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How to Kick-Start Article 6.4? Identifying ways to make the Art. 6.4 mechanism operational

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Identifying ways to make the Art. 6.4 mechanism operational

Nicolas Kreibich

Contents

- Summary 2**
- 1 Introduction 4**
- 2 The Article 6.4 activity cycle and its elements..... 6**
 - 2.1 Preparation 7
 - 2.2 Designing the sectoral crediting scheme 8
 - 2.3 Approval..... 9
 - 2.4 Implementation 10
 - 2.5 Settlement 11
- 3 Sequencing the operationalization of Art. 6.4..... 12**
 - 3.1 National 13
 - 3.1.1 Political interest in Art. 6.4 13
 - 3.1.2 NDC information and emissions data 13
 - 3.1.3 DNA designation 13
 - 3.1.4 Definition of national Art. 6.4 policy goals 14
 - 3.1.5 Domestic requirements and procedure for activity authorization..... 14
 - 3.2 International 15
 - 3.2.1 The Activity Cycle..... 15
 - 3.2.2 Basic Principles 15
 - 3.2.3 Supervisory Body and Its Supporting Structure 15
 - 3.2.4 Provisions for the development and approval of methodologies..... 16
 - 3.2.5 Accreditation provisions 17
 - 3.2.6 Provisions for activity registration and A6.4ER issuance 17
 - 3.2.7 Registry 18
- 4 Conclusions 19**
- References 21**

Summary

While the Paris Agreement has already kicked-in with the beginning of 2020, carbon markets are still in limbo. At the Conference to the Parties (COP25) in Madrid, Parties again failed to agree on a rulebook for Article 6, increasing the uncertainty among Parties intending to use market-based cooperation more broadly and the Article 6.4 mechanism more specifically. While the most public attention is on exploring the thorny issues that prevent Parties from reaching an agreement, the future operationalization of the mechanism has only received little attention. This paper aims at filling this void by exploring ways how to kick start the Article 6.4 mechanism.

For this purpose, the paper first develops a prototypical activity cycle and identifies key elements needed at the national and international level to make the Article 6.4 mechanism operational. By building on the latest draft rules, modalities and procedures (RM&Ps) that were proposed by the COP Presidency during the last hours of COP25 in Madrid (UNFCCC, 2019) the paper develops a prototypical sectoral crediting programme that is implemented by a public institution.

Subsequently, a process for the operationalisation of the Article 6.4 mechanism is developed by sequencing the installation of the individual elements needed in the different phases of the activity cycle. The analysis differentiates between policy, technical, regulatory, and institutional elements needed for the operationalisation of the mechanism.

Increased relevance and complexity of host country readiness

The findings indicate that the dynamic nature of the Paris Agreement and its Party-centred approach have clear repercussions on the functioning of the Article 6.4 mechanism and its operationalisation: In order to get ready for using Article 6.4, host Parties must develop policy strategies on how they intend to use the mechanism and install institutions equipped with sufficient resources and skilled staff that has access to high quality data and strong data processing capacities. Establishing these institutions and capacities will be of utmost importance for managing the impacts crediting activities will have on Parties' national climate policy.

The challenge of coordinating evolving policies

The process of achieving Article 6.4 readiness will be characterized by coevolution: policy decisions to make use of Article 6.4 will provide the basis for developing the initial institutional and technical readiness, which in turn will provide the basis for more informed policy decisions that will structure domestic processes. Article 6.4 readiness will further be informed by existing domestic processes related to the NDC and national SDG strategies with the potential for achieving strong synergies. Host countries' 6.4 readiness can therefore be expected to evolve in parallel to the emergence of the Article 6.4 architecture at the international level.

International level: Providing clarity on the mechanism's functioning and its requirements

At the international level, the focus should be on taking **basic policy decisions** by establishing generic principles of Art. 6.4, despite the well-known difficulties among negotiating Parties. These principles will be important points of orientation for countries to decide if and how they want to use Article 6.4. This includes an **agreement on the basic structure of the activity cycle and principles for methodologies and baseline and additionality approaches**. These should be translated into generic but mandatory requirements with prescriptiveness increasing over time.

When developing the detailed provisions of the Article 6.4 mechanism, one general recommendation is to **focus on those provisions that directly impact entities beyond the UNFCCC**, such as eligibility requirements for host countries and activity proponents or accreditation provisions for DOEs.

National level: Gaining political clarity and advancing synergistic readiness activities

Despite the strong links between the processes at the international and national level, countries interested in hosting Article 6.4 activities must not wait for all details to be agreed at the international level but they can start increasing their Article 6.4 readiness through numerous activities at the national level:

In order to arrive at an early policy decision on how to use Article 6.4, interested Parties could initiate an **exchange process with stakeholders** to discuss the potential of engaging as a host country. Subsequently, **institutional readiness** could be increased by gaining experiences on how evolving Article 6.4 rules could be operationalized at the national level.

Given the synergies between NDC implementation and Art. 6.4 readiness, increasing **technical readiness** by improving **data quality and processing capacities** seems a no-loose option. Parties could further aim at exploiting synergies with other processes, such as NDC development and implementation as well as reporting processes.

1 Introduction

Article 6 of the Paris Agreement provides Parties with the option to cooperate in the implementation of their nationally determined contributions (NDCs). One possibility Parties have at their disposal is the use of the “mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development”, included under Article 6.4 of the Agreement.

While the Paris Agreement has already kicked-in with the beginning of 2020, carbon markets are still in limbo. At the Conference to the Parties (COP25) in Madrid, Parties again failed to agree on a rulebook for Article 6, increasing the uncertainty among Parties intending to use market-based cooperation more broadly and the Article 6.4 mechanism more specifically. While the focus of public attention is on exploring the thorny issues that prevented Parties to reach an agreement, the future operationalization of the mechanism has only received little attention. This paper aims at filling this void by exploring ways how to kick-start the Article 6.4 mechanism.

While there is no clear definition of what a ‘mechanism’ may comprise, there is common agreement that it will entail several elements such as institutions, rules and processes at the international level. At the same time, future host Parties will have to develop “building blocks for market readiness” (Aasrud et al., 2010) or elements that allow for the development and implementation of Article 6.4 activities. This paper aims at identifying the key elements needed at the national and international level and how their development could be sequenced in order to make the Article 6.4 mechanism operational.

For this purpose, the paper will first develop a prototypical activity cycle in order to identify the main elements. This will be done by building on the latest draft rules, modalities and procedures (RM&Ps) that were proposed by the COP Presidency during the last hours of COP25 in Madrid (UNFCCC, 2019). The policy paper uses this last draft text as a basis for developing a prototypical activity cycle for an Article 6.4 mechanism that gives a key role to the supervisory body that could be described as ‘supervisor role’ (Obergassel, 2018) or ‘centralized governance’ (Michaelowa, Espelage, et al., 2019). The prototypical activity explored will be a sectoral crediting programme that is implemented by a public institution in a sector covered by the NDC. Such an activity type could allow the Article 6.4 to go beyond the project-based approach known from the CDM in order to achieve emission reductions at scale and induce a broader sectoral transformation. However, most aspects explored in the following are also relevant for project-based activities.

The subsequent section will then take a closer look at the individual elements identified as necessary for the operationalisation of the mechanism and explore how they could be installed at international and host Party level in order to kick-start the Article 6.4 mechanism. The analysis differentiates between main policy, technical, regulatory and institutional elements needed for the operationalisation of the mechanism, while acknowledging that the analysis is not conclusive and that additional elements might be relevant. Furthermore, it should be noted that the analysis does not take into account the acquiring Party and the elements needed for acquiring emission reductions. In the same

vein, we do not look into the internal organisation processes of validators and verifiers (Designated Operational Entities) and further excluded private entities (NGOs, civil society organisations) that might play a role in MRV or stakeholder involvement processes.

The **structure of the paper** is as follows: Section 2 outlines the lifecycle of a sectoral Article 6.4 activity. It identifies key building blocks needed for its implementation and highlights their interactions. Building on these observations, section 3 describes which of the building blocks should be prioritized and how their establishment should be sequenced in order to allow for Article 6.4 to become operational. Section 4 concludes.

2 The Article 6.4 activity cycle and its elements

In order to identify the building blocks relevant for Article 6.4 we will look into a prototypical activity cycle. Article 6.4 will presumably allow for activities of different scales (stand-alone projects, programmes, sectoral crediting, etc.) and activities may be developed and implemented by different types of activity participants (e.g. national governments, private sector actors).

In the following, we will assume that a public entity designs and implements a sectoral crediting activity under Article 6.4. We chose this activity type based on the assumption that Article 6.4 will have to go beyond the project-based approach known from the CDM in order to achieve emission reductions at scale and to induce a broader transformational change (see: Kreibich & Obergassel, 2019). In principle, one could assume that if a sectoral scheme is driven by a public entity processes of national authorization will be redundant as such a scheme will per se be in line with national priorities. This, however, must not always be the case, which is why we

will in the following keep the tasks of scheme coordination by the activity proponent separate from the domestic authorization of the activity done by the Designated National Authority (DNA), as envisaged by the draft RM&Ps (para 26c, Annex, UNFCCC, 2019). This division of tasks can ensure transparency, reduce the risk of conflicts of interest and allow the future development of other Article 6.4 activities.

For our analysis, we will build on the latest draft decision text from the Article 6 negotiations in Madrid (UNFCCC, 2019). Since Parties were unable to find agreement, this last draft text together with two previous text versions will be used as basis for future negotiations. One contentious issue in the negotiations has for a long time been the division of tasks between the Supervisory Body and the host country governments (for a discussion of different roles see: Obergassel, 2018). The draft RM&Ps contain numerous provisions that would give birth to a centrally governed mechanism. At the same time, some provi-

Figure 1: The five phases of the activity cycle and their key steps

Preparation	Design	Approval	Implementation	Settlement
Domestic governance arrangement	Scope and coverage	Authorization	Monitoring	Issuance
Checking access eligibility	Additionality demonstration	Validation	Reporting	Accounting
Data collection and processing	Baseline definition	(Appeal)	Verification	Share of proceeds
	Crediting period	Registration	Certification	Overall mitigation
	Climate impact estimation			Transfer
	Monitoring plan			
	Stakeholder Involvement			
	Grievance			
	Safeguards			
	SD benefits			

sions allow for a more Party-driven approach subject to future decisions by the CMA (see paras 24 a) vii and 27 c of the RM&Ps contained in UNFCCC, 2019). In the following, the centrally governed approach around which the draft RMP&Ps were drafted will be used as a starting point for developing a prototypical activity cycle. Areas where the draft RM&Ps already provide guidance will be highlighted by referencing the respective section.

By going through the activity cycle of the crediting activity we aim at identifying the building blocks needed for the operationalisation of the mechanism established under Article 6.4 of the Paris Agreement. The activities taking place at the crediting activity level can be differentiated into five broad phases, each of which includes different individual steps (see Figure 1).

2.1 Preparation

Sectoral crediting schemes will presumably be initiated by national governments. Before beginning with the design of the scheme, the government must make **domestic governance arrangements** by designating an entity in charge of the design and implementation of the sectoral scheme. Given the need to align the scheme with the national mitigation strategy, a close and direct involvement of the agencies responsible for NDC development and implementation would be advantageous when defining the activity proponent. This would also ensure that common data and assumptions are used in the different processes, such as baseline setting and monitoring (Broekhoff et al., 2017). However, sectoral crediting schemes could also be initiated by national authorities or sub-national entities. In such cases, alignment with the national priorities and objectives of using Article 6.4 is ensured through the authorization

of the activity by the DNA during the approval stage.

Among the first tasks of the activity proponent is to check the **access and eligibility criteria** of Article 6.4, as these could impact the design of the sectoral scheme envisaged. The scale of a mitigation activity is one of its key determinants. The draft RMPs state that the activity can be a project or a programme as well as another type of activity approved by the Supervisory Body (para 31b, Annex, UNFCCC, 2019). The activity proponent will therefore have to assess whether and how approval by the Supervisory Body will be possible.

Similarly, the activity proponent will need to have a clear understanding of the different types of mitigation that can be implemented under the Article 6.4 mechanism. The draft RMPs, for instance, refer to activities that reduce emissions or increase removals, while not making reference to activities aiming at the avoidance of emissions (para 31a, Annex, UNFCCC, 2019). Since these provisions might change over time based on decisions taken by the CMA or the Supervisory Body, the activity proponent must possess respective knowledge.

Similarly, clarity on the eligibility of sectors will be crucial. In the forestry sector, for instance, carbon market activities are confronted with specific challenges such as non-permanence, higher data uncertainties and higher risks for adverse impacts on vulnerable groups. These peculiarities could lead to the exclusion of the sector from the mechanism. More generally, clarity is needed on the question of whether the Article 6.4 mechanism will be exclusively focused on sectors covered by an NDC or if it will also be applicable to emission sources that are beyond the NDC's scope. (for a discussion of the accounting challenges and possible solutions see: Schneider et al., 2020). Another relevant

aspect that will determine the feasibility of a mitigation activity under Article 6.4 is the eligibility of technologies. In the past, the UNFCCC has pursued a ‘technology-neutral approach’, allowing for a broad range of mitigation technologies to be used under the CDM. Given the incompatibility of some mitigation technologies with the long-term targets of the Paris Agreement, exclusion of specific technologies, such as superefficient coal, through a negative list could be possible (for a discussion on positive and negative lists see: Denishchenkova et al., 2019). In order to robustly assess how the international eligibility provisions relate to the envisaged sectoral crediting scheme, the activity proponent must possess (or have access to) respective technical and policy expertise.

If there is clarity on the access and eligibility rules of the Article 6.4 mechanism, the activity proponent can begin with the process of **data collection** and the estimation of mitigation potential and abatement costs. For these initial estimates, rough data can be expected to be sufficient, while high granularity data will be required at a later stage. To build on existing capacities and allow for synergies it seems advisable to designate this task to an institution that is involved in the NDC updating process and the preparation transparency reports to the UNFCCC.

2.2 Designing the sectoral crediting scheme

The phase of designing the sectoral crediting scheme begins with the definition of its scope as well as the entities and the emission sources that will be subject to crediting, following the provisions of the Supervisory Body. At first sight, **defining the scope and coverage** of a sectoral scheme seems straightforward, as the scheme is based on

the definition of a “sector”. In practice, however, individual companies, plants or processes might be attributed to different sectors. For instance, a cogeneration unit that produces heat and electricity in the cement sector might qualify as a power generator or as an energy supply source in the cement sector (Aasrud et al., 2010). There might also be other sectoral peculiarities that must be taken into account when defining the coverage of a scheme. From a technical point of view, this process will require robust sectoral data with high granularity to be in place. Political willingness to address the emissions of a specific sector will further be a key precondition for establishing the scheme, and the activity proponent will have to balance expected costs and benefits within and beyond that sector.

The activity proponent will then need to **demonstrate the additionality** of the proposed activity by providing clarity on the relationship between the sectoral scheme and the NDC, following the provisions of the Supervisory Body. In order to provide this information, the host country needs an NDC that provides clarity regarding sectoral scope, timeframe, GHG gases as well as conditional and unconditional elements. This information must then be combined with sectoral emissions data, allowing to assess the impact of the NDC on the respective sector and how the crediting scheme relates to that sector. In providing this information, there might be considerable synergies with other requirements under the UNFCCC.

A process closely linked to the previous steps is the **definition of the crediting baseline**, which determines the basis for calculating the credits generated by the scheme. The technical elements needed in terms of data and data processing capacities will depend on the specific method for baseline development approved and/or developed by the

Supervisory Body (para 24a (ii), Annex, UNFCCC, 2019). While these will build on the technical elements needed for disclosing the relationship between NDC and sectoral scheme, the development of the sectoral baseline further requires political considerations regarding how the Party intends to achieve its NDC and how it will manage the risk of overselling. Similar technical and policy building blocks are required for the **definition of the crediting period** and the **estimation of emission reductions**.

Robust monitoring is a key precondition for accurately determining the emission reductions achieved by the sectoral crediting scheme. Monitoring follows a **monitoring plan** that is developed by the activity proponent and which allows for the monitoring of the activity according to rules established by the Supervisory Body (para 47, Annex, UNFCCC, 2019). The monitoring plan should include the following (Schneider & Cames, 2009):

- The institutions involved in monitoring
- The type of data that will be collected
- The procedures for data collection
- The methods used
- Quality assurance and control measures

The monitoring plan must match the methodological approaches used to determine the sectoral crediting baseline in order to reduce any bias associated with the methodologies used for estimating emission reductions (Schneider & Cames, 2009).

The design process should be accompanied by a **stakeholder involvement process** that allows individuals or institutions that will presumably be affected by the policy instrument to express their views. The stakeholder involvement process should be initiated at an early point in time, in order to allow the activity proponent to take comments into consid-

eration when designing the crediting scheme. The process documentation should indicate how comments have been taken into consideration and how international and national provisions have been observed. The stakeholder involvement process should not end with the approval of the activity but continue throughout its implementation. Later complaints can further be processed by a **grievance mechanism**. In order to ensure robust reporting on sustainable development impacts, **MRV of social and environmental impacts** should also be initiated at this early stage of activity design.

All design processes must be recorded according to the requirements established by the Supervisory Body and the DNA, if applicable, to then undergo approval.

2.3 Approval

The approval phase begins with the compilation of the activity proposal documents by the activity proponent. This should be done by using standardized templates and adhering to the guidelines developed by the Supervisory Body and the DNA. The proposed activity is then submitted to the DNA for **authorization** according to national provisions. During this domestic approval process, the host Party would also have to compile the information needed for the approval of the activity by the Supervisory Body: a confirmation of and information on the sustainable development contributions of the activity, an explanation of how the activity relates and contributes to host Party's NDC and other purposes referred to in Article 6.1 of the PA, such as ambition raising. Together with the authorization of the activity proponent as an activity participant these documents must be submitted to the Supervisory Body prior to the request for registration (paras 39 and 40, Annex, UNFCCC, 2019).

This step is followed by the **validation of the proposal documents** through the Designated Operational Entities (DOEs) accredited by the Supervisory Body using uniform validation requirements and procedures (para 43, Annex, UNFCCC, 2019). In order to avoid any conflicts of interest, the mandate to validate the proposal should be given by the Supervisory Body. If the validation is positive, the DOE then submits a request for **registration** to the Supervisory Body (para 44, Annex, UNFCCC, 2019).

At this stage, the activity proponent pays a registration fee to cover administrative expenses (para 44, Annex, UNFCCC, 2019). The level and implementation procedures are to be determined by the CMA (para 56, Annex, UNFCCC, 2019). Building on the experiences made with the CDM, this initial share of proceeds will presumably be based on the amount of emission reductions the activity is expected to generate and only be a fraction of the administrative expenses, with the remainder to be paid at issuance (Michaelowa, Greiner, et al., 2019). The Supervisory Body then decides whether the validation and its outcome meet the requirements adopted by the Supervisory Body and registers the activity (para 46, Annex, UNFCCC, 2019). Following the common practice under the CDM, the decision on the registration will presumably be made on the basis of a process in which the Supervisory Body and its subordinate bodies together with the UNFCCC Secretariat assess whether the methodologies have been applied correctly. In case a new methodology has been submitted together with the proposal, the Supervisory Body assesses whether the new methodology meets predefined requirements before approving it (para 34, Annex, UNFCCC, 2019). Following the common practice under the CDM, approved methodologies should be recorded in an open database. The review of the proposal and methodologies is the basis for the deci-

sion by the Supervisory Body to approve or reject the mitigation activity. In case the proposal has been rejected, the activity proponent could **appeal against the negative decision** made by the Body or request that a grievance be addressed by the body (para 59, Annex, UNFCCC, 2019). This requires an Appeals Body to be established at the international level. Once potential appeal and grievances have been addressed, the activity will be registered, which is then included in the mechanism registry.

2.4 Implementation

Once approved, the actual implementation phase can begin. The activity is monitored in accordance with the relevant requirements adopted by the Supervisory Body (para 47, Annex, UNFCCC, 2019). **Monitoring** should follow the monitoring plan submitted at the moment of registration. It must not be limited to parameters describing the performance of the crediting scheme but can also include additional data to control for leakage of emissions. Depending on the type of baseline applied, additional data might be required. The implementation of the monitoring plan will require a clear institutional structure to be in place, with the activity proponent supervising the monitoring activities and ensuring that monitoring data is recorded centrally in order to be compiled in monitoring reports, which constitute the basis for **reporting**.

The monitoring reports are then forwarded to a designated operational entity for **verification** against uniform requirements included in the RM&P, further decisions by the CMA and additional requirements adopted by the Supervisory Body (para 48, Annex, UNFCCC, 2019). After the successful verification of the reports, the DOE certifies the emission reductions. The **certification** and the verification

outcome are then forwarded to the Supervisory Body together with a request for issuance (para 49, Annex, UNFCCC, 2019).

2.5 Settlement

The last phase of the activity cycle consists of issuance and accounting processes that do also include further deductions (share of proceeds and contribution to overall mitigation).

The **issuance** of the certificates is implemented after positive assessment of the verification and certification documents by the Supervisory Body (para 50, Annex, UNFCCC, 2019). The host Party will then implement a corresponding adjustment for the total number of certificates issued according to the **accounting** rules adopted for Article 6.2 of the Paris Agreement (para 67, Annex, UNFCCC, 2019).

The Supervisory Body supervises the registry which contains different account types, such as a pending account, accounts for each Party and each participating entity as well as a share of proceeds account and an account for overall mitigation (para 60, Annex, UNFCCC, 2019). The registry administrator issues the amount of certificates matching the verified emission reductions achieved by the activity. Certificates will presumably first remain in the pending account of the registry, allowing a share of the certificates (in kind and monetary) to be deducted from the certified amount of ERs as a **share of proceeds for administration and adaptation** (Michaellowa, Greiner, et al., 2019).

Article 6.4 is further “to deliver an overall mitigation in global emissions” (Art. 6.4 d, PA), which will be understood as referring to a net climate benefit of Article 6.4 activities resulting from the mechanism’s regulations. **Overall mitigation** will be achieved by transferring a share of the issued certificates to the

cancellation account in the registry. The level is to be determined by the CMA but shall be no less than 2 per cent (para 67b, Annex UNFCCC, 2019).

The remaining certified emission reductions are then **transferred** to other accounts in accordance with the instructions of the activity participants (para 57, Annex, UNFCCC, 2019).

3 Sequencing the operationalization of Art. 6.4

The analysis of the prototypical activity cycle has shown that numerous building blocks will have to be established in order to make the Article 6.4 mechanism operational. The section further revealed that the relevance of building blocks varies: While some are only needed for one specific step, others are relevant for the success of several individual steps of the process.

Building on these observations we will in the following develop a process that aims at operationalisation of the Article 6.4 mechanism. The following questions will guide this section:

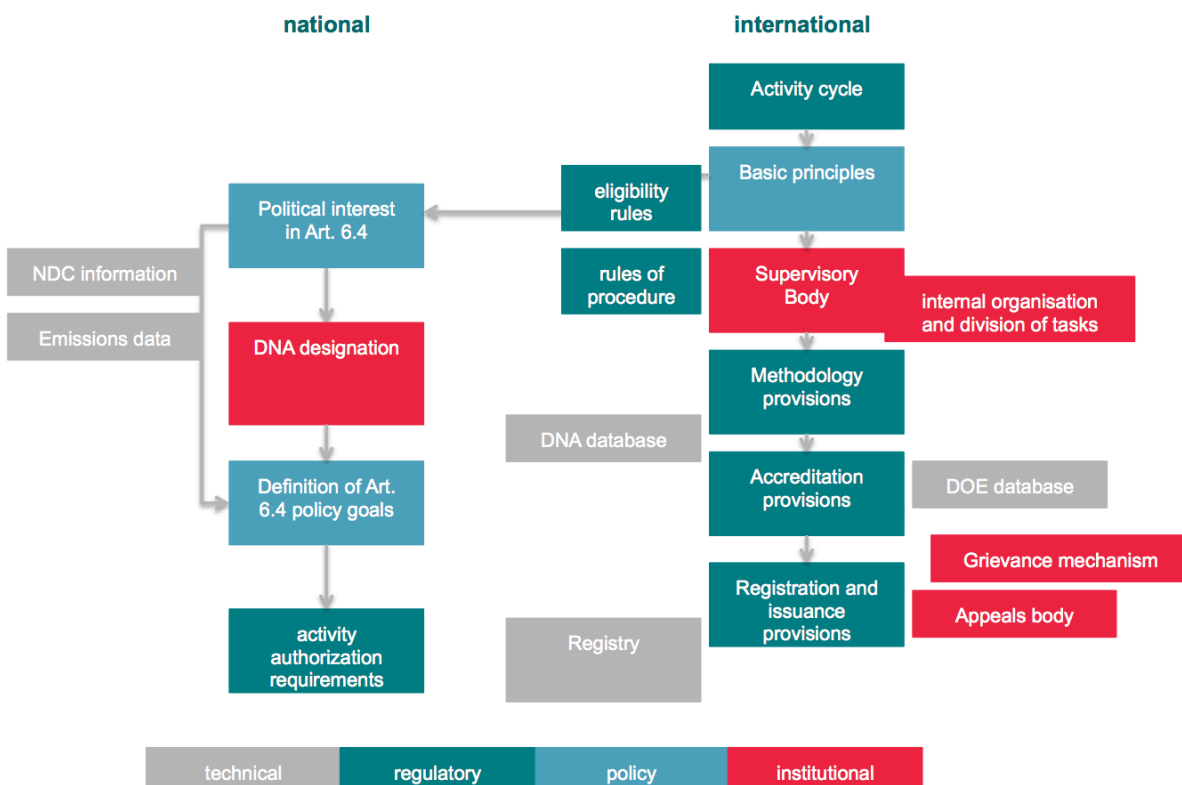
- Which elements should be prioritized in the process of making Article 6.4 opera-

tional and which elements could be postponed?

- What are relevant path dependencies and lock-in effects? How could the (non-) existence of individual provisions impact the operationalization of Article 6.4?
- Which building blocks are also relevant for processes outside Article 6.4? Is it possible to identify synergies that could facilitate the establishment of these building blocks?

Figure 2 illustrates key elements needed for the operationalization of Article 6.4 and how their installation could be sequenced. The analysis differentiates between main policy, technical, regulatory and institutional ele-

Figure 2: Main elements needed for the operationalization of Article 6.4 and how their installation could be sequenced.



ments needed for the operationalisation of the mechanism. The following section first presents the individual elements relevant for the national level, followed by the elements at the international level.

3.1 National

3.1.1 Political interest in Art. 6.4

When submitting their first NDCs, more than 80 Parties to the Paris Agreement expressed general interest in using market-based approaches (Obergassel & Gornik, 2015; Graichen et al., 2016). Since then, five years have passed and the design of the mechanism has become much clearer, calling for a reassessment of the intention to use such instruments and more specifically to act as a host Party of Article 6.4 activities. For a first assessment of expected benefits and costs accruing from Article 6.4, governments could initiate an exchange process with line ministries and also involve stakeholders from the private sector, civil society organisations and academia. The outcomes of this process could inform the national Article 6.4 arrangements or be used as a starting point for the development of a national steering committee that supervises the work on Article 6.4 (see: Schneider & Cames, 2009).

3.1.2 NDC information and emissions data

Ensuring clarity and understanding of the host country's NDC is a key prerequisite for the use of Article 6.4. Future activity participants can use this information for identifying potential Article 6.4 mitigation activities. At the same time, the host Party itself will benefit from this information, as it provides the basis for assessing the climate policy impact of proposed mitigation activities. And there

are also considerable synergies with provisions from the Paris Agreement, which requires each Party, in communicating its NDCs, to provide "information for clarity, transparency and understanding" (Article 4.8 of the Paris Agreement).

A second aspect that is closely linked to providing NDC clarity is the gathering of emissions data: The Katowice rulebook requires all Parties participating in cooperative approaches under Article 6.2 to biennially submit the annual level of anthropogenic emissions and to provide an emissions balance that reflects the corresponding adjustments applied (para 77d of the Katowice rulebook). While it is unclear whether these provisions will also be applicable under Article 6.4, Parties interested in using Article 6 should start with this process at an early stage, taking into account that developing the technical and institutional capacities required can be time consuming.

3.1.3 DNA designation

Designating a national authority is one key first step towards making Art. 6.4 operational at the national level. Under the CDM, late assignment of DNAs had caused considerable delays in some countries (Schneider & Cames, 2009). In particular in the early days of the CDM, obtaining a letter of approval proved to be a bottleneck for project developers caused by long and complex inter-ministerial processes (PCG, 2019). Based on these experiences, designation of DNAs should not be delayed and those countries that were hosting mitigation projects and programmes under the CDM could build on the institutional structure established. At the same time, it will be key to take into account that the authorization process for Article 6.4 activities will be much more complex, requiring DNAs not only to take into account the sustainable development contributions of proposed activities

but also their climate policy impacts. The DNA will therefore have to assess whether activities are aligned with the NDC and actually achieve additional emission reductions (Oberghassel, 2018). As noted in the preceding chapter, DNAs will in the future not only have to issue host country letters of approval but also carry out corresponding adjustments, once the A6ERs have been transferred. DNAs' mandate will hence have to be expanded considerably (Kachi et al., 2020).

During its initial time of operation, the DNA can gain first experiences with these processes, for instance through dealing with hypothetical activities or pilots. An early designation of the DNA would also allow the individuals to closely follow the Article 6 negotiations process and get familiar with emerging regulatory requirements. This would allow the DNA to further fine-tune its processes and composition, and make sure it has access to the information and resources required. Therefore, internal governance arrangements should not be conclusive but remain open to future modifications: As the rules of the Article 6.4 mechanism evolve and the Party's objective in using the mechanism might change, the appropriateness of the domestic governance arrangements should be reassessed and modified, if needed.

3.1.4 Definition of national Art. 6.4 policy goals

Once the basic principles and eligibility criteria for Article 6.4 (see section 3.2.1 below) have been agreed at the international level, the host country can initiate more concrete definition of the goals pursued through the use of Article 6.4. The outcome of the initial stakeholder discussions (see section 3.1.1 above) can be underpinned by emissions data and initial experiences and observations made by the DNA. Discussions should revolve in particular around two aspects:

- How do we want Article 6.4 activities to support (and not undermine) domestic climate action?
- How can activities support the achievement of sustainable development goals?

The answer to these two questions will provide the basis for defining the policy goals.

3.1.5 Domestic requirements and procedure for activity authorization

The Article 6.4 policy goals agreed by the government provide the basis for establishing domestic requirements and procedures for the authorization of Article 6.4 activities by the DNA. The definition of domestic requirements will be informed by the Article 6.4 policy goals as well as by existing national law and practice, such as stakeholder involvement processes. The requirements should be clearly defined and specified with indicators and criteria, allowing activity proponents to take them into consideration when developing their activities. The information gathered from activity proponents should allow the DNA to robustly assess whether the requirements are met. The experience with the CDM shows how important it is to establish robust, clear and transparent assessment criteria and processes: Many CDM host countries had established weak approval criteria and procedures (Sterk et al., 2009).

The assessment of proposed activities is part of a larger authorization process, which culminates with the issuance of an LoA to the activity participant. LoAs will also be required for the transfer of A6ERs after successful implementation of the Article 6.4 activity, requiring respective processes to be in place.

3.2 International

3.2.1 The Activity Cycle

The activity cycle is a key regulatory element. The draft RM&Ps contain a generic activity cycle for Article 6.4 activities which reflects a common understanding of how mitigation activities will be implemented under the new mechanism. With the further development of its processes and provisions the activity cycle will become more elaborate and specific. As such, the activity cycle will be both the starting point of the operationalisation of Article 6.4 and its final point, with the latter being an elaborated form of the former. Detailed provisions will become part of the activity cycle following the adoption of respective decisions by the CMA.

3.2.2 Basic Principles

Principles are characterized by low prescriptiveness and strong legal bindingness. The San José Principles which were supported by several Parties at COP25 in December 2019 in Madrid can be seen as an example of such generic principles (DCC, 2019). To guide the operationalization of the Article 6.4 mechanism, generic principles will have to be adopted at an early stage at the highest governance level by the CMA. The draft RMPs already include some basic principles related to the impact of activities, some of which have already been agreed at COP21 in Paris (para 31d, Annex, UNFCCC, 2019). According to these principles, activities shall:

- Deliver real, measurable and long-term climate benefits
- Minimize the risk of non-permanence of emission reductions, and
- avoid negative environmental and social impacts

These and other generic principles will have to be complemented by more specific principles that are more closely related to the operational level. Para 36 of the draft RMPs explicitly calls for the CMA to adopt “principles for methodologies and baseline and additionality approaches” (para 36, Annex, UNFCCC, 2019). These principles will guide the development of methodological provisions for Article 6.4 as well as decisions on how to design individual institutions, in particular the Supervisory Body.

3.2.3 Supervisory Body and Its Supporting Structure

The Supervisory Body will be established by the CMA, who will define composition, rules of procedure and the responsibilities of the institution. The draft RM&P do already include respective provisions: Regarding the composition, the rules of procedure contained in the draft RM&Ps specify that the Supervisory Body will comprise 12 members ensuring equitable geographical representation, with member being elected by the CMA on the basis of nominations by groups and constituencies (paras 4a and 5, Annex, UNFCCC, 2019). The text further specifies how members will be elected, how long terms will be, and under which circumstances members may be suspended (paras 5 to 15, Annex, UNFCCC, 2019).

Notwithstanding the fact that the members of the Supervisory Body will be elected by the CMA (para 5, Annex, UNFCCC, 2019), the selection process should be guided by the criterion of technical and policy expertise while taking into account the provisions to maintain regional balance. Technical and policy expertise has already been a requirement under the CDM EB. However, experience has shown that some of the Executive Board’s decisions were at times driven by political considerations rather than scientific findings,

as the decision to keep positive lists for renewable energy unchanged despite massive cost reductions for solar PV and other technologies.

The draft RMPs also detail the decision making mode of the Supervisory Body, with consensus being the standard mode and a three fourth majority if all efforts at reaching consensus have been exhausted (para 22, Annex, UNFCCC, 2019). These rules of procedure will have to be elaborated further and agreed on by the CMA (para 7b, UNFCCC, 2019). The draft rules of procedure as well as the provisions regarding transparency of decisions making and the public access to documents is largely in line with the procedures known from the CDM Executive Board.

It will be important to equip the Supervisory Body with sufficient financial resources from the very beginning. Under the CDM, the Executive Board experiences financial constraints during its first years of operation when it had to rely on voluntary pledges from individual industrialised countries (Schneider & Cames, 2009).

Once established, the Supervisory Body will start developing the requirements and processes for performing its key functions as contained in the draft RM&Ps (see: para 24, Annex, UNFCCC, 2019), including the development and approval of methodologies, the accreditation of DOEs, the registration of activities and issuance of A6.4ERs (see sections below). The draft CMA decision contains a mandate for the Supervisory Body to develop provisions to further elaborate the activity cycle (para 5, UNFCCC, 2019). In order to become operational, these provisions would have to be adopted by the CMA as the political body responsible for the Art. 6.4 mechanism.

In parallel, the Supervisory Body will have to develop its organisational structure. This internal organisation can be expected to be an

ongoing process, with new panels, committees, or working groups being installed if deemed necessary. While the draft RM&Ps do not contain an explicit mandate to establish such bodies, the request to develop the necessary requirements and processes for its operation (para 22a, Annex, UNFCCC, 2019) could be seen as providing the basis for this endeavour. Once developed, the CMA will have to govern the interaction between the Supervisory Body and its supporting structure by adopting detailed rules of procedure. This is largely in line with the practice of the CDM Executive Board of the Clean Development Mechanism which is assisted by several entities that were installed over time and which could partially be reused under the Article 6.4 mechanism (PCG, 2019). Similarly, the Supervisory Body can also be expected to be supported by the UNFCCC Secretariat in the future, which will serve as the secretariat of the Supervisory Body (para 25, Annex, UNFCCC, 2019).

In the installation process of a grievance mechanism and an appeals body, the Supervisory Body should play a limited role in order to avoid conflicts of interest, since these bodies are intended to control of decisions by the Supervisory Body. Their installation should hence be driven by the CMA.

3.2.4 Provisions for the development and approval of methodologies

Methodologies for the demonstration of additionality, baseline setting and monitoring will have to build on the principles agreed by the CMA (see section 3.2.1 above). They could either be developed bottom-up by activity participants, host Parties and stakeholders or top-down, by the Supervisory Body (para 33, Annex, UNFCCC, 2019). Both approaches were successfully applied under the CDM. Furthermore, standardization gained increasing relevance during the last years of opera-

tion of the CDM, significantly reducing transaction costs and making procedures more objective. Under the Article 6.4 mechanism, standardization will presumably play an even more important role (PCG, 2019).

In order to kick-start the Art. 6.4 mechanism, the Supervisory Body is therefore confronted with numerous tasks:

- Developing of (a limited number of) methodologies in a top-down manner;
- Publishing standardized baselines or other elements to facilitate bottom-up development of a wider range of methodologies;
- Establishing procedures for the assessment and approval of proposed methodologies.

Whether the Supervisory Body should prioritize one of the tasks over the others is difficult to answer and requires further assessment. The Body could for instance start by developing the procedures for dealing with proposed methodologies to then more actively engaging in the development of methodologies. Both tasks would have to be in line with commonly agreed provisions. The draft CMA decision requests the Supervisory Body to develop such provisions (para 5b, UNFCCC, 2019). These would have to be adopted by the CMA at a later stage to find their way into the activity cycle and become operational.

3.2.5 Accreditation provisions

Under the CDM, DOEs experienced difficulties in developing sufficient internal expertise and interpreting existing rules and requirements for auditing CDM activities. This led to difficulties in ensuring the environmental integrity of activities (Dyck, 2010). To avoid a similar situation under the new Art. 6.4 mechanism, the CMA and the Supervisory Body should establish the requirements and

procedure against which DOEs are to validate and verify proposed activities at an early point in time and provide additional explanation and clarifications to guide their interpretation. These provisions will also provide the basis for the accreditation requirements and processes, that will be established by the Supervisory Body in accordance with relevant CMA decisions (para 24a, Annex, UNFCCC, 2019). In elaborating the provisions, the Supervisory Body is to review the accreditation standards and procedures of the CDM, according to the draft CMA decision (para 5d, UNFCCC, 2019).

Providing clarity at an early point in time to establish the necessary expertise by DOEs will be particularly relevant under Article 6.4: The bottom-up architecture of the Paris Agreement and its dynamic NDC cycle might make additional requirements to DOEs necessary.

3.2.6 Provisions for activity registration and A6.4ER issuance

The requirements and processes for the registration of activities and the issuance of A6.4ERs will be established by the Supervisory Body in accordance with relevant decisions of the CMA (para 24a (iii), Annex, UNFCCC, 2019). The provisions will build on the principles established by the CMA, methodologies developed and approved by the Supervisory Body and their respective templates and guidelines.

The procedure for the registration of activities include division of task between (dedicated bodies of) the Supervisory Body and the Secretariat to the UNFCCC. Building on the experiences made with the Clean Development Mechanism, the Secretariat could be mandated with numerous tasks, such as recording the requests for registration and issuance by maintaining a dedicated database with reference numbers, making initial completeness checks of the information provided

and communicating with DOEs and activity proponents. When elaborating the requirements, procedures and timelines, the Supervisory Body will have to take into account the capacities needed and put these in relation to the expected requests. The team responsible for the technical assessment must possess sufficient resources and technical knowledge for this task and have no conflicts of interest (Schneider & Cames, 2009).

The Supervisory Body will further have to adopt requirements and a process for the issuance of A6.4ERs. These provisions can be expected to be rather procedural as they will mainly require the DOE to provide the documentation of how the validation and verification criteria defined elsewhere have been met. The procedures on how to review requests for registration and issuance will become part of the activity cycle through the adoption of a CMA decision.

3.2.7 Registry

In order to keep record of the transactions and avoid double counting, a registry must be installed. The registry will be operated by the Secretariat under the authority of and according to the requirements adopted by the Supervisory Body (UNFCCC, 2019, Annex para 61). The registry will have to contain several accounts to cover diverse functions such as cancellation for a contribution to overall mitigation and share of proceeds. The draft RM&Ps do contain some information on the functions the registry is to perform which (para 60, Annex, UNFCCC, 2019). These will have to be specified through a decision by the CMA. The installation of the registry is largely delinked from the development of other building blocks.

4 Conclusions

This paper has first outlined the different phases of a prototypical sectoral crediting activity implemented under the Article 6.4 mechanism, allowing for the identification of the building blocks required at national and international level. Building on key observations made, a sequenced process for the establishment of the policy, institutional, technical and regulatory elements towards making Article 6.4 operational was developed.

Increased relevance and complexity of host country readiness

The prototypical activity cycle and the operationalization process show that the dynamic nature of the Paris Agreement and its Party-centred approach have clear repercussions on the functioning of the Article 6.4 mechanism: In order to manage the impacts crediting activities will have on their national climate policy, host Parties must establish strong institutions equipped with sufficient resources and skilled staff that has access to high quality data and has the capacities to process this data. Strong political backing of these institutions and a clear national strategy on how to use Article 6.4 will be needed.

The relevance of aligning Article 6.4 use with the domestic climate policy becomes particularly clear when looking at the example of a sectoral crediting activity proposed by a public entity. But the same also holds if the Article 6.4 mechanism is based on single project activities proposed by the private sector: When developing provisions for the authorization of these activities host countries must have a political vision of how these should

impact on its pathway towards achieving its NDC and long-term mitigation objectives.

This shows that under Article 6.4 host country readiness will not only be much more relevant than under the CDM but also increasingly more complex to achieve.

The challenge of coordinating evolving policies

The process of achieving Article 6.4 readiness will be characterized by coevolution: policy decisions to make use of Article 6.4 will provide the basis for developing the initial institutional and technical readiness, which in turn will provide the basis for more informed policy decisions that will structure domestic processes.

Development of Article 6.4 readiness will further be informed by existing domestic processes related to the NDC and a national SDG strategy. As has been observed by others (Tänzler et al., 2019), strong synergies between NDC implementation readiness and readiness to use Art. 6.4 can be expected.

Host countries' 6.4 readiness can therefore be expected to evolve in parallel to the emergence of the Article 6.4 architecture at the international level. Policy decisions taken at CMA level will provide the basis for establishing of institutions and their internal processes and requirements which in turn will affect policy decisions and procedures at the national level.

What recommendations can be derived from these observations? How should the international level kick-start Article 6.4 and how can interested host countries do their part for making Article 6.4 operational?

International level: Providing clarity on the mechanism's functioning and its requirements

At the **international level**, basic policy decisions should be taken early on in order to allow countries to decide if and how they want to use Article 6.4. This includes an agreement on the basic structure of the activity cycle and principles for methodologies and baseline and additionality approaches. These should be translated into generic but mandatory requirements with prescriptiveness increasing over time.

When developing the detailed provisions of the Article 6.4 mechanism, a balance must be struck between different goals: On the one hand, requirements and processes should be agreed and communicated at an early point in time to allow host countries and other organisations involved in the process - in particular the DNAs - to develop the respective capacities. At the same time, provisions should be clear and robust in order to avoid later disputes and the need for clarifications. While there is no easy solution for dealing with this challenge, one general recommendation is to focus on those provisions that directly impact entities beyond the UNFCCC, such as eligibility requirements for host countries and activity proponents or accreditation provisions for DOEs. Provisions will presumably developed by the Supervisory

Body, followed by a CMA decision that integrates them into the activity cycle.

National level: Gaining political clarity and advancing synergistic readiness activities

At the **national level**, countries interested in hosting Article 6.4 activities must not adopt a wait and see approach but they can start increasing their Article 6.4 readiness through numerous activities.

In order to arrive at an early policy decision on how to use Article 6.4, interested Parties could initiate an exchange process with stakeholders to discuss the potential of engaging as a host country. Institutional readiness could be increased once there is some clarity on the basic functioning of the mechanism, allowing Parties to start gaining experiences on how evolving rules could be operationalized at national level.

Given the observed synergies between NDC implementation and Art. 6.4, increasing technical readiness by improving data quality and processing capacities is a no-loose option. Parties could aim at exploiting synergies with other processes, such as NDC development and implementation as well as reporting processes.

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