
Lima Work Programme on Gender (LWPG) and Gender Action Plan (GAP)	GAP priority areas <ul style="list-style-type: none"> • Capacity-building, knowledge sharing and communication • Gender balance, participation and women's leadership • Coherence (on gender and climate change across UNFCCC and UN system) • Gender-responsive implementation and means of implementation • Monitoring and reporting 	<ul style="list-style-type: none"> • Advance women's full, equal and meaningful participation and promote gender-responsive climate policy and the mainstreaming of a gender perspective in the implementation of the Convention and the work of Parties, the secretariat, United Nations entities and all stakeholders at all levels 	<ul style="list-style-type: none"> • Workshop on the impact LWPG and GAP held during the SB 50 • LWPG sets out the broad rationale, evidence for, and benefits of gender-responsive action • GAP operationalizes and guides the work into a concrete plan • COP 24: programme of activities, discussions and exhibitions to showcase how the implementation of GAP is supported • Review LWPG • An enhanced and extended LWPG could: <ul style="list-style-type: none"> • Be addressed with GAP in one decision • Span a longer period and undergo intermediate reviews • Be designed with defined objectives and deliverables, timelines for activities and outputs, and indicators for measuring impact and effectiveness 	<ul style="list-style-type: none"> • National Gender and Climate Change Focal Point • GAP • Review of the LWPG and the GAP • Gender composition report • #ActOnTheGAP campaign • List of gender-related events at COP 24

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			<ul style="list-style-type: none"> • Have a stronger focus on the implementation of the Paris Agreement and better alignment with SDG 5 • Review GAP • Recommendations for an enhanced GAP • An extended time frame • Defined deliverables, timelines for activities and outputs • Focused technical and financial support for implementing gender-responsive NDCs and NAPs • A reinforced role for the national gender and climate change focal points • LWPG and the GAP are addressed in one decision • Invite the SCF to host a dialogue • Enhance coherence with 2030 Agenda 	
Koronivia Joint Work on Agriculture	<ul style="list-style-type: none"> • Agriculture, taking into consideration the vulnerabilities of agriculture to climate change and approaches to addressing food security 	<ul style="list-style-type: none"> • SBI and SBSTA to jointly address issues related to agriculture 	<ul style="list-style-type: none"> • Cooperation with constituted bodies under the Convention • Workshops and expert meetings 	<ul style="list-style-type: none"> • Workshop reports, considered by SBSTA and SBI • Joint conclusions by SBSTA and SBI (see conclusions of 2019) • There will be a report to COP 26 on progress and

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
	<ul style="list-style-type: none"> • Consideration of issues, including: • Methods and approaches for assessing adaptation, adaptation co-benefits and resilience • Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management; • Improved nutrient use and manure management towards sustainable and resilient agricultural systems; • Improved livestock management systems; • Socioeconomic and food security dimensions of climate change in the agricultural sector 			outcomes of the work, including on potential future topics for work

Bodies

Facilitative Working Group (FWG) of Local Communities and Indigenous		<ul style="list-style-type: none"> • Further operationalise the LCIPP and facilitate the implementation of its three functions related to knowledge, capacity for 	<ul style="list-style-type: none"> • 14 members • Half of them representatives of Parties 	<ul style="list-style-type: none"> • List with fora, workshops, meetings, and events in relation to the Local communities and
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Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Peoples Platform (LCIPP)		engagement, and climate change policies and actions	<ul style="list-style-type: none"> • Half of them representatives from indigenous peoples organizations • The FWG meets twice per year in conjunction with the sessions of the subsidiary bodies and the session of the COP; meetings are open to Parties and observers under the Convention • The FWG operates on the basis of consensus • The FWG reports on its outcomes through the SBSTA to the COP; all reports are made publicly available online • The FWG will support the secretariat with making the work of the Platform widely accessible. • Initial mandate spans three years, and can be extended as determined by a review to take place in 2021 • The FWG will propose an initial two-year workplan (2020–2021) to be considered at SBSTA 51 • The FWG will propose a three-year workplan (2022–2024) for consideration and 	<p>indigenous peoples platform</p> <ul style="list-style-type: none"> • Workplans (still being developed)

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
Katowice Committee of Experts on Impact of Implementation of Response Measures (KCI)	Two work areas <ul style="list-style-type: none"> • Economic diversification and transformation • Just transition of the workforce (creation of decent work and quality jobs) 	<ul style="list-style-type: none"> • Support the work of the forum on the impact of the implementation of response measures 	endorsement by COP 27 through SBSTA 54 <ul style="list-style-type: none"> • 14 members • 2 from each of the 5 UN regional groups • 1 from the LDCs • 1 from the SIDS • 2 from relevant intergovernmental organisations • Modalities used as appropriate and as decided on a case-by-case basis: • Building awareness and enhancing information-sharing through the exchange and sharing of experience and best practices • Preparing technical papers, case studies, concrete examples and guidelines • Receiving input from experts, practitioners and relevant organizations • Organising workshops • KCI shall meet twice per year, for two days per meeting, in conjunction with the sessions of the subsidiary bodies 	<ul style="list-style-type: none"> • Information related to the first and second meeting of the KCI (documents, presentations, meeting reports) • 2019 Annual Report

Name	Focus and priority area	Objective(s)	Modalities (and their effectiveness)	Outputs
			<ul style="list-style-type: none"> • KCI shall operate on the basis of consensus of its members • KCI shall draw upon outside expertise at its meetings • Meetings shall be open to attendance as observers by all Parties and accredited observer organizations, unless otherwise decided; observers may be invited to address the KCI on matters under consideration 	

D Focus areas

Table 19: Assessment of proposed focus areas

Focus area	Non-duplicative	Non-market	Transformative	Finance-gap
Integral and sustainable development of forests	Partially met: Forests and finance for forests are already covered by some processes and bodies within and outside of the UNFCCC, both mostly either from an adaptation or a mitigation perspective.	Partially met: Forests can be addressed in forms of market-based cooperation; however, avoided deforestation has so far been excluded from market-based cooperation due to difficulties in MRV, permanence challenges and leakage risks.	Partially met: Forests hold opportunities for transformation (e.g. transform global value chains in the context of deforestation-free supply chains). Forests are important for climate action as they have a high mitigation and adaptation potential.	Not met: Finance for forests is provided by the institutions of the financial mechanism of the UNFCCC and also other institutions, e.g. World Bank.
(Social ecological) resilience	Partially met: resilience is usually a key priority for work under adaptation-related processes and bodies. Resilience of ecosystems and resilience of communities is also addressed by ongoing work.	Fully met: Adaptation and resilience are more difficult to address through market-based cooperation than mitigation, as results are often too difficult to quantify.	Fully met: Resilience requires fundamental changes and transformations (social, economic, ecological) on the ground and is particularly important for vulnerable communities (including LDCs)	Partially met: Finance for resilience is part of the mandate of institutions of the UNFCCC mechanism. However, there is consensus regarding the imbalance of finances provided to resilience vs. mitigation projects.
(Reduction of emissions by sources and enhancement of removals)	Partially met: Apart from forestry and land use, approaches to remove CO ₂ from the atmosphere are so far not covered by processes and bodies.	Partially met: Natural carbon sinks and removals (forests, oceans, soil, peatlands, etc.) can be addressed in forms of market-based cooperation but come with several challenges, e.g. with regard to additionality, permanence and leakage; technological solutions (including	Fully met: Transformation of (management of) natural ecosystems needed; removal technologies are emerging and are necessary to achieve long-term mitigation targets of the PA	Partially met: There is no funding under the UNFCCC for piloting new and emerging approaches to removals (e.g. different negative emission technologies). There is funding available for different forms of

Focus area	Non-duplicative	Non-market	Transformative	Finance-gap
		Carbon Capture and Storage, CCS) are better suited to be addressed in forms of market-based cooperation, however, technologies are often not yet mature enough for market-based instruments.		enhancement of natural carbon sinks (forests, agriculture).
Energy efficiency	Partially met: Energy efficiency is currently mostly addressed by market mechanisms (Clean development mechanism- CDM) and technology development and transfer	Partially met: Energy efficiency can be addressed through market-based mechanisms and has been part of the CDM portfolio; however, energy efficiency projects have been underrepresented as they often have high transaction costs	Fully met: More efficient use of energy might require transformative changes, including with regard to lifestyles and consumption as well as in terms of technological and economic change. Energy savings are cost-effective means for mitigating emissions that also have broader sustainable development benefits (e.g. social welfare and energy security)	Not met: energy efficiency projects are funded by GEF and GCF and other international financing institutions.
The recognition of finance, technology development and transfer and capacity-building support in the context of market-based mitigation measures	Partially met: This is in essence results-based climate finance. In general finance, technology development and transfer as well as capacity-building support for mitigation is already addressed by various processes and bodies	Partially met: recognition of support provided in the context of market-based cooperation, but in addition to finance for mitigation outcomes. However, strong link to market based activities and enabling factors to build market-based cooperation.	Fully met: Finance, technology development and transfer as well as capacity-building support will be needed to support countries in accessing investments, for instance in the context of market-based cooperation.	Not met: there is international public climate finance available for technology development and transfer and capacity building support for market-based mitigation measures.

E International climate finance

Table 20: Potential funding sources for NMAs without a financing component

NMAs without a financing component	Domestic public finance	Domestic private finance	Non-profit & Philanthropies	Bilateral climate finance	Multilateral climate funds (GEF, GCF, AF and CIF)	MDBs	International private finance
II.A i: Accelerator for diffusion of international energy efficiency standards		x			x (GEF, CIF)	x	x
II.A ii: International programme for capacity building on specific technologies (e.g. rooftop solar photovoltaic or offshore wind)		x	x	x		x (e.g. GEEREF)	x
II.B i: Multi-country policy that promotes NETs	x		x	x	x (GCF, CTF)		
II.B ii: Diffusion of international safeguards and standards for resilience programmes	x			x	x (AF, LDCF, SCCF)		
II.B iii: Public-private partnerships across boundaries to tackle drivers of deforestation for large forest biomes	x	x		x		x (e.g. Forest Carbon Partnership Facility)	x
II.B iv: Multi-country policies that promote NETs & common standards and safeguards for NETs	x		x				
II.C i: International expert groups on mitigation co-benefits in wide-spread adaptation measures as well as a				x	x (CBIT)	x	

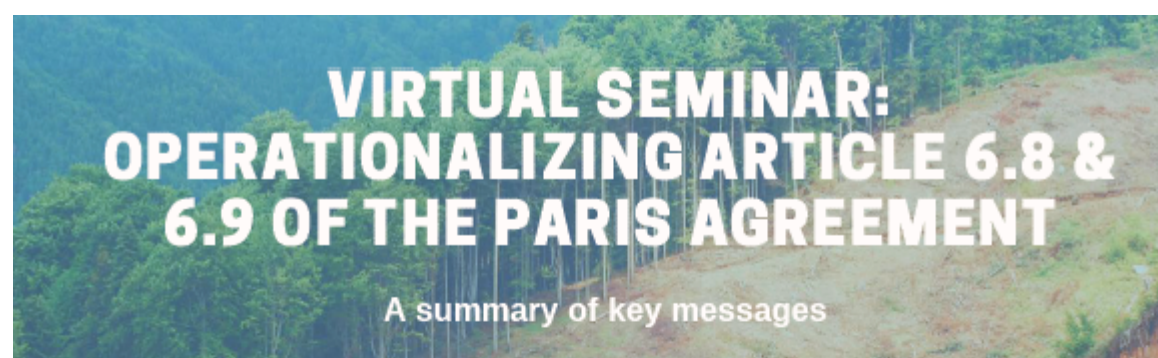
NMAs without a financing component	Domestic public finance	Domestic private finance	Non-profit & Philanthropies	Bilateral climate finance	Multilateral climate funds (GEF, GCF, AF and CIF)	MDBs	International private finance
training programme for adaptation specialists							
II.C ii: Development and training on methodologies to assess vulnerability in specific sectors, e.g. health sector				x	x (CBIT)	x	
II.C iii: Capacity building programmes on ETS linking/ participation in 6.4 mechanism				x		x (e.g. Partnership for Market Readiness)	
II.D i: International research consortia and networks on promising and emerging mitigation technologies	x	x	x				x
II.D ii: Coordination of submissions on communicating adaptation information				x	x (AF, LDCF, SCCF)		
II.D iii: Share lessons learned from various approaches on deforestation-free supply chains	x	x		x		x (e.g. Forest Carbon Partnership Facility)	x

F Virtual seminar on operationalizing Article 6.8 and 6.9 of the PA

F.1 Agenda of the virtual seminar

Time	Topic	Speaker
15:00-15:05	Welcome remarks	Thomas Forth, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany
15:05-15:10	Context of the research project	Karsten Karschunke, Federal Environment Agency, Germany
15:10-15:15	Introduction of speakers and agenda	Axel Michaelowa, Moderator, Perspectives Climate Research
Session 1: Negotiating the NMA framework and work programme		
15:15-15:25	From COP21 to the COP25 Presidency proposal – a recap of negotiations	Aglaja Espelage, Perspectives Climate Research
15:25-15:30	Reflections on the status of Article 6.8 negotiations: priorities, key issues from an EU perspective	Dimitar Nikov, Ministry of ecological and inclusive transition, France
15:30-15:35	Reflections on the status of Article 6.8 negotiations; priorities, key issues from an AGN perspective	Rachel Boti-Douayoua, Ministry of environment and sustainable development, Côte d'Ivoire
15:35-15:40	Q&A session with the audience	
Session 2: Potential NMAs to be discussed in the work programme		
15:40-15:50	What are NMAs, what is their role in the UNFCCC context and what is the role of the work programme?	Anne-Kathrin Weber, Perspectives Climate Research
15:50-16:00	Presentation of the Adaptation Benefit Mechanism	Luc Gnacadja, Co-Chair of the Executive Committee of the Adaptation Benefit Mechanism
16:00-16:10	Presentation of the EU FLEGT programme	Metodi Sotirov, Senior researcher and lecturer at the Chair of Forest and Environmental Policy, University of Freiburg
16:10-16:15	Q&A session with the audience	
Session 3: Proposals on the operationalisation of the work programme		
16:15-16:30	Proposing a Party-driven, step-wise and effective approach to the implementation of the work programme	Axel Michaelowa, Perspectives Climate Research
16:30-16:55	Panel discussion with the discussants and the wider audience	
16:55-17:00	Closing remarks	Karsten Karschunke, German Environment Agency, Germany

F.2 Summary of the virtual seminar



CONTEXT OF THE RESEARCH PROJECT AND OPENING REMARKS

Karsten Karschunke, Thomas Forth and Axel Michaelowa

On 8 December, a virtual seminar on the operationalization of Articles 6.8 and 6.9 of the Paris Agreement (PA), which form the framework for non-market approaches (NMAs), took place. The seminar was based on the results of a research project carried out by Perspectives Climate Research and supported by the German Environment Agency (UBA). The seminar also featured presentations by climate negotiators who shared their perspective on ongoing Article 6 negotiations as well as researchers and practitioners who laid out potential examples for NMAs to be discussed in a future NMA forum, thereby attracting over 70 participants.

The seminar was opened by Thomas Forth from the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Dr. Karsten Karschunke (UBA). Both speakers emphasized that the seminar represents a good opportunity to pay more attention to non-market cooperation under the PA as negotiations on Article 6.8 are not in the spotlight of international discussions. Thomas also stressed that while there is currently no clear picture on the potential activities to be promoted under Article 6.8, there is a joint understanding that no duplication of work or financing systems should occur under the PA or with other Conventions. Therefore, the seminar and the research project in general can help to prepare negotiators by proposing concrete NMAs to be discussed under Article 6.

The seminar was moderated by Dr. Axel Michaelowa, Research Director of Perspectives Climate Research. He set the scene by outlining that the scope of Article 6.8 is very broad and can cover various fields including adaptation, mitigation, sustainable development, finance, capacity building, technology development and transfer. Hence, the underlying instruments can also be very different. In addition, NMAs would have been defined by what they are not, instead of what they could be.

FROM COP21 TO THE COP25 PRESIDENCY PROPOSAL – A RECAP OF NEGOTIATIONS

Aglaja Espelage

In her presentation, Aglaja Espelage, Researcher at Perspectives Climate Research, provided a recap of negotiations on non-market cooperation. She noted that NMAs can look back at a 10-year history of negotiations with submissions of specific proposals throughout the years. She further explained that whereas **Article 6.8 recognizes the importance of integrated, holistic and balanced NMAs**, Article 6.9 establishes a framework for NMAs under which the Subsidiary Body on Scientific and Technological Advice was tasked to undertake a work programme to facilitate the implementation and coordination of NMAs. She concluded her presentation by summarizing the result of the COP25 Presidency proposal which comprises a definition of NMAs, lays out the modalities and activities to promote NMAs and establishes an NMA forum to govern the NMA framework and implement the work programme. However, as it is well known, no agreement on Article 6 rules and their operationalization could be achieved at COP25 and negotiations continue.



REFLECTIONS ON THE STATUS OF ARTICLE 6.8 NEGOTIATIONS: PRIORITIES, KEY ISSUES FROM AN EU PERSPECTIVE

Dimitar Nikov

Dimitar Nikov, an official at [France's Ministry for Ecological Transition](#) shared the priorities and key issues from the perspective of an EU negotiator. He mentioned that the draft text is well-advanced and only minor changes were undertaken in the last two iterations. He stressed that the **structure of the agenda item needs to ensure that it has a clear function and avoids any duplication with other mitigation, technology and finance discussions**. For this purpose, it would be useful if the UNFCCC Secretariat could provide information on existing approaches and how these are positively interconnected. From an EU perspective, the priority is to produce an efficient outcome that is effective in the implementation of NDCs, also by creating more synergies and interlinkages between various measures. He further stressed that there remain some key issues regarding the negotiation text such as the inclusion of the term "avoidance of emissions", the absent clarification of what falls under technology development and the lack of a common metric for adaptation performance and vulnerability assessment in the case of the Adaptation Benefits Mechanism (ABM) proposal.



REFLECTIONS ON THE STATUS OF ARTICLE 6.8 NEGOTIATIONS: PRIORITIES, KEY ISSUES FROM AN AGN PERSPECTIVE

Rachel Boti-Douayoua

Rachel Boti-Douayoua, an official at the [Ministry of Environment and Sustainable Development](#) in Côte d'Ivoire, provided the African Group of Negotiators (AGN) perspective which considers Article 6.8 a framework to support the implementation of NDCs in the context of poverty eradication and sustainable development with the aim to **enhance both mitigation and adaptation ambition and to enhance public and private investments**. She further outlined that AGN calls for fair and balanced treatment for the whole Article 6 with the following priorities: Establishment of a permanent governance structure to identify problems in a continuous manner and to offer recommendations for the work programme activities; the preparation for technical papers, potentially by the UNFCCC Secretariat and the need to organize workshops that offer guidance, clarification and capacity building. She explained that whereas Article 6.2 and 6.4 are market-oriented, **Article 6.8 can be the tool to focus on people, wellbeing and preserving environmental integrity**. Besides, the implementation of Article 6.8 would benefit from giving more space to Article 6 pilot projects such as the ABM.



WHAT ARE NMAs, WHAT IS THEIR ROLE IN THE UNFCCC CONTEXT AND WHAT IS THE ROLE OF THE WORK PROGRAMME?

Anne-Kathrin Weber

In her presentation, **Anne-Kathrin Weber**, Researcher at Perspectives Climate Research, pointed out potential NMAs to be discussed in the work programme. She explained that the research team proposes the use of four criteria to identify focus areas and concrete NMAs that fall under these focus areas. NMAs should thus be **non-duplicative, not implementable through market mechanisms, transformative and side-lined by international public climate finance**. Besides, the five focus areas identified in the negotiation text (e.g. joint mitigation and adaptation for the integral and sustainable management of forests) are considered too broad by the research team and should, therefore, be further broken down to guide the identification of concrete NMAs. She noted that deforestation-free supply chains could be a potential focus area with the NMA framework providing a venue to share lessons learned from the European Union's Forest Law Enforcement, Governance and Trade program. She further emphasized that a concrete NMA should be a specific form of international cooperation or a specific instrument available to Parties in international cooperation on finance or technological development and transfer and capacity building.



PRESENTATION OF THE ADAPTATION BENEFITS MECHANISM

Luc Gnacadja

Luc Gnacadja, Co-Chair of the Executive Committee of the ABM, presented a concrete example of an NMA, the ABM. The **ABM is envisioned as a results-based financing mechanism** to scale up public and private investments in adaptation and resilience to climate change. Luc outlined that the mechanism introduces certified adaptation benefits (CABS), provides qualitative and quantitative information about social, economic and environmental benefits of adaptation activities or incremental costs and mobilises finance. He further noted that the validation of the certified adaptation benefits would be done in a verified manner and that CABs would thus provide valuable quantifiable information for transparency and reporting including on SDGs or the Global Compact. Both the host and the donor country would receive information for transparency and reporting on climate finance and adaptation. He explained the ABM project cycle which begins with the approval of the ABM methodology, followed by the development of the activity design document (ADD), the approval of the host country through a Letter of Approval, validation and registration of the adaptation activity. So far, the guidelines on the ABM methodologies, the guidelines on the process for proposing a new ABM methodology or methodological tool have been adopted.



PRESENTATION OF THE EU FLEGT PROGRAMME

Metodi Sotirov

Another example of an existing NMA in international cooperation was presented by **Dr. Metodi Sotirov**, Senior Researcher and Associate Professor at the Chair of Forest and Environmental Policy of the University of Freiburg, Germany. Metodi introduced the European Union's Forest Law Enforcement, Governance and Trade (EU FLEGT) program, **a unique policy framework that encourages the displacement of legally (and sustainably) sourced timber and timber products on the EU market**. Interested in tropical countries and interconnected international supply chain actors can choose from two policy responses to meet the EU FLEGT goals. Tropical countries can either negotiate bilateral legally binding trade agreements with the EU (called FLEGT VPAs) after meeting key conditions such as participation of state and non-state actors, robust legal definitions, assurance of timber legality, accountability, transparency and independent monitoring as well domestic forest sector policy reforms, in return for beneficial EU market access and capacity-building support. Or economic operators sourcing timber and timber products from tropical countries need to exercise due diligence of collecting information, assessing and mitigating risks of illegally sourced timber and timber products along global supply chains in order to meet the legally binding obligations of the EU Timber Regulation (EUTR) prohibiting the placement of illegal timber and timber products (from the tropical countries) on the EU market. He stressed that **in order to prevent global deforestation and forest degradation, both supply (like FLEGT VPAs) and demand-side (like EUTR) policy measures are needed**. **Effective international and EU climate-related action against global deforestation** (to mitigate up to 20% of global CO₂ emissions) will require a combination of both supply-side measures aimed at producer countries and economic operations and demand-side measures aimed at countries and companies importing to EU and other key markets (China, USA, Australia, Japan, etc.). He concluded that the EU FLEGT is exactly where discussions under the NMA work programme could help disseminate key lessons learned and good practices on both national flexibility and national legal obligations under international climate hard law (like the NDCs under the PA).

CLOSING REMARKS AND OPEN DISCUSSION

In the seminar's final presentation, **Dr. Axel Michaelowa** outlined the Perspectives Climate Research team's proposal for an effective approach to the implementation of the work programme in the form of a rolling work plan for the NMA forum. He summarized that the institutional framework of the NMA forum should allow for the **flexible diffusion and upscaling of approaches**, thereby relying on a process with clear milestones and steps. The proposal for the implementation of the NMA work programme comprises four steps: Identification of focus areas, identification of NMAs based on submissions, promotion of NMAs and the sharing of results and lessons learned. He stressed that the submissions should ideally be specific submissions that relate to made experiences. Also, the need to set up a workstream for each of the selected NMAs is raised. Eventually, he emphasized that in order to prevent that the NMA forum becomes a mere "talk shop", it needs to be equipped with the necessary resources and support to implement the activities as foreseen in the work programme.

In the subsequent discussion, participants discussed the **need for private sector inclusion** in the NMA work programme and other potential examples for NMAs as well as innovative tools such as **blockchain technologies** for the implementation of concrete NMAs. In addition, the need for actors to mobilise funding for an NMA and innovative approaches to do so such as the ABM were discussed. Participants highlighted the importance of **leveraging innovative sources of finance to reduce the reliance on public finance** that also characterized early proposals on NMAs such as the Bolivian Joint Mitigation and Adaptation Mechanism.